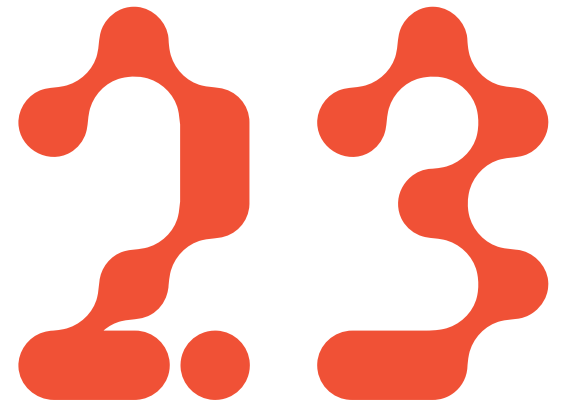


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HEAD, DIVISION OF INDUSTRIAL DESIGN
Associate Professor R. Brian Stone

The Division of Industrial Design’s Grad Book 23 is an accumulation of all the learning and outcomes in our design courses, platforms, electives, and thesis. This is supplemented with the many accomplishments of our students, staff, the Service Design Lab, Design Incubation Centre, Interactive Materials Lab and Communication Design Hub. The examples shown are representative of the broad range of innovation and execution that happens across the division at many levels. It is work that we are universally proud of and hope it will enlighten, inspire, and provoke.

The conclusion of the academic year is always a good point to reflect. In this time of augmented reality, ChatGPT, social media, and mobile device addiction, I remind everyone about the overall mission of the Division of Industrial Design. And that is to conceive and bring to fruition products, services, experiences, and communication that are in service of advancing humankind. Design is *for people-by people*, and is foundational to our values as a programme. Human-to-human interaction is at the core of our academic experiences and our value-add services.

The division continues to grow in its pedagogical offerings, its recognition amongst peers, and its reputation of high esteem in the design education community. This is made possible through a collective effort of dedicated teaching faculty, the concerted support of our administrative staff, and the curiosity, ingenuity, and fortitude of our students. The division has also amassed an impressive set of accolades... indicators of the quality of work done by both students and staff.

As we look back, I wish to share some of the highlights and accomplishments of the division. We have played a key role in the development of the common curriculum instituted by the newly formed College of Design and Engineering. Our Design Thinking course reaches approximately 2,000 students per semester and has brought a high degree of visibility to the division throughout the entire university. Creating Narratives, a 21st century communication course, serves approximately 600 learners per year, bringing together students from Design, Architecture, and Engineering in an interdisciplinary setting.

The division has advanced several new additions to our pedagogical offerings. Several new electives have been developed, two design minors are underway, and the range of content in our platforms continues to expand to address the dynamic nature of our industries. A collection of these new courses inspired the inaugural CODE exhibition (Communication of Design and Engineering) which was attended by many distinguished guests including former Dean Aaron Thean.

It’s also my pleasure to share that the division will be launching a new master’s programme in Integrated Design. Resulting in a MDes degree, this will be the first programme of its kind in Singapore. The uniqueness of this programme is that students will spend part of their time in studio, and the other part of their time working directly with a corporate collaborator. This will give these students hands-on, practical experience and will provide an immediate pipeline of employment to those industry collaborators. This is an exciting new programme which will bring a new element of community and professional engagement into the division.

And to our graduates, you have reached an important milestone in your life—your honours degree in Industrial Design from the National University of Singapore. Your learning journey has been filled with peaks and valleys but as you look back, I’m sure that you will see significant growth in yourself, your skills, your creativity and ingenuity, and perhaps most importantly, your sense of empathy. I encourage you to use your gift in service of others. If you approach your work from this perspective, you’ll find a deep level of personal and professional fulfillment. Use your abilities to confront the many challenges we are faced with today, to prepare a better future for all.

Lastly, congratulations to all who have supported the efforts of the Division of Industrial Design as we close another great chapter in our story of design.

CURRICULUM

OUR BACKGROUND

The Division of Industrial Design (DID) was founded in 1999 as Singapore’s first university-level course in industrial design. DID offers a highly selective degree course in industrial design. Our pedagogy combines design thinking, innovation methods and humanistic approaches, alongside a clever mix of technical, artistic and economic disciplines—a multi-disciplinary vision of design.

Our vision is to make life better through design, to equip students with interdisciplinary skills and thinking processes required to discover unmet needs, as well as solve complex problems involved when creating viable new products, experiences, interfaces and environments. Our graduates are able to take on highly valuable and versatile roles as creative designers, innovators, entrepreneurs, and leaders of change.

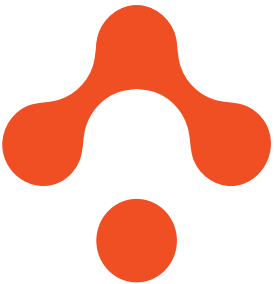
Originally part of the Department of Architecture, our programme has built a stellar track record throughout the years. We are ranked among the world’s top 30 university for the subject of art and design by QS World University Rankings by subject in 2016.

The practice of industrial design is articulated on three fundamental dimensions, three areas in which it takes root and spreads out in balance.



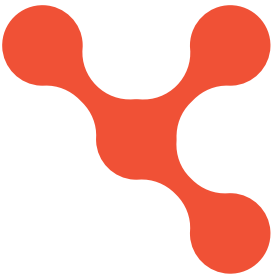
SOCIAL & SERVICE TRANSFORMATION

A human-centred approach to designing interactions that are usable, meaningful and enjoyable. It focuses on bettering lives in the ever-changing society.



PRODUCT INNOVATION

A fine balance between knowledge of market, function, and aesthetics. It aims to deliver an all-rounded experience that delights.



DESIGN FUTURES & CRITICAL INQUIRY

An imaginative projection into the future of products, technologies, interactions, and culture. It spans from critical analysis to disruptive innovation.

B.A. Course Structure



DESIGN FUNDAMENTALS

Semesters 1–2

In the first 2 semesters of Design Fundamentals, students acquire fundamental knowledge, skills and aptitudes in industrial design. This is achieved through a succession of small-scale design exercises that focus on specific areas of learning in detail.

DESIGN PLATFORMS

Semesters 3–7

As part of our strategy to evolve constantly, a major component of the course is the Design Platforms. It allows students to tailor their course by selecting 2 design projects every semester, from a variety of design topics offered—ranging from furniture design, healthcare design, consumer electronics design, transportation design, apps and interaction design, retail design, home appliance design, conceptual design, service design and more. The range of topics reflects the ever-expanding role of an industrial designer. Students are introduced to different fields within industrial design, and learn a variety of approaches to design from studio leaders and industry collaborators.

In addition, the vertical format of the design platforms encourages cross-learning of ideas, skills and methods while junior students work alongside and/or compete with senior students. Students in a lower year take on the role of a junior designer, whilst senior students assume the leadership role of a senior designer. This arrangement reflects the importance of group dynamics in industry practice, where design teams often comprise of junior designers, senior designers and sometimes a creative director.

From 2010 till 2021, we have accepted a wide variety of industry-sponsored projects from the following industry partners:

Akzonobel, ASUS, DBS Bank Ltd, Dell, Dupont, Eight Inc., Estée Lauder, Eu Yan Sang, Festo AG & Co. KG, GovTech, Groupe PSA, Guerlain (LVMH), Hewlett Packard, Housing Development Board of Singapore, IBM, ICI Dulux, International Flavors & Fragrances (IFF), Jurong Port, L'Oréal, Ministry of Education Singapore, Ministry of Manpower Singapore, Motorola, National University Hospital, Nestlé, Nirvana Memorial Garden, OCBC Bank, Origins, OSIM, Philips Design, Prime Ministers Office Singapore, PSA, RISIS, Rolls Royce, Samsung, Shiseido Group, SIMTech, Singapore Civil Defence Force, Suntar Membrane Technology, Supermama, Toshiba, Tupperware, VISA, Woodlands Health Campus, World Kitchen, Xentiq, Yong Loo Lin School of Medicine.

FINAL YEAR THESIS

Semesters 7–8

In the fourth year, students are required to research and investigate opportunities to develop a comprehensive design project. The major topics addressed in this level include research methodology, brief formulation, project planning techniques, information search and documentation, product analysis and evaluation, concept development and selection process for design development, design detailing and final market implementation. The final year thesis gives students the opportunity to self-initiate a project according to their area of interest, preparing the graduates for a career in design.

The final project ensures that students are sufficiently competent in research as an integral part of the design process. In this final year, students learn to form and evaluate value judgements on design decisions ensuring that design proposals meet rationalised and functional criterion as well as less tangible aesthetic qualities. Successful graduates will demonstrate innovation and competency in industrial design.

B.A. Course Curriculum



Semester 1

Design Fundamentals

Principles and Approaches to Design

Creating Narratives

Design Thinking

Quantitative Reasoning

Introduction to Prototyping



Semester 2

Design Fundamentals

Human-Centred Design

Design and Make (Maker Space)

GE Module



Semester 3

Design Platforms

Materials and Production

Fundamentals of Project Management

GE Module

Semester 4

Design Platforms

Systems Thinking and Dynamics

AI for Design

Computing for Design



Semester 5

Design Platforms

Discourse in Contemporary Design and Culture

Liveable Cities (Sustainable Futures)

GE Module

Semester 6

Design Platforms

Unrestricted Electives

GE Module



Semester 7

Design Platforms

Design Entrepreneurship and Creative Leadership

Project Research (Specialisation)

Specialisation Elective

Unrestricted Electives

Semester 8

Design Thesis Project (Specialisation)

Unrestricted Electives

With Specialisation

W/O Specialisation
Specialisation Modules will be replaced by Unrestricted Electives

DESIGN COURSES

Colours, Materials & Finishing

Instructor
Celia Wong

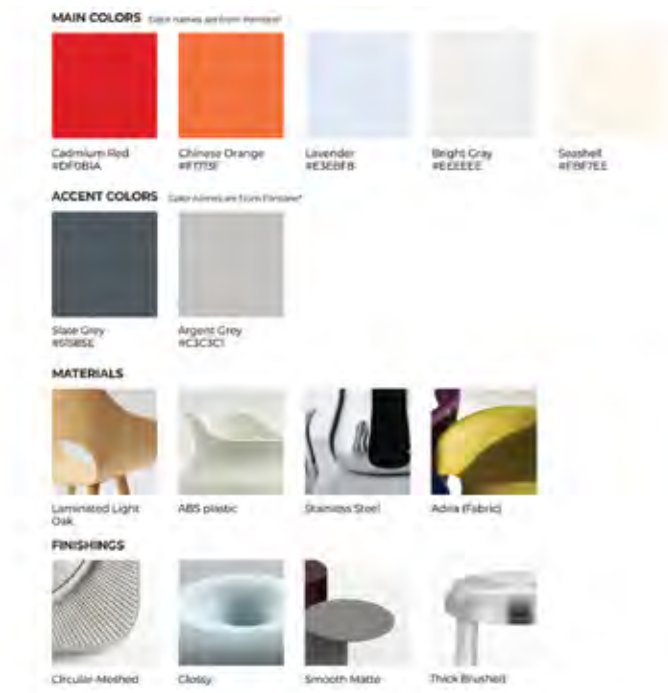
Colours, materials & finishing (CMF) increase design effectiveness. When perceived values are well articulated through associations in CMF, it may even enhance all our senses. New CMF application can drive innovation, challenging limits in technology. Through observing leading brands and trends, translating the leading design influences into relevant palette, exploring and specifying CMF, students learn to be more sensitive in justifying and making meaningful choices of CMF.



Trends & CMF: Unpolished Beauty

Unpolished beauty is a naturalist approach to design where earthy colours and materials are used, enhanced with sustainability and the rough elegance. This creates the perfect sculptural piece for any homes, its welcoming and comforting appearance adds to its functionality to jumpstart your day.

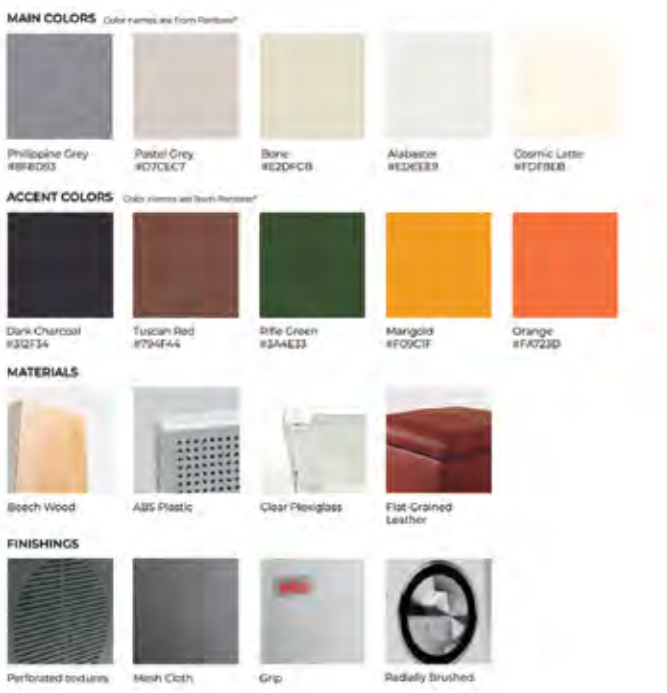
Kent Timothy Limanza



Brand Fit & Inspirational CMF: Naoto Fukasawa & Dieter Rams

This project is a comparative analysis of the differences in branding between two influential industrial designers, Naoto Fukasawa and Dieter Rams. These distinctions are highlighted in their products' visual language due to differences in the designers' principles, beliefs and heritage.

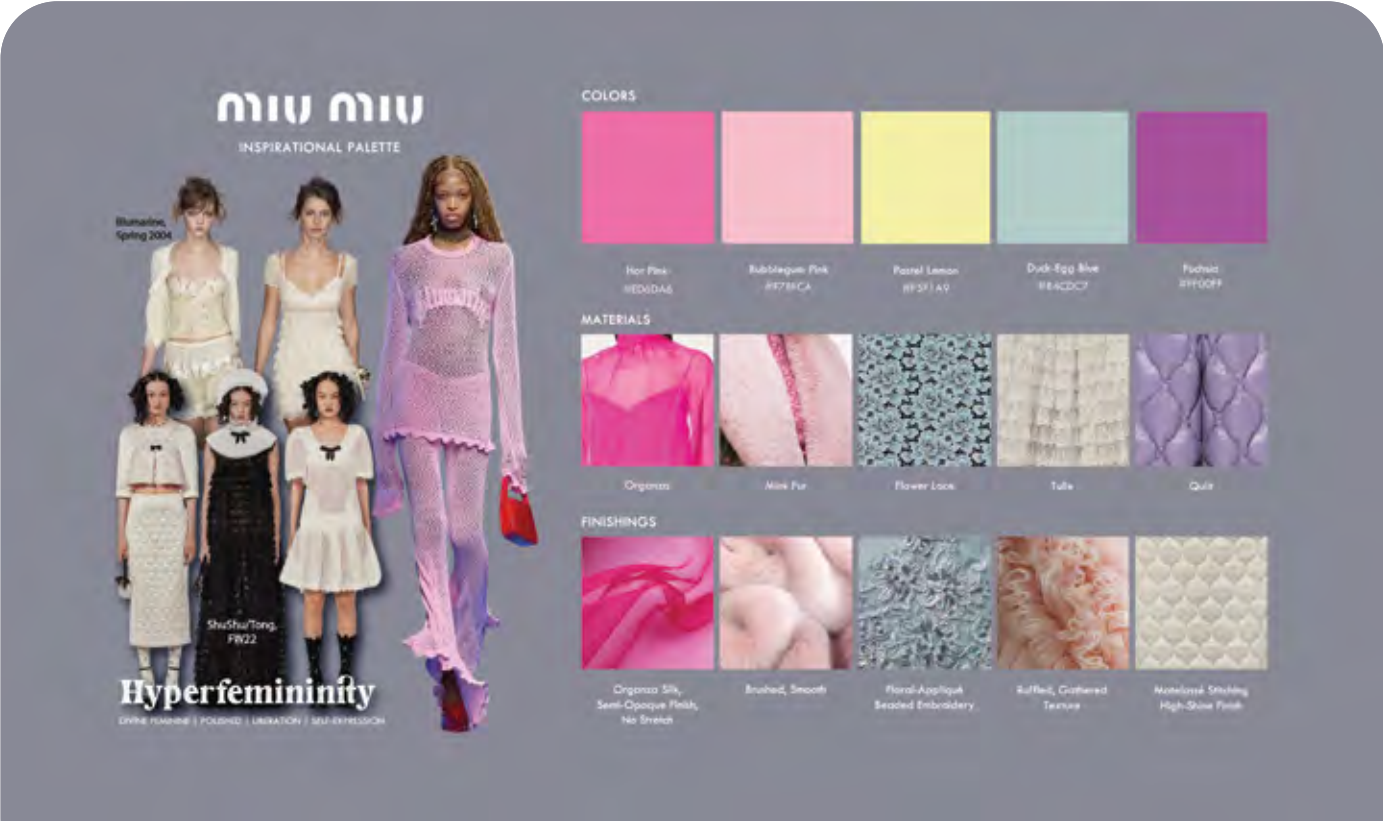
Merkayla Wong



Brand Fit & Inspirational CMF: Miu Miu

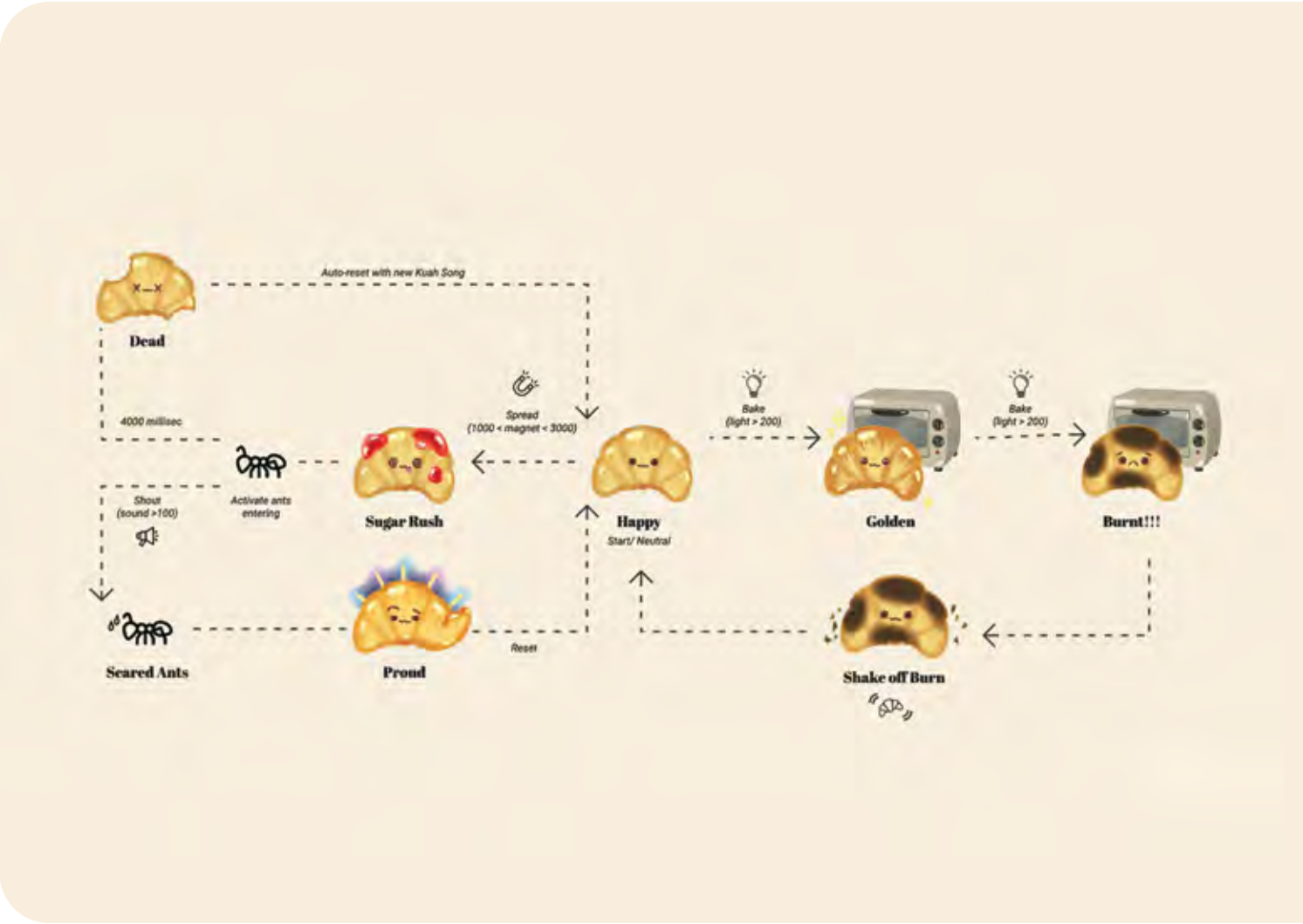
The divine feminine is celebrated through exaggerated feminine colours, shapes, and silhouettes.

Gilana Soh



An introduction to the elements of computational thinking and their applications. Students gain skills and knowledge in the use of computational logic and methods, such as basic programming, data acquisition, and network architecture. They learn computational thinking to solve design problems and employ computational tools as an integral part of the design process.

Instructors
Akbar Yunus, Benjamin Xue,
Clement Zheng, Nakayama Yuta



Kuah Song
Join Kuah Song as it goes about its regular day, hanging out in the kitchen. From time to time, it faces several obstacles such as getting burnt or attracting ants. Users are tasked to help Kuah Song remain its happy self while it undergoes various interactions with light, magnets and sound.
Sophia Chin & Rachael Lee



P.A.S.S.
The proposed installation at the Central Fire Station teaches users the P.A.S.S. framework for fire extinguisher use. It is interactive, thus guiding users through the Pull, Aim, Spray, Side-to-Side stages. It aims to educate and promote fire safety.
Cheryl Pang



Butterpan
Butterpan is butter in a pan personified. Users interact with Butterpan through a series of actions such as placing it on a burning stove to melt it, blowing cool air to cool it and tilting its pot just like you would with real butter on a pan.
Reynard Seah & Muhammad Haziq Bin Roslany

Thinking Through Making

Working with flour as key material and steam as a fabrication method, each student is tasked to arrive at a fascinating piece of cooked flour. Immersing themselves into a hands-on exploration process, they take risks and brave failures, harnessing the creative cognitive link between their hands and brain.

Instructor
Grace Tan

 Nadia Diyana NorZaidi



 Leon Pereira



 Sing Pearlyn



Electronic as Material

Over the course of six weeks, students explore physical computing by crafting their own sensors and circuits out of simple materials. From this exploration, students are tasked to build bespoke game controllers that reimagine the interactions of playing the classic video game 'Snake'. This course culminates in a game festival that offers a myriad of tangible experiences on top of one game.

Instructors

Akbar Yunus, Clement Zheng, Nakayama Yuta



 The Dumpling Controller

These hand-sewn dumplings serve another use other than to satisfy your cravings: a game-controller! Users can pick up each dumpling to control the direction, dip the vinegar to slow down, and simply put down the chopsticks to reset. All actions are designed for an immersed dining experience.

Jennifer Tew



 A Meditative Controller

This zen-garden-themed controller is a desktop ornament that provides a tranquil and relaxing gaming experience. It encourages intentionality by allowing users to create unique designs in the sand through meditative movements.

Adam Choo



 A Hypnotic Controller

Inspired by the Snake Charmers and their Pungi, this controller enables its users to control the snake with musical chords. Players will be able to dictate the direction of the snake by playing certain magical chords. There is even a special chord to revive your dead snake.

Clement Koh

Visual Literacy

This fundamental course focuses on one’s ability to interpret, negotiate, and make meaning from information presented in the form of images. Students are tasked to analyse elements and principles of design used in a chosen thematic, and synthesise new ideas based on key learning points. Studies are then culminated into a journal which describes learning outcomes and their reflections.

Instructors

Ryan Chin, Lim Qi Xuan



Ashley Tan

Nadia Diyana NorZaidi



Clement Koh

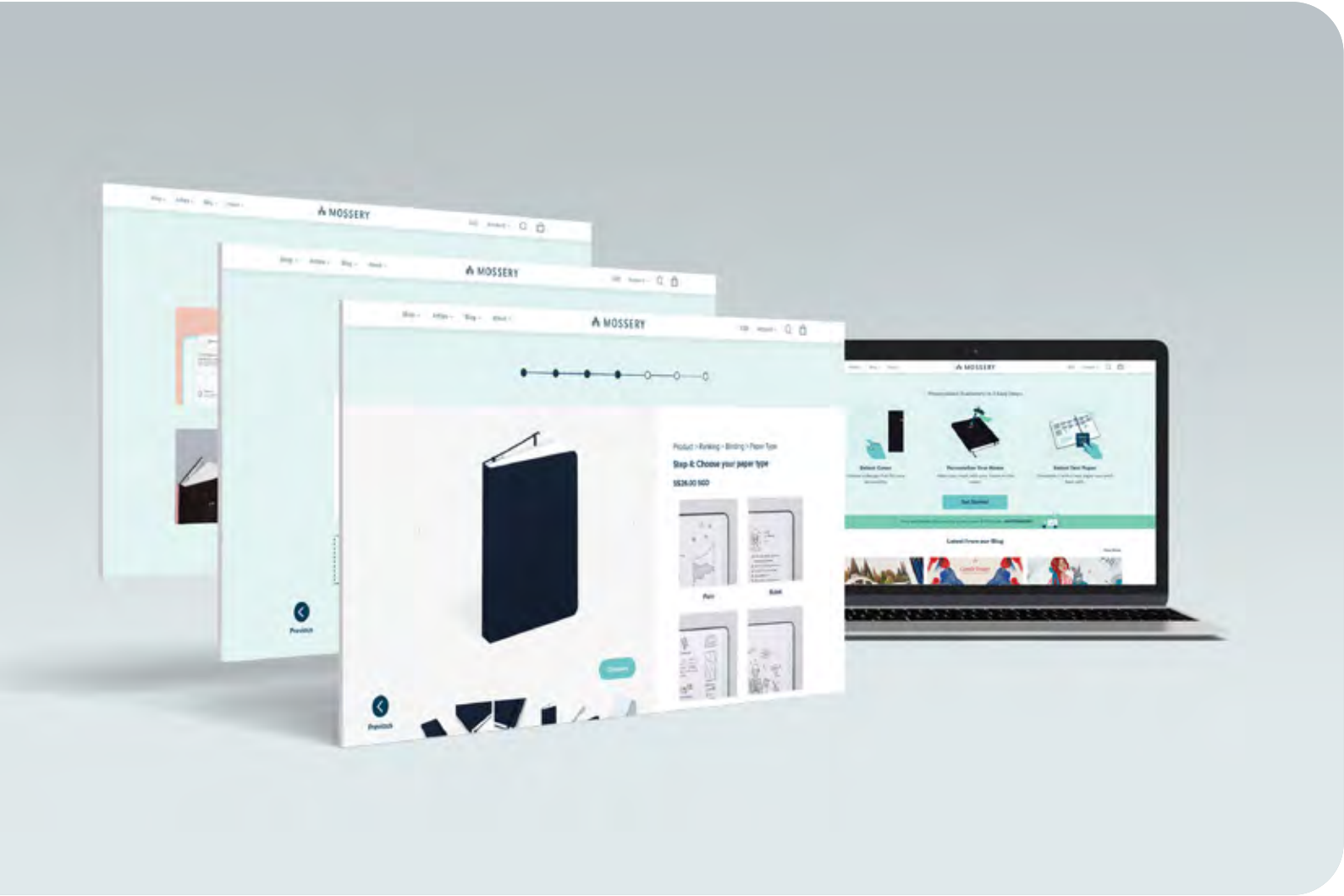


Iterative Digital Design

Iterative Digital Design focuses on teaching the fundamentals of auditing, research and iterating design in a digital context. Students are tasked with choosing a product/service/ experience/app to audit and iterating over a 6-week period. Identifying users, user testing their iterations and synthesising their learnings. Eventually accumulating in a click-through prototype based on their first full cycle of iteration.

Instructor

Alistair Norris



Elevating the Mossery Experience

A redesign of Mossery’s customisation process to allow for a tiered, step-by-step journey to cater to users with varying degrees of needs for designing their perfect notebook. It goes beyond the customisation process itself but enables one to personalise even this process.

Chloe Teo

Reimagining the Steam App Experience

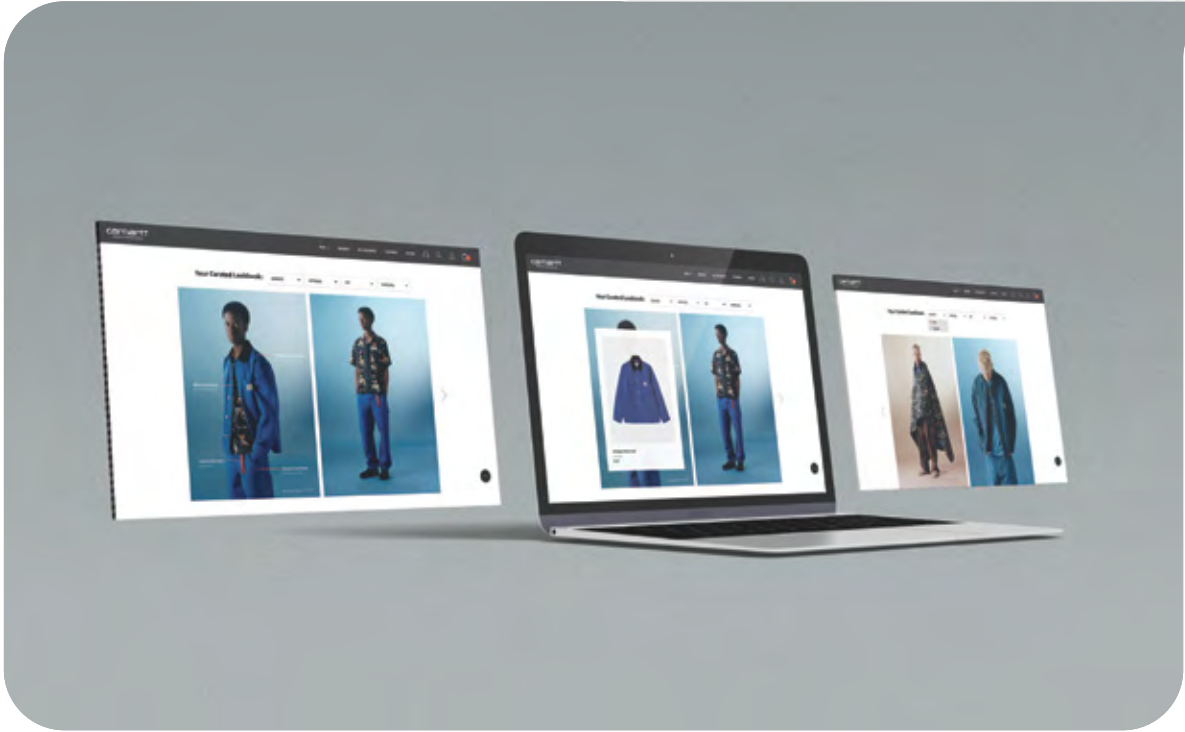
Capitalising on its substantial user base, this iteration of the mobile application seizes the opportunity to enhance market value. It focuses on incentivising and motivating users through the introduction of a personalised feed, enhanced community engagement, and improved store usability.

Annabelle Phua

Carhartt – Lookbook-centric

Carhartt’s redesigned website adopts a ‘lookbook-centric’ shopping experience to address customer’s fear of purchasing products that don’t meet their expectations. This iteration aims to instill confidence, ensuring customers feel secure in their purchase decisions.

Clement Koh



Form Finding & Development

Instructor

Patrick Chia

The overall aim of this exercise is to develop perceptual form modelling skills to visualise and make value judgements on the quality of 3D forms, with respect to volumes, surfaces, and details. In part A of the exercise, students learn how to manipulate the material with simple tools, discovering and developing a wide variety of possible forms. In part B, students try to develop different expressions while keeping the same DNA of a selected piece.

 Damian Lim



 Gracia Chua



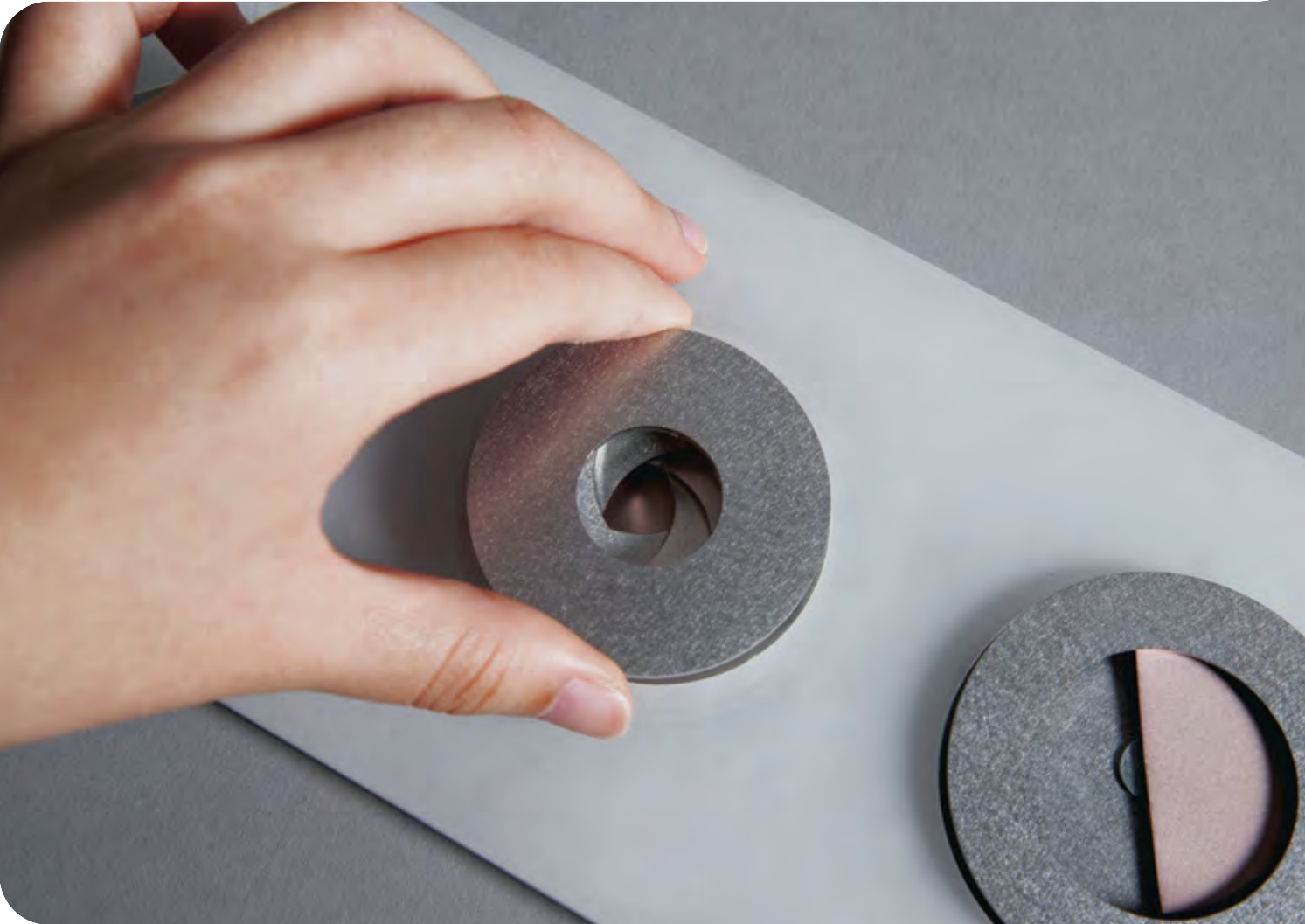
 Chloe Chong



SPS Analysis + Buttons Control

Instructors
Christian Boucharenc, Sixiu Tan

The aim of this discovery exercise is to develop a conceptual understanding of the physical attributes, control functions and visual signals of buttons used in general product design. Each of these buttons should have one of the following functions: to push, pull, swift, shift, etc. The presentation of the final prototype should be the closest representation of a real product in terms of form, ergonomics, colour and texture.

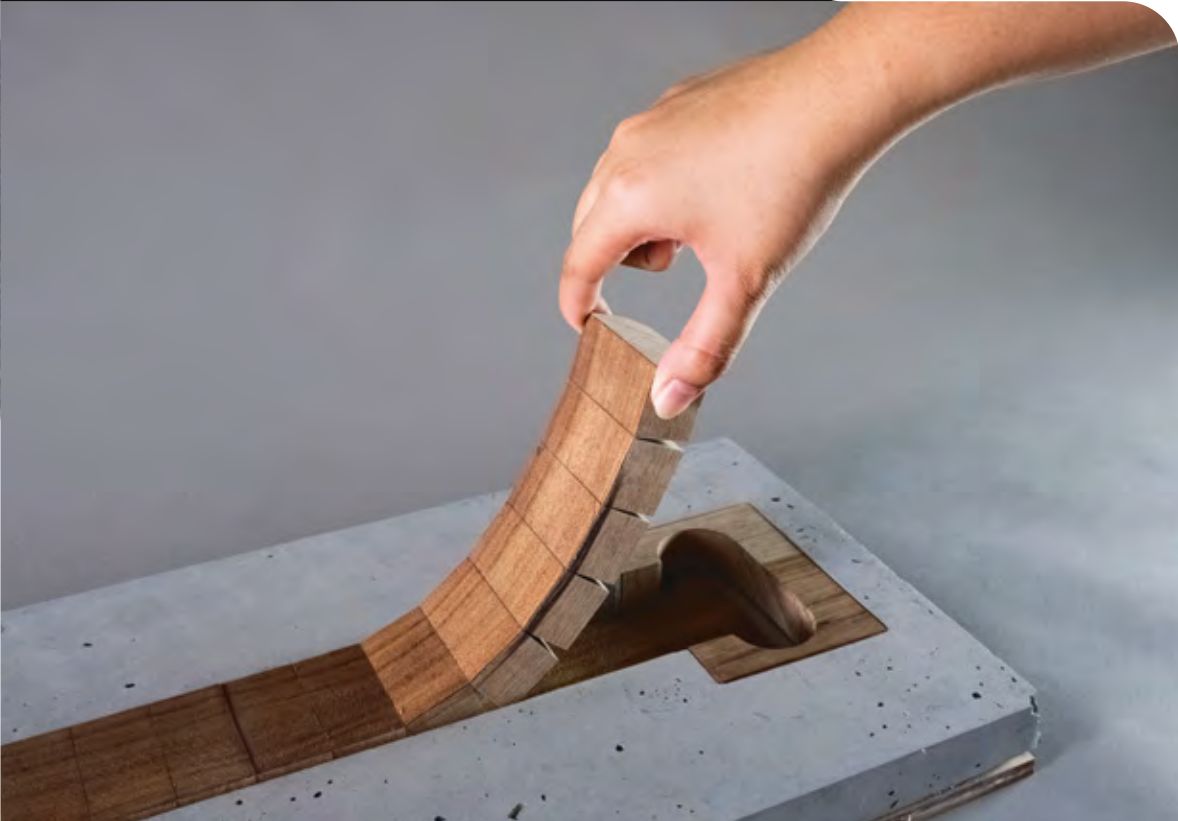


Shutter
A series of buttons crafted to mimic the mechanics of a camera's shutter, through material exploration with metal and its distinctive characteristics, creating a seamless and satisfying motion.
Jocelyn Tan



In Motion
Crafted with acrylic, these buttons feature delicate fins designed to capture the dynamic and unpredictable nature of waves in a visually captivating manner.
Damian Lim

Pivots
A series of oversized buttons that are highly tactile and deceptively easy to actuate. Designed to be used with only one or two fingers, these buttons create an elegant and surprising experience for the user.
Adam Choo



Human-Centred Design

Human-centred design is a problem-solving approach that prioritises users’ needs, preferences, and behaviours—understanding their perspectives and experiences, while actively involving them throughout most of the product or service design process.

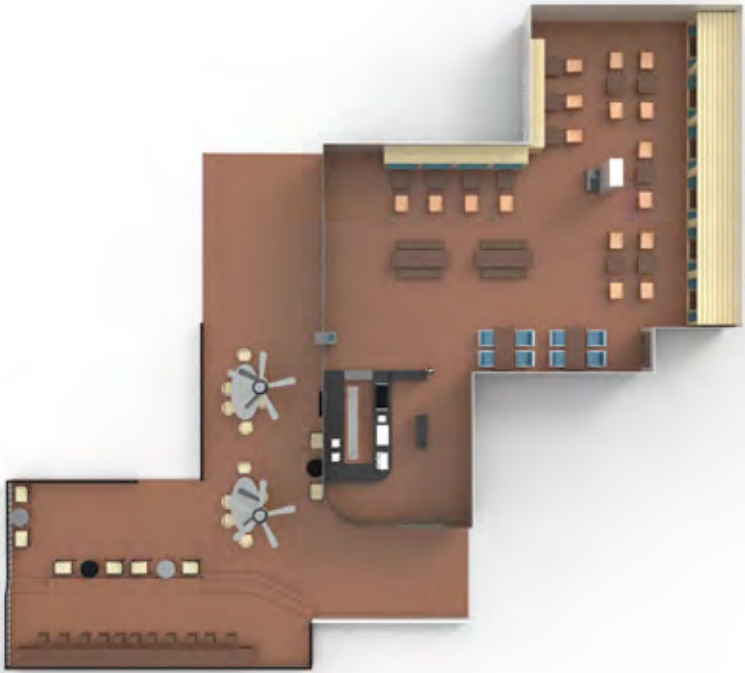
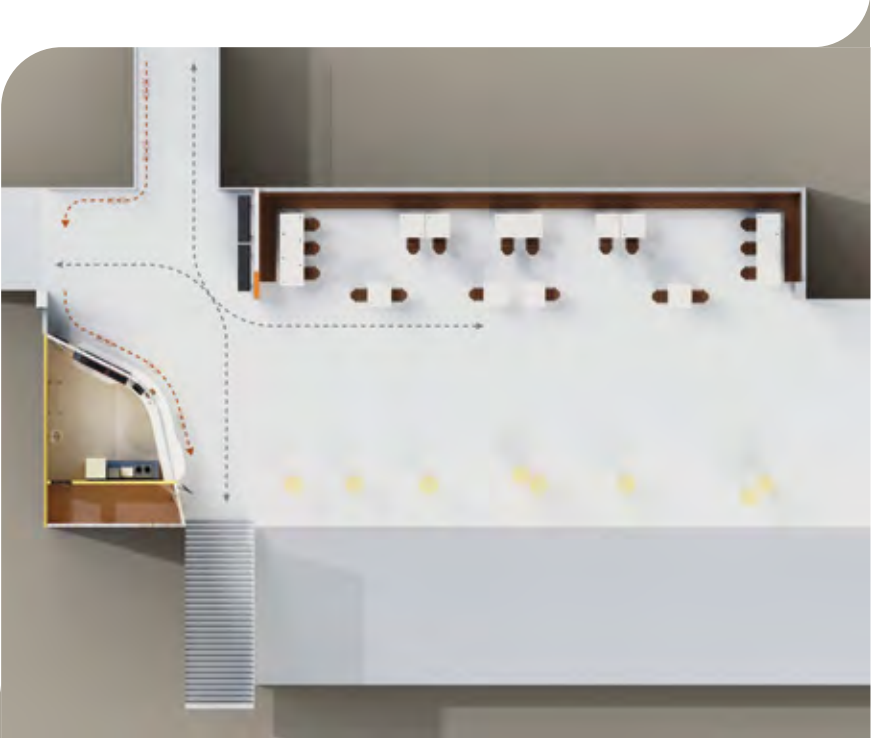
This course aims to equip first year students with these necessary skillsets to handle most industry-relevant studio projects from their second year.

Instructor
Song Kee Hong

Project Shine Brighter

Through thorough research on the customer experience at Arise & Shine, the store was redesigned to capitalise on new opportunities and address customer concerns. The project’s overarching goal is to enhance the overall customer experience at Arise & Shine, ultimately leading to an increase in customer traffic and loyalty.

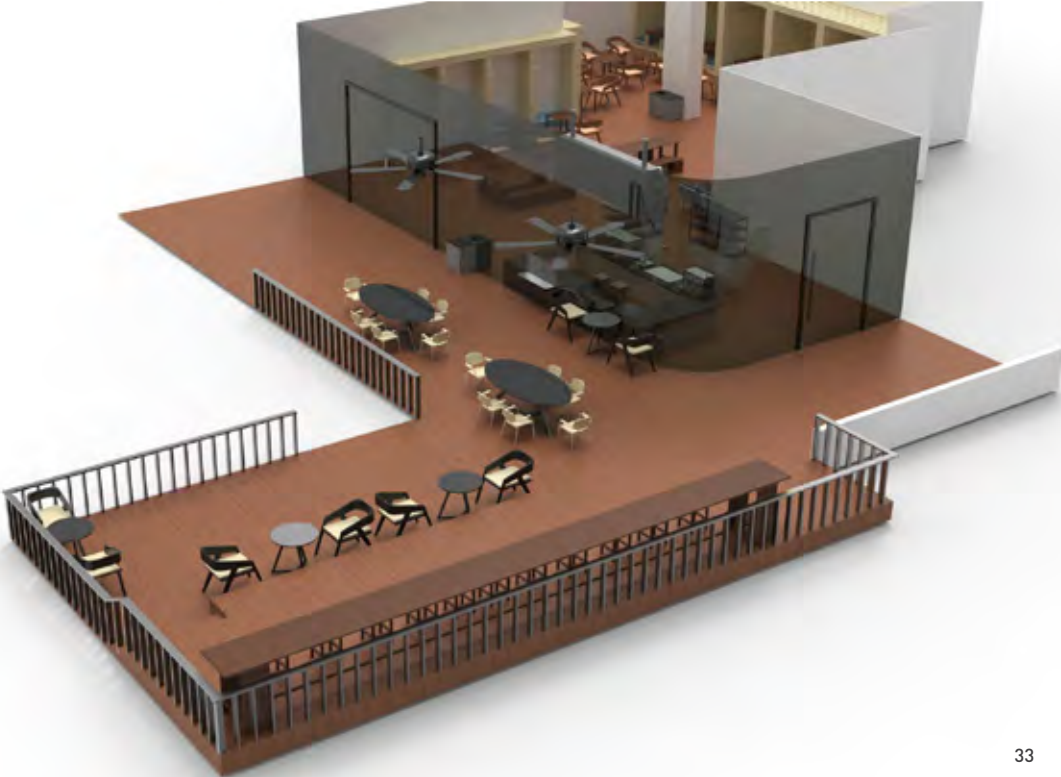
Clement Koh, Chloe Chong, Tiarra Ko, Jocelyn Tan & Liu Xinxin



Reimagining MAXX Coffee

By seamlessly integrating the indoor and outdoor spaces, the newly envisioned MAXX Coffee enriches the experiences of both customers and workers. Through strategic modifications in customer flow and spatial arrangement, convenient access is ensured for patrons both indoors and outdoors resulting in a harmonious and pleasurable ambience for all.

Nadia Diyana NorZaidi, Denise Oh, Yang Yixuan, Ashley Tan & Lim Xin Yi



Motion Design

Instructors
R. Brian Stone, Siti Norhana

With the proliferation of screen-based media, communicating using motion is of growing relevance and importance. This module introduces students to the theories and practice of time-based media and motion-based communication. It enables students to express ideas and messages through kinetics, time, sequence, and sound using various techniques of graphic design, illustration, and live video, integrated with motion aesthetics, animation principles, audio scoring, and editing.



 **Singapore International Film Festival**
Ye Lin



 **Baybeats Alternative Music Festival**

Aye Phyu Thant Cherryl

 **Killer T-cells**

Wu Junyi



The Appreciation of Woodcraft

Instructor
Jason Ong

This module introduces students to various wood-working processes through the fabrication of a small solid wood product and furniture. The syllabus covers instructional demonstrations on the use of hand tools, power tools, and workshop machines, as well as the finer points on understanding and appreciating the material properties of wood and good finishing.



 **Stool**
Ng Keng Wei



 **Stool**
Canice Ng



 **Box**
Canice Ng

SEMESTER 2

The Appreciation of Woodcraft II

Instructor
Jason Ong



 **Stool**
Adam Choo



 **Box**
Adam Choo



 **Stool**
Cindy Evangeline



 **Box**
Cindy Evangeline

The Art of Imaginative Sketching

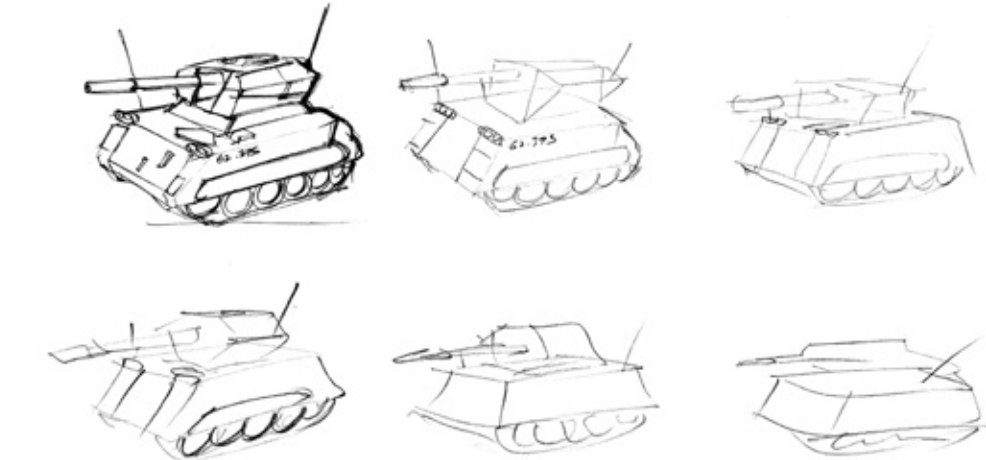
This module helps turn any novice illustrator into a creative drawing whiz. Through fun and mind-provoking exercises, it provides students with effective sketching skills to express their ideas visually, turning blank pages into a catalogue of imaginative ideas.

Instructor

Vincent Leow

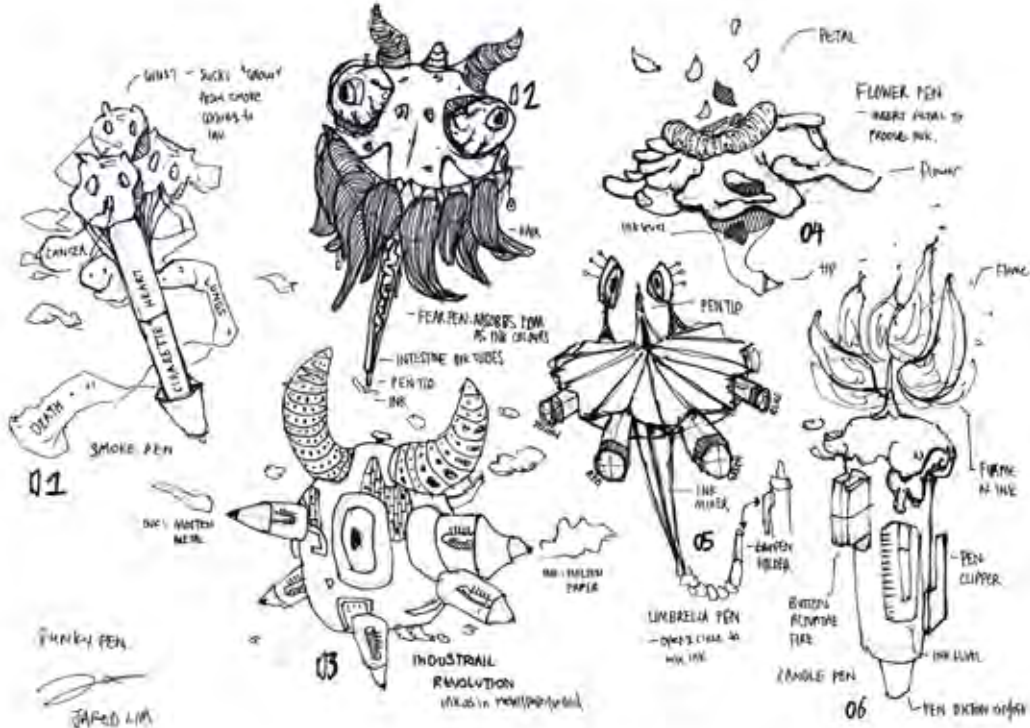
8-Minutes Draw

Wesley Tan



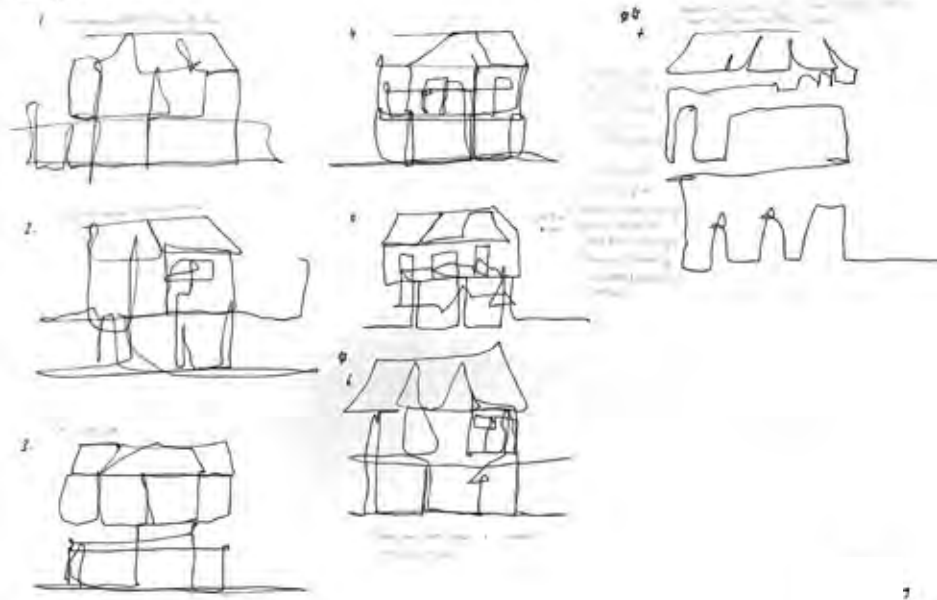
One- or Two-point perspective

Eda Yasmin



Plausible Pens

Jared Lim



One-Line Sketch

Chan Jia Ying

Typographic Form & Communication

Instructor

R. Brian Stone

Typographic Form and Communication introduces students to the beauty of type and the history and principles that guide its use in visual communication. Through a sequence of five projects, each building in complexity, students explore letterform combinations, typographic semantics, visual hierarchy, and compositional narratives. By placing focus on the arrangement of type, students learn to communicate concepts in a clear, compelling, and visual manner.



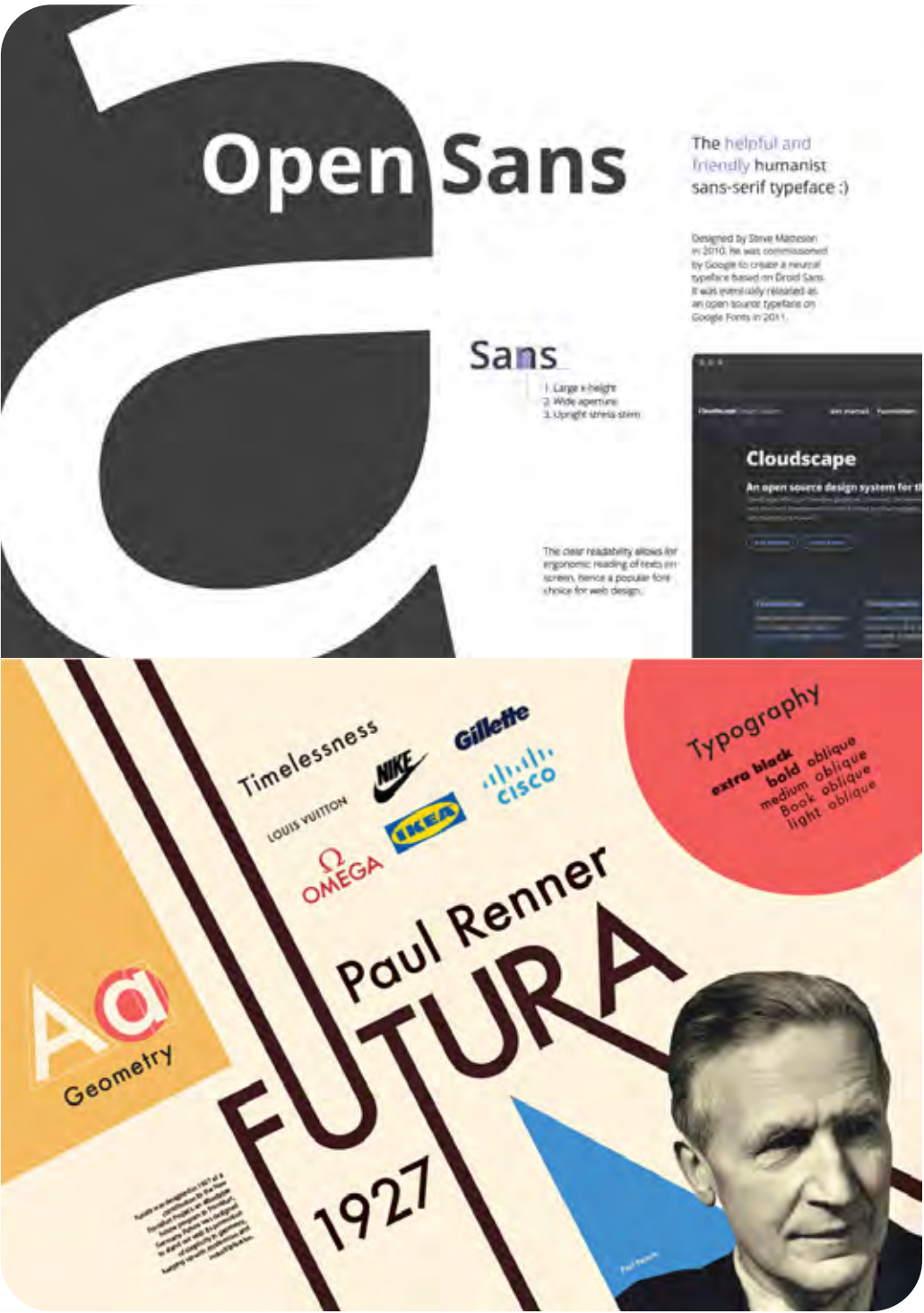
(From left to right)
Aye Phyu Thant Cherryl,
Bryna Liang, Lim Ethan



(From left to right)
Bryna Liang, Lim Jing
Long, Nazurah Binte
Mohd Rohayat



Caleb Lew



Aye Phyu Thant Cherryl

Saffren Choo

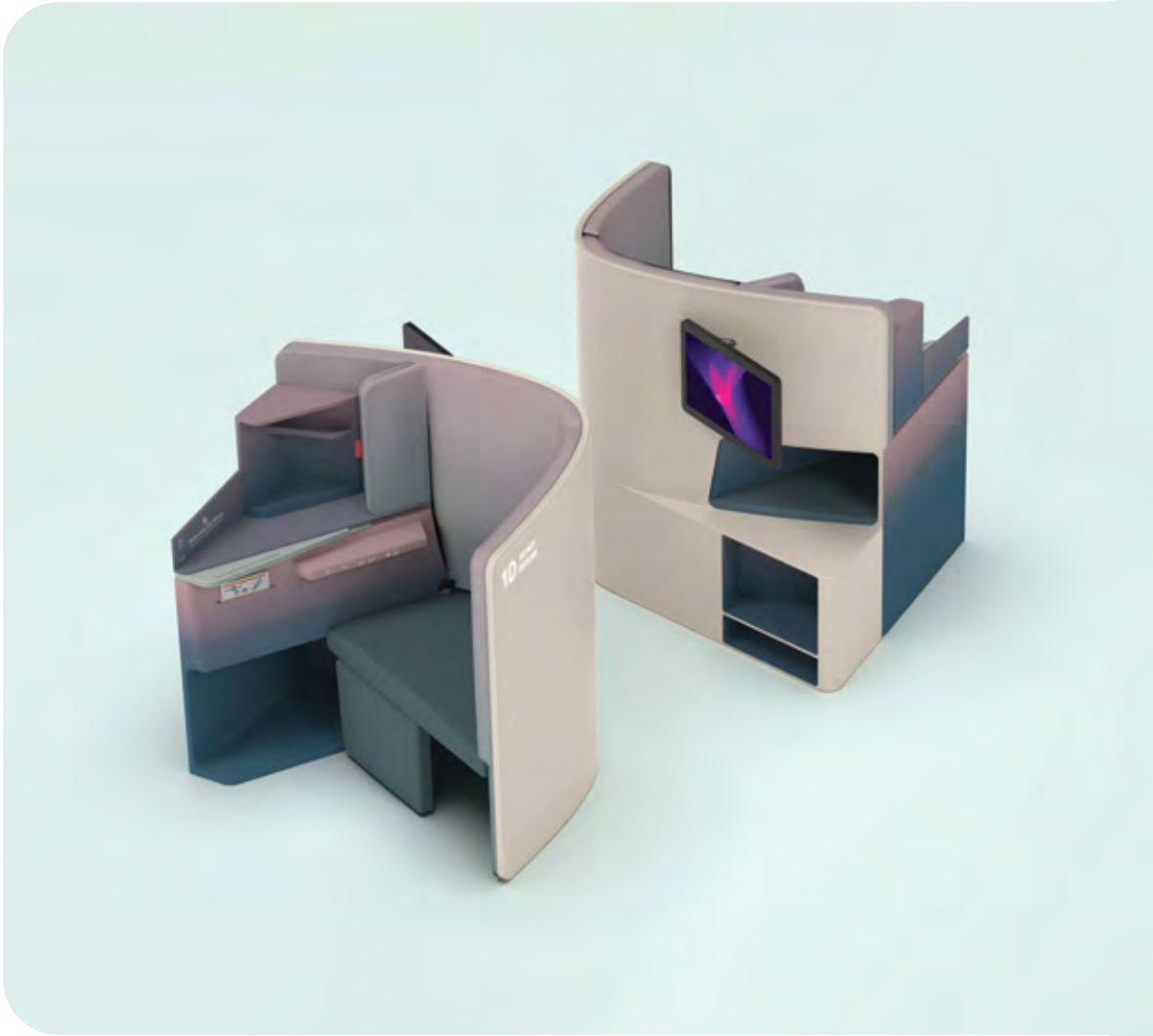
DESIGN PLATFORMS

From their second year, students can tailor their individual course of learning by selecting two concurrent studios from a variety of 11–14 different design projects offered every semester. Topics of each design studio are in line with the department's specialisations, consisting of Product Innovation, Service and Social Transformation, and Design Futures and Critical Inquiry. The range of different topics under these three specialisations reflect the pedagogies of the ever-expanding role of a designer in our current society.

Aviation Design: Reimagine the Business Class Seat Experience

Instructor
Patrick Chia

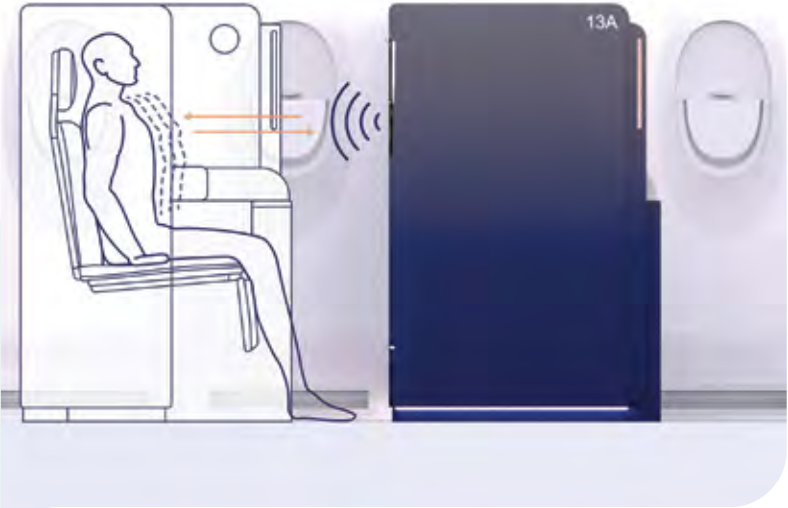
This platform examines the latest trend and research in comfort, colour, material and finishes, digital experience, sustainability, and technologies to create seating concepts of the future. This platform is supported by the SIA-NUS Digital Aviation Lab and with kind contributions from Factory Design, UK, Bang & Olufsen, Kvadrat Singapore.



SkyWeave

SkyWeave is a couch-type cabin seat concept that redefines the role of a surface through e-textile systems and touch-based interactions, turning them into tactile and convenient points of control, while colour-changing fabric helps to adjust the user's circadian rhythm depending on the time of day.

Reynard Seah, Gan Jie Lin & Wang Yixian



Breathescape

Breathescape uses non-invasive microwave sensors to enhance relaxation and well-being during business class travel. The system synchronises the passenger's breathing rhythm to an optimal pattern with light pulsation. Direct breathing exercises are also available on the IFE system.

Teo Swee Yin, Huang Kai Xing & Jayden Ting

Airis

Building on SIA's reputation for unrivalled, world-class service, our concept revolves around Airis, a phone-based inflight AI assistant that emulates old-school luxury & works in collaboration with the cabin crew to enhance, extend and optimise the service experience for both passengers and cabin crew.

Aw Ker Wey, Chan Shao Kaye & Joshua Lim



Be Like Water: Designing for Flow

Instructor

Ash Y.S. Yeo

As empathic imagineers, our essential roles is not to fix forms, but as change enablers of needs, values, time, and contextual experiences. Of the 6th industrial revolution, less materials give more experiences. This platform rethinks 'form-giving' towards empathy giving experiences. A curiosity-based process-learning and discursive project, asking: "if forms were not objectified, and were constant subjects (not objects) to changes of time, space and experiences, then what might manifest before us?"



Accudhara

Accudhara is the unification of Chinese acupuncture and Hindu Shirodhara practices. It revitalises the mind, body and soul through flowing water. It exists as a full body treatment as well as an in-home product. The elongated shower head allows for precise meridian point massaging along the back.

Jerome Wong



I am W(H2O)?

This project aims to capture the essential, corporeal, cyclical, integral, transmutable, palpable nature of water by bringing cycles of ablution and cleansing to mundane settings. The project proposes an integration of greywater recycling systems into our bathrooms, balconies and roofs.

Ken Fronda



Reset

The Reset shower system is designed to place emphasis on the user's emotional experience, bringing users into the ethereal world of tranquility. Fulfilling our wish to be away from the chaos and the events of everyday life.

Geraldine Tong



Bruichladdich Pop-Up Store

Instructors

Christian Boucharenc, Sixiu Tan

In collaboration with

Rémy Cointreau

For the very first time, Rémy Cointreau International and NUS Division of Industrial Design are collaborating to conceptualise and develop a new Progressive Hebridean Distillers Malts (PHD Malts) Pop-Up Store concept for our premium whisky brand portfolio from the island of Islay, Scotland (Bruichladdich, Port Charlotte and Octomore). This pop-up concept will be based on the new Bruichladdich campaign.




Isle of Bruichladdich

The Isle of Bruichladdich captures a sense of homogeneity through a modern play on delicate curves textured with the rustic brutality of the distillery and the coastal landscape of Islay—distilling the brand’s values of being unconventional, authentic, with an emphasis on provenance.

Designed by Emeline Ong & Bryce Lim




Bruichladdich Distillery Elements

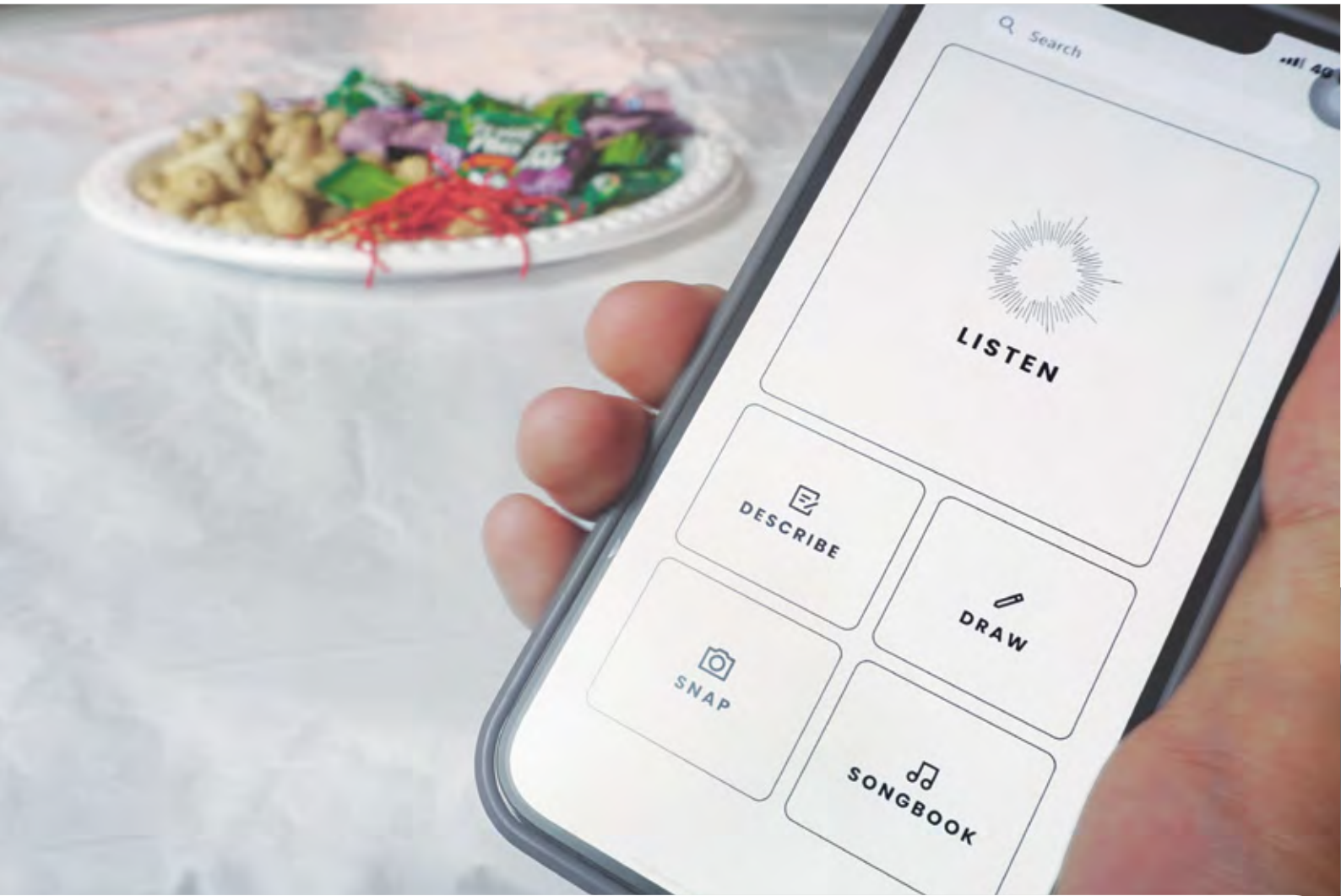
This pop-up store concept is inspired by Bruichladdich and its distillery in Islay, Scotland. It focuses on the simplicity and skeleton of the structure to amplify the brand’s aqua-blue colour. The interactions within the shop break down the essence of the whisky and the story of the brand for customers to better appreciate.

Designed by Grace Zhang & Rachael Anne Lee Hui Ting

Death is Just Part of the Journey of Dying

Instructor
Alistair Norris

Death is an inevitability that connects all of humanity together. Yet as an experience, it is rarely discussed, planned for or designed. Death is often treated as a singular moment in time but in reality, the journey to, around and after death is a complex and underserved one. What if we designed for the underserved moments across that journey? We used Design Research techniques to probe deeper into underlying human questions to find inspiration for design and then design rapidly based on hypothesis.



Songbook For Solace

Young people often find religious music and chantings eerie at funerals. Songbook For Solace thus is an educational tool that empower youths to understand the significance behind traditional and or religious practices in their surroundings in a discreet and more respectful manner.

Travis Ong



Show Your Scars

Designed for individuals who had overcome self-harm, Show Your Scars aims to create open conversations about the topic of suicide. Through the use of semi-permanent tattoos, scars are emphasised instead of hidden, igniting curiosity and indicating approachability to the topic.

Sophia Chin

Fading Prints

Fading Prints is a ritual-based tool to help users accept another's death using a visual medium. It is used in counselling sessions, as a topic, for counsellors to better understand the user. When the print fully fades away, users are a step closer to accepting the death of the deceased.

Reynard Seah



Design Oxymoron

Instructor
Kevin Chiam

A driverless car. An inkless pen. A waterless washing machine. These are prime examples of a design oxymoron; a product/service/experience that stems from incongruous, contradicting elements. Evidently, concepts that seeming to make little sense can be seeds for innovation and discovery. With a critical lens, students are challenged to conceive and create an innovative, product/service/experience based on a design oxymoron naturally driven by the thorough study of a common, everyday product.



Nudge

Nudge is a new kind of fire alarm system that uses odour as a means to disrupt and nudge people out of a space, facilitating faster evacuations during a fire emergency. It has been engineered to be compact yet contains an innovative ventilation system to rapidly spread the odour within the space.

Luke Goh



Buddi

The Buddi Capsule transforms a parent’s phone into a device suitable for tweens to surf social media. Fun interactions with an online avatar created by tweens and housed in the Capsule presents live reactions to what tweens type, empowering them to understand how people would react in real-time.

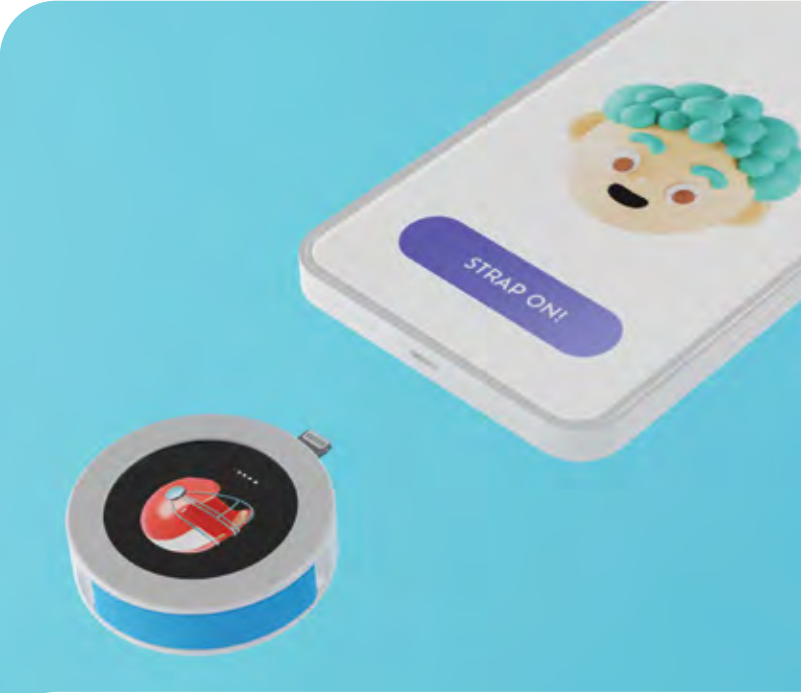
Merkayla Wong



TINO - Your Toothy Dino Companion

TINO is a bristleless toothbrush to encourage children to develop a regular dental care routine. Aiding as a transitional tool to independent brushing, TINO builds intrinsic motivation in children with its ergonomic design and addictive gameplay that links with different brushing movements.

Zoey Chan



Drawn to Design

Instructor
Olivia Lee

In the age of digital convenience, we have grown too comfortable with the ease of the 'undo' button, the algorithm-generated cues of 'good' aesthetics and the creation of virtual objects that need never be held in our hands. Drawn to Design is a platform that returns to observational exercises, analogue sketching and hand-led explorations as the heart and soul of the design process. Students spend 11 weeks immersed in the tactile, messy, mark-making, laborious, rich, physical process of drawing and translating these into full-fledged design collections.

1-1=1

Based on a singular piece of drawing, 1-1=1 is a set of furniture that presents itself as just a black rectangle. By subtracting pieces away from the rectangle and taking it apart, it creates a table, a shelving unit and a lamp.

Lau Rui Xian



GEM-INI

GEM-INI is a jewellery collection that encapsulates the artist's creative voyage and inner growth. Its title, a clever fusion of 'Gem' and 'ini' (meaning 'this' in Malay). Through a captivating codex, it unveils a myriad of emotions and experiences, beautifully translated into wearable art.

Nazurah Binte Mohd Rohayat

Two-p

Two-p is a seating furniture collection created from a pair of interlocking P's made from bent aluminum sheets. The two P's are self-cantilevering without any need for screws, bolts, or nuts for assembly. This collection was inspired by a series of P-shaped marker strokes drawn during the mark-making phase of ideation.

Bryce Lim



Everything is Dysfunctional

Students obsessively take inspiration from meta interpretations of ‘dysfunction’ to intentionally shift their approach to ideation. They use this to invent new solutions for people that are imaginative, plausible, and have positive real-world value at the same time.

Instructors
Donn Koh, Desiree Lim



Sticki

Could you ever imagine something as annoying and ordinary as things sticking to your shoe being turned into a fun game? With Sticki, we aim to spark excitement in simplicity, find joy in annoyance, and put the ‘fun’ in ‘dysfunction’.

Serene Tan & Hannah Cha



Tilt - The Dysfunctional Ruler

Inspired by the annoying stains left behind on the edge of the ruler, Tilt is a ruler with a unique side profile that utilises residual stains to draw new lines with a motion as simple as a tilt.

Lau Rui Xuan & Loo Zi Ling

Rise - Making ink float

What if ink, instead of smudging when it comes into contact with water, could come to life and lift off the page? Rise was designed with this dysfunction in mind, featuring the most optimised geometry and experience for floating ink. With Rise, children can float their drawn creations with ease, unlocking endless possibilities for fun and magical moments.

Rain Tay & Valerie Ng

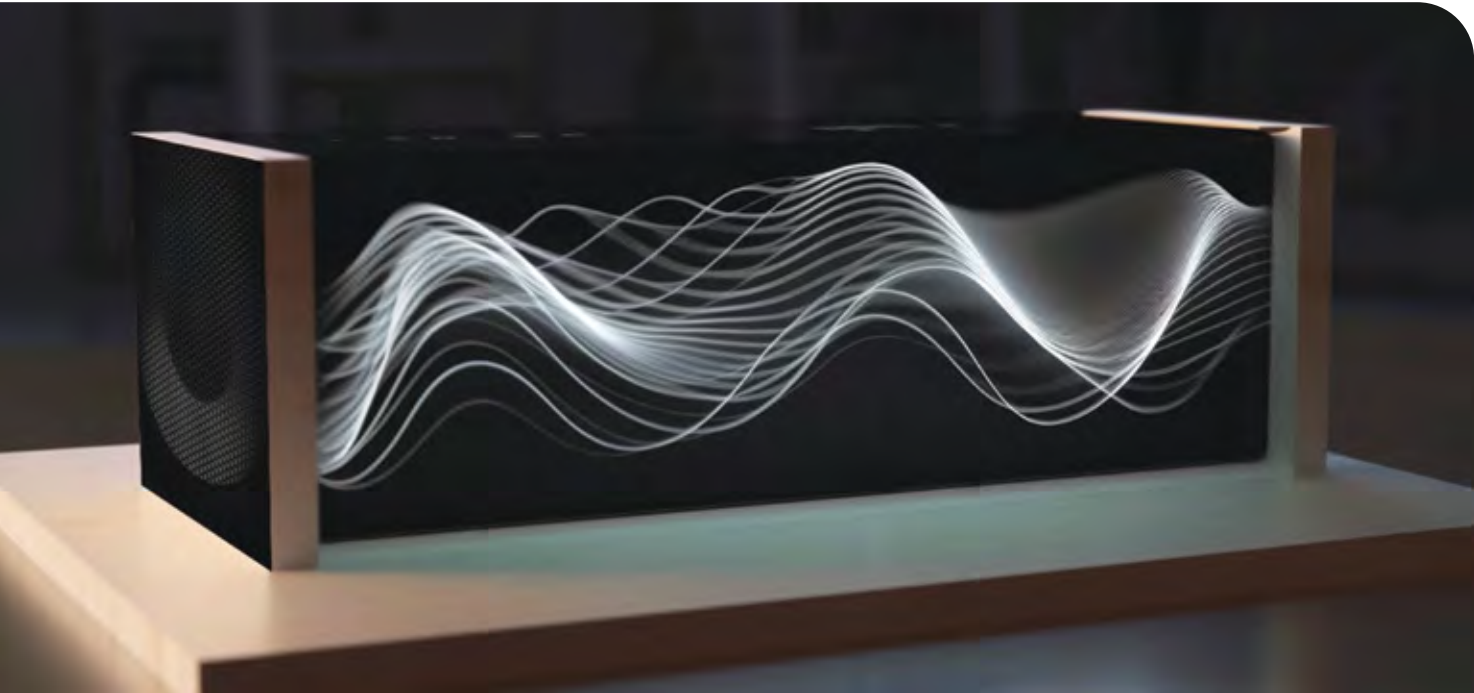


Everything with AI

Instructor

Donn Koh

Design always harnesses the physical, digital, intellectual, and emotional resources of this world to serve humanity well. When a powerful tool like Artificial Intelligence (AI) emerges, the specific role of the designer shifts in order to maximise the value of our work for people. How should design processes change? How does a designer use it and not get overrun by it? This platform course explores this emergent field so that we can understand this relationship with our new tool soon enough.



Serendipitous Product Ideas

This project demonstrates how ChatGPT and Midjourney can be utilised to help designers create unconventional products for the market. Quick innovation is done through a formulated technique derived from weeks of AI explorations, which are then exemplified through an umbrella and a speaker.

Sophia Chin & Sharon Lee



Hyper-real prototyping with speed + control

By deliberately analysing the nuances of how AI processes images and prompts, two custom processes have been developed to elevate and streamline the aesthetic ideation phases of furniture and watch design. The standout characteristic of these processes is that it allows designers to make controlled aesthetic choices without the inherent complexities and inconsistencies of AI.

Bryce Lim & Goh Bing Jun



Exerfun: Ambient Sensing for Exercise Through Triboelectric Nanogenerator

Instructor
Yen Ching-Chiuan, Liu Xin,
Bo Han

Triboelectric sensing is a novel technology that can measure human movement during an interaction by detecting the electrical charge generated when two materials interact with each other. This technology has great potential for creating innovative interactive designs for fitness wearables and other health-related devices. By exploring different materials for sensing, designers can create unique interactions that engage users and improve exercise motivation.



GhostENG
GhostENG aims to enhance the jumping exercise experience by incorporating platform game elements, making exercise enjoyable and immersive, while utilising everyday items to create a unique gaming experience.

Yang Xiao & Su Feiye



Keik
Keik is the collision of physical and digital play. It uses a harness to 'power up' existing toys in the house to be played in a digital gamescape. This balances the stimulation of the digital screens with the imagination of physical play. It utilises different metals to differentiate multiple inputs.

Jerome Wong & Zhu Chenlin



Dragon BoaTENG
Making resistance training more engaging and competitive with Dragon BoaTENG.

Wesley Tan & Yang Yuke

Experience Design - Creating Excitement

Instructor

Tomomi Sayuda

Experience Design aims to enhance the user experience of daily or other activities, from art installations to digital services. Students are asked to develop an idea from their own core interests and to implement that idea in the real world via a cycle of idea prototyping and audience feedback. We ask how the design provides an enhanced psychological impact to its audience. Spontaneity and intuition are encouraged, giving students confidence to be independent self-motivated creators.



Drobo

Drobo is a modular drawing robot that aims to bring new excitement to drawing and pattern-making for children through engaging them in the building process. Children can connect modules in different configurations and watch as Drobo spins to create fascinating geometric patterns on paper.

Eponine Tan



Wheely Tunes

Wheely Tunes was inspired by a personal experience of riding a bicycle to improve excitement, entertainment and safety for children through cycling. A replaceable music box of your choice is attached to the middle of the bicycle frame and is automated by the pedaling motion of a bicycle. It allows the rider to alert people nearby of their presence.

Lumna Chitrakar

Box of Memories

Box of Memories is a gift meant to make your loved ones feel especially celebrated. Taking the idea of a gift and elevating it by turning the walls of the box into photo frames with an inbuilt slide puzzle. Experience the excitement of customising, playing and being surprised by the Box of Memories.

Joshua Tan



Future of Mobility

Instructors
Lee Jung-Joo, Chew Jia Ying,
Kate Lee

In collaboration with
Land Transport Authority,
Urban Redevelopment Authority,
TUM Asia

Autonomous Vehicles (AVs) have the potential to transform the mobility landscape for more accessible, equitable, safe and efficient commutes. How can we better prepare for this future despite multifarious considerations? Combining disciplinary strengths from service and experience design, technology prototyping and behavioural studies, students work in multidisciplinary teams (Design, Computing and Psychology) to design for future-ready pick-up and drop-off infrastructure systems and services.



 Improving Capital Tower’s PUDO experience

The objective of this project is to enhance the experience at Capital Tower PUDO during the early adoption of AV vehicles. The proposed concept integrates multiple solutions to provide a safer, more efficient, and accessible journey for drivers, pedestrians, and vehicles alike. These solutions include hybrid traffic systems, productive waiting areas, and adaptive parking spaces that work together seamlessly.

Mok Zijie, Travis Ong, Tham Jin Lin & Yang Jia Lin



 Redesigning Funan Mall’s PUDO for 2025

The project aims to make Funan Mall’s PUDO ready in 2025, during an early adoption of AV phase with low frequency of AVs on the road and catered for transient tourists. The concept utilises zoning and signaling to establish awareness and regulations for road users, while creating a novel experience with Chopebot, a roving robot that caters for human and AV needs.

Chong Zi En, Nicole Tan, Shirshajit Sen Gupta & Ethan Leong

 Re-envisioning the Raffles City PUDO point

This project aims to redesign the Raffles City PUDO for 2040, where AVs are fully integrated into our transport ecosystem. With berth segmentation and integrated technologies, our design proposes intuitive systems to optimise traffic flow and crowd management, ensuring a continuous flow of movement.

Annabelle Chan, Karin Chew, Jai Lal Lulla & Gareth Wang



Future of Work

Instructor
Patrick Chia

In collaboration with
Keppel Land

As we brave a new world after the COVID pandemic, the meaning of work has evolved. We had a taste of remote working, and a new form of ‘hybrid work’ emerged. Now, we are at the crossroads of defining the future of work. Keppel Land is a leader in urban space solutions with a portfolio of investment-grade commercial properties across Asia. Students work closely with the Keppel Land team to explore new design directions and concepts that will shape the work experience of the future.

Maya

A maternity pod that provides privacy and comfort for postpartum mothers to express milk in the office, MAYA was designed to not let working mothers’ well-being feel like a second thought. Maya strives to support postpartum women as they transition back to work, equipping them with essentials within an optimal space. Maya is a step towards workplace inclusivity and a relevant conversation that we ought to have.

Sarah Tham, Goh Jia Hui & Geraldine Tong

Vizion

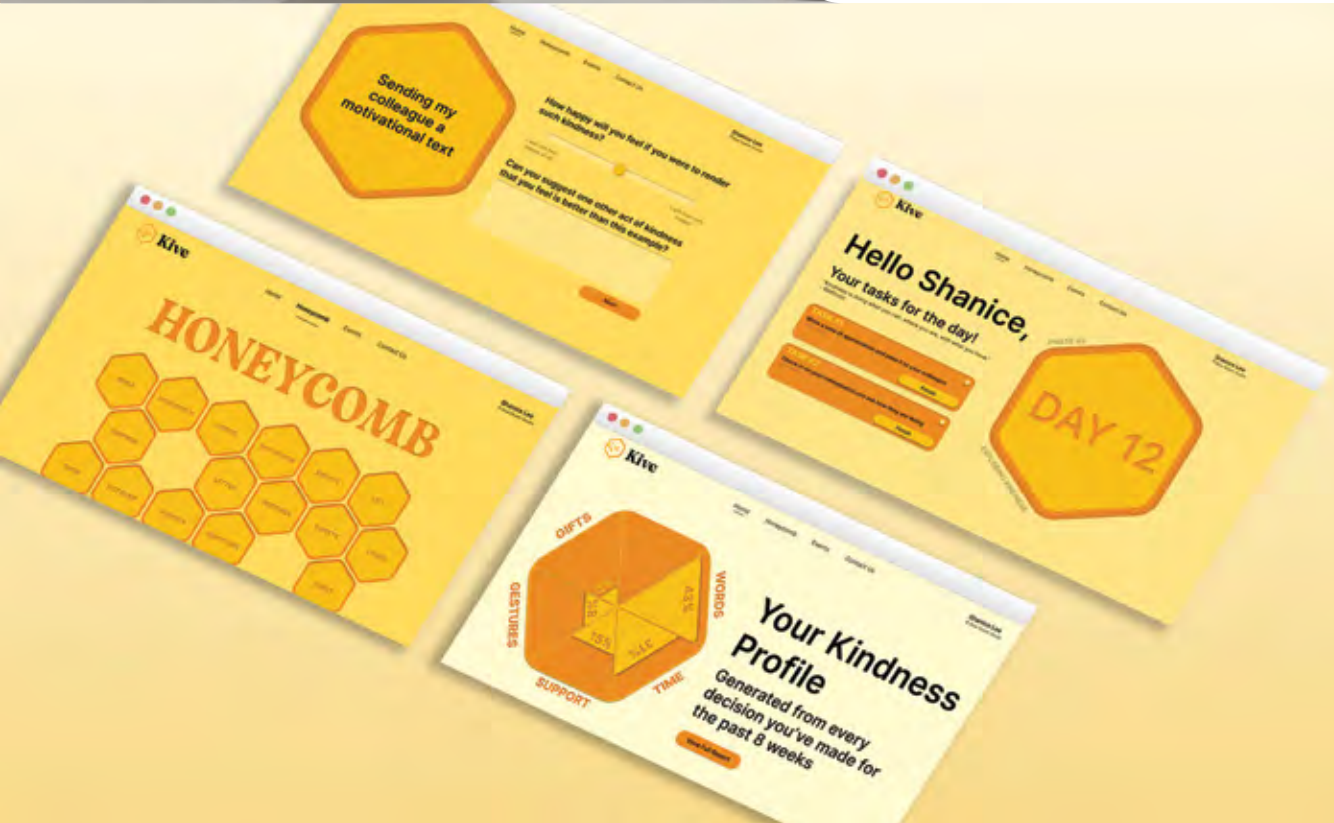
Vizion is an AI tracking system designed to enhance employees’ well-being and sustain productivity in the workplace. By using smart technology, it collects data on their behavioural signs of tiredness and nudges them at an opportune time to take a break before productivity plummets.

Chantel Loh, Muhammad Haziq Bin Roslany & Patricia Tantrasari Setiawan

Kive

Kive aims to foster a close connectivity through the active participation of kindness at work. The design solution uses a data-informed approach through the form of a website that supports an 8-week long campaign which makes use of data input to identify users’ preferred form of kindness to enable a smooth habitual formation of giving and receiving kindness.

Claira Chiw, Jayden Ting & Lumna Chitrakar



How to Build a Wall

Instructor
Tiffany Loy

A wall is a boundary or buffer, a physical surface, or a psychological barrier. It exists because of the need to separate domains—to divide a space, to change the trajectory of things physical or immaterial. Students are encouraged to challenge the definition of a wall, and investigate related themes that align with their personal interests.

Olive

Inspired by 'living walls' that expand in different ways with motion, Olive is a lampshade made of tessellated surfaces that morph and transform with movement. Its expandable tessellated surfaces result in an auxetic lampshade that can morph into 3 distinct silhouettes.

Ye Lin



LUCIDE

Lucide aims to capture the visual properties of water—its transparency, reflectivity, refractivity, and absorptive capacity. This is achieved by exploring a 3D-printing slicer software, translating its digital language into physical qualities.

Ken Fronda

SunScape

SunScape is a wall that captures the passing of time. It utilises sunlight to cast shadows on the ground and create an ever-changing pattern of circle motifs. It is designed to provide audiences with a heightened awareness of their natural surroundings and the passing of time, encouraging a greater appreciation of the beauty in the present moment.

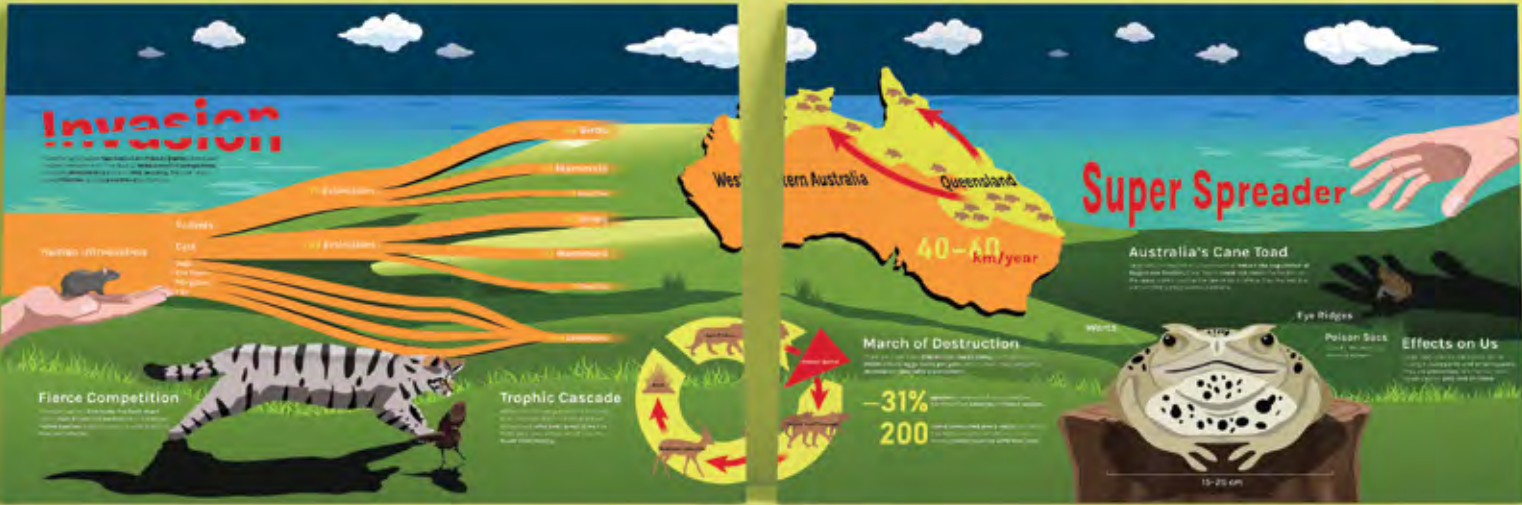
Eponine Tan



Informative Narratives

This platform focuses on the design and development of a series of visual narratives depicting sequence, cycles, or evolution. A pair of A1 panels are developed focusing on one of these themes. Panels may contrast or complement one another along a chosen theme. The aim is to provide students with an opportunity to learn and apply the important principles of information design, colour interactions, graphic translation, composition, and hierarchy, driving via secondary research.

Instructor
R. Brian Stone



Invasion: A Sequence of Events

This project consists of 2 posters examining the sequence of events of the spread of invasive species and a case study on the invasive cane toad. Through data translation and visualisation techniques, the posters showcase the relationship between humans and the spread of invasive species.

Wang Yu Wei



Necessary Evil – Plastics

Older materials used in packaging have their own set of limitations. Plastics were the solution to these limitations while improving human lives in multiple ways. However, its continuous evolution has caused various issues for the ocean, leading back to us having to be responsible for it.

Jared Lim

The Great Inferno

Centred around the Bukit Ho Swee Fire, the largest conflagration in Singaporean history, the double-panel infographic utilises data visualisation techniques and graphic design principles to convey the sequence of events in the fire and its aftermath in an accessible and compelling manner.

Tan Cun Jia



Make Some Noise

This platform is about making prototypes in order to think better—to practise making things to help designers understand and explore materials, form, construction, assembly and usefulness. And, through all that noise, hear their own design decision-making.

Instructor
Lee Tze Ming



Zero Headphones

Zero Headphones is a budget-friendly in-flight earphones created with sustainability in mind. Its simplicity of disassembly allows for easy repair of damaged parts and inexpensive bulk sanitisation for reuse using industrial autoclaves, enabling a significant decrease in waste created and headphone costs.

Joseph Liew, Goh Bing Jun & Claudia Goh



(Pulp) Zero

(Pulp) Zero is a sustainable, single-use headphones made of recycled paper pulp. Its novel over-ear form introduces a simple push and twist motion for a secure fit. After usage, the driver and wire can be removed for reuse, while the rest of (Pulp) Zero can be sanitised & re-molded into new headphones.

Isaac Lim, Douglas Ong & Mohamed Rizwan

Nike Marve

Featuring an over-the-head elastic strap and 'trampoline' cushions at the ears, Nike Marve is a pair of in-flight headphones that can adapt to both children and adults to fit comfortably. The elastic strap can be pulled or released to adjust to different head sizes.

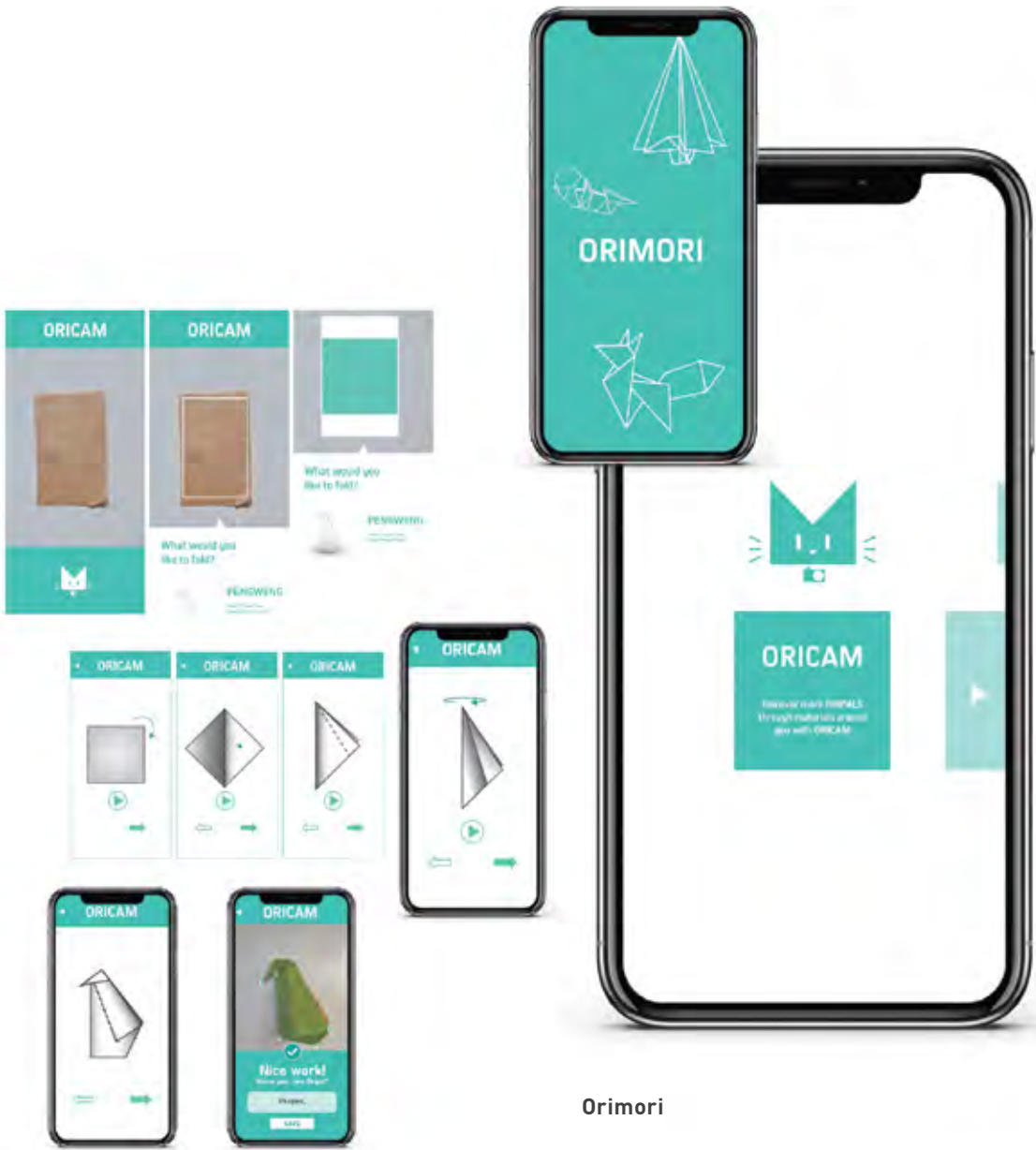
Angeline Rebecca Gomes, Ng Keng Wei & Verma Tanya



Making Tools

Instructor
Tiffany Loy

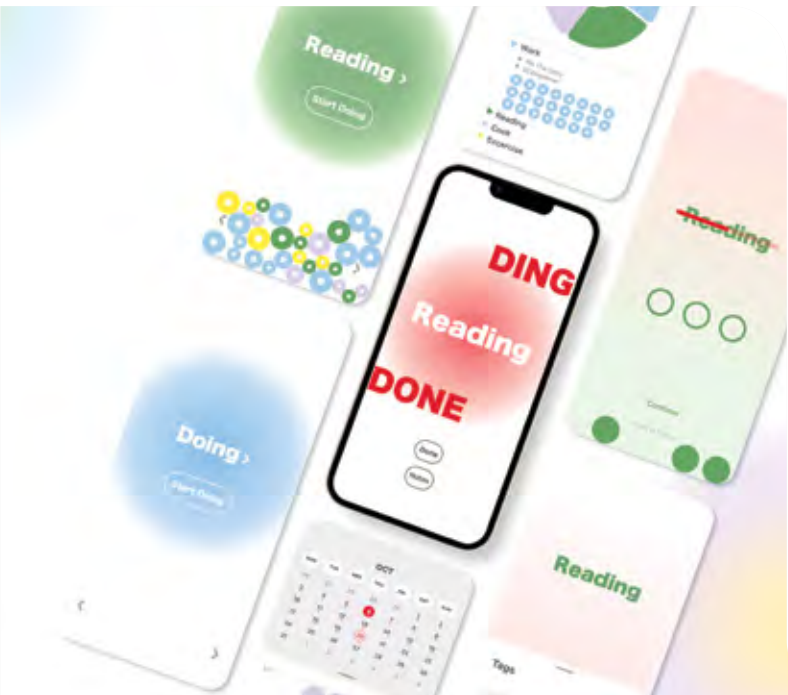
What sets us apart from most other animals is the ability to build our own tools. The sophistication of tools evolve with culture and technological developments. What are the tools we need today and in the future? Students are encouraged to investigate a theme they were passionate about, and design a tool for the selected context. The definition of a 'tool' is open for debate.



Orimori

Orimori is an app that introduces young children aged 8 to 12 to paper folding as a fun pastime for both digital and analogue play outdoors. Children investigate foldable possibilities and discover that objects around them can well be transformed into toys for play through simple acts of folding.

Ye Lin



DINGDONE

People are stressed out and obsessed with productivity in this fast-paced society. DINGDONE is an app that reminds users of the tasks they have done, rather than those they have not. It shifts the focus away from the pressure of not doing enough, to comfort and reassurance from the list of small achievements made everyday.

Wang Yixian

BEDA

BEDA is a nudging tool that tackles sleep deprivation caused by voluntary sleeplessness. By redesigning the clock to tell additional information apart from time, users are encouraged to manage their time better throughout the day and make deliberate attempts to stick to their optimal bedtime.

Jayden Ting



METArtefacts

Instructor

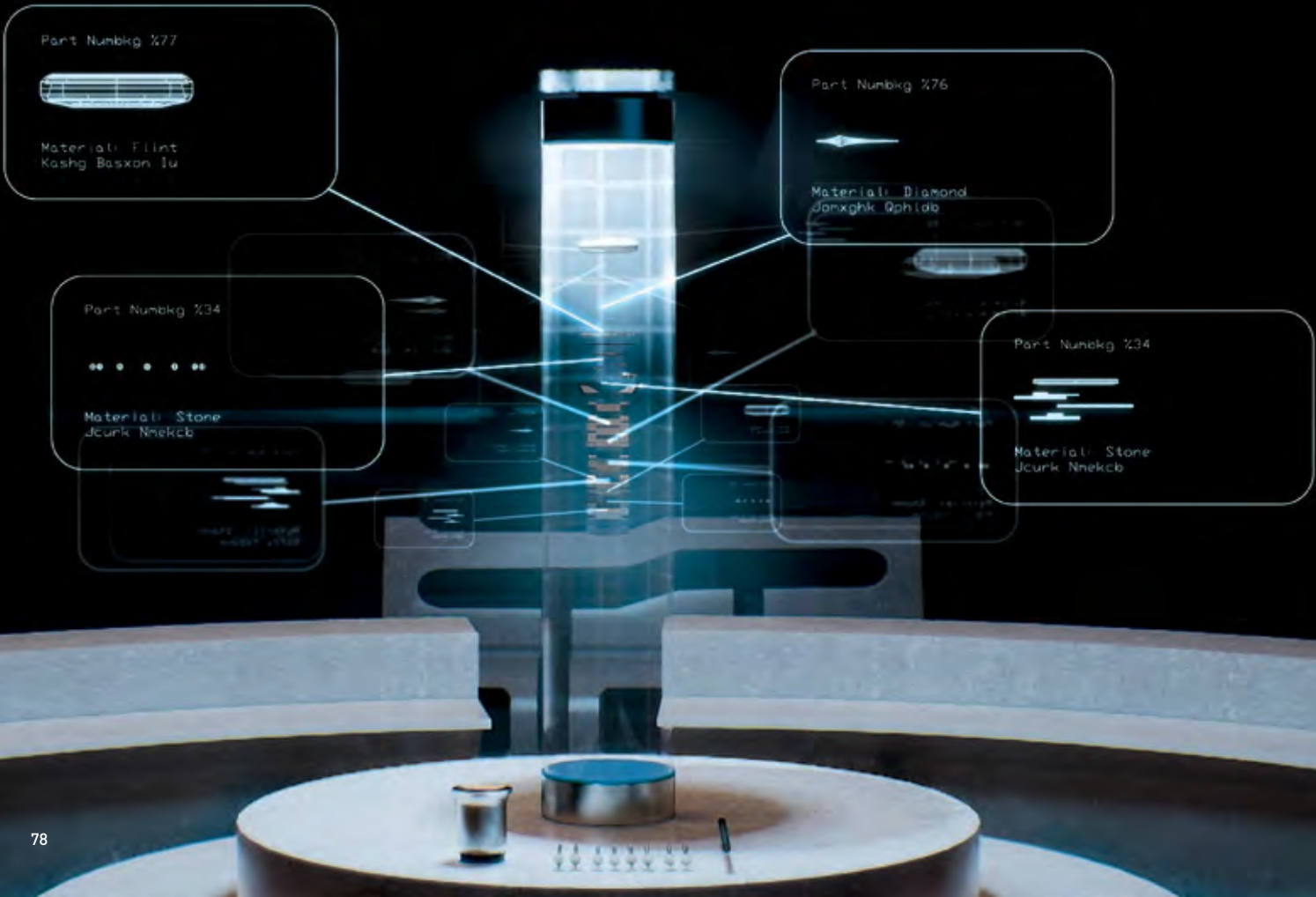
Hunn Wai

Web3 is upon us. Where does Industrial Design sit in this impending technological future? If design is to make life better, what lenses, what vehicles of thought-forms, what 'metaverses' and their METArtefacts, what pertinent packages of discursive design need to be created, broadcasted, and seeded into the world at large? How would we like to participate in and guide the narratives for Web3? What may we propose to shape and articulate better ways of digital living, experiences and expression?

A Close Watch, PaAI

PaAI is an heirloom for a watchmaking family that preserves memories meta-physically. It provides proof of leadership identity and acts as a knowledge library to preserve the legacy of the Kerrey Family. It has been passed down from one leader to the next, upgrading it to reflect changing times.

Choo Yuan Jie, Jasmine Soon & Celeste Seah



The Vault

With the shift towards Web 3.0, we envision the future of education to help students discover their passions and learning will be made immersive. Our METArtefact, the Vault, is a visual manifestation of interests using rising technology, allowing students a space to explore possibilities.

David Ng, Kwang Yu Hang & Isabelle Brigitte Kirkwood



The Future of Mental Health

Our narrative follows how a Gen Z father and his daughter navigate mental health, grief and loss in a 2040 world. With the help of Ava, a health assistant that integrates emotion AI and blockchain memories seamlessly with phygital devices and spaces, they foster empathy and manage self-growth together.

Koh Min Xiang, Tan Cun Jia & Edith Tan



Momentum

Instructors

Christophe Gaubert, Poh Yun Ru,
Tommy Cheong

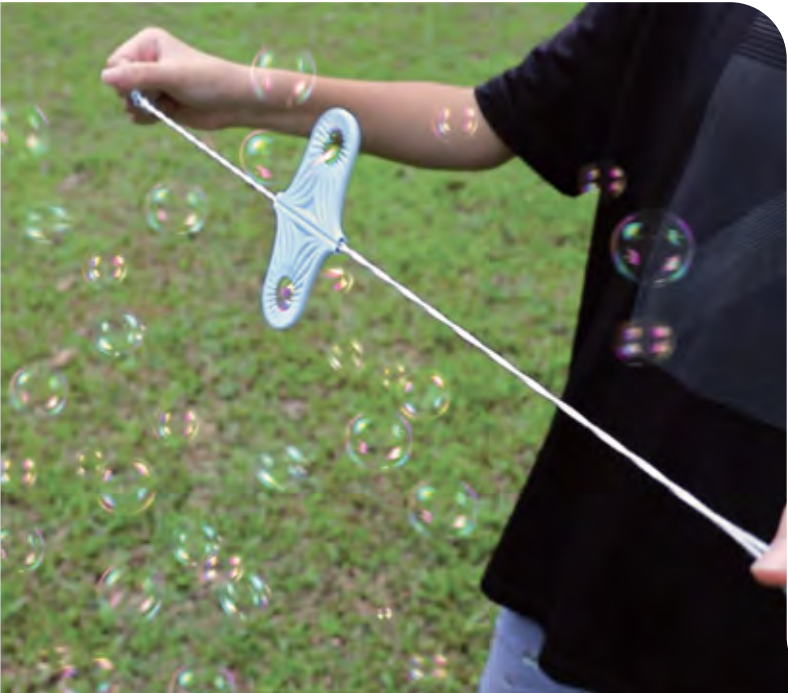
This Design Platform proposes to take motion as the starting point of designing a product, to make a kinematic or the gesture that gives life to it, the core element of an innovation and its intrinsic identity. From toys to sports, kitchen appliances, clocks, lights or fans, the students develop their ideas essentially through prototyping, with the aim of translating their concepts into meaningful, feasible and impactful objects.



Clash

Clash is a toy inspired by the magic movement of magnets. The magnets embedded in each Clash piece and the unpredictability of magnetic polarity allow users to create exciting and novel actions through the magnetic properties of collection, attraction, and repulsion.

Givson Ong



whirlble

Based on the spinning movement of a button whirligig, the whirlble is a hand-powered toy that produces bubbles, providing fun for young kids, as well as the kid within all of us.

Ng Keng Wei

Wave

Designed with a visionary purpose: to break free from the confines of a traditional fan, Wave emerges as an immersive experience, whisking users away to a serene realm through perceptive cooling. Captivating visuals and sensory cues harness the power of momentum, elevating overall well-being.

Muhammad Haziq Bin Roslany



Museums Alive

In this joint platform with Architecture and the Innovation Design Program, students collaborate and design immersive and interactive museum experiences for actual art collections held by the NUS Museum and Singapore Art Museum. Students leverage emerging digital technology and develop a wide range of projects that challenge the traditional boundaries of museum artefacts and spaces.

Instructors
Clement Zheng,
Yen Ching-Chiuan

In collaboration with
NUS Museum



Borderless

Inspired by the art installation 'Eccentric City', Borderless redefines the museum experience by fostering cross-cultural interactions using mixed reality technology that enables a new form of communication between individuals, allowing you to exchange experiences across two different countries.

Luke Goh, Wong Eng Geng, Abigail Leong, Song Yang Ting & Camille David



Visible Vault

Visible Vault is a virtual reality museum platform that showcases an artist's entire body of work through its interactive datascape built upon artwork metadata and artist biodata. Users can unravel and forge connections tying an artist's life and career, thus enabling a holistic understanding of an artist's practice.

Ho Yi Jing, Huang Kai Xing, Er Wen Xuan, Felicia Gan & Koh Zhe Wei

Just a Little Peek

Just a Little Peek seeks to subvert viewer's conventional experiences of a diorama by warping their perception of scale. With this museum experience, users take on the role of miniature humans immersed in a life-sized diorama, as well as the role of a giant peeking into a diorama.

Chua Zixin, Eponine Tan, Wang Yu Wei, Brandon Hong & Lucas Tay



PLAY

Instructor

Grace Tan

Considering competing needs and uses of the urbanised landscape of Singapore, student groups are required to search for an opportunity to conceptualise, experiment and design a place for play, interaction and recreation using the framework of 'Play, Structure and Environment'. In groups of three, students design for a specific user group, question the concept/definition of play and reform the modes of play through a series of play structures, public seating, and environmental interventions.



WonderWalk

WonderWalk: A modern marvel, immersing visitors in nature's captivating tapestry, igniting boundless playfulness. Nature's Nest brings you closer to the wonders of the wild, while Harmonious Stepping Stones weave unique water adventures influenced by changing tides. An urban oasis, WonderWalk awaits.

Muhammad Haziq Bin Roslany, Zoey Chan & Yang Xiao



Canning Climb

Canning Climb is an innovative relief playscape at Fort Canning, combining traversal, imaginative play, and slides and gutters. Inspired by the park's architecture, it encourages discovery, risk-taking, and collaborative play. A unique and beloved experience for all ages.

Nazurah Binte Mohd Rohayat, Paulina Young & Wong He Kai

TowerTots

Finding the fun in overlooked and ordinary spaces, TowerTots is a modular playground designed around the iconic pillars at Star Vista, Singapore. Its interactions include climbing walls, slides, haptic interactions, resting and hiding spots.

Angeline Rebecca Gomes, Ashley Thong & Rachael Lee



Product Design + Exoskeleton

Instructor
Song Kee Hong

In collaboration with
NUS Biorobotics Lab

The platform’s objective is to speculate and develop viable exoskeleton concepts using Future Probing methods to sample social and technological trends as context. The learning outcome is to familiarise students with Future Probe methods to ideate possible futures of tangible products, and the ability to navigate technical and human-centred design complexities in product design development.



NIO

NIO is an exoskeleton designed for physiotherapists to reduce the risk of incurring back injuries on-the-job. The flexible spinal structure conforms to the user’s spine and supports non-linear motions. Movements can be tracked via an app that provides workout routines based on the user’s usage.

Donaven Tan, Givson Ong & Kent Timothy Limanza



ForeShore

ForeShore is an exosuit for the future of the offshore industry. Wearing this sleek attire not only prevents fatigue, but also boosts one’s comfort and physical abilities. Its load-bearing capabilities enable offshore workers to perform at their best, while also saving them from potentially life-threatening situations with an in-built life vest.

Valeska Tan, Wesley Tan & Sarah Chan

Maternity Plus

Maternity Plus is an enhanced pregnancy care wearable that protects the mother while providing advanced fetus support. It alleviates the baby load at the front by spreading the weight towards the thigh—one of the strongest muscles in the body, in hopes of empowering mothers in their daily activities.

Siew E Ian, Edwind Tan & Eda Yasmin



The Shape of Sound

This Design Platform aims to explore the link between digital and analogue musical instruments, between electronics and gestures, between crafted tools and technological devices. Objects that offer tangible manipulation to play music, or to play with music. These multidisciplinary projects were designed in collaboration with the Engineering students from the Innovation and Design Program (iDP).

Instructors
Christophe Gaubert, Poh Yun Ru,
Nakayama Yuta

In collaboration with
CDE Engineering Design &
Innovation Centre



 **KIMI**

KIMI tangibilises musical elements—notes, rhythm, and effects—into forms, creating the possibilities to play, learn, and construct their own music, without requiring any musical background.

Aileen Ooi, Lee De Wei, Zoey Chan, Bryan Goh, Steve Triharto & Benny Kouk



 **DUET**

Inspired by the synergy of spontaneous musical dialogues, DUET embodies the act of conversing, through passing balls from one to another. Each coloured ball corresponds to a specific pitch, and each track corresponds to the length of the note.

Alexandra Arguelles, Prasanth Kumaar & Gan Jie Lin

 **Obliq**

Obliq is an electronic musical instrument that marries itself to the movements of its player, amplifying the connection between music and motion. Svelte and fluid, it harnesses sound as medium, where it is celebrated and honoured through its form.

Emma Kockelkoren, Loh Chor Boon, Reynard Seah, Wina Nashita, Callysta Ng, Liaw Zheng Kai & Beatrix Tang



Visualising New Experiences Through Product Appreciation

Instructor
Sixiu Tan

In this course, students research an existing consumer product and design an original user journey that offers a fresh perspective to its identity and usage. They examine the product origin, its industrial and cultural evolution, then imagine how it may evolve to appeal. User profiles are generated through personal observation, identifying unique behaviours and unaddressed user needs. Students could also create ancillary products and make alterations to the product state.



 Cobblers Square

Street cobblers are often overlooked yet they bridge people from all walks of life right at their mobile workshops. This project examines the cobbler, customer and the community, to reimagine the service journey to be more efficient and convenient while encouraging the community to gather and bond.

Celeste Seah



 Kix.

Kix. is a configurable shoe care and display system designed to elevate a collection's look in an interior space, while aiding the collector in a detailed step-by-step process of shoe maintenance.

Serene Tan

 Vanda

Orchids are often associated with beauty. However, this perception of beauty is lost when they are not in bloom. In re-appreciating the unbloomed epiphyte, Vanda brings out the beauty of orchid roots in two ways: a contrast between adhering and free-hanging roots, or a cocoon-like embrace in pursuit of longevity.

Bryce Lim

Visualising New Experiences Through Product Appreciation II

Instructor
Sixiu Tan

In this course, students researched an existing product in the consumer market and design an original user journey that offers a fresh perspective to its identity and use. They are expected to examine the product origin, its industrial and cultural evolution and then imagine its future state and how it may evolve to appeal to a specific user profile, creating a new experience addressing an unmet user need. Students could also create ancillary products and make alterations to the product state.



 Agi

Agi is a care and maintenance case that makes aligners feel less like a bothersome commitment. With specialised features that make cleaning and removing aligners effortless, and a companion app for treatment management, Agi naturally improves compliance by creating a positive relationship with aligners.

Joshua Lim



 MEDMO

MEDMO is a kit that empowers chronically-ill patients with medical ownership. Patients can journal their medical progress, in tandem, update the doctor via a PDF that MEDMO generates. This allows patients to transform self-recorded information as medical evidence, for the right medicine dosage.

Jasmine Soon

 NOM

NOM introduces a three-part solution designed to enhance your meal prep routine. Portion seamlessly using the NOM Box, plan effortlessly with the NOM app, and enjoy NOM Bites for convenience. Experience the perfect fusion of convenience, creativity, and nutrition as NOM elevates your meal prepping.

Suzie Kwan



Visualising the City

Instructor

Lim Qi Xuan

A simple way to understand is to observe. This is not a class about big data, but rather it focuses on the everyday, the ordinary, the overlooked—and shows how a keen observer, through one’s five senses, can uncover a deeper, more human understanding of the cities we live in. This course provides an overview of the practice of information visualisation, where students explore fundamental techniques to collect, organise, and present visual interpretations for different forms of data.



- 06 Back of a 'CAUTION' sign facing the corridor, with vines climbing up its stands
- 07 The rough edge of the path where it meets the low shrubs
- 08 Where the dirt path of the access point meets the paved path of the corridor
- 09 Dead stems and leaves on the path: springy green grass along its sides



Sidetrack

This zine looks at eight off-the-record access points along the Rail Corridor and offers new ways of seeing the limited information we have on them. It pores over the purpose of these paths, their physical changes, and ambiguous origins, clueing to the Corridor’s larger narrative as a transitory space.

Aw Ker Wey



Colours of Geylang

The zine provides infographics on the colours of Geylang, gathered through primary research. Conveying the undiscoverable yet unapologetic aspects of the Red Light District, it represents the seedy neighbourhood in an abstract and poetic manner and uncovers the raunchy underbelly of Singapore.

Chen Yuxuan

Legally Enforced?

This zine aims to investigate the relationship between law enforcement and perceived danger of Little India and Bishan. Signboard data was collected and visualised, revealing an irony between the purpose of law enforcement in ensuring safety and the pressure of law enforcement which creates unease.

Nicole Tan



GLOBAL EDUCATION

Visiting Students

NUS welcomes exchange students during both semesters; they participate in both design platforms as well as electives. These are the students who joined us during AY22/23.

“ NUS: An opportunity of a lifetime. Met incredible people, embraced new design perspectives. Grateful for cherished memories and lifelong inspiration. ”

Young Paulina Wijung
from Georgia Institute of Technology, United States

HONG KONG SAR, CHINA
The University of Hong Kong
Yu Jianing

CHINA
Zhejiang University
Yang Xiao

SWITZERLAND
ETH Zurich
Fuhrmann Adrian Julius

NETHERLANDS
Delft University of Technology
Kockelkoren Emma Isabella
Toorenburg Kim Joanne
Vo Kim

Eindhoven University of Technology
Verspui Ymke Renee
Streithorst Luc Jean-Paul

UNITED STATES
Cornell University
Zheng Wenji

Georgia Institute of Technology
Young Paulina Wijung
Albright Ewan Wood

**University of Illinois,
Urbana-Champaign**
Tam Maxine Nolan

ITALY
Politecnico di Milano
Fang Shuyi

FRANCE
Strate School of Design
Veyres Julian Amany
Duprey Julia Camille Mathilde
David Camille Anna France



From Left to Right: Wong He Kai, Young Paulina Wijung (Visiting Student) and Nazurah Binte Mohd Rohayat.



From Top to Bottom: Subbu Surya, Veyres Julian Amany (Visiting Student).

Exchange Programme

To broaden the students' exposure, two-thirds of each cohort goes for a semester-long overseas exchange programme during their 3rd Year (Semester 6). Students are exposed to different cultures, environments, and design processes at partner design schools.

FRANCE

International School of Design

FRANCE

Strate School of Design

Mok Zi Jie (Left)

Choo Yuan Jie (Right)

Claudia Goh (Centre)



“ Spending the semester in Georgia Tech exposed me to myriad design opportunities available internationally beyond Singapore, and it allowed me to make friends & form connections from (almost literally) all parts of the world! ”

Clarissa Edeline Yu
in Georgia Institute of Technology, United States

ITALY

Politecnico di Milano

NETHERLANDS

Delft University of Technology

Ho Yi Jing (Centre Right)

Chong Zi En (Centre Left)

David Ng (Most Left)

Isaac Lim (Most Right)



2023 GRADUATING STUDENTS

The Design Thesis provides students with the opportunity to demonstrate their individual design abilities through the execution of a Major Design Project. The Design Thesis ensures that students are sufficiently competent in research which is an integral part of the design process.

At this final year level, students would learn to form and evaluate value judgements on design decisions that ensure design proposals meet with rationalised and functional criterion as well as less tangible qualities of the aesthetic. Successful graduates will demonstrate competency in product/industrial design, healthcare design, interaction design, experience design, service design, speculative design, commercial design, social design, or experimental design.





Aileen Ooi Ai Lin

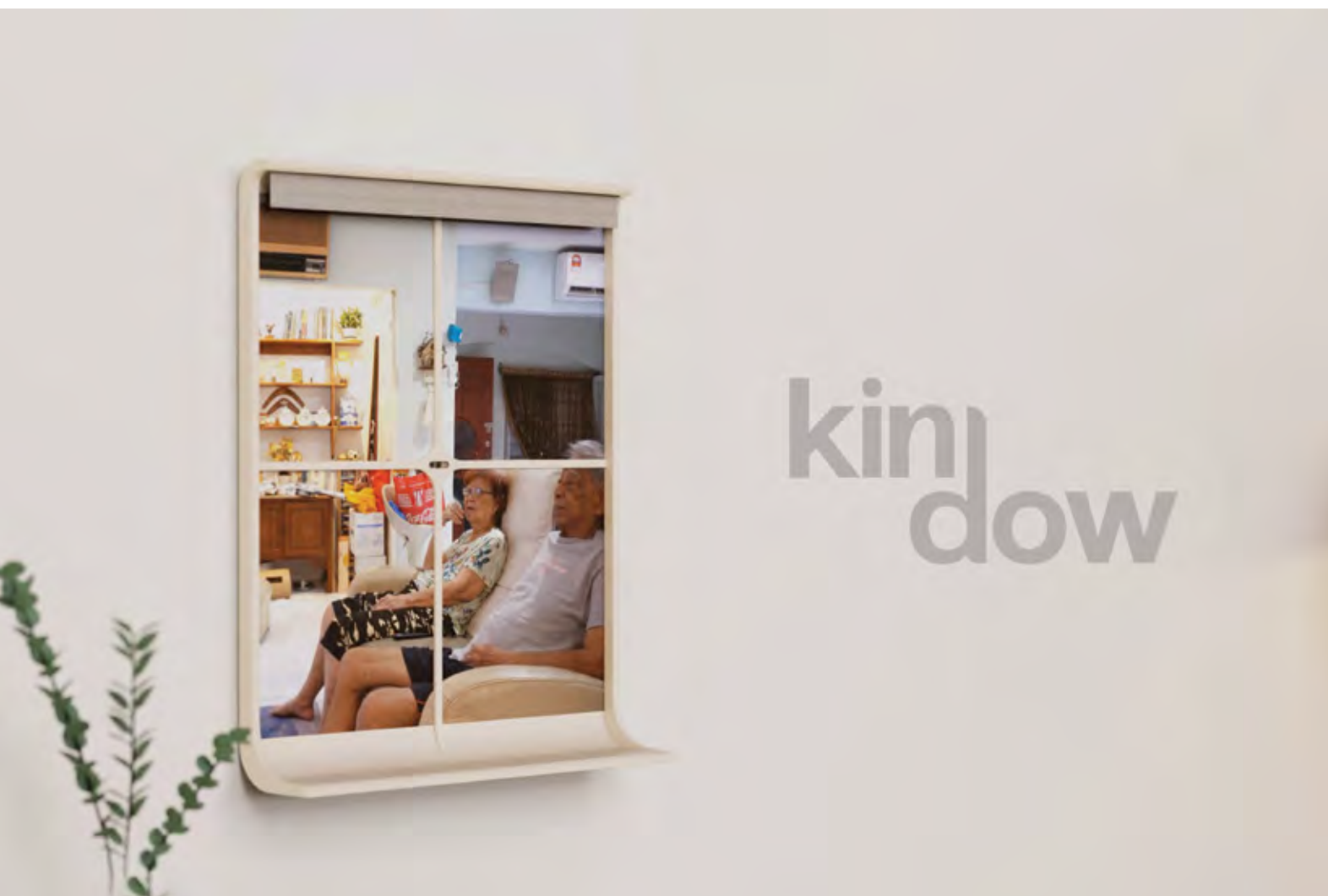
Aileen's designs are her storytellers, she designs with a story, and tells stories with design—turning a simple activity to an exciting moment, shared by family, friends and strangers. From analog to immersive technology, she wants to create emotional experiences for people, forging deeper connections through a shared story, with design.

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aileenooi.com



Designer
Profile



Kindow

Designed as a window connecting families, Kindow blends both homes into one, with conversations just a voice away, sharing the serendipitous and natural moments from our everyday lives.

Under the supervision of Patrick Chia



Cardboard & Dungeons

Cardboard & Dungeons is an immersive multiplayer game that brings back the imagination of young kids, fostering teamwork among them to create memorable shared experiences—all while striving to be as accessible as possible.

In collaboration with VIVITA Singapore
Designed with Srikanth Sundaresan & Lovelace Madison

KIMI

Tangibilising music by transforming musical elements into forms, KIMI creates the possibility for the everyday people to play, learn and construct their own music, without requiring musical background.

Designed with Lee De Wei, Zoey Chan, Bryan Goh
& Steve Triharto



Alexandra Arguelles

Alex is a multidisciplinary designer driven by curiosity. She believes design is the perfect avenue for cultivating connections between people. With an interest in creative direction, form finding, and experience design, she merges design and play to impart genuine and impactful outcomes.



Designer
Profile

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aarguelles.com



Tropical Island

The Tropical Island plug-in game reimagines Rhino3D education as a discovery-driven journey, where novice designers explore and uncover its 'secrets'. Rhino could introduce new skills at any pace, reward mastery over a single tool, or be a social network where designers create mistakes together.

Under the supervision of Clement Zheng



DUET

Inspired by the synergy of spontaneous musical dialogues, DUET embodies the act of conversing, through passing balls from one to another. Each coloured ball corresponds to a specific pitch, and each track corresponds to the length of the note.

Designed with Prasanth Kumaar, Gan Jie Lin, Julian Tan, Huang Zhiyuan & Ian Sim



Haptic House

The Haptic House series explores how destructive haptics, such as popping bubble wrap and tearing perforated packaging, can be made repeatable. Interactions are cut and assembled from a single polyester sheet, creating compelling haptics that are flat-packed and inexpensive.

Designed with Shanel Han & Joseph Liew



Annabelle Chan Pei En

Annabelle is interested in exploring the relationships and connections between people and communities. She is passionate about meaningful projects and believes that it is not just the cities we should design for, but the people living in them. She hopes to create design outcomes that can contribute back to society and create a positive impact.

annabellechan.design@gmail.com annabellechan.info



Designer
Profile



The Doors in Our Home

The Doors in Our Home is a collection of 3 doors that challenges current perception of doors, showcasing the potential of this seemingly mundane typology. These re-envisioned doors serve as interfaces that highlight and shape common rituals and interactions between adult children and their families.

Under the supervision of Olivia Lee



Re-envisioning the Raffles City PUDO point

This project aims to redesign the Raffles City PUDO for 2040, where AVs are fully integrated into our transport ecosystem. With berth segmentation and integrated technologies, our design proposes intuitive systems to optimise traffic flow and crowd management, ensuring a continuous flow of movement.

In collaboration with Land Transport Authority,
Urban Redevelopment Authority & TUM Asia
Designed with Karin Chew, Jai Lal Lulla & Gareth Wang

HealthAir

HealthAir envisions an interconnected network of health systems between countries, reimagining the future of medical tourism and global health, lowering the barriers of quality healthcare to benefit more people, and allowing for the provision of a more affordable, trustworthy and seamless service.

In collaboration with Philips Experience Design
Designed with Ong Kah Min, Joel Ng & Jerry Yee





Aye Phyu Thant Cherryl

Curious about how we co-exist with the world around us, Cherryl finds joy in discovering diverse human narratives. She is passionate about designing experiences that invite interaction amongst people and communities.



Designer
Profile

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Velocity: Haptic-Visual Wayfinding Companion for Urban Cyclists

Velocity is a haptic-visual product ecosystem that provides a safer wayfinding experience for commuting and recreational cyclists in the urban environment. From route planning to live navigation, it communicates cyclist-specific route contexts by utilising a system of haptic vocabulary with visual cues, and real-time hazard report.

Under the supervision of R. Brian Stone



Family Time Kit

Migrant workers, when separated from their families, seek familiarity to feel a sense of belonging. The 'Family Time Kit' helps by providing a blank clock and set up guide to prompt familiar routines, reinforcing connections with loved ones. This kit is designed specifically for migrant workers, transforming their dorm room into a home away from home by creating a unique representation of family presence.

Designed with Karin Chew

OIO

OIO is an instrument that makes use of music layers stored in physical discs to mix different tracks together, opening up a whole new dimension to the way we listen to and play music.

Designed with Joshua Lim, Suzie Kwan, Reynold Samel Lam, Ryuji Kow & Jaynielle Tan



Chan Yi Ting Celine

Celine is a designer who is passionate towards creating people-centric designs. Her design is deeply rooted in empathy; she aims to create solutions that are pleasing and tailored to the users. She strives to live a life with meaning and prioritises constant progress, be it work or character-wise.

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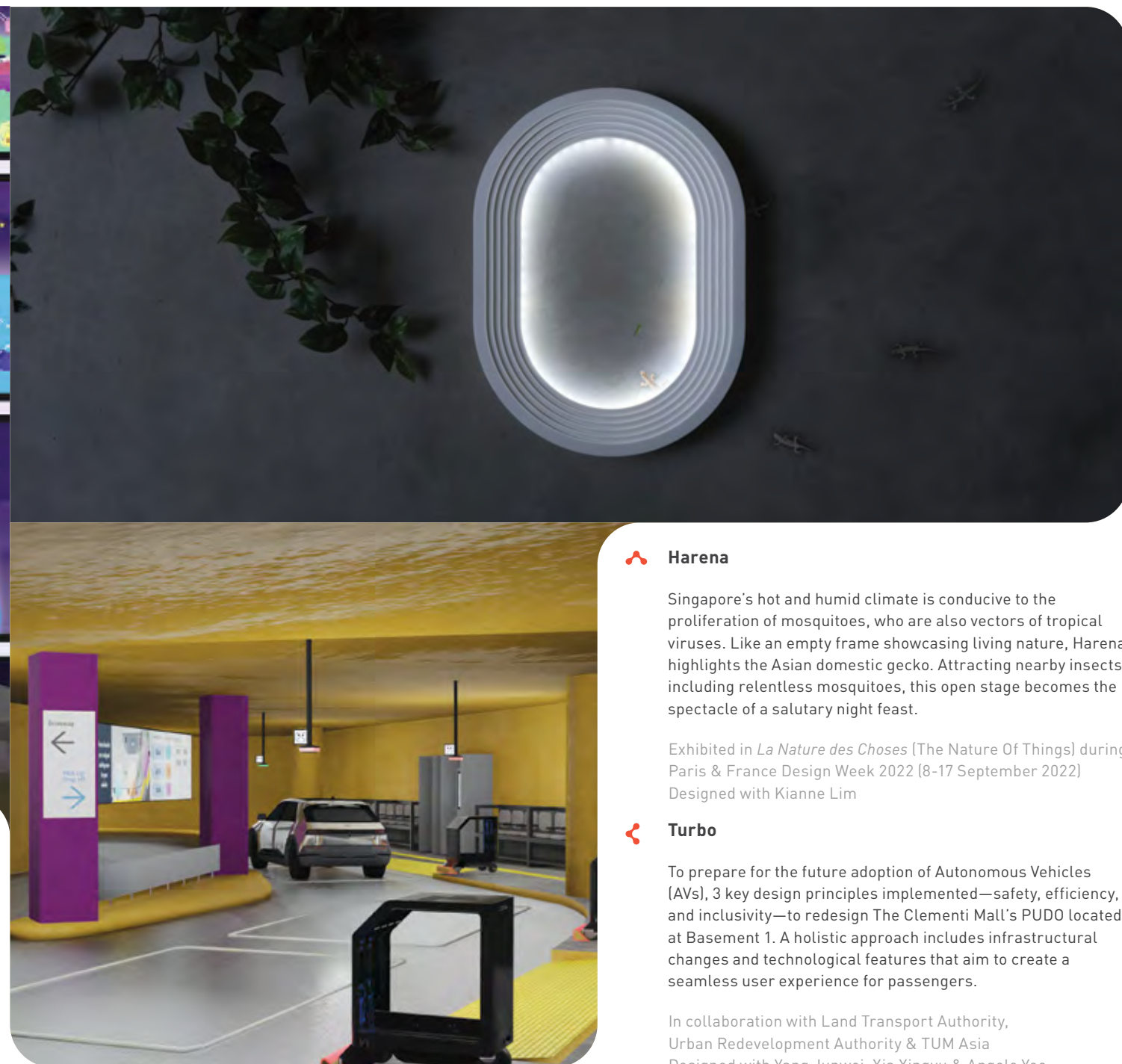
Designer
Profile



Yum Yum Mum Mum!

Yum Yum Mum Mum! immerses children (3+) in a positive food introduction to a diverse range of foods. Its engaging interactions integrate the real world, motivating children to try new foods, more so than they are normally willing to.

Under the supervision of Donn Koh



Harena

Singapore's hot and humid climate is conducive to the proliferation of mosquitoes, who are also vectors of tropical viruses. Like an empty frame showcasing living nature, Harena highlights the Asian domestic gecko. Attracting nearby insects, including relentless mosquitoes, this open stage becomes the spectacle of a salutary night feast.

Exhibited in *La Nature des Choses* (The Nature Of Things) during Paris & France Design Week 2022 (8-17 September 2022)
Designed with Kianne Lim

Turbo

To prepare for the future adoption of Autonomous Vehicles (AVs), 3 key design principles implemented—safety, efficiency, and inclusivity—to redesign The Clementi Mall's PUDO located at Basement 1. A holistic approach includes infrastructural changes and technological features that aim to create a seamless user experience for passengers.

In collaboration with Land Transport Authority, Urban Redevelopment Authority & TUM Asia
Designed with Yang Junwei, Xia Xingyu & Angele Yeo



Chelsea Angelina

To Chelsea, design has the ability to bring people together even in the subtlest of ways. She is often inspired by her sense of wit to present innovative perspectives to design for. Driven by human stories and interactions, she strives to create moments of meaningful connection with her designs.

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behance.net/bychelseaangelina



Designer
Profile



Loop

A series of wrapping papers which prolong the often fleeting moment of unwrapping gifts. Through a string-and-washer mechanism, recipients can retrace the givers' gift wrapping journey. This tangibilises the givers' intentions and poetically encapsulates their sentiments in the gifting experience.

Under the supervision of Olivia Lee



Memento

Recognising that a father's role is more than a financial one, Memento is a photo book kit and service designed to allow long-distance fathers to celebrate other sentimental aspects of fatherhood here in Singapore.

Designed with Edith Tan

Poco (For you and your little one)

Poco is a transitional instrument for pregnant mothers to create lullabies for their unborn child through yoga movements. After birth, the main body of Poco can be detached for the baby and act as a musical 'chou chou'.

Designed with Chan Shao Kaye, Leong Jo Yie, Joanne Chong, Tamie Wong & Zhang Jing Wen





Benjamin Chen

Benjamin believes that by constantly challenging the norm, he can observe matters from different perspectives to spark his creativity to innovate. He enjoys ideating from uncommon angles and testing the convention to innovate himself in the field of design.

chenpoyuan1997@gmail.com



Designer
Profile

KnowYourSkin

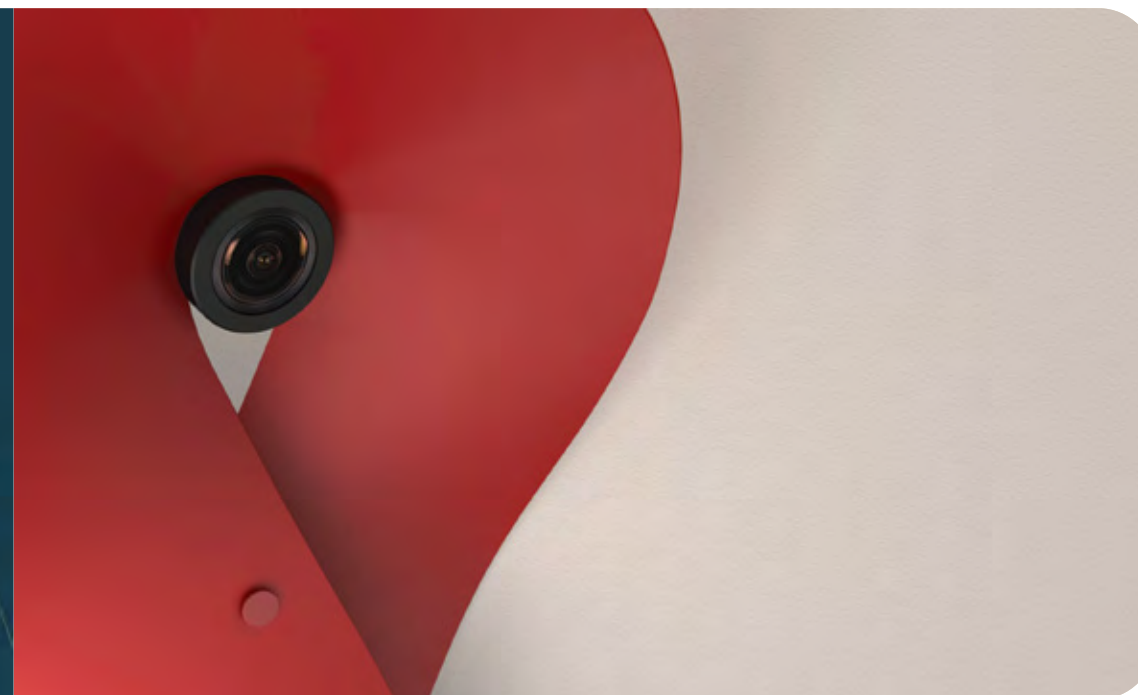
An interface that prioritises the communication and education of skincare products for men before consumption



KnowYourSkin

KnowYourSkin is a website that focuses on communicating the necessity of using skincare products to men and prioritising their education about such knowledge before consumption. The biggest selling point is that the website directs men to skincare products from local drug med stores instead of fancy brands, communicating that necessary skincare products can be cheap and easily accessible.

Under the supervision of Christian Boucharenc



Mother (Red DIC-2488)

This deep red of strength and warmth is like a mother whose protective nature is materialised as a home security system. Her senses take on the form of cameras, sensors, and sirens that surround homes. She is always there, generously welcoming and fiercely protective.

Designed with Gwen Pang



Theatrix

Theatrix is a self assembled story telling platform inspired from old school puppeteer stages, where parents get to tell stories in an interactive way through 3D hologram projections on Theatrix. With ARUCO markers as the main controllers behind the stage, Theatrix is able to produce not only visual but also sound effects that bring about a magical story listening experience for children.

In collaboration with VIVITA Singapore
Designed with Loh Chor Boon



Cheng Zaiyang, Lucas

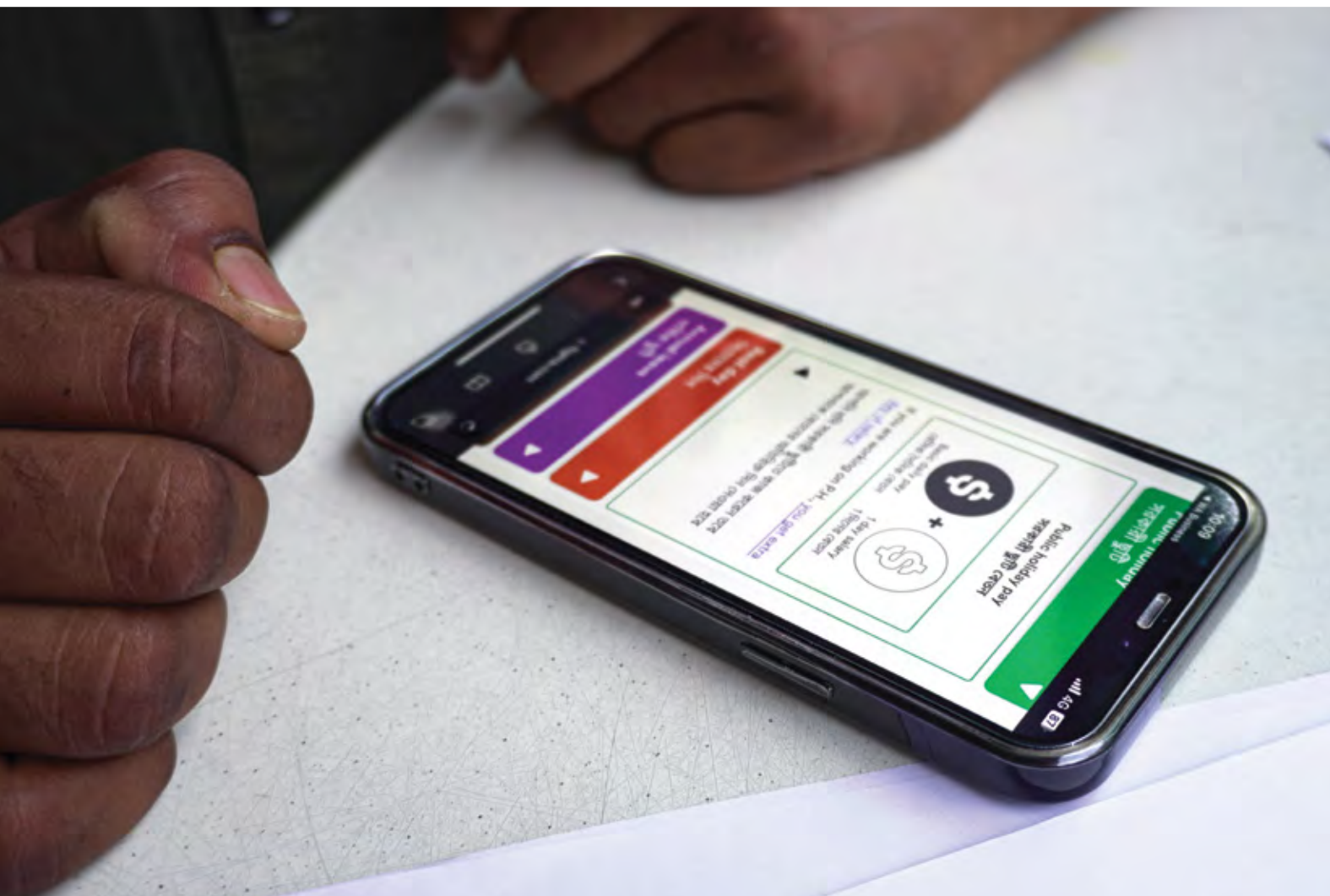
Lucas is a jack of most trades and master of some. He has a keen interest in service, social and strategy design. Lucas spends his free time playing ultimate frisbee, jamming with his electric guitar, and hanging out in specialty coffee shops.



Designer
Profile

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SalaryKi

SalaryKi is a website that presents important salary information in an easily understandable manner for migrant workers in Singapore. SalaryKi aims to empower workers with the knowledge and confidence needed to understand their salary and to make claims for any underpayment issues they might face.

In collaboration with Transient Workers Count Too (TWC2)
Under the supervision of Lee Jung-Joo



Beacon: Dementia Wander Tracker

Never lose a loved one ever again. Beacon is a product system that optimises the tracking of persons with dementia (PWD) in a non-intrusive yet effective manner. By utilising a smartphone app and linked low-profile GPS token, Beacon enables users to monitor and locate vulnerable PWDs easily.



Buru-Buru

Buru-Buru is a motion activated dispenser that instantly converts any foaming hand soap into a cloud of bubbles. With Buru-Buru, every hand wash becomes a fun, engaging experience. Its bubble medium also offers better all-round surface coverage over hands as compared to conventional foam or liquid-based soap dispensers.

Designed with Chua Zixin & Ho Yi Jing



Cherie Phua Ruiying

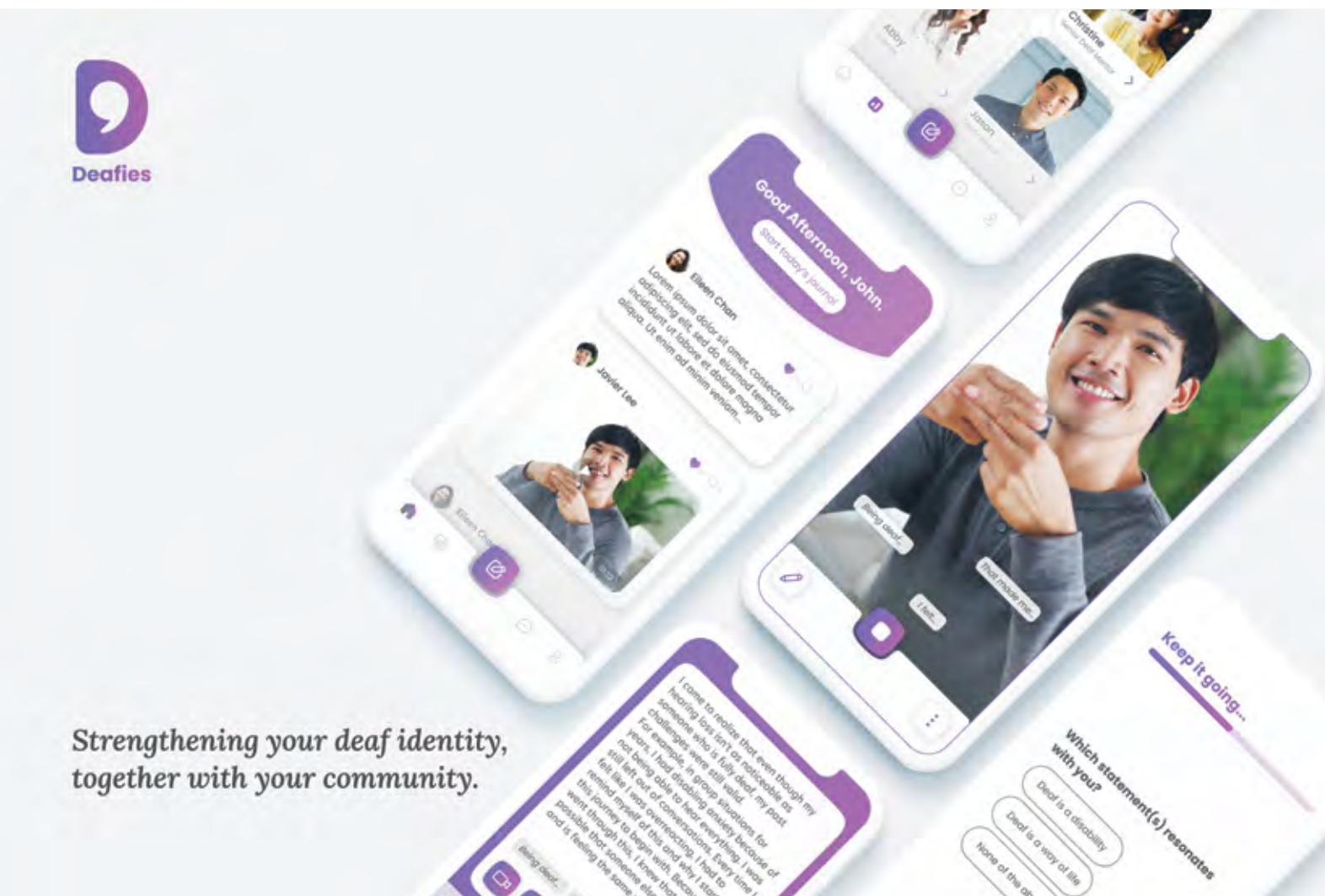
Cherie's design centres around the values of heart and service, reflecting her unwavering passion and dedication to creating unique user experiences that enrich people's lives. As a growth-seeking individual, she's constantly searching for opportunities to better herself and develop her craft.



Designer
Profile

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**Strengthening your deaf identity,
together with your community.**

Deafies

Deafies empowers individuals with hearing loss to strengthen their deaf identity. Through features like journalling and mentorship, it provides a platform for self-expression and meaningful connections within the deaf community. Deafies is a trusted companion for individuals as they navigate deafhood.

In collaboration with Singapore Association for the Deaf
Under the supervision of Song Kee Hong



Caregiver Clubhouse

Caregiving can be a challenging journey. As a result, many caregivers experience caregiver burnout unknowingly. The clubhouse is a respite space where caregivers can shed their daily burdens temporarily, and connect with other caregivers for support while having their care recipients taken care of.

Designed with Canice Ng & Grace Zhang

House of Chuckles

Boardgame cafe is a place for socialisation and entertainment, but ordering is mundane and browsing the right game is stressful. Dices falling off the table and condensation from drinks disrupt the playing experience. The House of Chuckles reimagines these pain points into fun and playful affairs.



Chiw Suan Hui, Claira

Claira enjoys designing and wishes to design better products and processes that bring convenience and improve the lives of people as they experience design. She works towards designing solutions for problems that do not have a direct solution now or where the existing solutions are inefficient.



Designer
Profile

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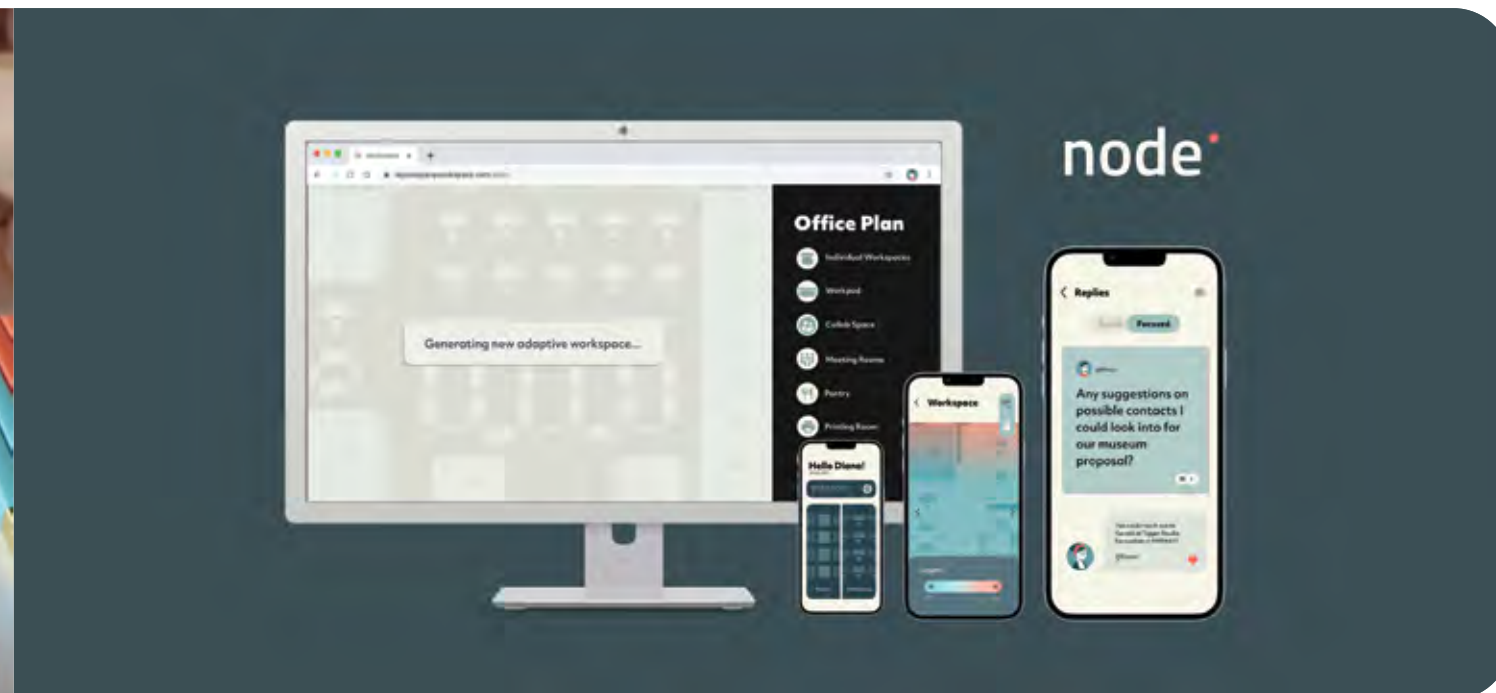
clairachiw.wixsite.com/claira-s-portfolio



Commemorate

Commemorate is a card game that fosters Gen Z's appreciation for and learning of Chinese ancestor worship ritual. It uses an enriching game experience that presents the ritual through curated communication of symbolisms, which occurs through several levels including texts, and abstraction of ritual into game moves, gestures, and verbal expressions.

Under the supervision of Yen Ching-Chiuan



Node

Rebuild the office's social fabric with data-driven hyper-personalised spaces. Hyper-personalised spaces are created at the office and the social fabric is rebuilt to one that shares knowledge and strengthens personal connections.

In collaboration with Johnson Controls
Designed with Nysha Tan, Byun Hyun Bin, &
Choo Shu Hui

Bobine

Bobine is a whimsical lamp inspired and constructed from a multi-axial system consisting of 2 coils strategically intersected to form an adjustable, rigid yet flexible structure. This structure affords 360° rotation both vertically and horizontally, and affords translation along the horizontal axis.





Chong Zi En

Zi En firmly believes that good designs are the result of co-designing with the people we are serving. To achieve this, his design methodology places a strong emphasis on empathising with users in order to create solutions that seamlessly integrate into their lives.

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Designer
Profile



Paw Wheels

Paw Wheels is an accessible assistive walker designed to be low-cost, modular and versatile to fit mobility impaired dogs of different sizes and mobility needs. It is fabricated with aluminium tubes and 3D printed joineries to be lightweight. Lastly, innovation in having a harness system and lockable wheels allows for ease of usability.

Under the supervision of Yen Ching-Chiuan

WAKE

WAKE is a concept proposal to IKEA to talk about preparing for your end of life journey in a personalised and affordable way for the common people—an emotional task that most people have no experience doing.

Verdure

Within the biodiversity and the tropical climate of Singapore, Verdure is a global farming system built within HDB spaces. It re-embraces nature back to our living environment, fosters good social cohesion through the creation of lush greenery facets.

Red Dot Design Award - Design Concept 2022
Designed with Ong Kah Min





Choo Yuan Jie

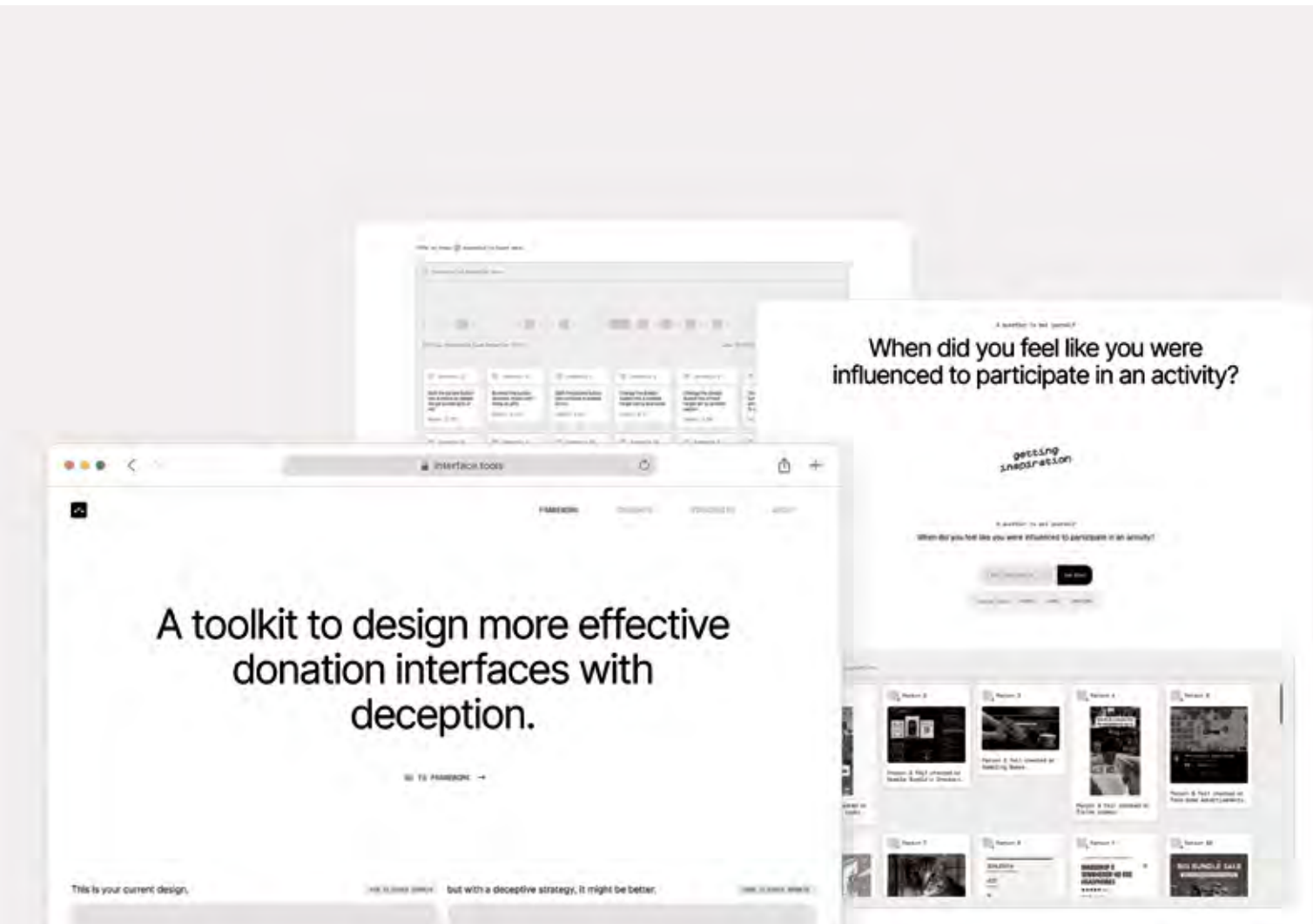
Yuan Jie is a Digital Product Designer passionate in translating the growing complexity of technology for humans. More often than not, he enjoys using his technical knowledge in Design and Front-End Development for prototyping and research into interesting behaviour in existing problem spaces (a cool one he explored was deception and fraud).

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yuanjie.info

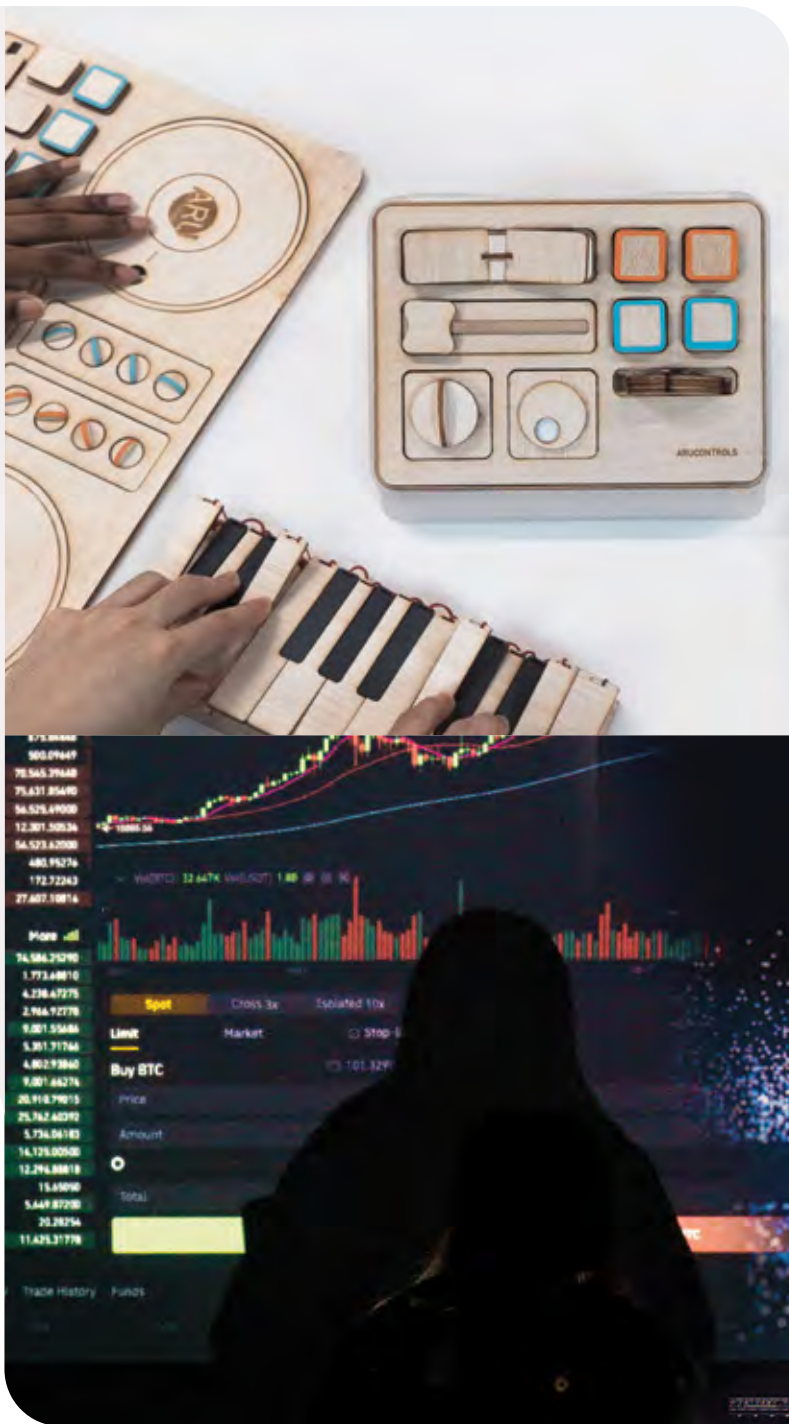


Designer
Profile



Deceptive Interfaces Framework

The Deceptive Interfaces Framework is a toolkit that enables designers to create more effective donation interfaces through the use of deception. By doing that, the framework questions the social acceptability of using deceptive strategies, just like the ones we commonly encounter in online scams and misleading advertisements, for altruistic outcomes. Learn more at <https://interface.tools/>



AruControls

AruControls connects DIY physical modules to a digital action, such as a keyboard press. The physical modules are made with fiducial markers, which enables the detection of a physical interaction (like the push of a button) using computer vision. When detected, the computer will respond accordingly.

Designed with Carina Lim & Prasanth Kumaar

Believing in a Number

Believing in a Number is a three-part interactive visualisation with real-time social interaction, made to explore people's emotions amidst online social pressures, and its impact on buying and selling cryptocurrency. The result is then used to study how positive and negative emotions can make an impact on our logical decision-making.



Chua Zixin

Zixin is a user-experience designer who believes in creating delightful design outcomes. Rooted in UI/UX and service design, she enjoys connecting with the community to design logical yet meaningful experiences for her users. Zixin also loves injecting fun into her designs using digital illustration and animation.

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zixin.design



Designer
Profile



The Tinkering Toolkit

Tinkering Toolkit empowers foreign nurses in Singapore's nursing homes, providing a platform to address language barriers and work challenges. Through co-designed workflow templates, language resources, and a sentiment-sharing platform, the toolkit cultivates culture of innovation from the ground up.

In collaboration with Kwong Wai Shiu Hospital
Under the supervision of Lee Jung-Joo



Tactell

Tactell is a texture to colour system designed to enable the visually impaired to be more independent while choosing clothing. Textures can be easily detached from its swatch and attached to hangers, helping the visually impaired to organise and choose their clothing with more ease and freedom.

Singapore Creator Awards (Aspiring Designer) - Bronze 2021

Buru-Buru

Buru-Buru is a motion activated dispenser that instantly converts any foaming hand soap into a cloud of bubbles. With Buru-Buru, every hand wash becomes a fun, engaging experience. Its bubble medium also offers better all-round surface coverage over hands as compared to conventional foam or liquid-based soap dispensers.

Designed with Lucas Cheng & Ho Yi Jing





Cindy Evangeline

Approaching design as poetic reinterpretations of reality, Cindy develops her aesthetic sensibilities through intimate observations of the world around her. Coupling her reverence for craft with her contemporary practice, she takes on the role of the modern artisan, where her creations thrive between the boundaries of art and design.

evessentially.design@gmail.com behance.net/evessentially



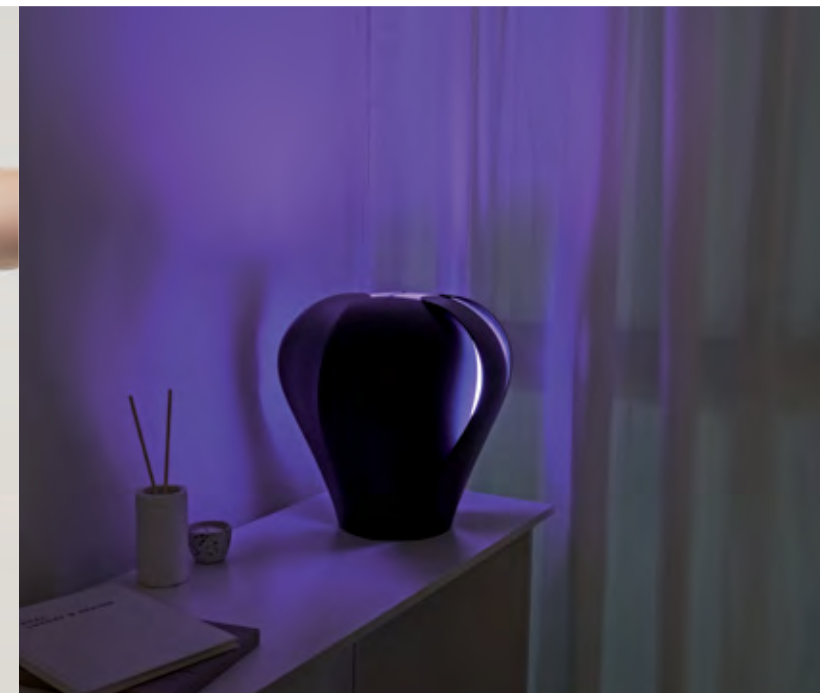
Designer
Profile



Umbul-Umbul

Umbul-Umbul is a system of lighting modules made from an optic fibre and rice paper composite. By distilling and reinterpreting the principles of Javanese *janurs* (palm leaf sculptures), a switch is made between the organic fibre, whose veins culturally carry divine light, with a contemporary light-transmitting fibre.

Under the supervision of Christophe Gaubert



Flora Obscura

Like a pinhole camera, Flora Obscura is a window to the less-explored yet enchanting domain of nature in the dark by amplifying the soothing scent of the night-blooming moonflower (*Ipomoea alba*).

Exhibited in *La Nature des Choses* (The Nature Of Things) during Paris & France Design Week 2022 (8-17 September 2022)
Designed with Chen Yuxuan

Fuse

Fuse's distinctive form is inspired by one of the designer's 600 visual motifs, achieved from extensive mark-making exercises done over the course of four weeks. This sedulous extraction translates into a set of candlestick holders, modular shelves and glassware.



Clarissa Edeline Yu

Intrigued by the marriage of logical reasoning and design poetry, Clarissa is an industrial designer with a knack for visual storytelling. She believes that communicating the unseen narratives and processes behind a design is as important, if not more, as the design itself.

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Designer
Profile



Bloom

Bloom is a book & necklace gift set designed to be gifted by parents to their daughter upon her first menstruation. A metaphor on blooming flowers on the surface, the necklace reveals a deeper story about the blooming of female bodies during puberty—empowering girls to embrace and celebrate their menstrual cycle from a young age.

Under the supervision of Christophe Gaubert



The Adventures of Ella & Elliot

The Adventures of Ella & Elliot is a series of interactive storybooks designed for newly diagnosed children with Type 1 diabetes and their parents. Through the use of storytelling and illustrations, the design transforms the diagnosis process from one that is scary and medical to one that is more comforting and approachable.

In collaboration with Eli Lilly and Company

The Shape of Hushed Pink

Grounded by the colour PINK DIC-2011, the Hushed lamp is an embodiment of a shy, tender, and gentle colour. The lamp's warm and endearing glow peeks under its veil, evoking a hint of nostalgia that lies beneath its pink shade.

Designed with Cao Minh Huy





Claudia Goh Chen Shuane

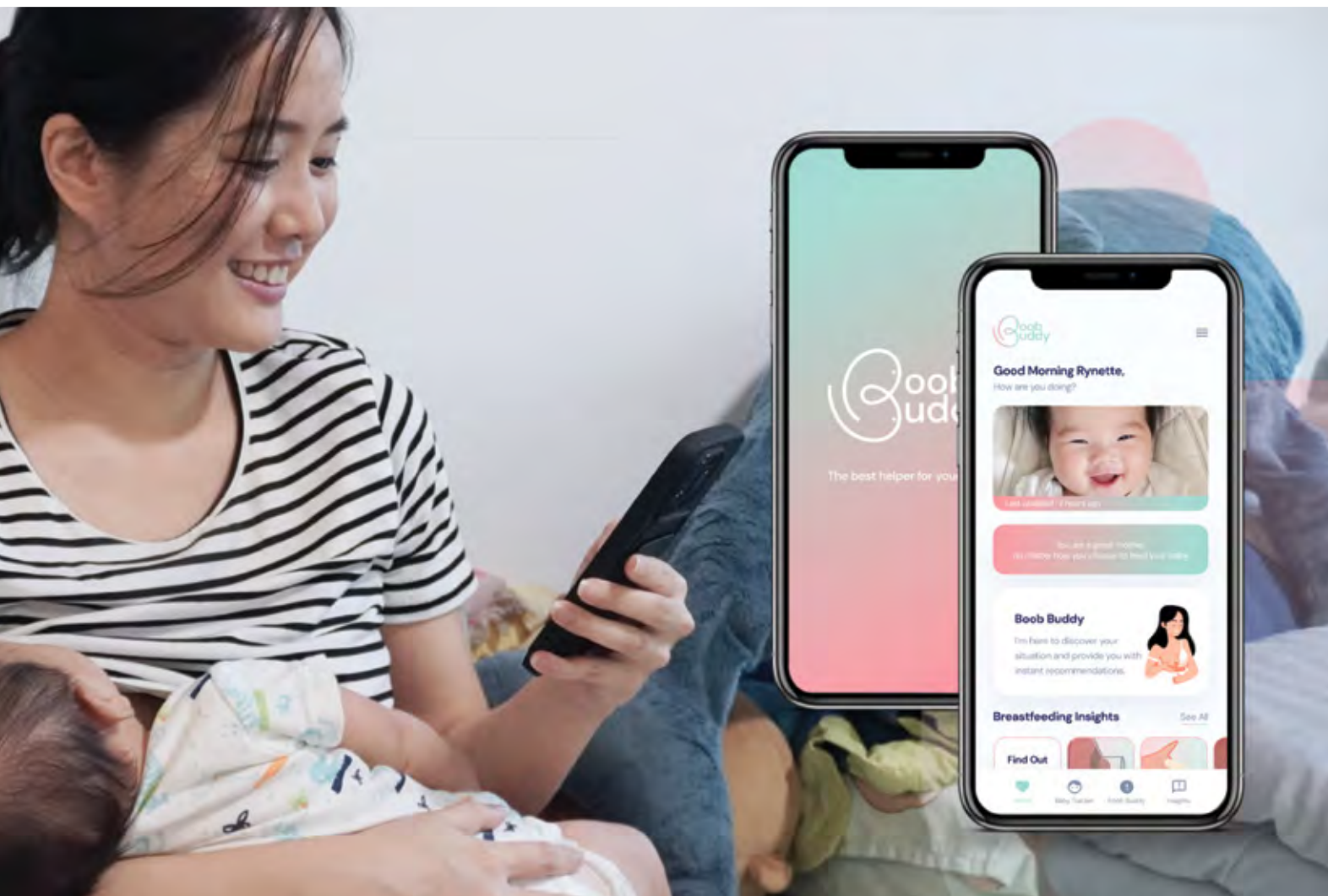
Through designing experiences, Claudia identifies opportunities that bring beauty and excitement to the ordinary. Striving for aesthetic and simplistic design, she aspires to employ her creativity and design skills in improving her community.



Designer
Profile

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Boob Buddy

Boob Buddy is a socially driven innovation application that aims to provide assistance to breastfeeding mothers around the clock. Boob Buddy is designed to be fuss-free and super easy to use—not just for mothers, but also for the care team to process the information to help the mother, with an immediate actionable guide curated by experts.

In collaboration with 13Thirteen
NUS Enterprise Innovation - VIP Impact Track Grant
Under the supervision of Yen Ching-Chiuan



Xiang Kueh - Reconceptualising Kueh Lapis

Xiang Kueh is a conceptualisation of *kueh lapis* that is inspired by the way it is consumed layer by layer. Embedded with messages, each layer of Xiang kueh reveals something different for joyous occasions.

In collaboration with NUS Baba House & The Culinary Institute of America, Singapore
Designed with Lee Zhi Ying



SKIN | An exploration of colours through natural skins

Skin is an exploration of colours through natural skins such as garlic & onion husks. Through carefully layering and bonding the husks, a paper-like material was created. Each and every skin brings beauty in different ways, through its translucency, colours and texture, it brings endless possibilities of how one can create colours.



Colette Chan Wan Xuan

Colette's design philosophy centers around transforming the ordinary into something extraordinary. With a meticulous hands-on approach, she crafts her ideas into reality. By interlacing elements of elegance and playfulness, Colette seeks to create designs that offer a fresh and captivating experience.



Designer
Profile

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Maquille

Maquille is an eyewear series that seamlessly translates makeup techniques into unique frame designs. By harnessing the expressive qualities of both makeup and eyewear, this fusion empowers wearers with confidence and self-expression. With a versatile range of options to suit various occasions, Maquille provides the perfect complement to any look.

Under the supervision of Christophe Gaubert



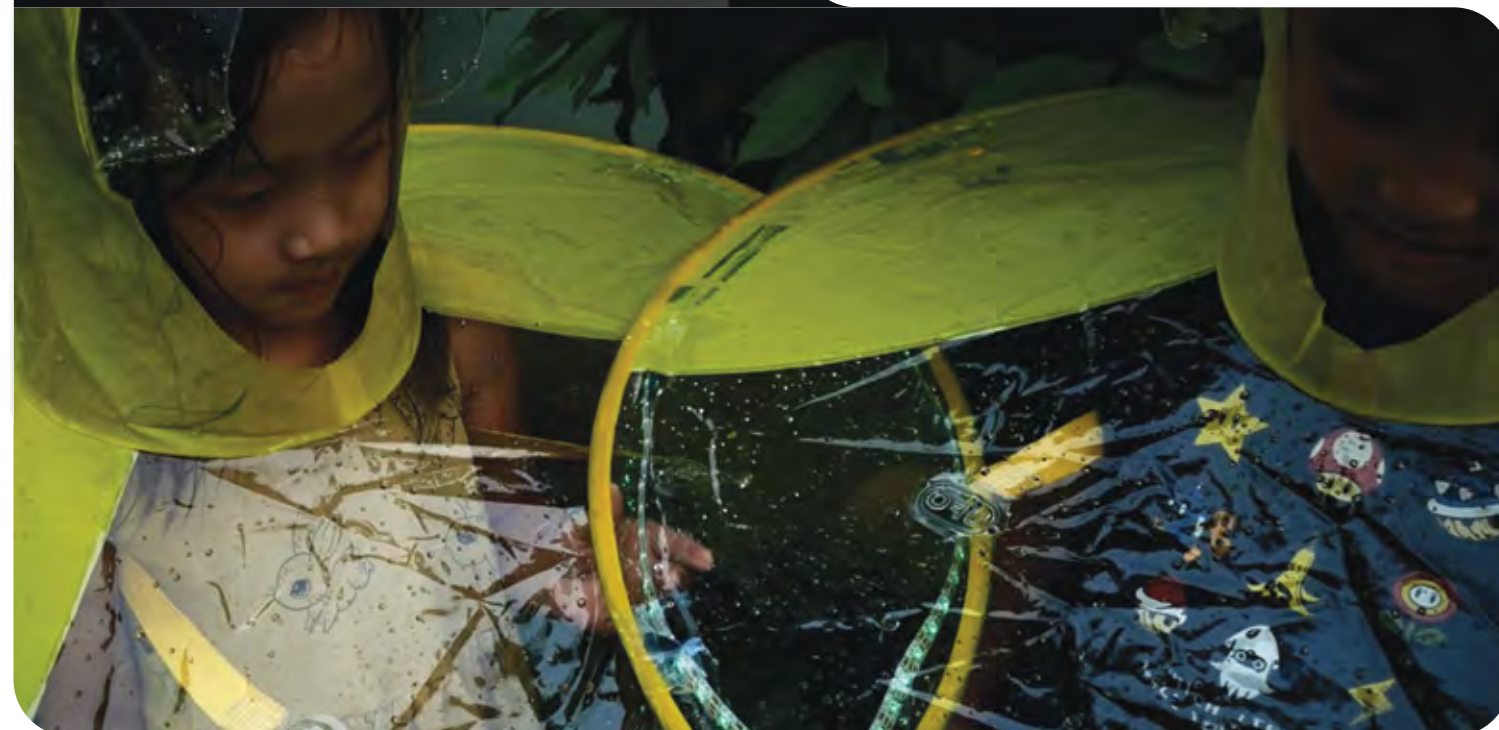
Orbit

Inspired by the properties of toys, Orbit is a manual scent diffuser that affords a physically satisfying and visually immersive way of setting up the diffuser. Alongside its easy-dispense bottle, it is able to coat scented oil over a large surface for maximum diffusion with ease and satisfaction.

Designed with Ho Yi Jing

Poncherello

Creating excitement with interactive rainwear, Poncherello aims to change the negative perception of rainy days, enabling children to appreciate and love the little joys in life, whether rain or shine.





Donaven Tan Wei Xiang

Donaven likes to ponder over things around us, how they look, how they are interacted with. His curiosity lies around product and spatial experience. He believes that design is never meant to be perfect, but always striving to be. That's the fun in design: there is no right or wrong, but only "what's next?"



Designer
Profile

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Shen Collectibles: The fusion of tradition and contemporary artistry.

This collection reimagines traditional Taoist deities into more desirable forms to spark interests and forge connections among the younger generation, for their tales and values to be appreciated by the modern world.

Under the supervision of Patrick Chia



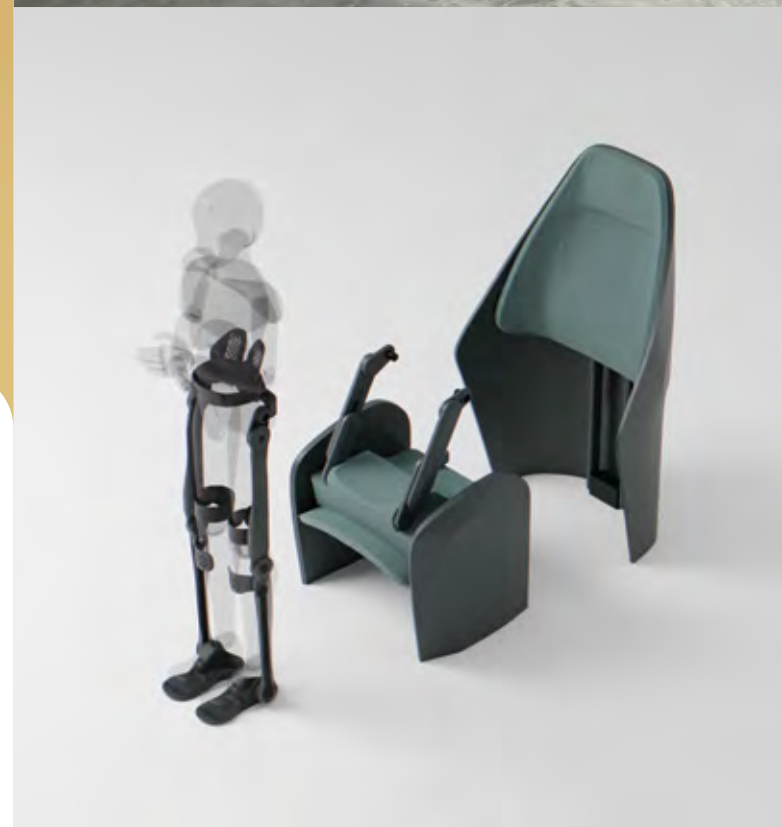
CYCLEPULSE - Future of Bike Retail

Extreme cyclists need capable high performance bikes, but bicycle stores today do not provide the experience of tough circuits and terrains indoor. CYCLEPULSE simulates different terrains found in cycling sports, allowing cyclists to test the performance of the bikes within a space constraint.

TAIR: Inclusivity In Air Travel

With the emerging exoskeleton technologies that are enabling the disabled with more convenient means of movement, TAIR aims to elevate inclusivity in air travel, where comfort and accessibility remain the biggest challenge for airlines as they manage travelers with locomotor disabilities.

Designed with Aderes Chua





Edwind Tan Yi Fong

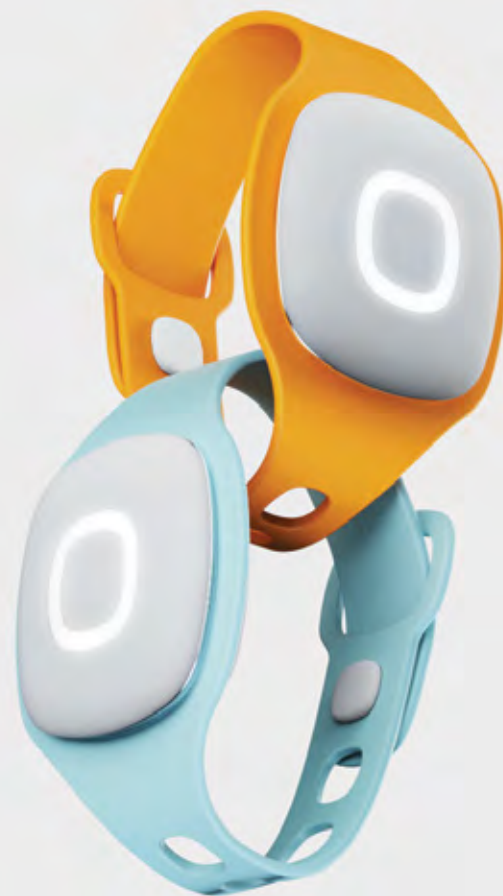
Edwind draws inspiration from the people and objects in his everyday life. His tenacious drive is reflected in his works that aim to ignite a spark of excitement in the mundane.



Designer
Profile

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edwindtan.wixsite.com/portfolio



DIP

DIP (Drowning Intervention and Prevention) is a child-focused device that enhances water safety. It detects drowning incidents in real-time, triggering immediate actions. With proactive monitoring and rapid response, DIP provides advanced water safety for children.

In collaboration with Sport Singapore
Under the supervision of Song Kee Hong



IRIS: Modular Camera System

IRIS is a camera system designed for media content creation. Taking inspiration from Lego building blocks, the system is modular and comes with all the necessary attachments needed by a modern creators. IRIS prioritises compact equipment storage, battery longevity, and seamless equipment transitions to ensure a smooth filming experience.

Golden Pin Concept Design Award - Product Design 2022



Opal: Bubble Hand Sanitiser

Combining the joy of catching bubbles with the action of sanitising our hands, Opal brings an air of surprise and fun amidst Covid-19, seeing the disruptive preventive measures of everyday life not as obstacles, but as sparks for joyful possibilities.

Singapore Creator Awards (Aspiring Designer) - Gold 2021
Designed with Ho Yi Jing, John Marie Tan & Gui Xixian



Elicia Low

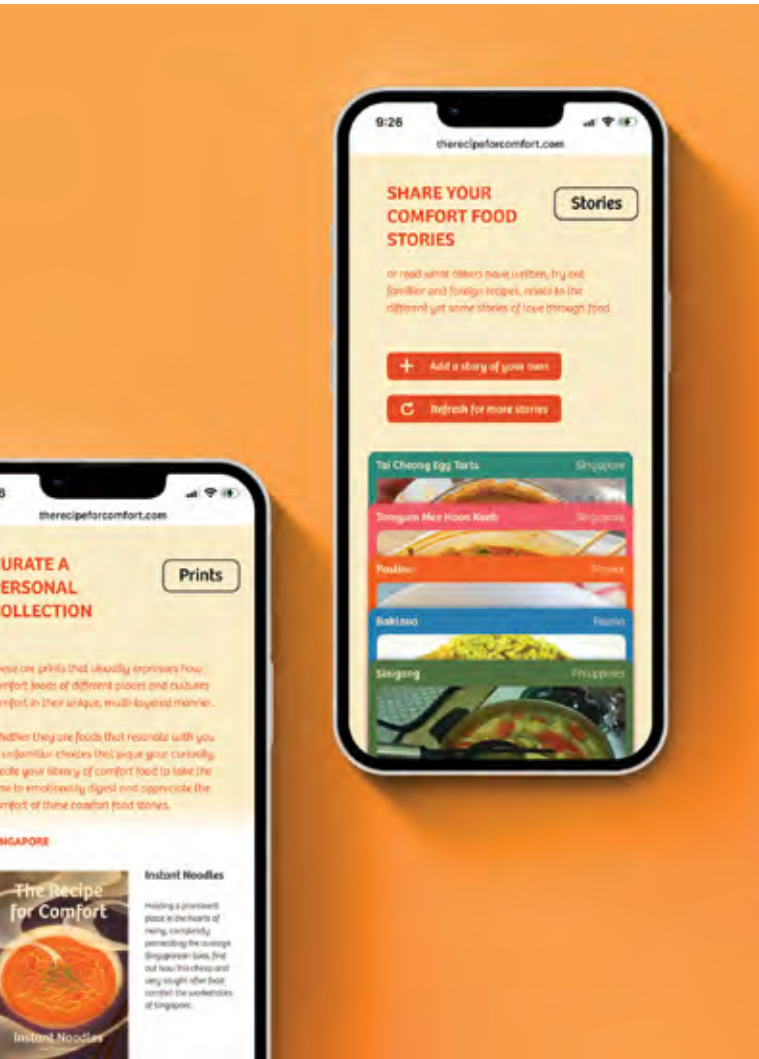
Elicia is a designer who values genuinity and bringing joy to others. With a spirit to always go the extra mile, she seeks to use design as a service to people through thoughtful functionality and aesthetic enjoyment.



Designer
Profile

hello@elicialow.com

behance.net/elicialow



The Recipe for Comfort

This project illuminates the emotional perception of how comfort food comforts beyond its deliciousness. Users can share their nostalgic stories on a web application, and delve deep into specific comfort foods through a series of zines that deconstructs it into a multilayered experience.

Under the supervision of R. Brian Stone



Deadly Recipes

A thrilling card game that pits teams of assassin chefs against each other in a race to poison the gluttonous tyrant. Building upon the teams' synergy and agility, partners work closely to complete rounds of fast-paced card matching and physical challenges. Exhilarating chaos ensues!

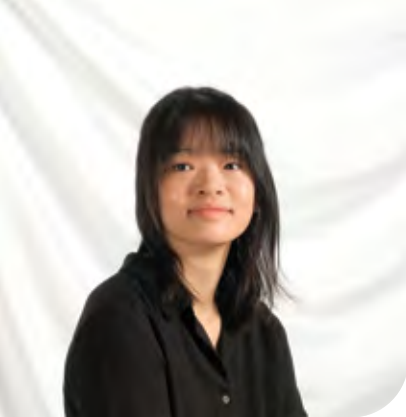
Designed with Wu Junyi

A World Without Mark-Making

In a world where mark-making with ink is taboo, an engraving-based society emerges. This project reimagines systems of communication, authentication and identification in that world; illustrating it through diegetic objects used in the context of an airport embarkation experience.

Designed with Chloe Chan





Gabriella Edith Tan Rui

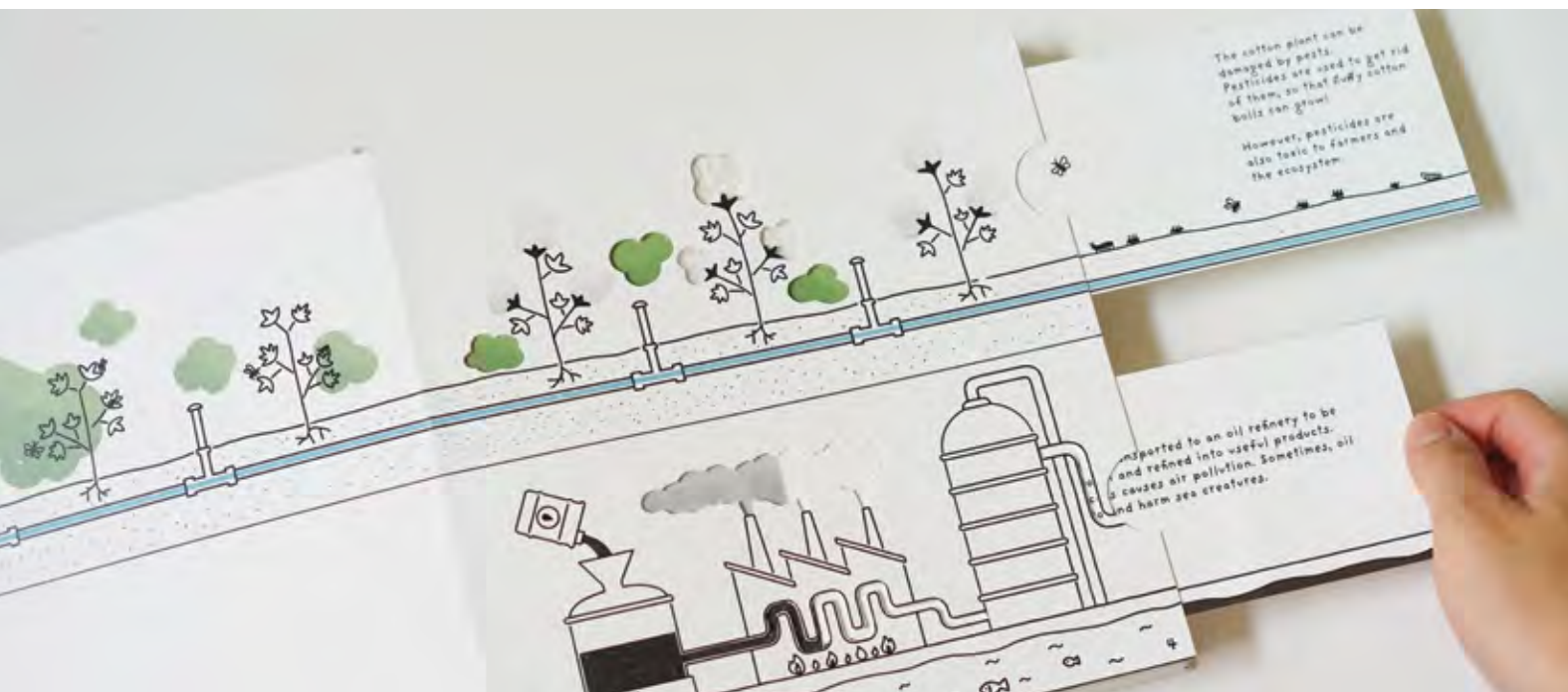
Edith believes that design can impact people in the most unassuming of ways. She embraces both human-centred and exploratory design, to find simple yet impactful solutions that resonate with the user. She is also a maker, who loves getting hands-on with prototyping and crafting to develop her ideas.



Designer
Profile

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edithtan.wixsite.com/portfolio



The Journey of My T-Shirt

Bringing kids on a visual journey from raw material to end life of a poly-cotton T-shirt, the story is told through colour, texture, and interactive elements that reveal its hidden trail of destruction and ways to respond. With simple visuals sprinkled with hidden details, this book nudges kids 3–6 years old and beyond to rethink their relationship with clothes.

Under the supervision of Grace Tan



Blox

An exploration of how Jacob ladder links between large forms can allow for fluid interaction and transformation. Round and angular forms are linked together strategically to allow for its transformation into different configurations such as a reclining chair, bench, and table.

Monchi: A handy snackbox for mess-free munching!

Monchi is a handy snackbox that allows for mess-free snacking. Inspired by the playacting nature of toys, the cover functions as both an entertaining puppet and convenient glove for snacking outdoors. To date, the project is 287% funded on kickstarter, with 766 backers pledging over \$34,000.

Designed with Feng Guozi & Yang Junwei



Goh Jia Hui

Driven by the intersection of technology and marketing, Jia Hui offers sound knowledge in UI/UX, product, graphics, and branding design. With a keen eye for detail and versatile skillsets, she is committed to delivering purposeful and compelling design that is user-centric and engagement driven.



Designer
Profile

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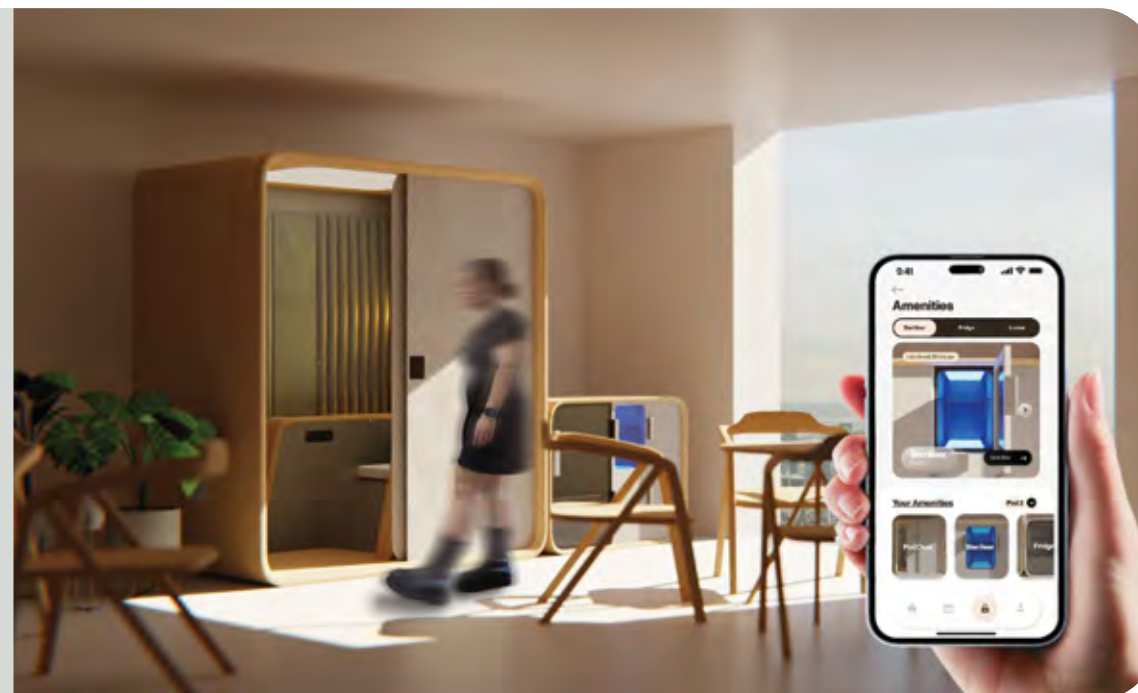
behance.net/jjahuiiG



AnxiWear

AnxiWear is a wearable device designed to alleviate the physical symptoms of panic attacks. By providing a sense of security during moments of distress, it empowers users to manage their attacks independently. AnxiWear achieves this by distributing pressure evenly to the chest, stomach, waist, and back.

Under the supervision of Patrick Chia



Maya

A maternity pod that provides privacy and comfort for postpartum mothers to express milk in the office, Maya was designed to not let working mothers' well-being feel like a second thought. Maya strives to support postpartum women as they transition back to work, equipping them with essentials within an optimal space. Maya is a step towards workplace inclusivity and a relevant conversation that we ought to have.

In collaboration with Keppel Land
Designed with Geraldine Tong & Sarah Tham

Munch-cade

Munch-cade is an educational cooking game adapted for a tiny, arcade-style controller for kids to role-play as captain of a food truck. Each controller is mapped to different actions and feedbacks in the Munch-cade universe, developing players' critical thinking and problem solving skills with each cooking stage.

In collaboration with VIVITA Singapore
Designed with Kent Timothy Limanza





Grace Tan Xin Hui

Grace believes that it is crucial to always enjoy and understand the design process. Her area of interest lies in the world of experimental design and material exploration as it challenges her creativity in the midst of working hands-on to communicate and develop ideas.

grace.txh@gmail.com

gracetxh.com



Designer
Profile



The Bone Collection

The Bone Collection focuses on the exploration of fabric manipulation via the smocking technique to produce dimensional surfaces which can be applied as architectural furnishing fabrics. It features a series of specially curated fabric swatches, along with a 1:1 fabric roll and a product application.

Under the supervision of Grace Tan



The Keepsake Headphones

The Keepsake Headphones were designed to extend the life span of the single-use in-flight headphones. It features a novel and unique compacting mechanism to encourage passengers to take it with them on their travel journey.

Designed with Teh Wen Jan & Sheryl Cheong

Shan Jian Kueh

Reinterpreted from the traditional *songgao*, Shan Jian Kueh embodies the element of water and its natural surroundings—soft, yielding and pliant. The notion of stamping creates a wave-like pattern within a depression, and the act of dripping osmanthus syrup reflects the flow of a water body.

In collaboration with NUS Baba House & The Culinary Institute of America, Singapore
Designed with Tan Zhi Hui





Ho Yi Jing

Yi Jing is a designer who believes that design should be thoroughly functional yet surprisingly delightful. Contrary to others who advertise their specialised skillsets, he finds his most valuable trait to be able to pick up new skills quickly and resourcefully, and to systemically ideate in a way that gets him out of the 'cliche' box.

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tinyurl.com/yijingportfolio



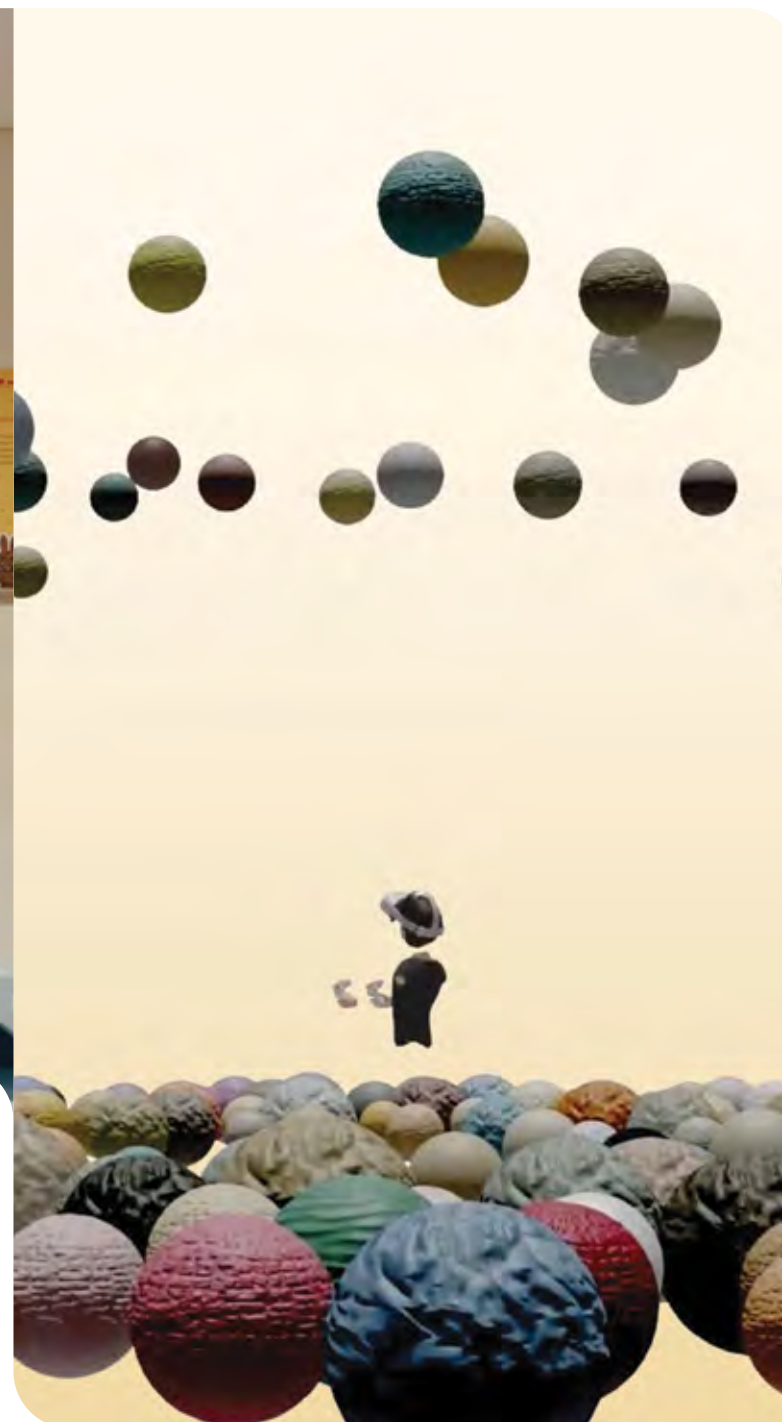
Designer
Profile



Mirror

Mirror is an interactive survey kiosk that allows the respondent to answer questions with their bodily expressions. It proposes a more natural and engaging way of answering survey questions, transforming the familiar disruptive experience of providing feedback into an enjoyable extension of their overall experience.

Under the supervision of Clement Zheng



The Visible Vault

Visible Vault is a virtual reality museum platform that showcases an artist's entire body of work through its interactive datascape built upon artwork metadata and artist biodata. Users can unravel and forge connections tying an artist's life and career, thus enabling a holistic understanding of an artist's practice.

In collaboration with NUS Museum
Designed with Huang Kai Xing, Felicia Gan, Koh Zhe Wei & Er Wen Xuan

S+ Watercooler

S+ is a response to the worldwide closures of water coolers due to Covid-19. It features a spoutless design and a gap between the drinking module and the sink to ensure a contactless experience, while its grilled sink minimises backsplashes and self-cleaning capabilities ensures it remains germ-free.

Red Dot Design Award - Design Concept 2021
Taiwan International Student Design Competition - Honourable Mention 2021





Isaac Lim Yi Jie

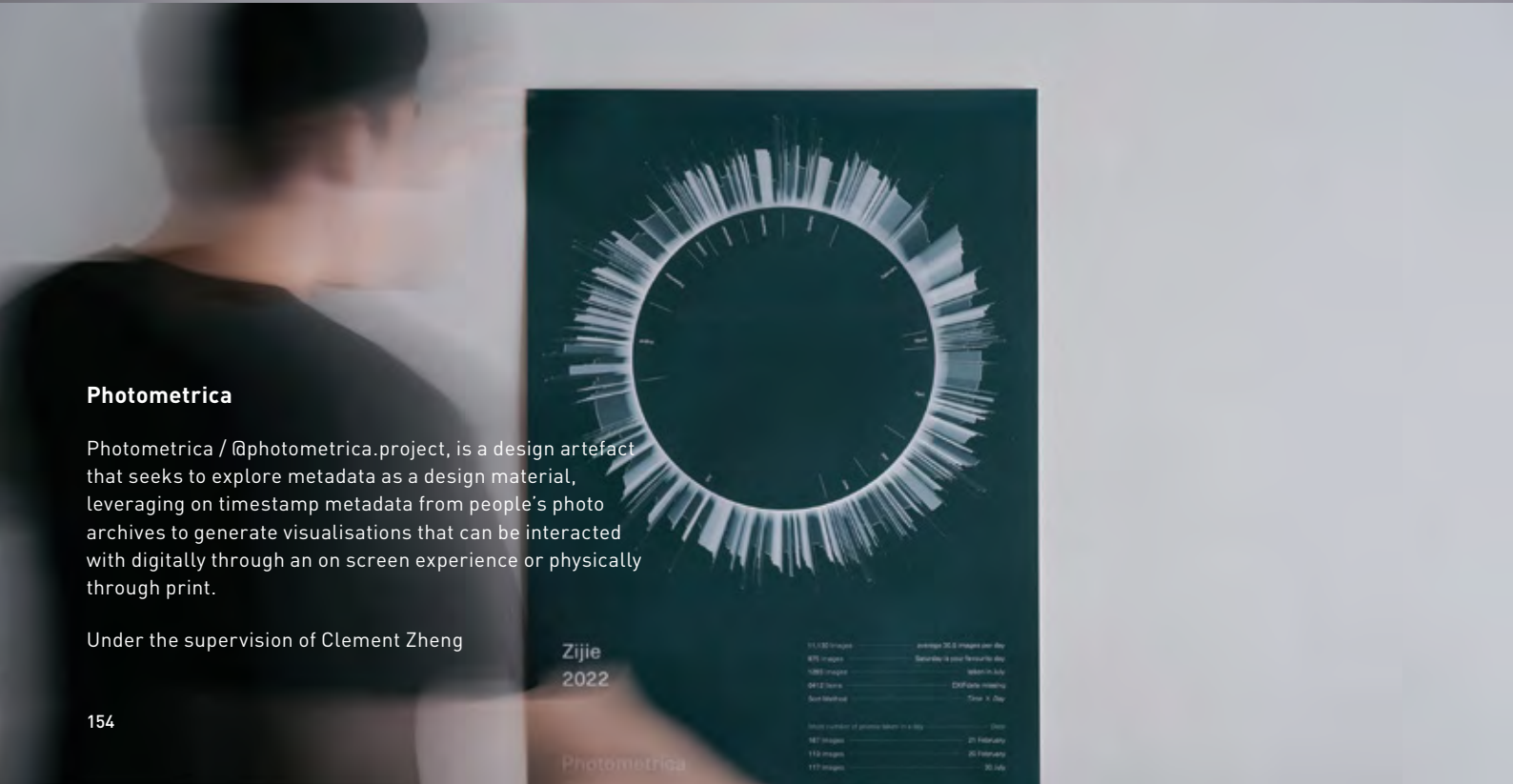
Isaac lives for design, and is interested in the endless possibilities that design can influence the world around us. He believes norms and conventions should continuously be questioned to create new products and experiences. His areas of focus are in hardware product design and experiential design.



Designer
Profile

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isaaclymji.com



Photometrica

Photometrica / @photometrica.project, is a design artefact that seeks to explore metadata as a design material, leveraging on timestamp metadata from people's photo archives to generate visualisations that can be interacted with digitally through an on screen experience or physically through print.

Under the supervision of Clement Zheng



Nest Plant Assistant

Nest Plant Assistant reimagines what it would look like if a product like Google Nest harnesses the smarts of the Google assistant and combined the bio-sensing capabilities of plants into a smart home product befitting of their future product lineup.

Happily Haptic Lab

Happily Haptic Lab is an exploratory research project focused on replicating and creating new haptic experiences. Using a standardised set of materials, consisting of 3D printed parts, magnets and hall effect sensors, modular controls were developed with customisable haptics for different types of control interfaces.

Designed with Ye Jia Jie & Low Kaiyi





Joel Teo Zun Rong

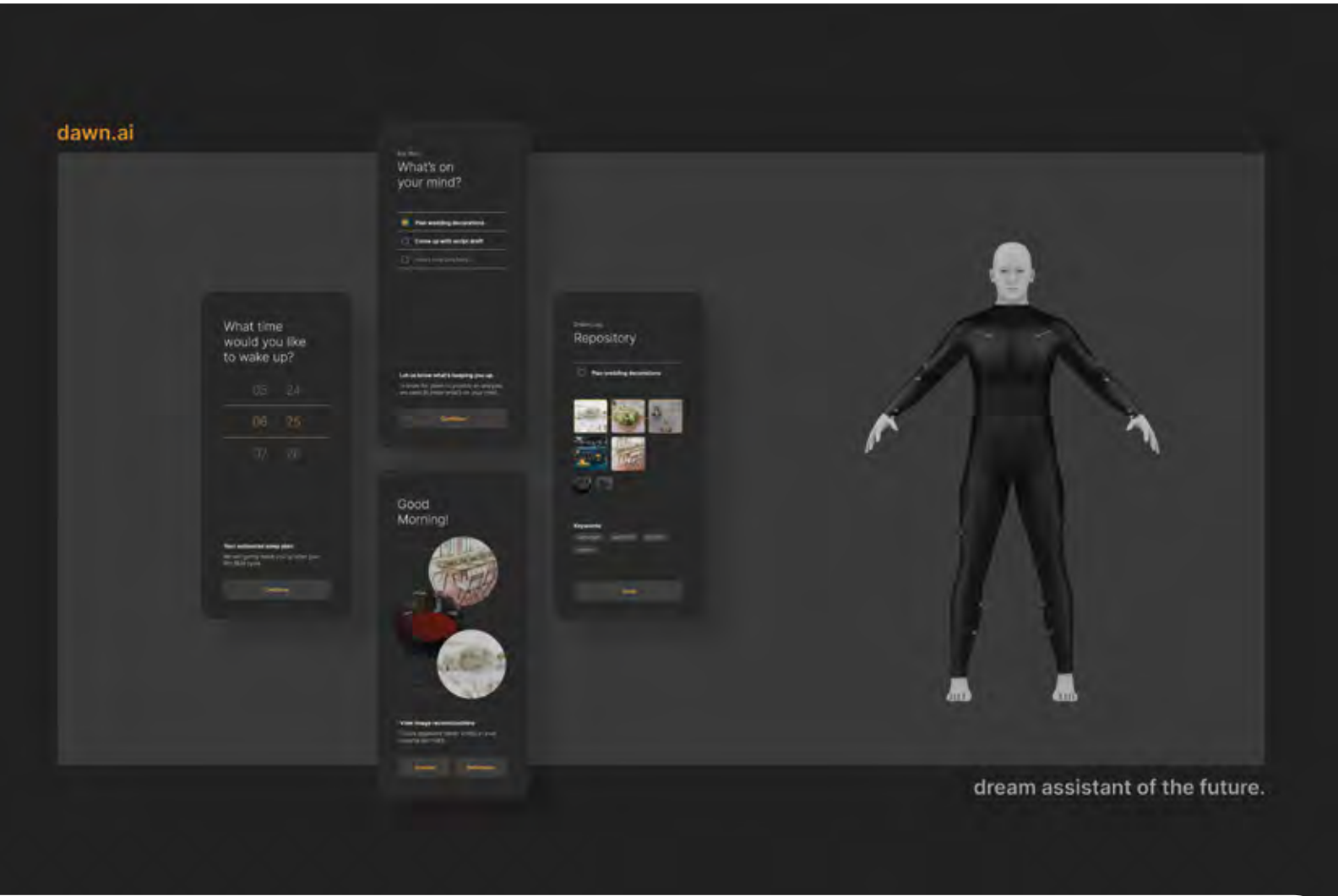
Joel is fascinated with power of design to shape an ideal future for ourselves, constantly seeking to respond to people’s needs with empathy. He thrives in being able to uncover the inner workings of people in a systemic way and believes that design is even more powerful as a collaborative process with his users.

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joelteo.fyi/works



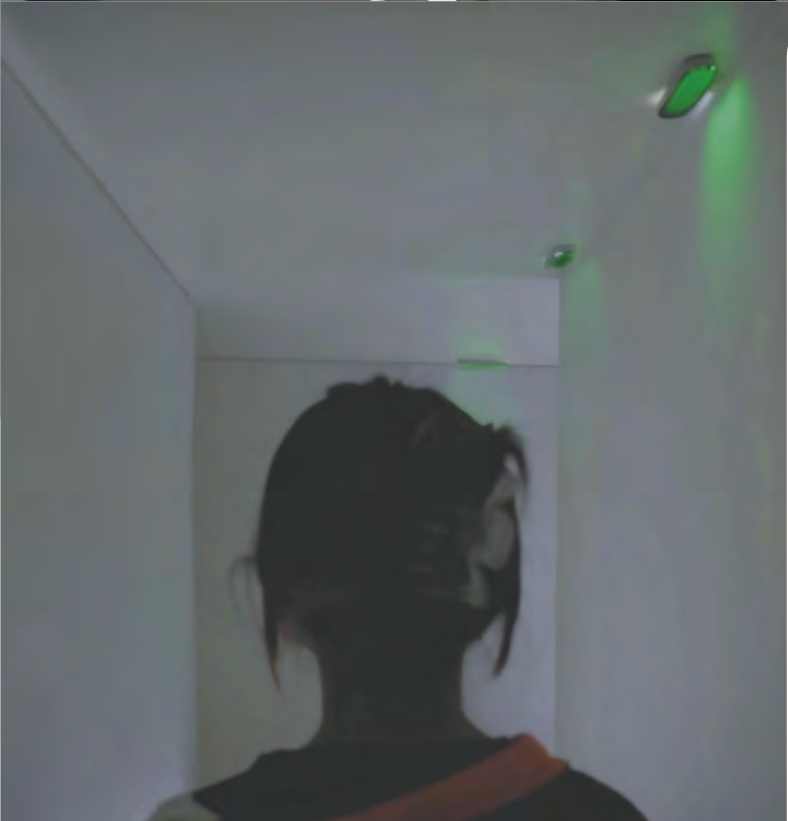
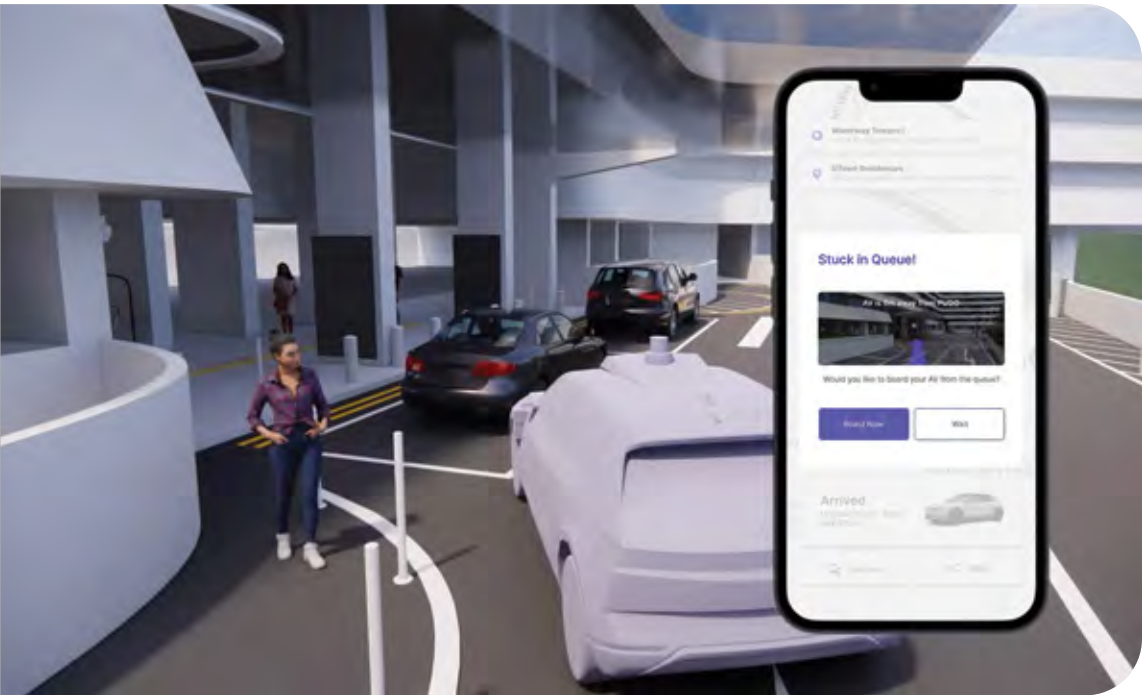
Designer
Profile



dawn.ai - dream assistant of the future

A speculative future where work meets sleep. Dreams—a way of creating and filtering long-term memories remain a realm of untapped potential. Users can overcome obstacles of tackling mental tasks such as decision fatigue and analysis paralysis by organising visualisations of neural connections and patterns made when dreaming, reducing the need for late night work hours.

Under the supervision of Grace Tan



Easing Adoption of AVs into Waterway Terraces 2030

Leveraging existing user behaviours to interact with autonomous vehicles (AVs) in the area, the design accommodates peripheral users of the estate to minimise confusion and ensure seamless integration. Application and infrastructure design features for parents were also added as consideration for children that may be travelling alone on AVs.

In collaboration with Land Transport Authority,
Urban Redevelopment Authority & TUM Asia
Designed with Low Kai Yi, Liew Xin Yi & Jerina Low

dash!

dash! reimagines the future of fire evacuations in building hallways by amplifying navigational abilities during an emergency. Building occupants are drawn to a trail of lights that unveils itself ahead as they follow the path to safety. The system is portable and can be retrofitted into any existing building.

Designed with Mervyn Chen & Merkeyla Wong



Jonathan Lau

Jonathan adopts a holistic approach in crafting design solutions. He is passionate about exploring the intricate relationship between individuals and design, endeavoring to curate visionary and enthralling experiences that unfold within diverse spatial contexts.

jonathanlau.yj@gmail.com

jonathanlauyj.wixsite.com/portfolio



Designer
Profile



CoolerConnect

Imagine a world where social interactions flourish beyond special occasions. In this project, everyday objects were reimagined as catalysts for spontaneous interactions in daily life. CoolerConnect is a visionary watercooler that leverages the principles of proxemics to unlock new social possibilities.

Under the supervision of Donn Koh



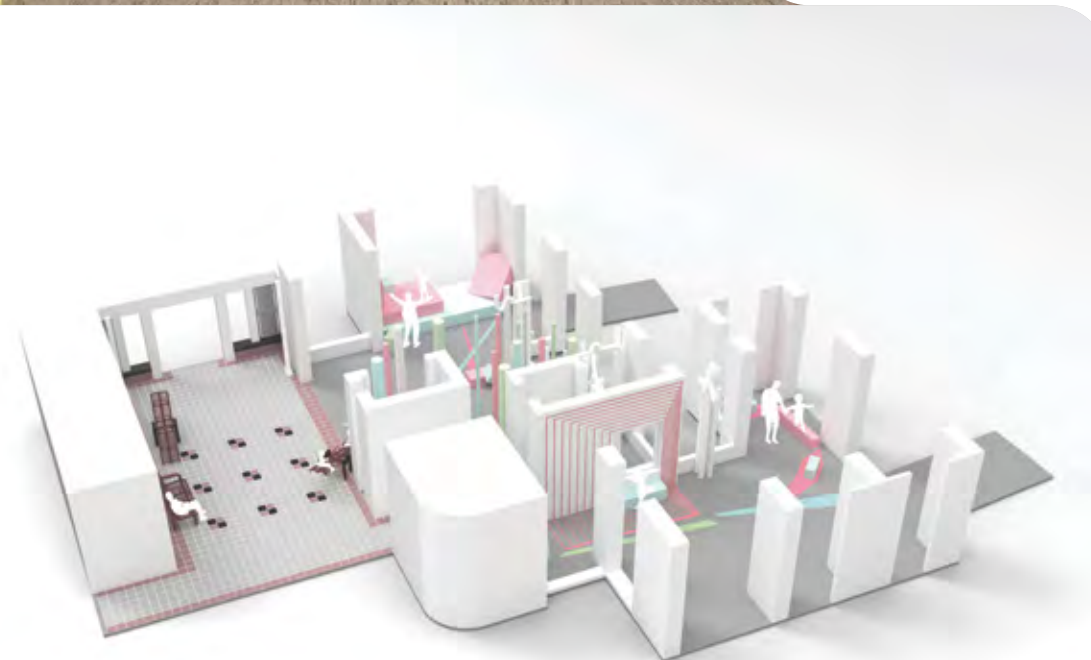
Reimagining the PUDO at Tanglin Halt 88

The PUDO at Tanglin Halt 88 is redesigned for a future where AVs and human-driven cars coexist harmoniously. Traffic flow is optimised to minimise confusion and promote seamless movement. The design caters to the elderly, encouraging familiar behaviour and empowering them to navigate with ease and confidence.

In collaboration with Land Transport Authority,
Urban Redevelopment Authority & TUM Asia
Designed with Wing Chan, Ben-Hanan Choong & Wayne Lee

Reimagining the void deck through the eyes of a child

In response to the exclusion parents often experience in conventional playgrounds, void decks were reimagined as open playscapes that facilitate unobstructed and spontaneous play for children where parents are encouraged to join in the play together to create precious moments with their children.





Ko Na Yeon

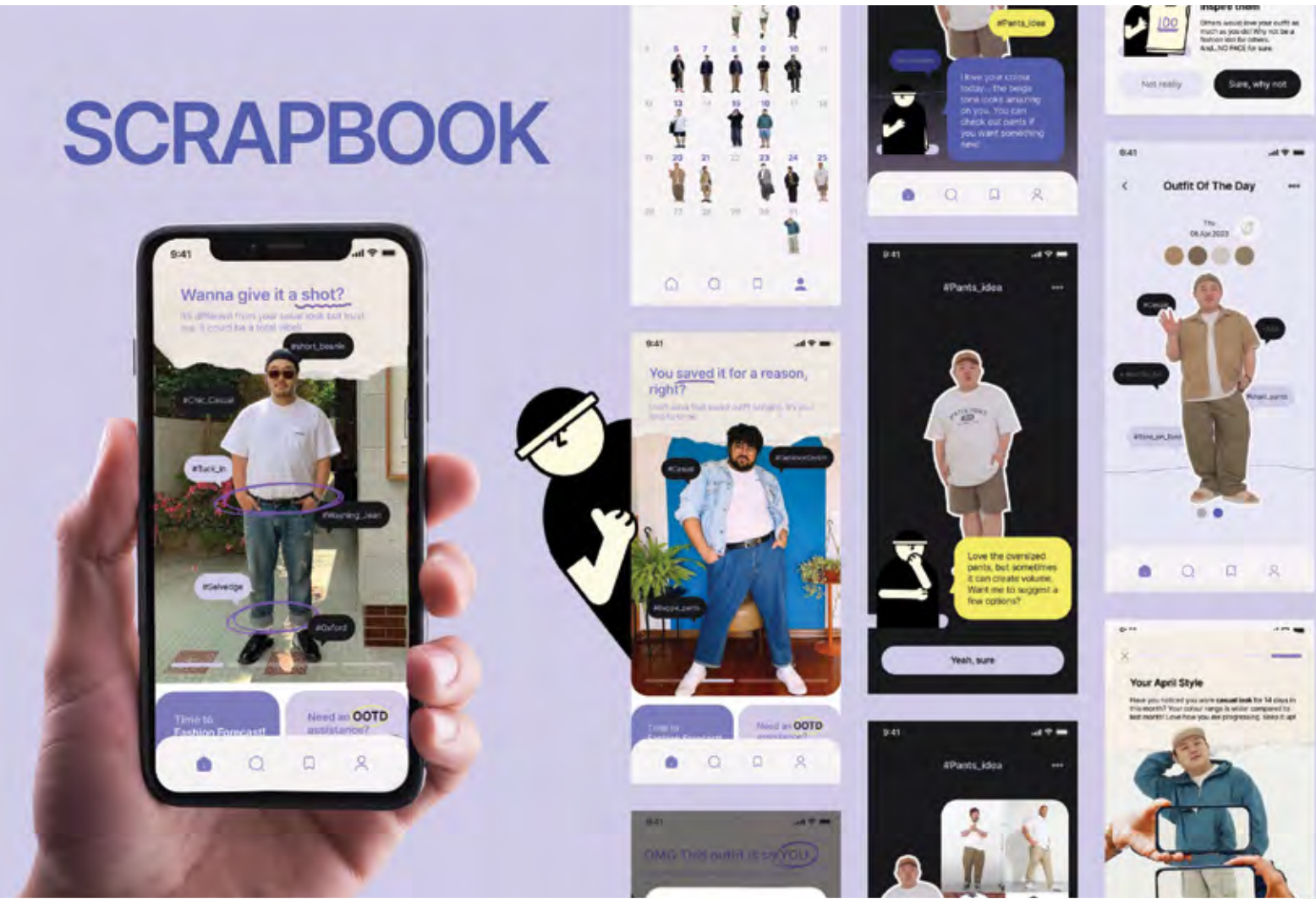
Na Yeon is a digital product designer, who prioritises immersive user experiences with her motto, “apple of your eye.” She solves daily problems through empathy-driven designs and explores motion and interaction design to craft compelling experiences in UI/UX, service, and 3D design.



Designer Profile

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Scrapbook

Scrapbook is a transformative fashion app empowering young adults to embrace their uniqueness and express themselves authentically through personal style. With personalised recommendations and actionable feedback, it guides their style journey, fostering confidence and breaking free from societal norms.

Under the supervision of R. Brian Stone



Cospo

Cospo is a digital office that enables radical flexibility, where employees are empowered with the choice over when, where, and how they work. With Cospo, employees can enjoy internal employee mobility and better work-life integration. Complemented with configurable office spaces, it also supports the effortless transition between productivity and collaboration.

In collaboration with Johnson Controls
Designed with Gwen Pang, Benjamin Chan & Zhang Yue



Yaong

Yaong is an autonomous system that helps cats stay healthy and loved. It's a triadic collaboration between cats, owners, and vets. Vets and owners can monitor the cat's health data and respond accordingly. The system provides preliminary diagnoses, while owners build companionship by following personalised tips and instructions based on their cat's needs, anywhere, anytime.



Law Sing Jo

Jo is a product designer that places great importance on the combination of beauty and functionality in her designs. She strongly believes that aesthetic appeal and practicality should complement each other. She is motivated to produce items that not only serve a purpose but also offer visual appeal to those who use them.

lawsingjo@gmail.com

behance.net/lawsingjo



Designer
Profile



Rhapsody

Rhapsody is a contemporary reinterpretation of the classic dressing table, designed specifically to complement modern apartment living. With its range of accompanying furniture pieces, Rhapsody captures the essence of the vintage vanity while seamlessly blending into contemporary homes.

Under the supervision of Christian Boucharenc



Sonde

Sonde is a textural plant holder meant for epiphytic plants that also serves as a sculptural centrepiece.

Designed with Ken Fronda

Ripple

Ripple is a tactile camera that merges the advanced features of a professional camera with the user-friendly interface of a touchscreen. Its sleek and minimalist design exudes a gentle aesthetic, appealing particularly to photography beginners who desire simplicity without sacrificing functionality. Ripple aims to make photography more approachable and accessible to individuals who may find traditional cameras overwhelming.



Lim Si Yi

Si Yi believes that design has the power to transform ordinary moments into extraordinary experiences. With a keen eye for detail and an appreciation for the beauty in everyday life, she draws inspiration from the little things to create works that evoke emotions and spark joy.



Designer
Profile

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The Cocktail Ordering Interface

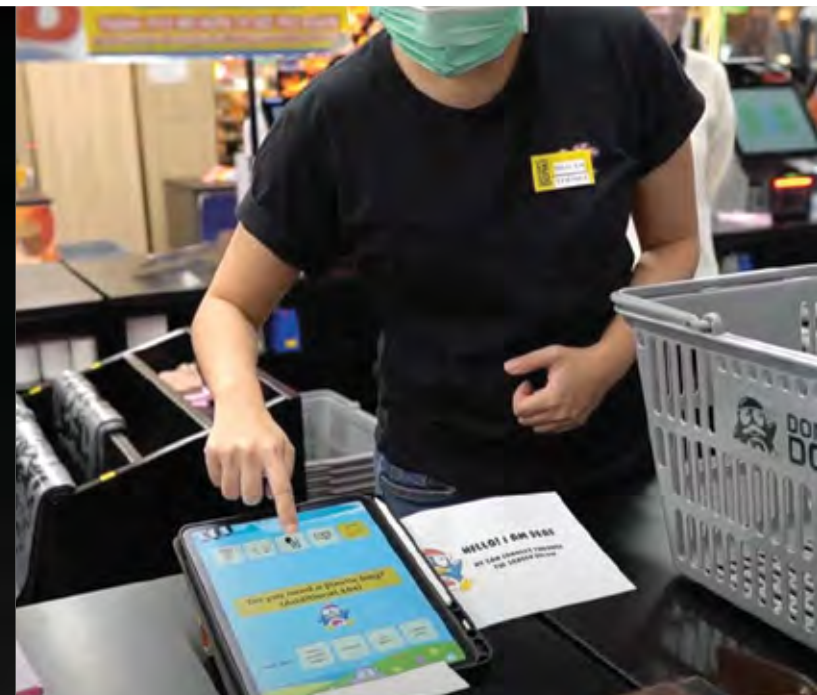
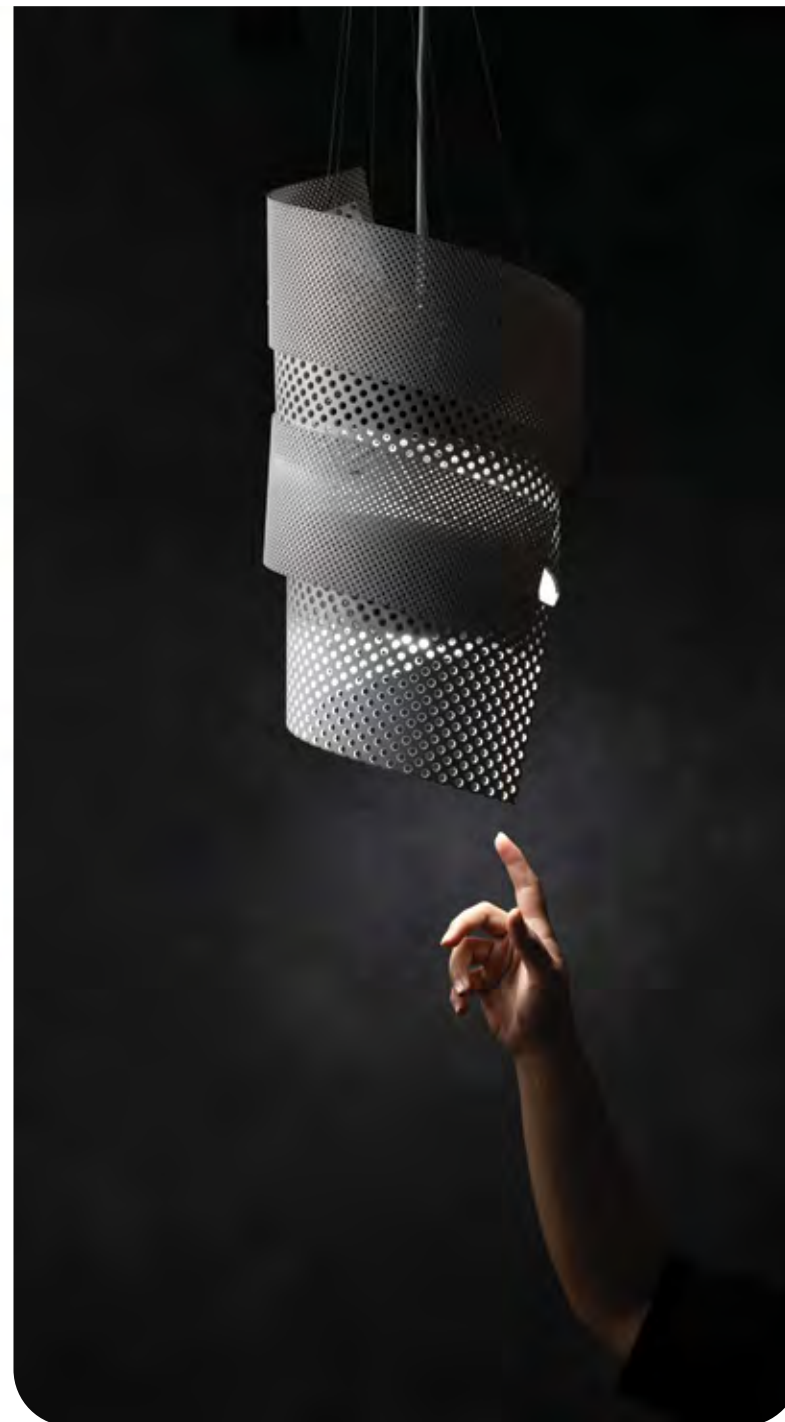
To empower informed choices and enhance enjoyment in the ordering of cocktails



The Cocktail Ordering Interface

A seamless ordering interface that empowers one to make informed choices and enhances one's cocktail experience. Customers can gain deeper insights into the cocktail industry as they order, immersing themselves in the world of mixology.

Under the supervision of R. Brian Stone



Redesigning Deaf Employment

In collaboration with Don Don Donki, we designed a space that seamlessly integrates persons with disabilities through employment without compromising Don Don Donki's profitability as well as providing systems of support to facilitate communication with other hearing employees and customers.

In collaboration with Marine Parade Community Care Hub (MPCCH) & Surbana Jurong
Designed with Leong Jo Yie

Ceiling Panel Lamp

Ceiling panels once lived above our heads in Changi Airport Terminal 2. They now are given a new life in the form of a pendant lamp, utilising all 3 different types of perforated and non-perforated metal panels stacked together for a varied lighting.

In collaboration with Changi Airport Group Singapore



Loh Chor Boon

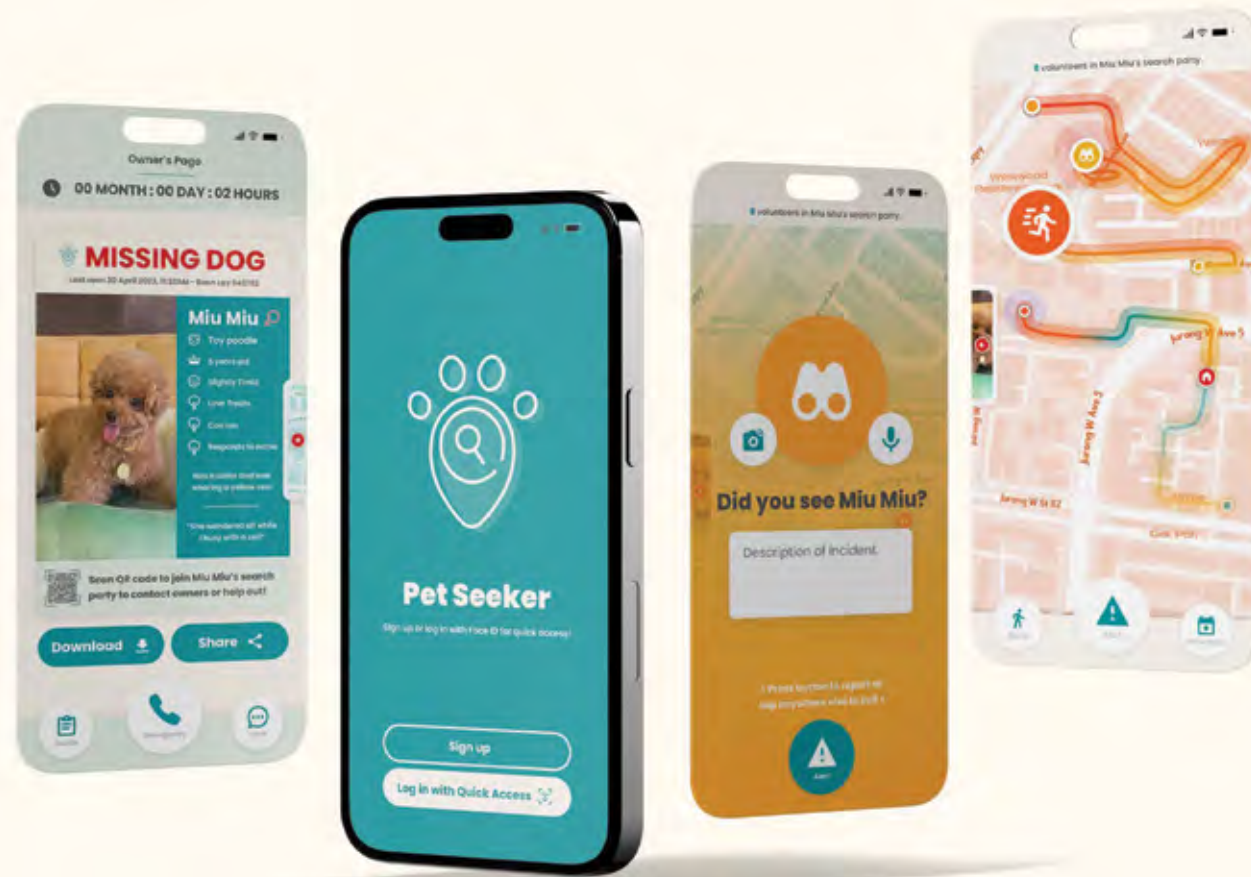
Chor Boon is a designer that delights in spotting trends in people's behavior and transforming them into captivating elements for her works. Having worked in a variety of design disciplines, she approaches each project from a distinctive perspective and seeks to make the mundane more exciting.



Designer
Profile

luchuwen234@gmail.com

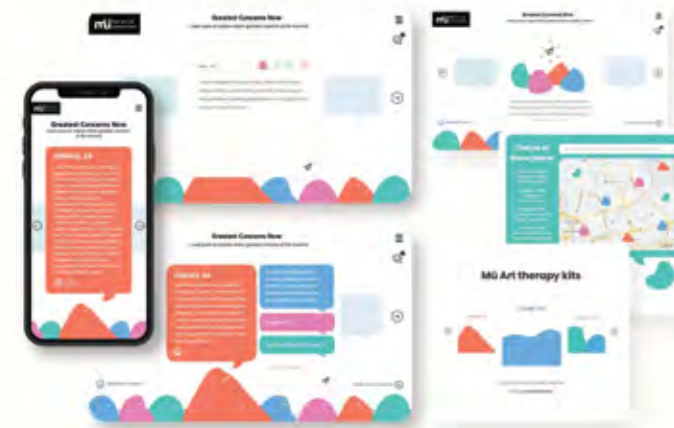
tinyurl.com/chuwenportfolio



Pet Seeker

Pet Seeker is an app that assists pet owners when their pet goes missing. In an attempt to form and organise community-driven search parties, the platform enables owners to create an outreach page for their missing pet and a real-time heat map with location-based collaborative pet-finding features.

Under the supervision of Olivia Lee



Mü

Mü is an art initiative that brings art closer to the heartlands by empowering self-care and community care. Distributed through community mask vending machines, Mü's art therapy kits and its participatory online platform aim to evoke a sense of connection to self, others, and the environment.

Designed with Tan Ying & Xiao Jie Ying

Transcendence

A transitional virtual commute experience for Big Tech employees to leave their work mindset in virtual offices and acclimatise into their personal time after work hours. The commute combines calming spatial elements of physical commutes together with utilising the abilities of the digital world.





Loh Yue Xuan Chantel

Chantel is a multidisciplinary designer who embraces curiosity and adventure in her work. She believes in pushing boundaries and creating meaningful interactions through design. Collaborating with driven individuals and fostering effective communication adds fruitfulness to her experience.

lohyuexuan@gmail.com



Designer
Profile



SmartCook

Experience the future of rehab with smart cooking devices. The ladle tracks movements, measures dosage, and syncs with the app for tailored instructions. By bridging physio exercises with cooking actions, upper limb impaired patients can partake in meaningful therapy through practical applications.

In collaboration with AWWA
Under the supervision of Donn Koh



T2 Baggage Belt Sleeves

This series of protective sleeves designed for laptops, tablets and phones are made from the baggage belts found at Changi Airport Terminal 2. The hybrid material of rubber and polymer composite makes it shock and water-resistant, qualities that are perfect for protecting our delicate devices.

In collaboration with Changi Airport Group Singapore



Porcelain Kueh (瓷糕)

Porcelain Kueh is a *kamcheng*-shaped *ang ku kueh*. Its casting method mimics porcelain moulding and the way of hand painting the colors. A reimagining of how *kueh* can be made more precious and also expresses *ang ku kueh*'s cultural festive origins.

In collaboration with NUS Baba House & The Culinary Institute of America, Singapore
Designed with Kwa Li Ying & Jozef Lee



Loo Ziling

Believing that our ability to delight the human heart is what sets designers apart, Ziling puts thoughtfulness at the centre of her works. With a keen fondness for Pixar, she is inspired to deliver the same human spirit through interfaces, user experience and products to people, communities and businesses.

looziling98@gmail.com

looziling.info



Designer
Profile



memo:re — greeting cards that truly counts

A series of greeting cards that bundle up your best memories into an art piece that is unique to both its giver and receiver. Enveloped with visual elements that hint at the context behind each memory, the resulting artwork awaits a game of deciphering and brings to surface the conversations that would have otherwise been overlooked.

Under the supervision of Yen Ching-Chiuan



FYSIO

Supported by a hyperconnected network of technologies, Fysio Park is a therapy playground designed for patients but made accessible to all so that the road to recovery can be a shared experience with loved ones.

In collaboration with Philips Experience Design
Public Parks: Promoting Equitable Access to Shared, Open Spaces - Honorable Mention
Designed with Nathaniel Ng, Huo Yujia & Jaslynn Ho

ReinCarnation

ReinCarnation hopes to eternalise a brief journey of motherhood and redefine a lifetime of Mother's Day for those who experienced neonatal loss. This is achieved through meaningful preservation and repurposing of breastmilk, in hopes that mothers can begin a new life with renewed purpose, even after their passing encounter with death.

Reinterpreting the Urn: A Symbol of Celebration - First Place
(Public Category)
Issued by Design Innovation SG, Jul 2022



Mohamed Rizwan

Rizwan is a creative whose work spans from the experimental to functional with a story-driven approach. He appreciates the natural world and often brings elements of nature into his works that drive the product and the way one interacts with it.



Designer
Profile

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Klaud Kolektif

The project aims to seek if plastic bags and packaging can be utilised for an artistic endeavour. This could either be the material or a way of conforming it, which could yield interesting results. What then can be used to create with this novel product?

Under the supervision of Christian Boucharenc

Tsikato

Tsikato is an arboreal sculpture, an instrument dedicated to the song of cicadas. It protects them from noise pollution by amplifying their stridulation, diffusing it from tree to tree.

Exhibited in *La Nature des Choses* (The Nature Of Things) during Paris & France Design Week 2022 (8-17 September 2022)
Designed with Kent Timothy Limanza

The Tilt Bench

The retired luggage tilter, with only twelve of them remaining is placed on a pedestal made from the teak claddings that once dressed the interiors of Terminal 2. A final resting place for the tilter, immortalised in the position which it used to labour.

In collaboration with Changi Airport Group Singapore





Mok Zijie

Zijie is a product designer with a passion in blending science, technology and design to form novel experiences and products. Questioning the what if's, he believes the future holds endless possibilities and potential—waiting to be uncovered.



Designer
Profile

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Future of Food 2050

The project explores what agriculture in Singapore would be in 2050, in relation to rising sea levels and Singapore's goal of self-sustainability. With methods like home-based synthetic manufacturing and rooftop farming, how would Singaporeans react and co-exist with these new innovations?

Under the supervision of Christophe Gaubert



Coral Alert

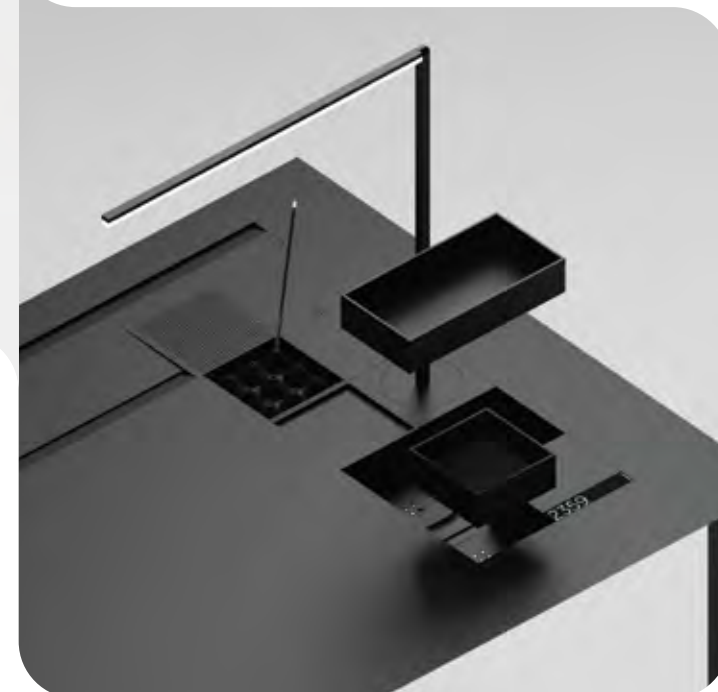
Coral Alert is a buoy designed to prevent coral damage. Multiple buoys work together and act as a barrier when a spike in damage is detected. It is part of a comprehensive ecosystem that promotes awareness and prevention measures to protect coral reefs from unsustainable tourism.

James Dyson Award (France) 2022 - Runner Up
Designed during exchange programme in Rubika, France
Designed with Lucas Hippolyte, Elise Deffayet & Perrine Payen

Rune

Rune, a modular smart table, sets the new standard of productivity in a hybrid working environment. Accompanying table modules with its unique features fits seamlessly into Rune's table socket, allowing a harmonious system and experience.

Red Dot Design Award - Design Concept 2022





Ng Xian En David

David's visions and approaches in design are focused on the user experience, value proposition and how it can benefit the society. He is always curious about the world around us, and he enjoys approaching and appreciating design from an alternative perspective. This helps him open new doors of opportunities in design.

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Designer
Profile



SoulSnap

This project aims to bridge the gap between emotions and memories by creating a unique platform where users can capture and explore the emotional dimension of their memories. It offers a novel way to understand and engage with our emotions, introspection, and the creation of lasting memories.

Under the supervision of Song Kee Hong



eclipur

eclipur enhances our sleep experience through a sensorial and holistic way. Focused on the senses of hearing, breathing and sight, it features a built-in nebulising diffuser, speaker and breathable lights. Compatible with smartphones, it can also track our sleep cycle.

Red Dot Design Award - Luminary Category 2021

Kinesis

Inspired by the magic principle 'telekinesis', Kinesis is a wall-mounted donation device that makes donating interactive and meaningful with payment apps. This design offers new way for donators to interact with donation devices through hand gestures and also brings a clearer picture of where their donated money go, allowing them to see the impact they have made.

Designed with Leong Jo Yie & Ivan Tan





Ong Wai Boon

Wai Boon is an individual interested in the functionality of products, but also appreciates its aesthetics and form. While he enjoys designing, critical thinking and tackling challenges, he also enjoys interacting with others. He loves working on the ground, interacting with clients to better understand their needs through observations and discussions.

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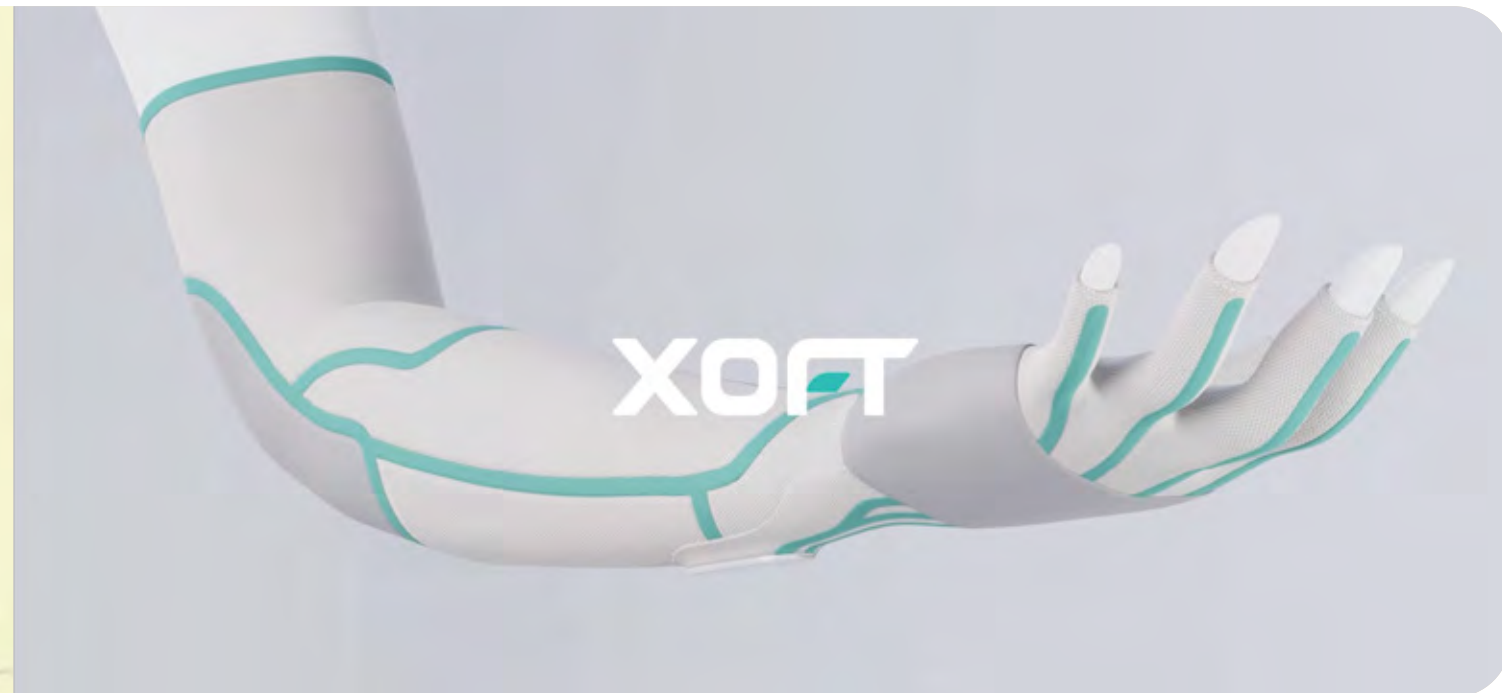
Designer
Profile



tré, The Unpredictable Bench

By mosaicing spare wood that is sliced into 3 segments, tré takes on the form of a park bench inspired by trees that accentuates the harmony of the various wood types from various sources. By repurposing wood, the tré bench helps to reduce waste and breathe a second life into the forgotten timber of the furniture industry.

Under the supervision of Christian Boucharenc



Xoft

Xoft is a soft exoskeleton that empowers stroke patients to be more independent, by seamlessly integrating rehab into daily life, paving the path to consistent participation by providing a comfortable, convenient and cost-effective alternative, lowering the barrier for arm rehabilitation.

In collaboration with NUS Biorobotics Lab
Designed with Merkeyla Wong & Daniel Loh

Dyson Vortex

Dyson has established itself as a highly innovative household brand—championing functionality, efficiency and luxury. With its established reputation, what could Dyson's next product be? Dyson Vortex is a conceptual project where we design a luxury household blender through the lens of Dyson.

Designed with Jeraldine Low & Cindy Evangeline



Ong Zhilin Emeline

Emeline's passion for furniture design stems from a desire to create objects that define spaces and evoke delight. Her style is imbued with a sense of whimsy and joyfulness, and she finds most enjoyment in bringing her ideas to life through making.



Designer
Profile

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The Pastille Collection

Crafted from paper, the collection is a series of tables whose forms are derived from experiments with plaster and 3D printing. This approach enables efficient batch production, minimised material wastage, precise control and strength. It exudes softness and calmness, whose sculptural presence defines any space.

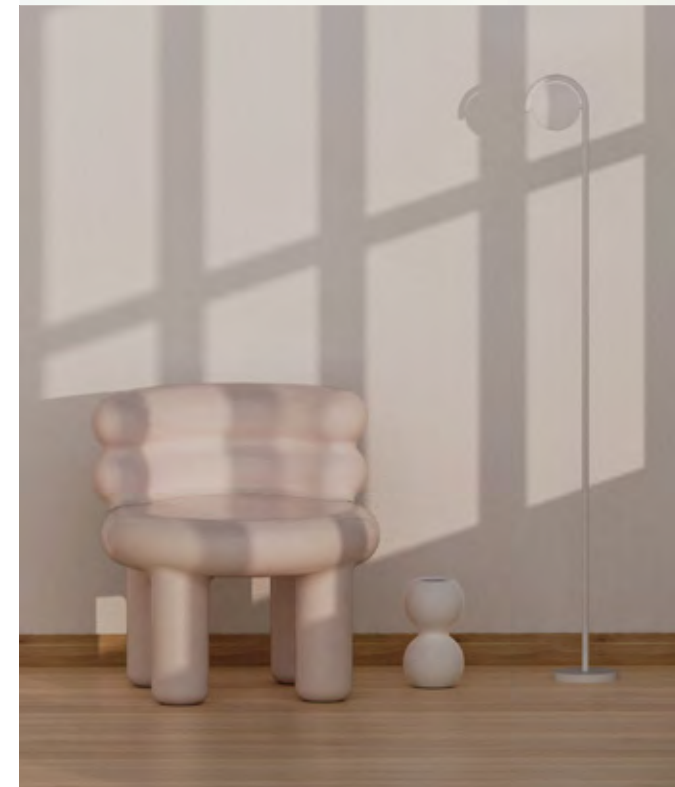
Under the supervision of Patrick Chia



Inordinary Stationery

Inordinary Stationery reinterprets everyday functional elements for a hypothetical future where circles are not permitted to be man-made. Tape is dispensed with a turning mechanism, a linear motion sharpens pencils, and scissors pivot with a 'v' mechanism. Between utility and whimsy, it offers a new experience of familiar objects.

Designed with Tan Kah Kiat & Cynthia Chan



Creme

Ceramics are commonly found in pottery, tableware or sanitary ware, but rarely in furniture. Creme explores the structural potential of ceramics in a chair. It is designed to be as thick as possible to prevent breakage, with rounded surfaces so it can be slip casted. Its bulbous form defines and softens any space it is placed in, whether private or public.



Prasanth Kumaar

Pras is an experience designer who believes that good design should be accessible to all. His primary domain of expertise is digital product design. However, he loves to explore various design disciplines (motion design, service design, etc.) in order to craft a more holistic user experience.

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Designer
Profile



MAKERx

Healthcare workers have ideas to improve their practice, but do not know how to realise them. To support healthcare improvisation in Singapore, this project explores a system of solutions: making kits for individuals, a makerspace handbook for hospitals, and an online community-centred repository of projects.

Under the supervision of Clement Zheng

Images featured showcase clinicians of various departments participating in co-making workshops and creating simple tools to improve their practice.

Heartfelt appreciation is extended to various Singapore clinicians for their participation. Acknowledgements are also extended to the Centre for Healthcare in Innovation (NUHS) and generate @UnityPoint Health for their guidance.



Creamy Clicks

A haptic exploration that enhances the touch feedback of a device—magnets, providing a familiar clicking force are embedded in silicone membranes. This material system offers new techniques of creating robust yet adaptable devices such as wireless controllers, customisable lights and enhanced prosthetics.

Designed with Mok Zijie & Celeste Loh

AruControls

AruControls connects DIY physical modules to a digital action, such as a keyboard press. The physical modules are made with fiducial markers, which enables the detection of a physical interaction (like the push of a button) using computer vision. When detected, the computer will respond accordingly.

Designed with Choo Yuan Jie & Carina Lim





Rachel Tan Yu Jie

Rachel is a curious individual passionate about all things craft. She loves using her hands to create as it inspires her to be creative while having fun. Coupled with her perfectionist tendencies, she takes pride in her creations and hopes others can take pleasure in viewing them too.



Designer
Profile

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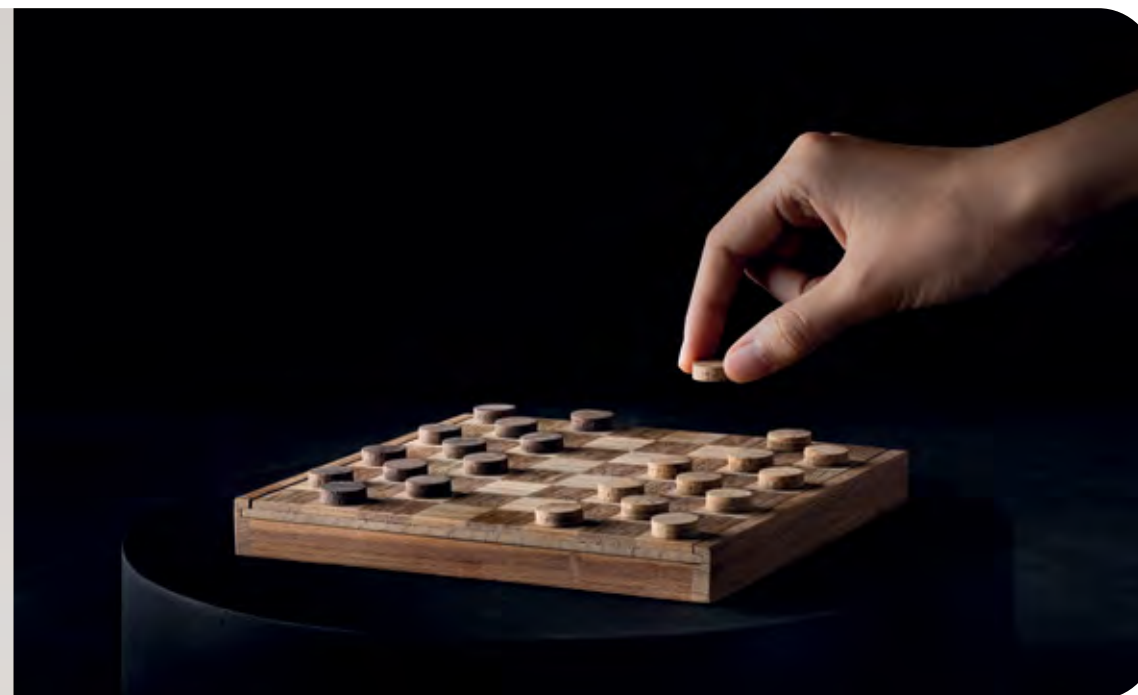
behance.net/racheltyj



Mistakes Made Palatable

Mistakes Made Palatable is a collection that embraces common cooking mistakes in a ceremonial manner, prompting novice cooks to reconsider the supposed shame attached to making mistakes. It encourages a light-hearted approach towards kitchen mishaps, by turning errors into beautiful opportunities.

Under the supervision of Olivia Lee



T2 Portable Checkers

The T2 Portable Checkers Set is made with teak timber claddings that once dressed the pillars of Changi Airport Terminal 2. It accentuates the beauty of the material by exploiting on the strong wood grains of teak, to create a natural yet unique checkerboard.

In collaboration with Changi Airport Group Singapore

18 Levels of Hell

The 18 Levels of Hell is a game where players experience the horrifying punishments in hell, the realm of the dead in Chinese mythology. Players in the game are sinners who navigate through the 18 Levels of Hell to repent for the sins they committed before earning their chance to reincarnate.

Designed with Valeska Tan



Rain Tay Xin Yu

Rain aims to spread joy and create designs that have a genuine impact on people’s lives. She is fueled by her enthusiasm for exploring the boundless possibilities of design, pushing beyond conventional ideas to find truly meaningful solutions. Rain is interested in exploring various design fields such as UI/UX design, product design, and spatial design.

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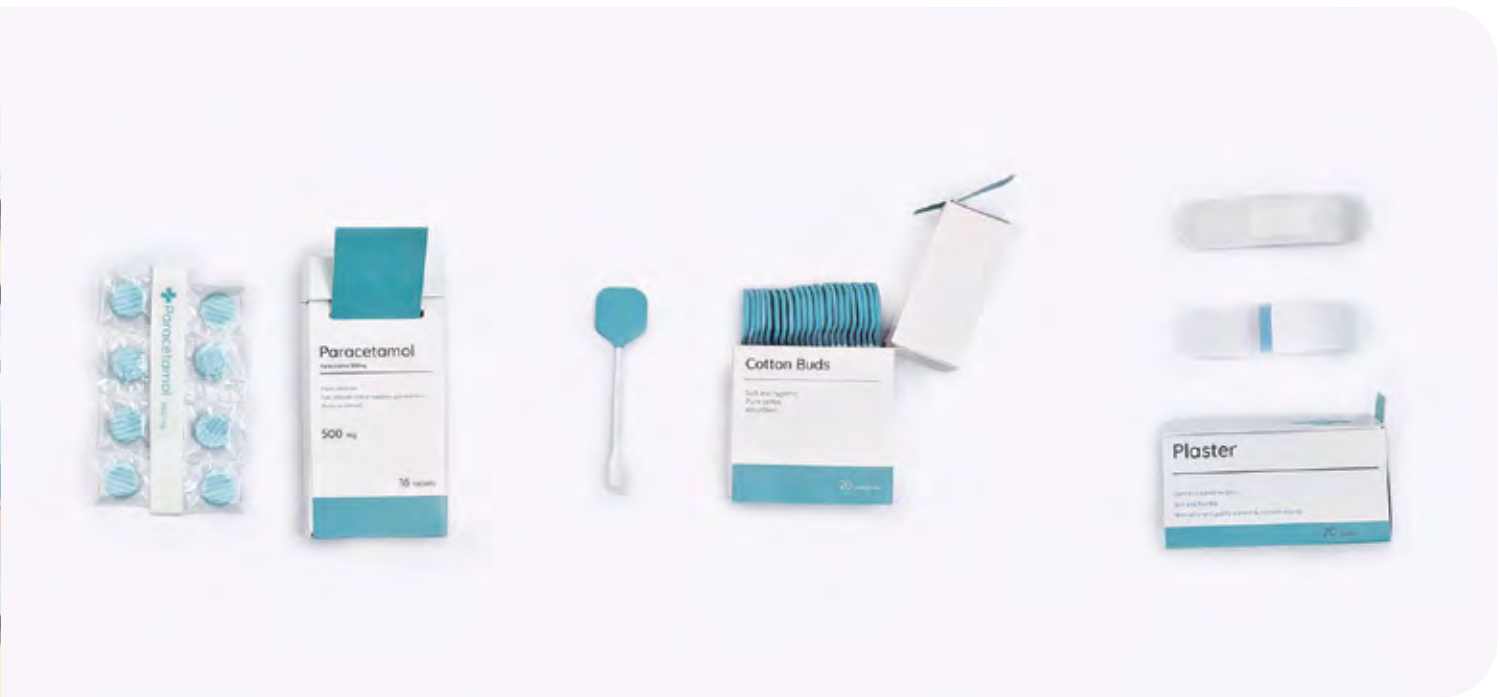
Designer
Profile



Manny's Sound Adventure

Manny's Sound Adventure creates an engaging re-introduction of hearing aids in the clinic that is fun and understandable for children aged 3, through a personalised sound matching experience. It teaches how hearing aids enhance their listening so that they don't miss out on the fun around them.

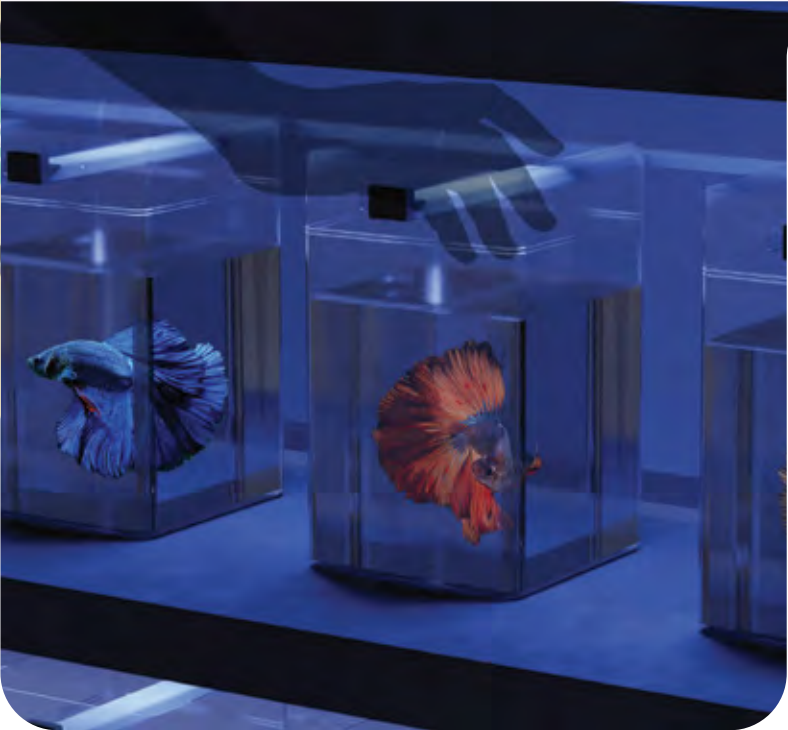
In collaboration with Singapore General Hospital
Under the supervision of Donn Koh



First-Aid Kit for a World With No Thumbs

What if humankind never developed opposable thumbs? Playing with our sense of urgency and familiarity, a humble first-aid kit for this world was designed—forcing us to reexamine our entire vocabulary of finger dexterity in everyday life.

Designed with John Marie Tan & Valerie Ng



Oasis

Oasis takes on a fresh perspective on aquarium shop design. It aims to revolutionise customer experience in the fish retail industry, which encompasses an enjoyable viewing experience, providing educational value, enabling joyful fishing, and overall creating a memorable experience when purchasing their pets.



Saffren Choo Jing Xuan

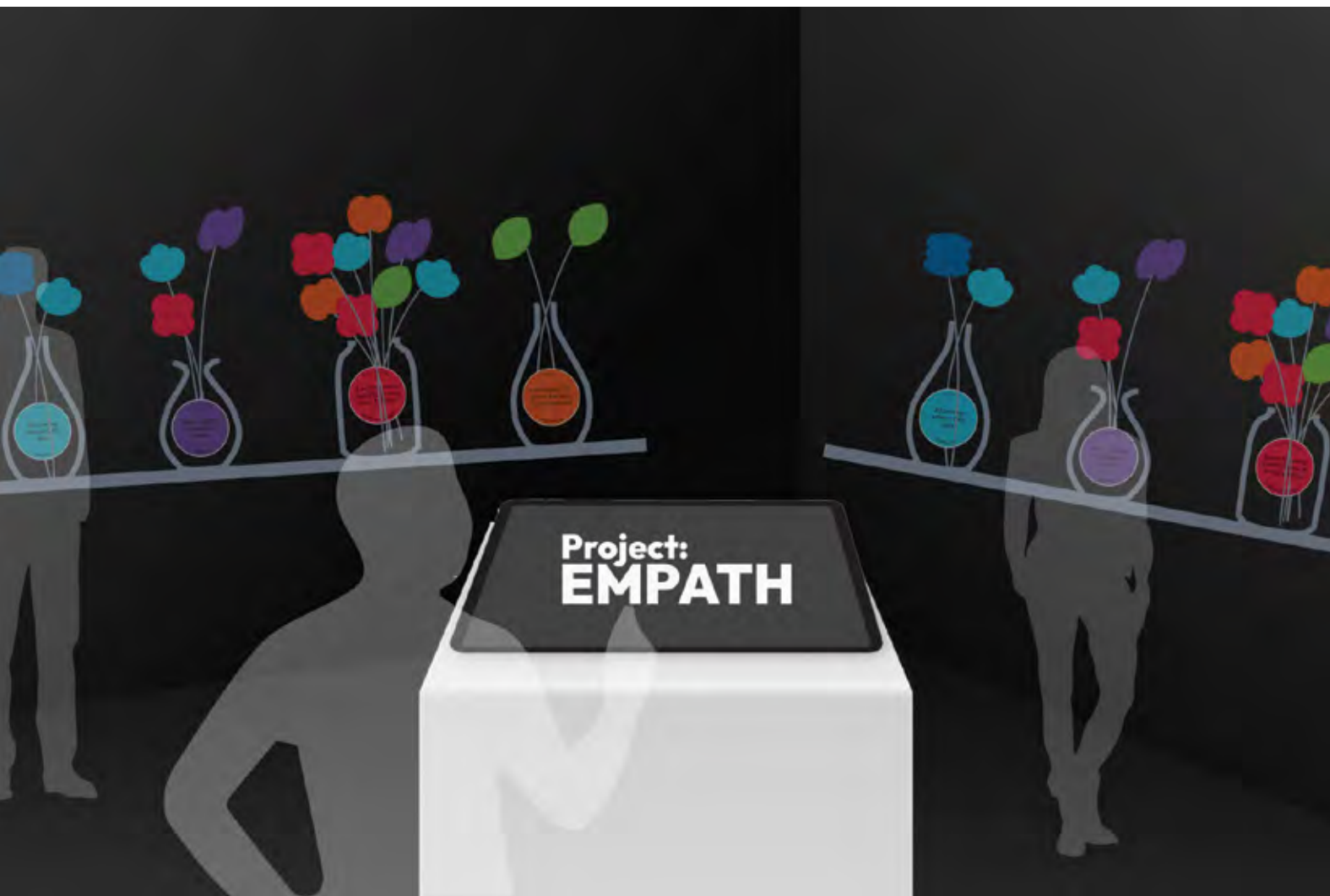
Saffren believes that the beauty in design is in its simplicity and ability to make a change in this world. A fan of all sorts of art and music, she is a fun-loving person and hopes that all these qualities are reflected in her designs.



Designer
Profile

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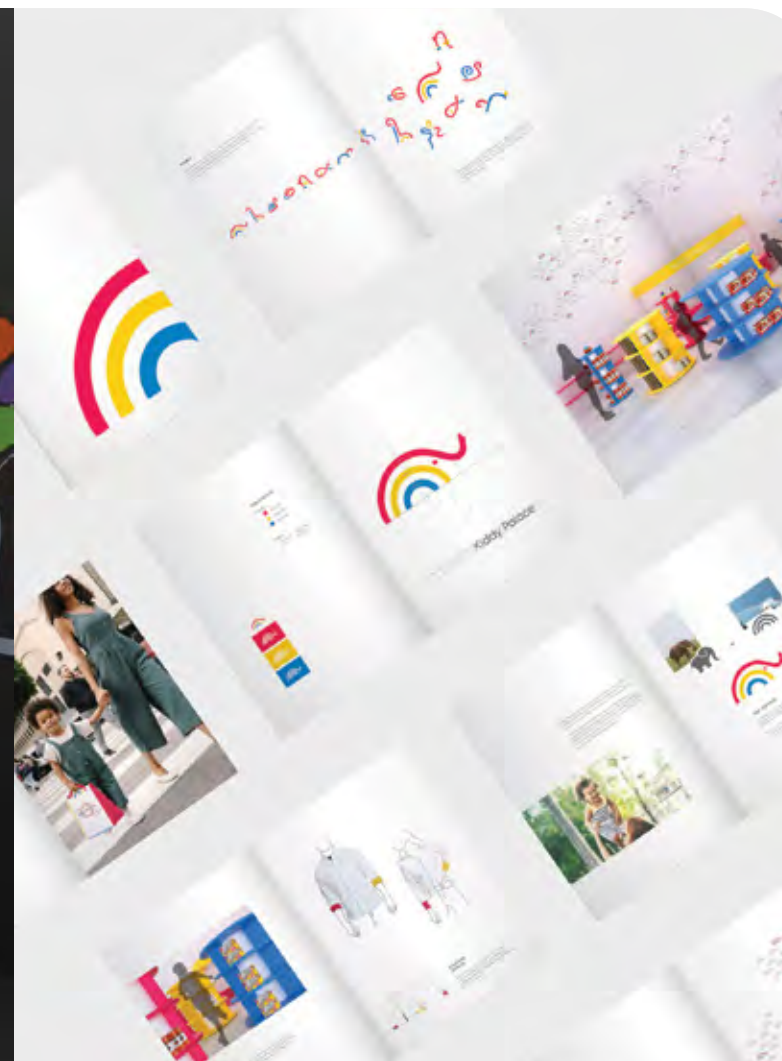
saffrenc.com



Project: EMPATH

Libraries are spaces that are constantly evolving to fit the needs of the community. Project: EMPATH is an exhibition series of interactive installations held in NUS Central Library that encourages students to promote placemaking and interdisciplinary engagement. Through collaboration and exploring new perspectives, visitors get to leave a mark in the exhibiton and leave with a deeper sense of belonging to the library space.

Under the supervision of R. Brian Stone



Rebranding Kiddy Palace

To represent the brand Kiddy Palace, this branding exercise was done in line to its fun and child-like playfulness. The bold, colourful lines that constitute the rainbow elephant can also be morphed to other animals, expanding the language of the brand.

Bruichladdich Pop-up Store

The Bruichladdich Pop-up Store blends the allure of Islay's garden parties with the rugged masculinity of the Bruichladdich Distillery. By transporting visitors to the captivating island of Islay, it elevated the whisky tasting experience, creating a unique and immersive atmosphere.

In collaboration with Rémy Cointreau
Designed with Ye Lin





Siew E Ian

Eian is a versatile designer passionate about problem-solving. He challenges conventional designs to create exceptional experiences for everyone. Focused on holistic solutions beyond aesthetics, his interest in healthcare innovation drives him to create designs that uplift and improve lives.



Designer
Profile

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Auxobrace

The future of compression rehab



Auxobrace

Auxobrace aims to reinvent the ways of Sternal Rehabilitation. With the use of mini tessellating cell structures and a bending actuator within a closed airtight bladder, a vacuum can be applied to evacuate the air from the remaining void space to achieve compression and precision pressure control.

In collaboration with National University Hospital
Under the supervision of Yen Ching-Chiuan



Maternity Plus

Maternity Plus is an enhanced pregnancy care wearable that protects the mother while providing advanced fetus support. It alleviates the baby load at the front by spreading the weight towards the thigh—one of the strongest muscles in the body, in hopes to empower mothers in their daily activities.

In collaboration with NUS Biorobotics Lab
Designed with Edwind Tan & Eda Yasmin

Tilt, Your Abled Assistant

Tilt is a hair drying system designed to aid people with limited arm mobility. Its ergonomic hair dryer is made to reduce any further wrist and arm fatigue, allowing the user to dry the conventional way, while the wall dock provides a hands-free feature to assist them with drying and grooming their hair.

Red Dot Award - Design Concept 2022
Taiwan International Student Design Competition 2022 -
Product Design Finalist
Lexus Design Award 2022 - Shortlisted



Sim Lee Ting

With a heart to contribute back to society, Lee Ting approaches her works with thoughtfulness and sincerity. Keen on designing delightful experiences that enrich the communities we live in, she endeavours to spread the message of savouring life's simple pleasures, to stop and smell the roses every now and then.



Designer
Profile

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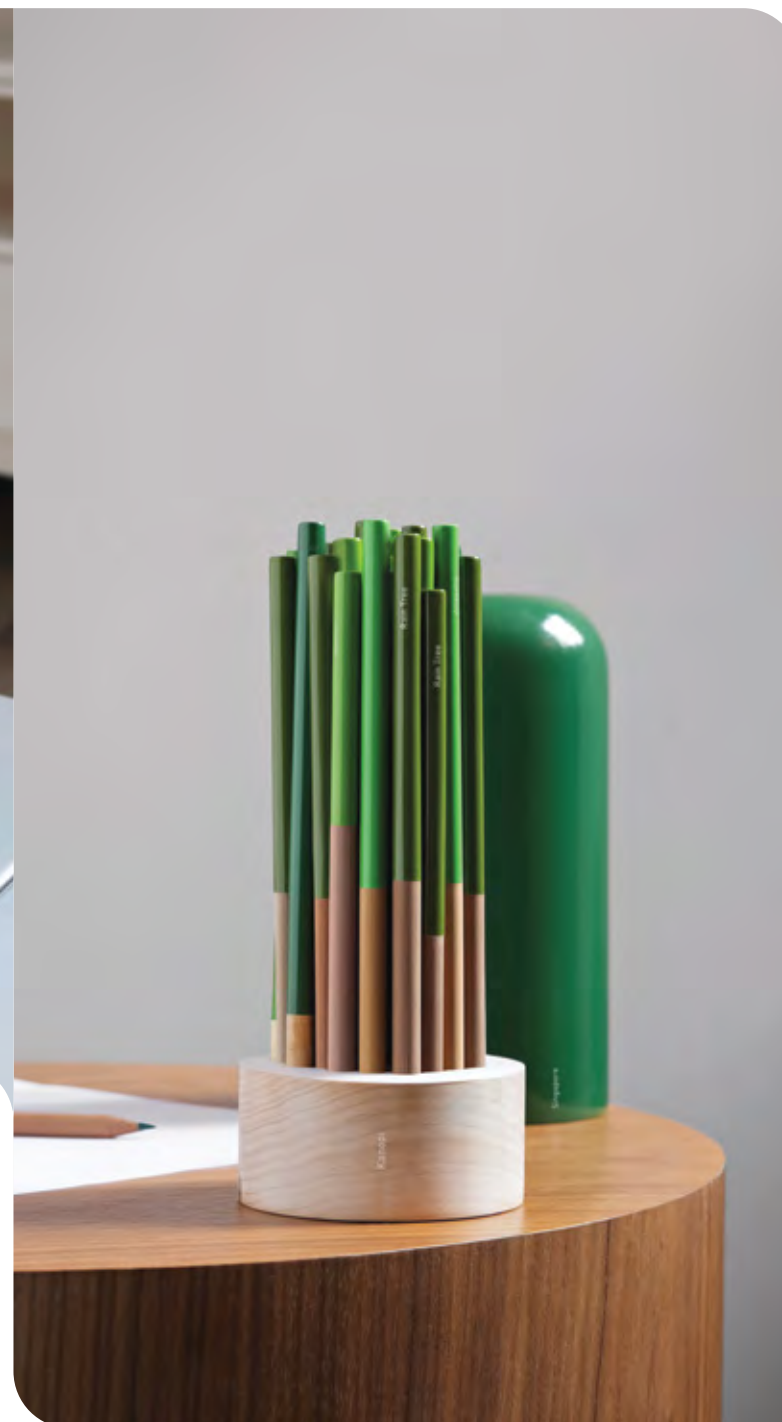
simleetingdesigns.wixsite.com/portfolio



Twist & Flip

The Twist & Flip tool kit is a comprehensive educational tool that taps on multiple learning modalities to transform the way activity transitions are approached. It is designed for children aged 7 to 12 diagnosed with mild to moderate Autism Spectrum Disorder and others needing support with transitions.

In collaboration with Metta School
Under the supervision of Lee Jung-Joo



Kanopi

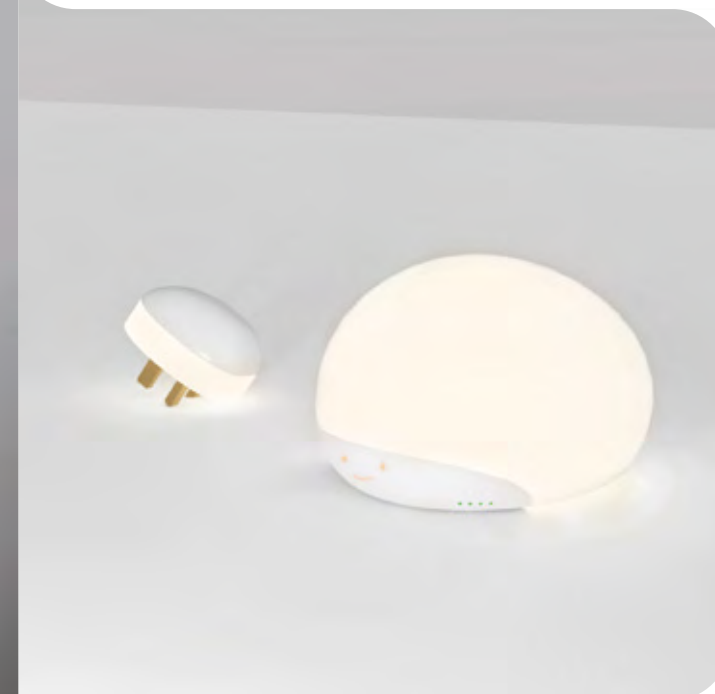
While green is synonymous with nature, it is actually more than just one colour. Kanopi thus pays tribute to the vivid diversity of Singapore's tropical forests. Each pencil conveys a different tree, made of its own wood and iconic hue, sometimes quite other than green.

Exhibited in *La Nature des Choses* (The Nature Of Things) during Paris & France Design Week 2022 (8-17 September 2022)
Designed with Siti Sahrah Binte Juari

The Nest

What if the future of depression care was right in your neighbourhood? Envisioning a data-driven 2030, the mental-health monitoring ecosystem will include 'Bao' the smart companion, AI-trained mood support, and a series of flexible social spaces around the neighbourhood.

In collaboration with Phillips Experience Design
Designed with Koh Bei Ning, Chin Wen Xuan & Ow Yeong Jun Jie





Tan Ying Lin Valeska

As a detail-oriented designer, Valeska appreciates the beauty of seeing how everything comes together to form a functional system. She enjoys creating products and services to help various groups of people, ranging from healthcare to social interactions.

valeskatyl@gmail.com

valeskatyl.com



Designer
Profile



Operation Paws

Operation Paws is a holistic medical play programme where child life therapists provide emotional assistive relief to worried paediatric patients and parents before a surgical procedure. By preparing them pre-operation, they are less anxious when they know what to expect during the actual operation.

In collaboration with paediatric hospitals
Under the supervision of Lee Jung-Joo

ForeShore

ForeShore is an exosuit for the future of the offshore industry. Wearing this sleek attire not only prevents fatigue, but also boosts one's comfort and physical abilities. Its load-bearing capabilities enable offshore workers to perform at their best, while also saving them from potentially life-threatening situations with an in-built life vest.

In collaboration with NUS Biorobotics Lab
Designed with Sarah Chan & Wesley Tan



Airgate

Airgate is a comprehensive crowd control system that reimagines the future of rapid mass health screening with radio-frequency identification, facial recognition, a diagnostic breathalyser, and an AI-empowered crowd visualisation software.





Tan Zhi Qi Vivien

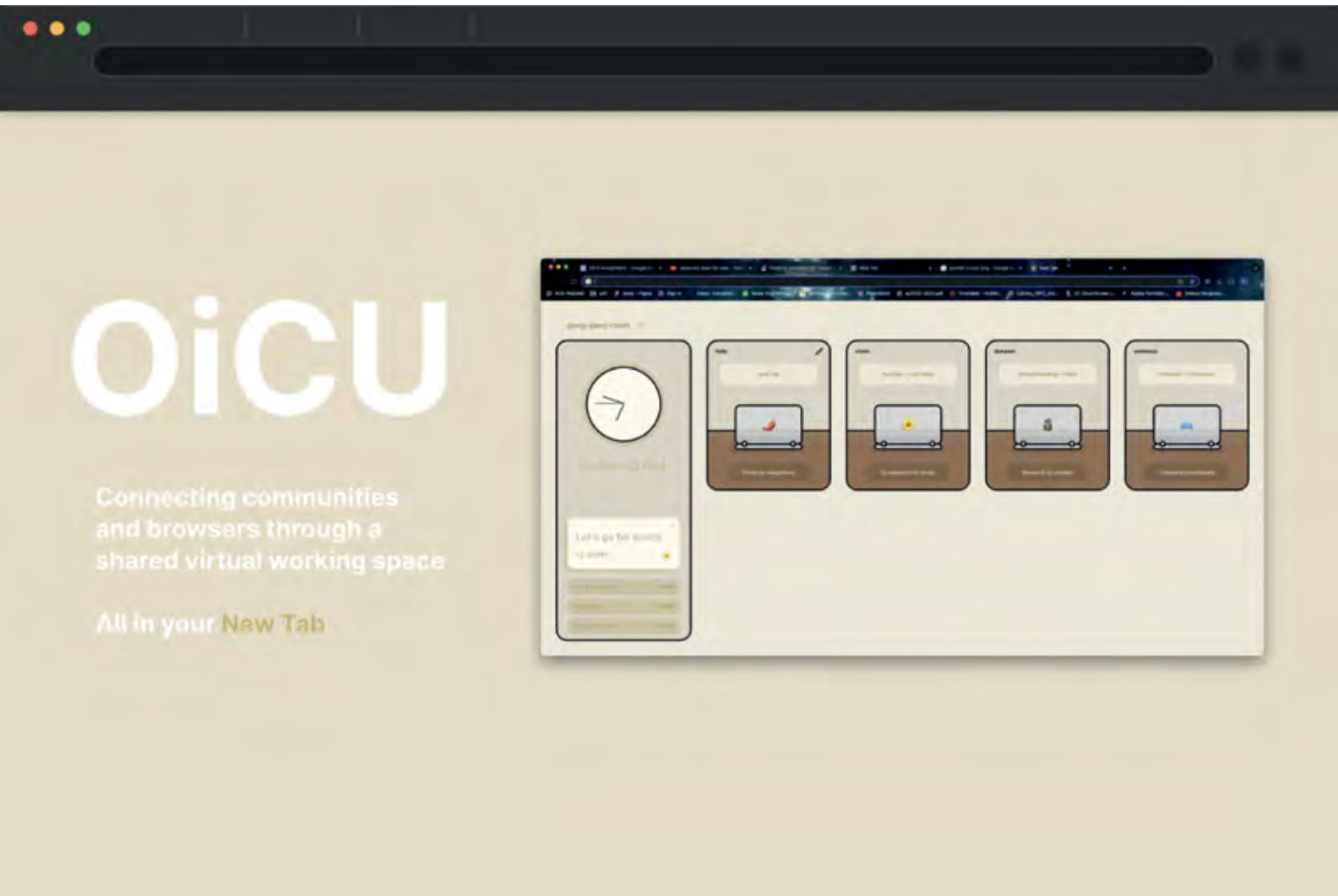
Believing that every person has a story to share, Vivien seeks to imbue empathetic design into all she does. She has an endless curiosity for the needs and aspirations of people from all walks of life, and the desire to create designs that truly matter for both individuals and communities.

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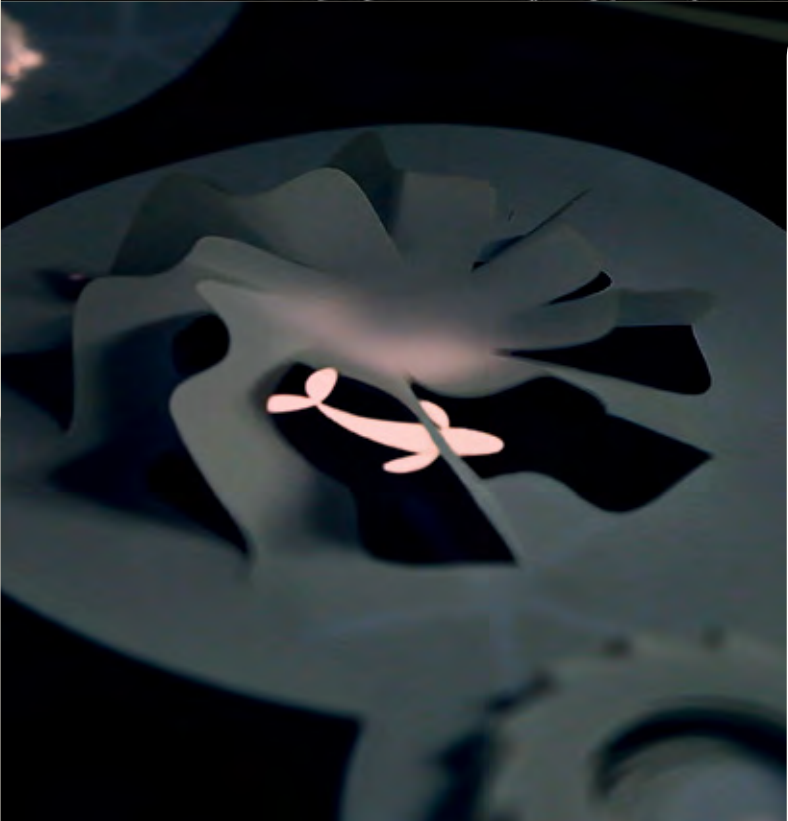
Designer
Profile



OiCU

OiCU leverages the social network built around a person with ADHD to explore how a chrome extension can improve the experience of doing work together in a virtual workspace for both people with, and without ADHD, translating the tangible benefits of physical work sessions into virtual interactions.

Under the supervision of Clement Zheng



.show();

.show() showcases the individual uniqueness of programming languages by representing the same task using 50 different programming languages on an interactive website. Through different interactions, code takes on alternate forms that both highlights their unique differences and similarities.



Tactylar

Tactylar explores a system of Kirigami cuts on polyester sheet material to generate easily manufactured, customisable and portable haptic switches. With different patterns of cuts, we explored how these haptic switches can produce a range of characterisable feedback and demonstrate the application of the explorations by mapping 2D textures to 3D tactile feedback.

Designed with Tay Ying Qi & Ng Keng Wei



Teh Wen Jan

An idealist, Jan believes that everyone deserves the opportunity to surround themselves with people and things that feed their soul, and design is a tool for that. She also has a love for materials and making, and is always down to get her hands dirty.



Designer
Profile

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Positive Products

What if there was a pill that could make your parents love you the way you want them to? Positive Products is a collection of supplements for parents who have trouble accepting their queer children. It highlights the challenges of being a queer child, and is a call for love above all else.

Under the supervision of Grace Tan



The Keepsake Headphones

The Keepsake Headphones were designed to extend the life span of the single-use in-flight headphones. It features a novel and unique compacting mechanism to encourage passengers to take it with them on their travel journey.

Designed with Grace Tan & Sheryl Cheong

/'flaʊə/

This project explores the potential of basic household starches by introducing form and natural colours derived from everyday cooking items. Experimenting with various proportions of starch and colour-infused water as well as cooking and drying methods, /'flaʊə/ presents new possibilities for flour.





Tham Yu-Xuan Sarah

As a designer who values empathy, Sarah is passionate in designing for the people. She finds purpose in bringing convenience, pleasure or enhanced experiences to people's lives. Outside of design, she loves travelling, playing sports, and will never tire of rewatching Friends!

sarahtham2000@gmail.com



Designer
Profile



Do You Have ADHD?

Ever wondered if you have ADHD? By providing a database of experiences from real people living with ADHD, the website allows you to peek into the minds of those with ADHD and discover if yours works in the same way. With each click, you just might find out that there's more to this condition than meets the eye.

Under the supervision of Donn Koh



Even Cavemen Cared About Their Teeth

Dental health is an important aspect in our daily lives that is often overlooked. In this project, we explored how we can create a dental health campaign that leverages on facts and a hint of humour, in hopes of attracting and informing the general public on dental health.

Designed with Hana Amran

Maya

A maternity pod that provides privacy and comfort for postpartum mothers to express milk in the office, Maya was designed to not let working mothers' well-being feel like a second thought. Maya strives to support postpartum women as they transition back to work, equipping them with essentials within an optimal space. Maya is a step towards workplace inclusivity and a relevant conversation that we ought to have.

In collaboration with Keppel Land
Designed with Geraldine Tong & Goh Jia Hui





Vennessa Stevens

Vennessa is a passionate designer with a keen interest in furniture and lifestyle. She is often inspired by things around her to create possibilities that are nostalgic and down-to-earth!



Designer
Profile

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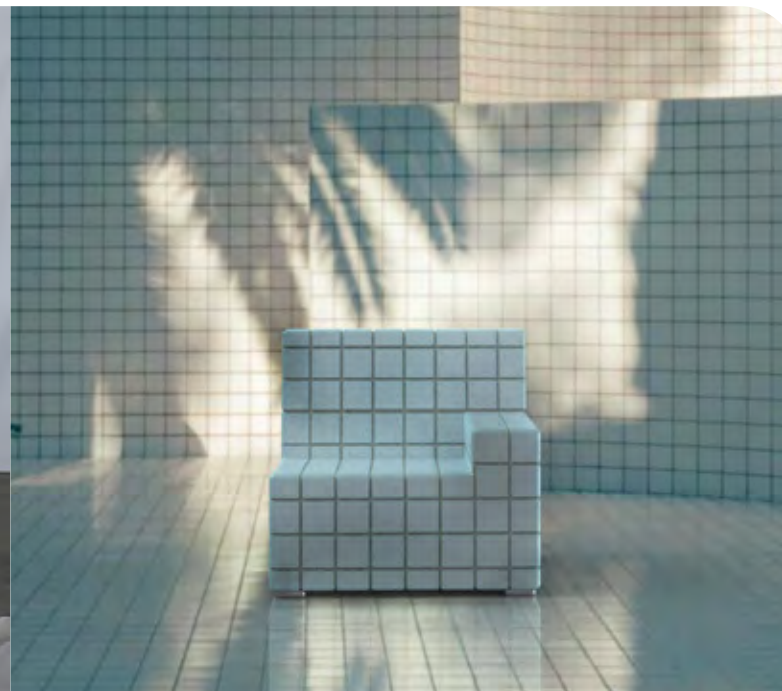
behance.net/vennessastevens



The NUA Collection

The NUA collection was inspired by the “no backbone” behaviour that Gen Zs are known for. The fluidity of this unconventional seating creates a form and function that is defined by its user, for the behaviour we affectionately know as *nuaing*—reflecting our informal way of living.

Manufactured with NITCHS
Under the supervision of Patrick Chia



CÚZI

In the face of the coronavirus pandemic, the modern world evolved into a place where work and play converge in our personal spaces. This convolution became what we know now as the new normality. As a response to the context, at a time where all we want is an escape from it all, CÚZI leads our imagination to wander—refreshing our thirst for relaxation to regain the balance lost.

Bruichladdich Garden

Bruichladdich Garden features the Laddie Eight. In line with the brand's values, we focused on authenticity, terroir and the people of Bruichladdich. This led to the motif of a garden to create a warm and welcoming experience for the senses, by immersing visitors in the natural elements of Islay.

In collaboration with Rémy Cointreau
Designed with Teng Xin Yun





Wong Eng Geng

Eng Geng is an industrial designer traditionally trained in experience and product design. Grounded in ethnographic user research, he believes that meaningful design outcomes are born when one truly immerses and connects with the community he is designing for. He also loves incorporating photography and 3D printing into his design processes.

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Designer
Profile



Refuse

Refuse is a magazine that unveils the complex issue of furniture waste in Singapore; through thoughtful resources catered to the different needs of the dumpster diving and crafting community. Refuse aspires to be the 4th 'R' of recycling—where the 4th 'R' means "Refuse to buy, to throw and to do nothing."

Under the supervision of Olivia Lee



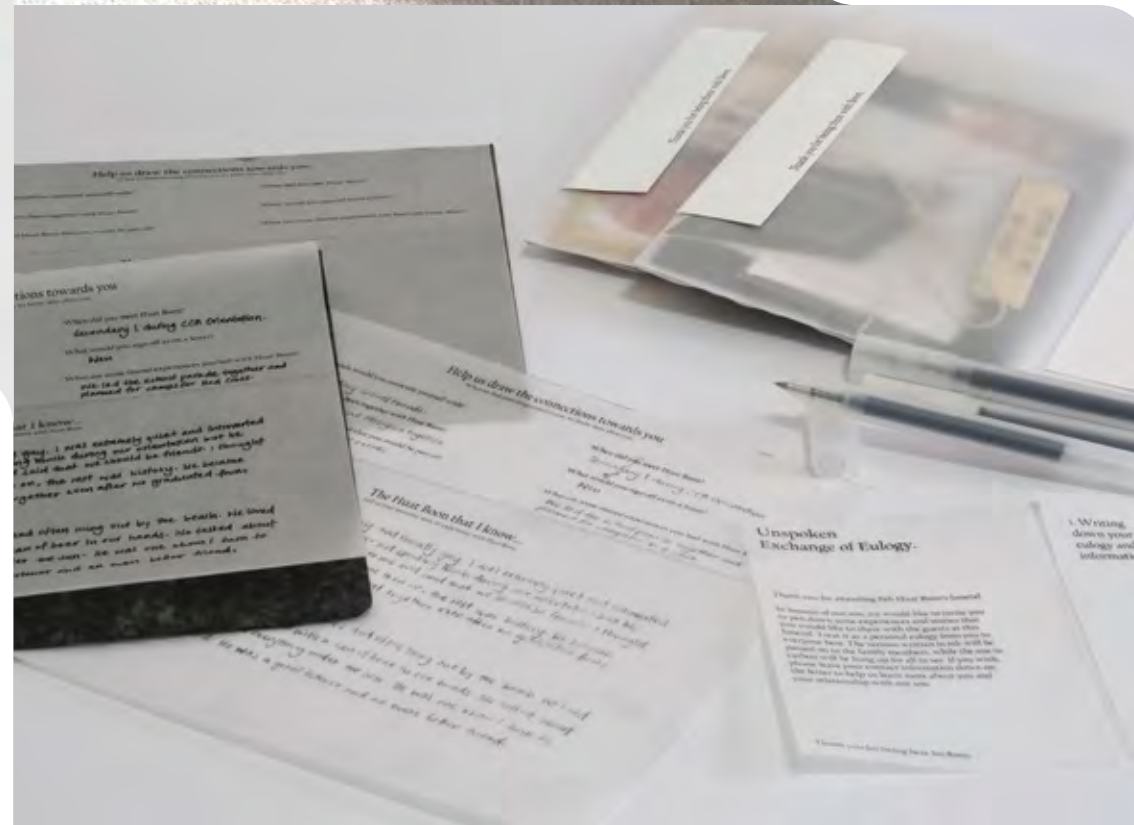
A Chair for Mei Ping (美萍)

Abstracting elements from the current family chair that is embedded into my mother's daily rituals, 'A Chair for Mei Ping (美萍)' is a new chair designed to return the love and comfort to my mother by using cheerful furniture hacks to address her love languages of physical touch & words of affirmation.

Designed with Celeste Loh

Unspoken Exchange of Eulogy

Unspoken Exchange of Eulogy aims to bring the appreciation of friendships and social circles into the customs of death. Designing a system of non-verbal storytelling allows family members space to grieve at the funeral while collecting sentimental information about the deceased's friendships.





Wu Junyi

Junyi draws inspiration from everyday struggles and finds value in simple yet effective solutions. She believes that design can impact all aspects of life and hopes to improve the daily lives of people by truly understanding a user's needs.



Designer
Profile

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Decode

Decode is a digital learning application for dyslexic learners. It aims to allow dyslexic individuals to learn progressively based on their own needs, with the ability to allow for customisable learning and facilitate the progress of their learning at their own pace.

In collaboration with Dyslexia Association of Singapore (DAS)
Under the supervision of Lee Jung-Joo



Sand Blox: A Multiplayer VR Game About Sand

Sand Blox is a competitive, multiplayer VR game where players focus on developing their city faster than their opponents with the limited sand blocks available. Sand Blox is set alongside Lin De Rong's Re-Materialising Sand exhibit to captivate visitors into understanding sand scarcity.

In collaboration with NUS Museum
Designed with Sharon Lee, Ng Yu Zhe, Sriresh S/O Sundaresan, Zhu Yuxuan

TOFO: The Tamagotchi of Pens

TOFO is a cute virtual pet that lives in your pen. With many reactions and expressions, TOFO makes writing more enjoyable and encourages kids of all ages to write more. By injecting a little fun and magic into writing, TOFO hopes to transform something boring and repetitive into a whole new world of fun.

Designed with Cao Minh Huy & Grace Zhang





POST GRADUATE RESEARCH

The M.A. (ID) and Ph.D. (ID) are full-time graduate programmes by research that serve to advance the study of industrial design. They emphasise on a holistic approach to the research of design thinking and practice. Candidates will undertake research across a spectrum of design issues, not limited to design processes, methods or problems concerning target users but also focusing on issues pertaining to interactive design, sustainability, and environmental design. The research areas of interest include design theory, practice and innovation, technology, universal design, and biomedical equipment design.

For more information: www.cde.nus.edu.sg/did/postgraduate



Isabel Tan (MA)

Designing for AI-aaS

Exploring the roles of design in the complex and demanding process of adopting and integrating AI solutions in organisations.

Under the supervision of Lee Jung-Joo

In collaboration with AI Singapore (AISG)



Yuqi Huang (MA)

Inflatables with Laser-Cut Kirigami Patterns

Inspired by Japanese paper-cutting craft, Huang laser-cuts kirigami patterns on the non-stretchable fabric to control the inflation of soft structure.

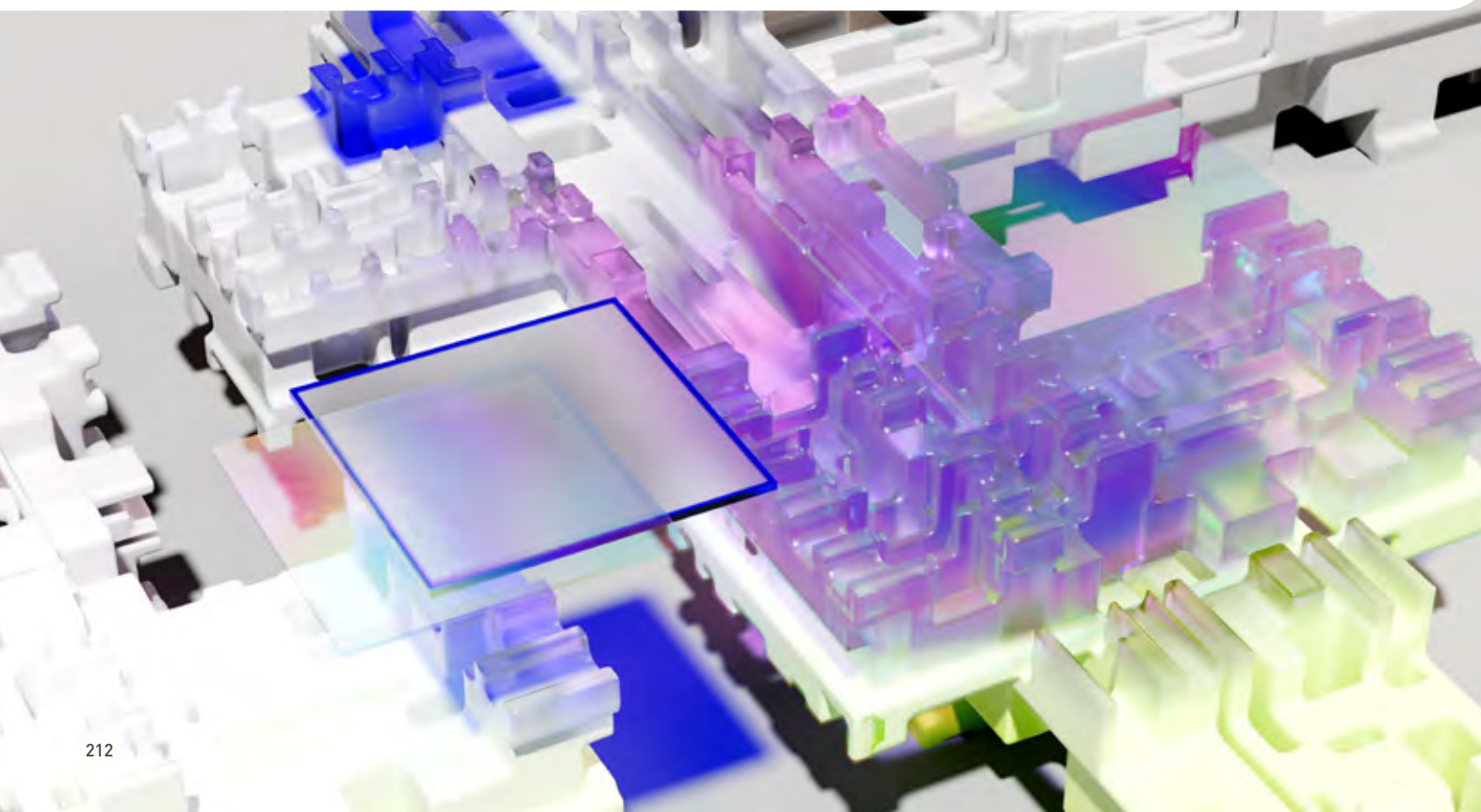
Under the supervision of Clement Zheng

Abstract

AI is a relatively new material that presents novel challenges for designers. Designing for AI and machine learning seem to require a different approach than traditional UX design, as the decision-making process of these systems is often opaque and complex, and there may not be a tangible UI.

As a designer, I am passionate about contributing insights and helpful frameworks for fellow design practitioners so we can better navigate AI and machine learning, hence ensuring that the products and services of the future are both effective and ethical.

 Illustrative image from Google DeepMind



Abstract

Popular among children in the form of balloons, inflatables have also been employed in design and engineering in terms of soft robots and shape-changing structures.

This project introduces a fabrication method of using kirigami patterns to control the transformation of inflatables. This method is maker-friendly because the patterns are programmable and visualised.

The deformations are defined in 3 scales, respectively macro, medium, and micro. The macro-scale deformation refers to the bending and twisting, while the medium one represents the bulges on the surface. With specific patterns, the fabric would pop up like small spikes during inflation, providing a unique haptic feedback. This is the micro-level deformation. The project is still a work in progress with the hope of of precisely controlling the deformation.

 A potential application as a wearable device



Chen Yang (Ph.D.)

Away from Obesity

Using multimodal sensing and machine learning, Chen integrates gamified interventions into everyday products for children to prevent obesity.

Under the supervision of Yen Ching-Chiuan In collaboration with Keio-NUS CUTE Center

Abstract

Problematic eating behaviours, such as fast eating, are known to contribute to excessive energy intake and have been identified as a key behavioural marker of childhood obesity. However, once these behaviours become established, they can be challenging to change. Therefore, it is important to instil optimal eating habits from a young age to avoid the need for re-training later in life.

Our approach is to leverage persuasive computing in the design, development, and evaluation of a real-time eating rate detection and intervention system. This system will not only detect rapid eating behaviour but also engage children in a child-friendly manner to encourage behavioural change. By using this approach, we aim to promote healthy eating habits and prevent childhood obesity.

 Sensing technologies will be embedded into eating-related objects in a non-intrusive manner



Alvin Chia (Ph.D.)

Adoption of Human-Centred Design in Banking

Chia’s study looks at how banks in Asia have implemented HCD, how they worked with non-designers to scale HCD and how to better implement it in the future.

Under the supervision of Lee Jung-Joo In collaboration with a local bank

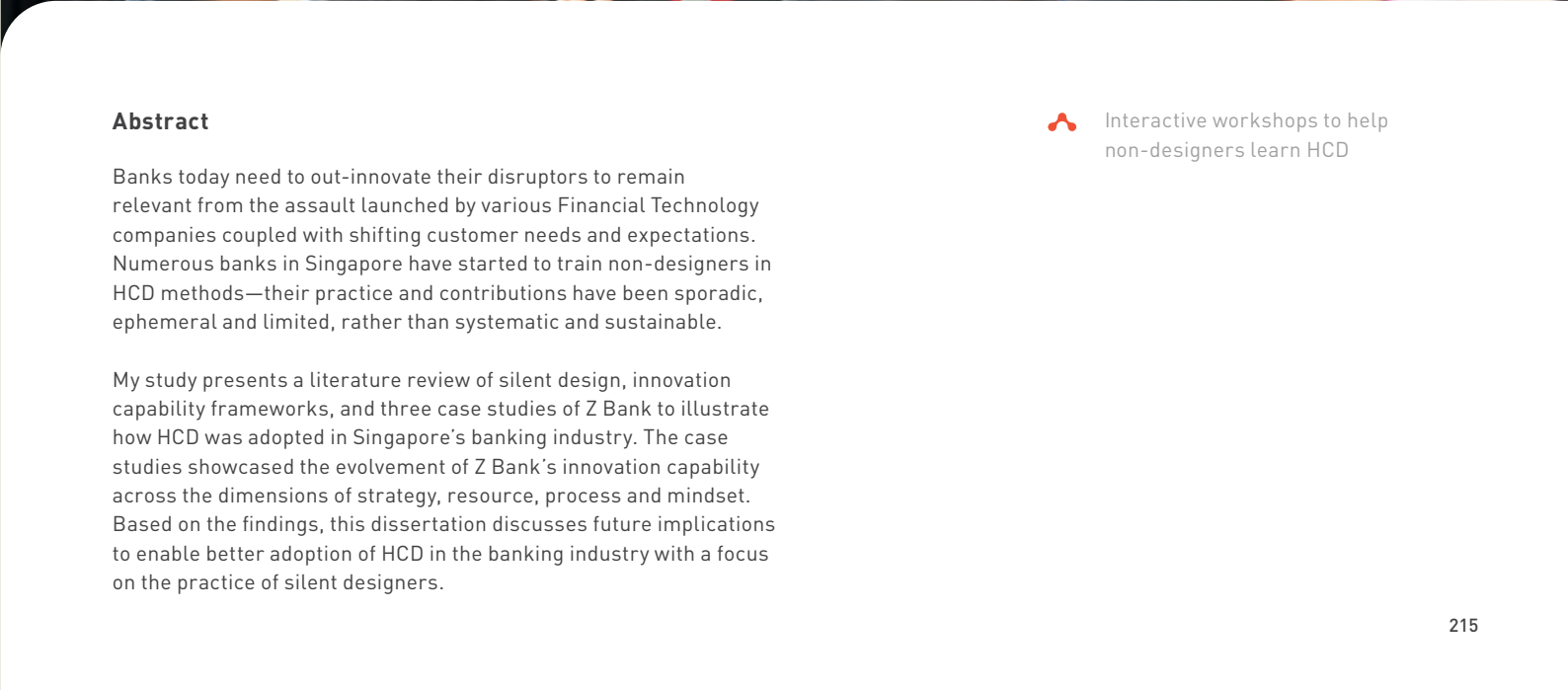


Abstract

Banks today need to out-innovate their disruptors to remain relevant from the assault launched by various Financial Technology companies coupled with shifting customer needs and expectations. Numerous banks in Singapore have started to train non-designers in HCD methods—their practice and contributions have been sporadic, ephemeral and limited, rather than systematic and sustainable.

My study presents a literature review of silent design, innovation capability frameworks, and three case studies of Z Bank to illustrate how HCD was adopted in Singapore’s banking industry. The case studies showcased the evolvement of Z Bank’s innovation capability across the dimensions of strategy, resource, process and mindset. Based on the findings, this dissertation discusses future implications to enable better adoption of HCD in the banking industry with a focus on the practice of silent designers.

 Interactive workshops to help non-designers learn HCD





Bo Han (Ph.D.)

MaskCircuit

A maker-friendly fabrication approach for 3D circuits based on commonly used laser cutters and acrylic sheets.

Under the supervision of Clement Zheng

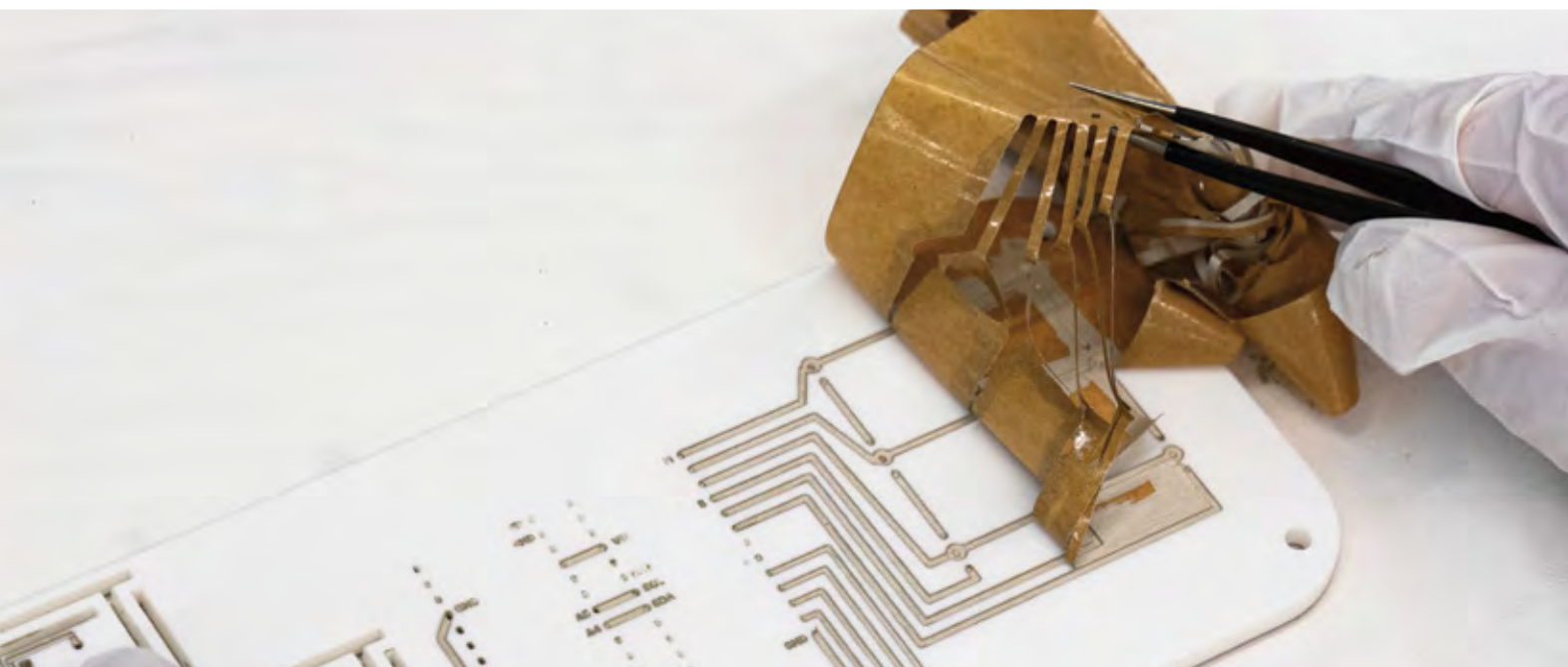


Ng Li Teng Debbie (Ph.D.)

Identifying Design Leadership in the Public Sector

Determining the design leadership behaviours and traits that leaders in the Singapore Public Sector can acquire to help them achieve public sector goals.

Under the supervision of Lee Jung-Joo



 Removing the mask from acrylic sheet to reveal inlaid conductive traces

Abstract

My research goal is to facilitate designers to build a physical computing system that seamlessly integrates computing into physical construction with accessible digital fabrication tools and new techniques. Currently, I am exploring fabricating 3D circuits with the commercial laser cutter and acrylic sheet and proposed an approach called MaskCircuit. This approach leverages the protective film of acrylic sheets as a mask and creates circuits by laser engraving traces and applying conductive paint to traces.

The most memorable moment of this research was when I suddenly realised the advantage of this approach during the discussion with my supervisor and other researchers, which gave me the confidence to keep on exploring.



Abstract

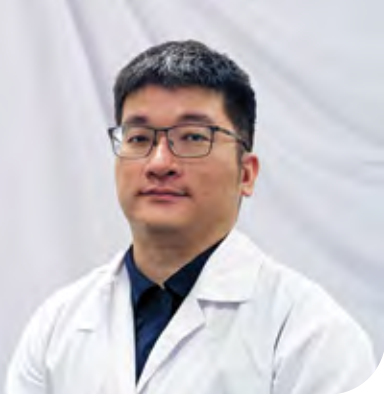
Could public sector leaders acquire design leadership behaviours, skills and methods that designers are trained and wired over their years of discipline to deliver more impactful public sector benefits?

This research will focus on the public organisations in the Singapore Public Service. It is designed to take place over a multi-stage process to review existing literature, collect empirical data through three case organisations in the Singapore public sector, and triangulate the findings to develop a 'Public Sector Design Leadership' (PSDL) framework.

One of the most memorable moments of my research journey was conducting the pilot study with the pilot agency. When presenting the PSDL framework to their CEO and the directors, they shared that the framework is helpful in providing a holistic view of the leadership required at their level, and what it means for leaders. Seeing how my research can translate into some useful and applicable is motivating.

Going forward, I will be proceeding to conduct the empirical research to evaluate the PSDL dimensions and attributes with new data.

 Coaching public sector design leaders.



Raymond Hon (Ph.D.)

A Splint Design for Managing PIPJ-DFD

A novel dynamic traction splint design for the conservative management of proximal interphalangeal joint (PIPJ) dorsal fracture and dislocation (DFD).

Under the supervision of Yen Ching-Chiuan In collaboration with National University Hospital

Abstract

My area of interest involves an affliction which affects one of the smallest joints in the human body which contributes to approximately 85% of finger movement. Injuries to the PIPJ are often neglected and underestimated, the complications that follow can greatly impede hand functions and affect the quality of the patient's life. However, surgical intervention, while necessary in the more severe cases, can result in complications due to scarring, leading to reduced ROM.

My work focuses on the development of a splint design that uses the principles of managing dorsal fracture and subluxation of the PIPJ. Through this research, I hope to explore the possibility of developing a device that allows for the management of PIPJ-DFD without surgical intervention to potentially reduce complications.

 Dynamic traction splint for proximal interphalangeal joint dorsal fracture and dislocation.



Xin Liu (Ph.D.)

MaterialSense

A triboelectric sensing approach that facilitates physical computing through common-making physical materials.

Under the supervision of Yen Ching-Chiuan

Abstract

Integrating physical structure and electronic components in a way that satisfies both function and form can be a complex design task, particularly when constructing tangible interactive systems that support a variety of interactions.

MaterialSense is an alternative approach that integrates physical materials and physical computing. This approach facilitates physical computing through common-making physical materials that can be configured to sense tangible interaction without off-the-shelf sensors. MaterialSense leverages triboelectric sensing using electrical signals generated by the relative movements between two materials to detect motion changes.

 Silicone serves as a soft and stretchable tactile surface that diffuses light. It also functions as the dielectric material to trigger electrodes embedded underneath.





Ye Qian (PhD)

Enhancing Touchscreen with Paper

Inspired by paper’s tangible feedback and the richness of multimedia devices, the study aims to create a more interactive experience of paper with a touch screen.

Under the supervision of Clement Zheng

Abstract

Touch screens and portable devices hold rich hypermedia features but still have usability issues like the changing of interaction styles. Whereas in the physical world, we understand the environment and objects through touch, the most common form of perception.

Touch resulting haptic feedback not only helps us feel and be aware of our surroundings, but also provides emotional sensations through different shapes and textures. Paper has been widely used for building tangible interfaces due to its accessibility, flexibility, and great potential to be shaped into manifold patterns and forms.

Inspired by this, this study aims to create a better interactive experience by combining paper with a touch screen that isn’t limited to a screen, which means both paper and screen have the potential to expand.

 Immersive animation created by paper flowers and a touchscreen.



COMMUNICATION DESIGN HUB

The Communication Design Hub operates as a collaborative resource for the university and professional communities. The Design Hub functions as a creative centre with the goal of designing communication solutions for the NUS community. An extension of the Division of Industrial Design (DID), The Design Hub employs design students to develop a range of communication solutions to support research, outreach initiatives, student centred activities, and communication.



Link to Website
communicationdesignhub.com

TEAM MEMBERS

- R. Brian Stone
Director
- Ong Kah Min
Design Lead
- Valeska Tan
Designer
- Saffren Choo
Designer
- Aye Phyu Thant Cherryl
Designer
- Loo Ziling
Designer
- Mok Zijie
Designer
- Givson Ong
Designer
- Ye Lin
Designer
- Adam Choo
Photographer
- Goh Bing Jun
Photographer



The Communication Design Hub team.

NUS Cities

NUS Cities is an interdisciplinary entity founded on 3 pillars: education, research and advisory service in urban systems and solutions. The Communication Design Hub was engaged to help channel NUS Cities' extensive knowledge through a new identifier that can communicate their collective expertise in Engineering, Urban Planning and Design, Sociology, Economics and Real Estate.

E2A

Building identifiers are of growing importance in the built environment. The Communication Design Hub was engaged to deliver a vibrant and impactful building identity through a banner system exhibiting the values of the Innovation and Design Programme (iDP). The entire identity system included environmental graphics designed to enhance the community space, making it a place for inspiration and collaboration.

CDE Open Day

The merger between the College of Engineering and the School of Design and Environment offers unique learning experiences for students and collaborative research for faculty and staff. The Communication Design Hub designed a comprehensive programme for the newly formed college's open house. The goal was to effectively communicate the range and benefits to pursuing study at CDE.



DESIGN INCUBATION CENTRE

The Design Incubation Centre (DIC) takes part in the emergence of a new generation of Singapore designers by helping the NUS design talents in developing and achieving their ideas through the incubation of their projects, until production and commercialisation. By also developing research and probe projects, DIC contributes to identify the new industrial, social and cultural territories where Design will tend and take action in the coming decades. Thus, DIC has the mission to feed, inspire, support, reveal, and promote the students and young designers from the Division of Industrial Design by actively participating in its pedagogy.



Link to Website
designincubation.sg

TEAM MEMBERS

- Christophe Gaubert
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- Nakayama Yuta
Senior Design Engineer
- Poh Yun Ru
Designer
- Tommy Cheong
Designer
- Chan Khee Hwee
Graphic Designer
- Yeo Wan Jun
Business Development Manager
- Koh Bei Ning
Incubee



The Design Incubation Centre team

Rollo (previously known as Rollerball Itch Relief)

Rollo is an itch relief device that provides a safer itch relief experience. Textures on the ball press onto the skin and interrupt itch pathways to the brain, reducing drag. Rollo aims to support chronic itch patients in their daily lives and is currently being further developed for crowdfunding launch in June 2023.

Designed by Koh Bei Ning





Furmidable Pelts

Furmidable Pelts reimagine and utilise clipped dog hairs, a by-product of a potential circular economy, as an abundant and ethical alternative to the fur industry. The body of work is a symbolic representation of the modern-day dog breeding and grooming culture, in which the animals are selected for certain physical characteristics.

Designed by Cynthia Chan



Furmidable Seats

Dogs and chairs have more than four legs in common, a story of fur-niture that takes root in the XVIIIth. Long considered a tool used mainly for hunting, the dog gradually integrated into the human habitat: becoming a home animal and then a product of social status in our consumer society.

Furmidable Seats play with this living room pageantry, between grotesque and endearing forms, caricatures of superfluous objects inhabiting the domestic landscape.

Designed by Cynthia Chan & Christophe Gaubert



In Praise of Flowers

In Praise of Flowers is a tribute to the last moments of life that cut flowers offer us, by exploring their shapes, stories and symbols. It is a research in nine chapters dedicated to nine different flowers: the Peony, an impressionist muse, the fragrant Lavender, the majestic Hydrangea, the Asian Orchid, the showstopper Lily, the delicate Tulip, the Narcissus and its reflection, the solemn Rose and the frail Baby's Breath.

Designed by Tan Wei Jing

A tribute to flowers' sacrifice

This book contains the stories of all nine flowers and vases that made up the In Praise of Flowers Collection. Each chapter in the book is dedicated to each flower and their corresponding vase, revealing the historical stories, symbolisms, archetype and needs of each flower.



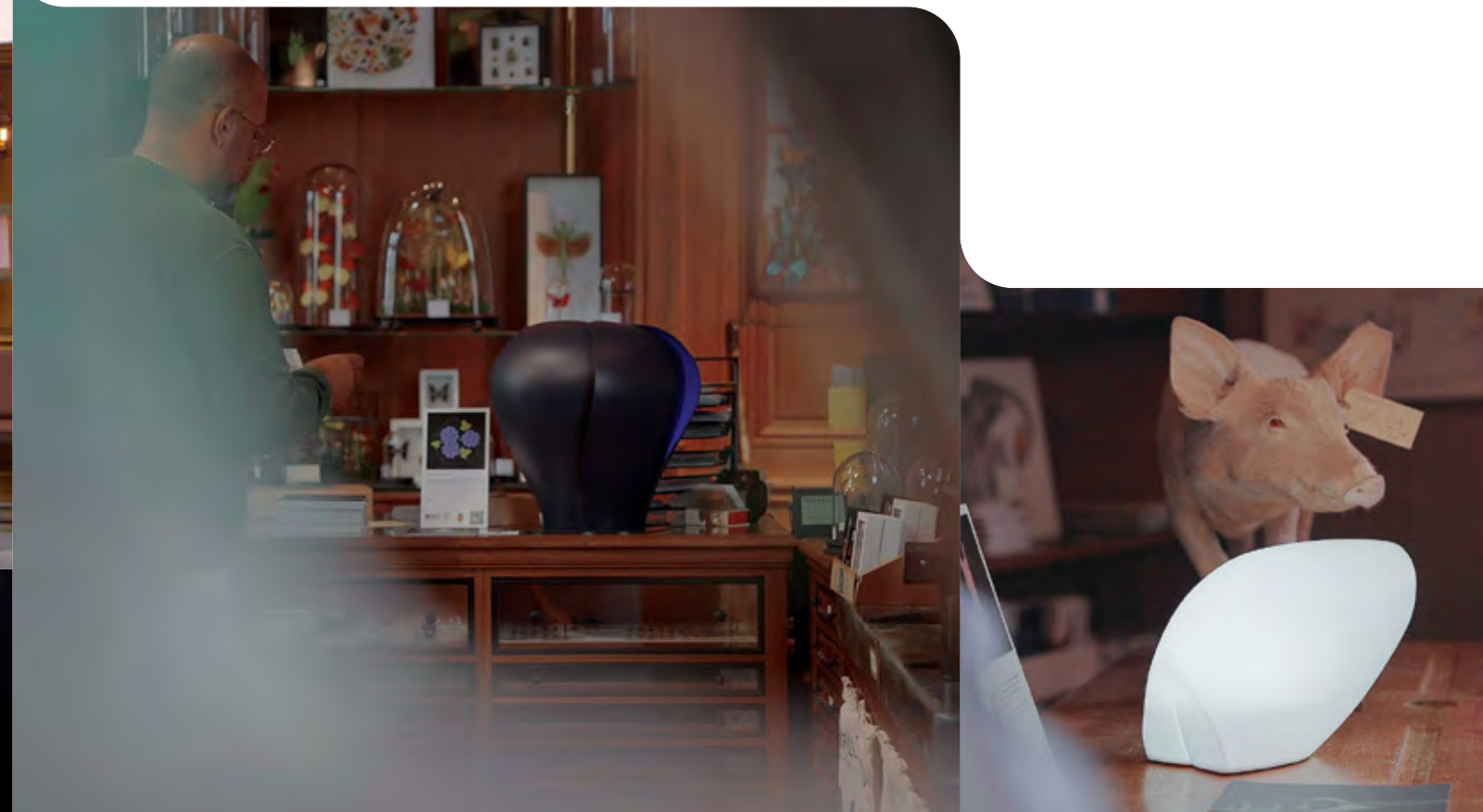


La Nature des Choses (The Nature of Things)

Deyrolle is a world famous reference for natural sciences and education, specialising in entomology and taxidermy. Being a vocation for beauties of nature, art and educational materials, Deyrolle is the perfect venue for "The Nature Of Things" exhibition to be.

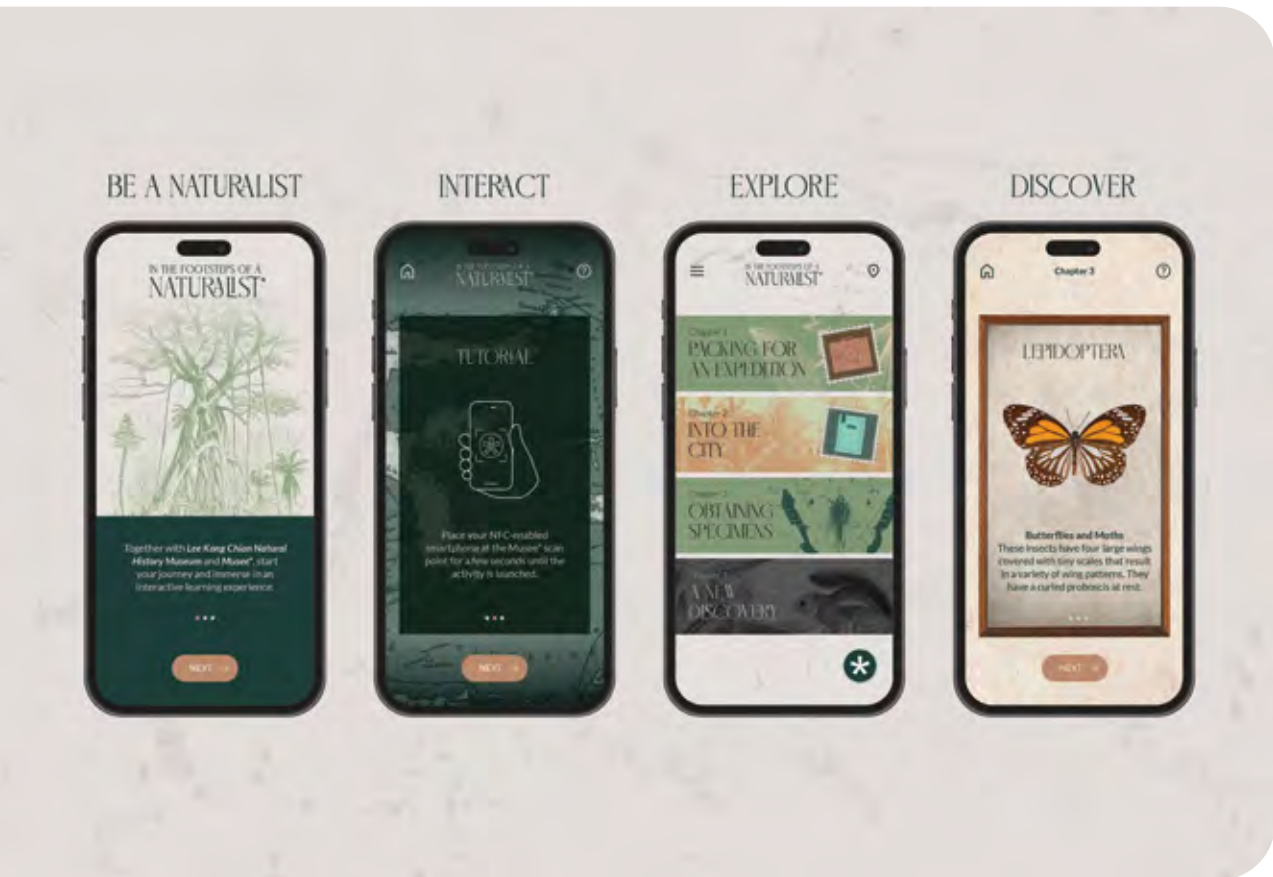
The exhibition harmonises effortlessly with the cabinet of curiosities at Deyrolle. Having the 11 projects that introduce dialogues around specific species from the tropical Singapore, the unique environment allows visitors to emerge deeper into the topics and questions around our relationship with nature.

Supported by Paris Design Week, France Design Week and DesignSingapore Council



A Conversation with Nature by Singapore Designers

This exhibition of student projects titled "La Nature des Choses" (The Nature of Things) is a conversation with Nature through Design, from practical to discursive visions. Augmented by incubation and research projects, the exhibition shared a discursive message that brings awareness about the living, proposing contemplation, interaction, understanding or sometimes provocation.



LKCNHM* App

Musee*, a project originally by Hoang Ahn, a 2020 graduate, is a digital platform that enhances the museum journey for young visitors using Near Field Communication (NFC) technologies. The new LKCNHM* app adapts this to complement two existing exhibits at LKCNHM, namely the Heritage Gallery and Alfred Russel Wallace's expeditions, in commemoration of the date of his arrival in Singapore.

Visitors can now experience expeditions of naturalists in Singapore to uncover new scientific discoveries. The app users can tap on NFC tags located around the exhibition to unlock exciting digitally augmented activities on their phones.

Designed in collaboration with Lee Kong Chian Natural History Museum (LKCNHM)



Cellx45 is a new generation of microscope that gives shape to the breakthrough patents in the domain of imagery of living micro-organs. It uses a deep learning assisted approach streamlining the growth, 3D live imaging and quantification of organoid morphology with high content screening standards. The project is currently in the fabrication and development phase.

Designed in collaboration with NUS MechanoBiology Institute (MBI)





Wei! x Moonbow

A second tableware piece from the Wei! Series produced in collaboration with modern Eurasian restaurant, Moonbow. Using form and texture to give shape to Moonbow's Tentacles de Poulpe, the tableware takes on an expressive form that reflects the flavour composition of the dish.

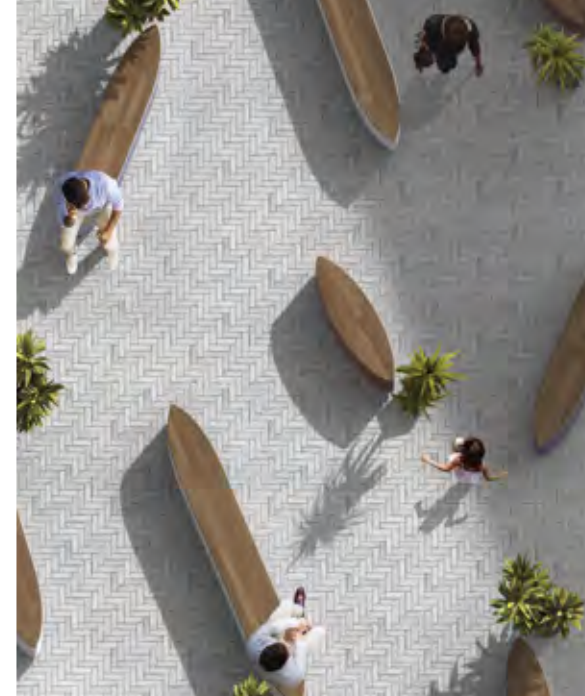
Designed by Sheryl Ang



Wv

Inspired by the honesty in material utilisation by the skilled craftsmen to evoke the endless possibilities presented by the humble rattan; Wv is an attempt to revive the spirit of exploration within these traditional crafts that served as the bedrock of the Singapore we know today.

Designed by Shawn Ng



Sampan

The Sampan benches is one of the four winners of One Holland Village Public Art Furniture Design Competition 2022.

They are a tribute to the spirit of welcome of Holland Village, to the emulation felt by all travellers discovering a culture that they will end up making their own. Like boats approaching a new land, these benches participate in the dynamics of the place and the flow of passers-by.

Designed by Christophe Gaubert, Poh Yun Ru, Cynthia Chan & Tan Wei Jing



INTERACTIVE MATERIALS LAB

The Interactive Materials Lab researches material systems for interaction and experience design. The lab operates in the space between materials and artifacts, specialising in building interactive systems by leveraging everyday materials and fabrication processes. These investigations often yield new approaches and tools for constructing tangible interfaces.



Link to Website
interactive-materials.github.io

TEAM MEMBERS

- Clement Zheng, Ph.D.

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- Yong Zhen Zhou

Researcher
- Bo Han

Ph.D. Student Researcher
- Xin Liu

Ph.D. Candidate Researcher
- Ye Qian

Ph.D. Student Researcher
- Yuqi Huang

Masters Student Researcher
- Wina Nashita

Undergraduate Student Researcher
- Travis Ong

Undergraduate Student Researcher
- Serene Tan

Undergraduate Student Researcher

Crafting Interactive Circuits on Glazed Ceramic Ware

Glazed ceramic is a versatile material that we use every day. For a long time, humans have harnessed its many qualities to create both practical and decorative objects at various scales. This includes everything from dining and kitchenware to home and architectural fixtures.

This research presents a new approach for integrating interactive circuits into glazed ceramic ware. By selectively carving traces on the surface of glazed ceramic objects and filling them with conductive ink, we transformed everyday objects into interfaces and smart devices that can participate in daily activities. Our approach was developed in collaboration with Hans Tan, a designer who works with sandblasting to transform heritage porcelain objects in Singapore into contemporary art pieces. We built upon his technique to incorporate functional electronic circuits into existing ceramic objects.

Our approach has enabled us to create a range of interactive artifacts that are based on common ceramic object archetypes. These include touch-sensing tableware, temperature-sensing tiles, and moisture-sensing planters. Additionally, we have applied heating elements directly onto dining vessels to keep food warm or even cook it.

This work was published at ACM CHI 2023, the top research venue for human computer interaction work. The research also successfully acquired MOE Tier 1 Academic Research funding for further development.



A series of ceramic ware with interactive circuits instrumented with our approach.



Process

(From left to right) Applying the vinyl mask onto a glazed ceramic object, sandblasting a masked ceramic object, scraping excess conductive ink away to reveal the functional circuit underneath



Applications

(From 1-3) Temperature sensing kitchen tile, salad bowl with touch slider, dessert plate for tracking eating activity

SERVICE DESIGN LAB

Service Design Lab Singapore (SDL) runs collaborative design and research projects with government agencies, companies and social organisations to achieve human-centred service innovation. SDL also develops educational programs for academia and industries, and populates new knowledge through publications, workshops, and online platforms.



Link to Website
servicedesignlab.net

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Chew Jiaying

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Ph.D. Candidate

Erik Chua

Ph.D. Candidate

Debbie Ng

Ph.D. Candidate

Isabel Tan

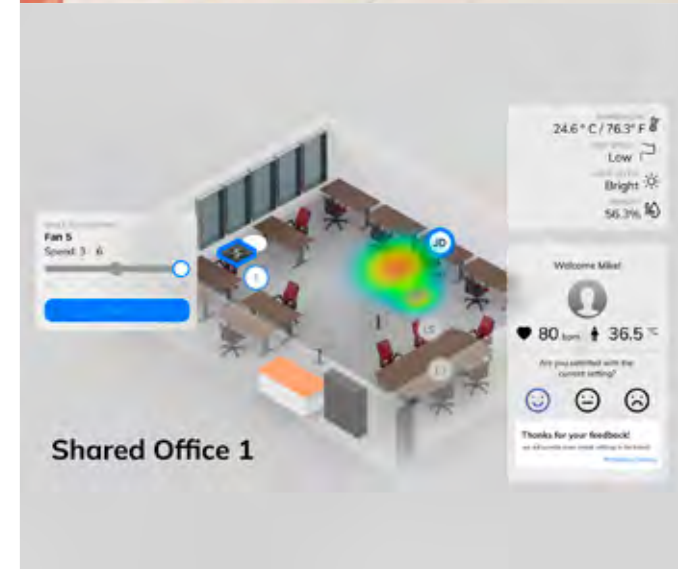
Master's Student Researcher

Celeste Seah

Undergraduate Student Researcher

Future of Mobility: Design for AV-Ready Infrastructure and Services

In collaboration with LTA, URA, TUM Asia and ST Engineering, this project explores future systems for safe and seamless operation of Autonomous Vehicles towards Smart Nation. Through co-design workshops and prototype testing involving various stakeholders, new infrastructure and services are co-created.



Democratisation of Digital Twins as Human-Building Interface

Digital Twins (DTs) are data-driven technologies for facility managers and various experts, but 'end-users' remain as data points instead of direct actors. This project aims to design for new DTs for everyday residents to make informed decisions, through cross-disciplinary collaboration with Built Environment and Electrical and Computing Engineering.



ACHIEVEMENTS

Student Achievements



Mobility for All in 2028

JTC Future of Mobility Case Challenge 2023
First prize

Annabelle Chan, Celine Chan, Karin Chew,
Jai Lal Lulla (non-ID), Gareth Wang (non-ID)

Tilt, Your Abled Assistant

Red Dot Award 2022
Design Concept

Siew E Ian



Verdure

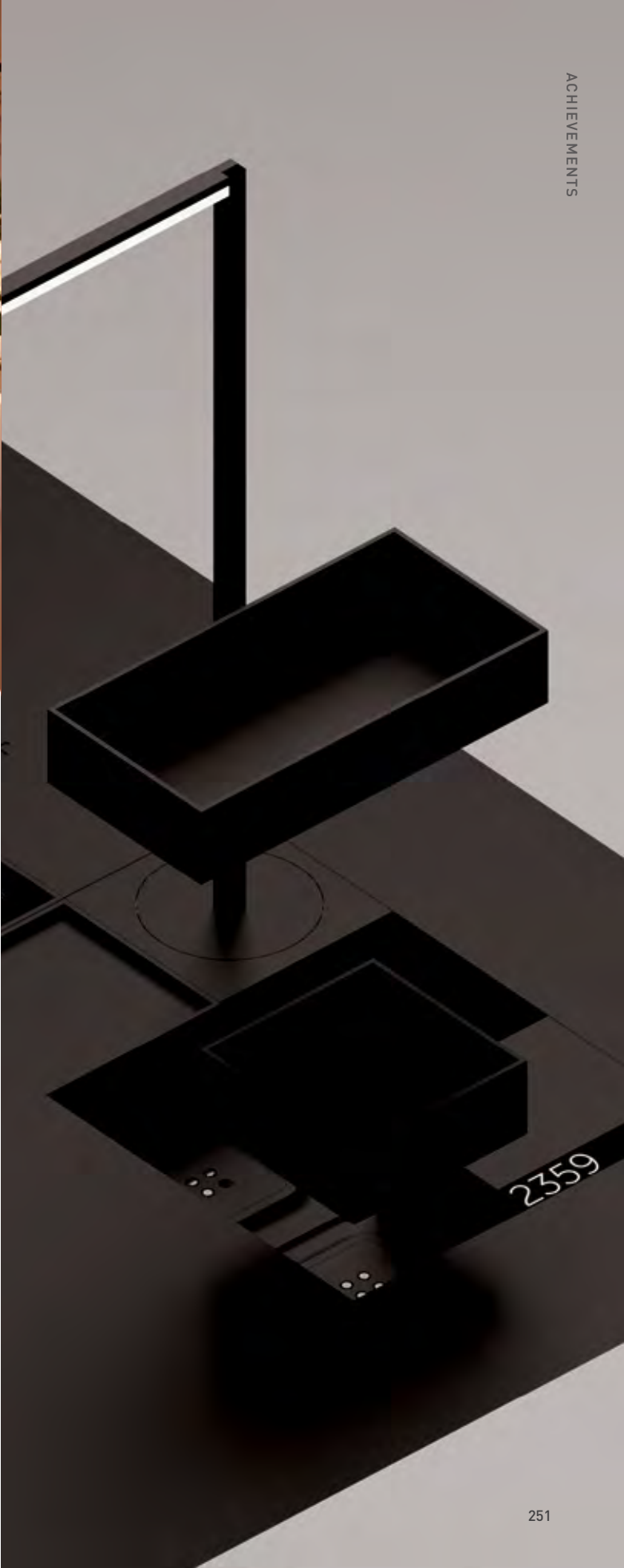
Red Dot Award 2022
Design Concept

Ong Kah Min, Chong Zi En

Rune

Red Dot Award 2022
Design Concept

Mok Zijie





Rollerball Itch Relief

James Dyson Award 2022
Singapore National Runner Up, and International Top 20

Prototypes for Humanity

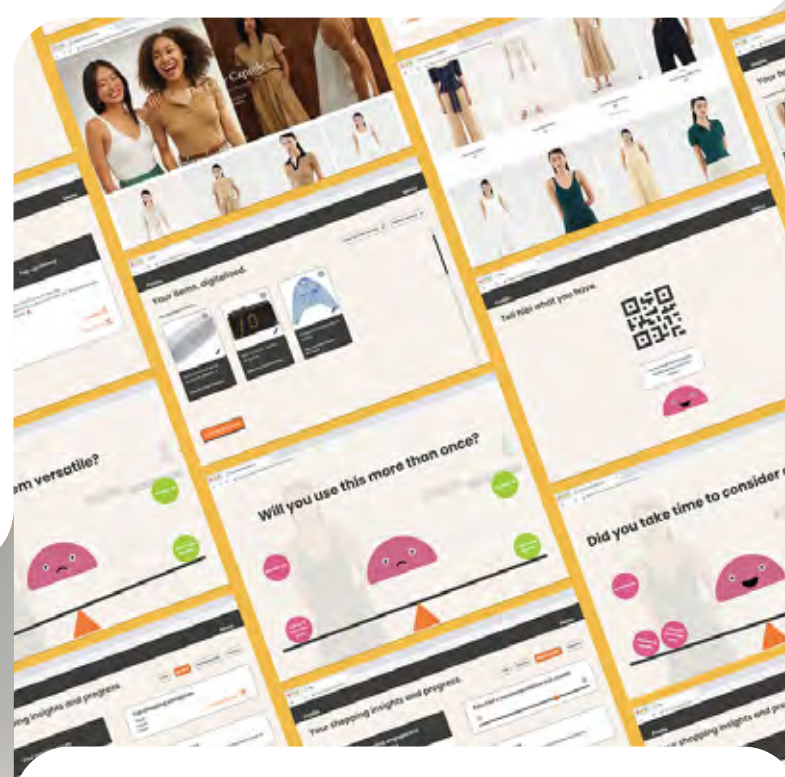
Koh Bei Ning



Rehabit

James Dyson Award 2022
Singapore National Winner,
and International Top 20

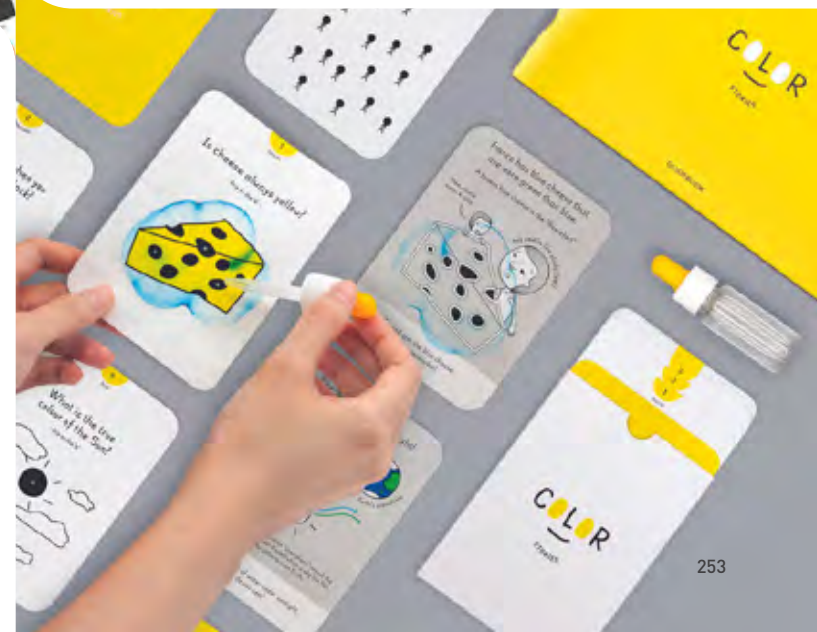
John Tay Jo Han



COLOR

Golden Pin Design Award 2022
Communication Design, Publications

Stacey Yip



SENS | Creating Assurance in Digital Payment for Visually Impaired

Prototypes for Humanity

Tan Ying



Hibi: The Friendly Shopping Inhibitor

UX Design Awards 2022
New Talent

Ashley Huang



Light Park by Krusty Labs
In partnership with Somersetbelt
Powered by National Youth Council

Wina Nashita

Electric Paint by Krusty Labs with Disney Singapore

Joseph Liew, Kent Timothy Limanza, Luke Goh,
Sriresh S/O Sundaresan, Wina Nashita

NTU ADM: Berenice Chao, Nicky Tjandra,
Vivian Tan, Jee Neng Heng, Kieran Teo



Typodont+

Design Intelligence Award (DIA) – 2022
Honorable mention

Chantel Loh, Luke Goh,
Hugo Bourguignon



Reactive Botany by Krusty Labs
In partnership with Somersetbelt
Powered by National Youth Council

Luke Goh, Sriresh S/O Sundaresan



Shopee Together

Shopee Product & Design Challenge 2022
Semi-Finalist

Karin Chew, Nazurah Binte Rohayat,
Ria Arinah Bte Muhamad Redza



Shopee Together
The Next Horizon for Grocery
E-commerce: Beyond the Pandemic Bump



ReinCarnation: Eternalising a fleeting journey of motherhood

Reinterpreting the Urn, A Symbol of Celebration by Design Innovation SG First Prize (Public Category)

Loo Ziling

IRIS

Golden Pin Concept Design Award 2022
Product Design

Edwind Tan



Pastry Panic

Taipei Game Show 2023 Indie Game Award
Best Innovation Finalist

Alt.Ctrl.GDC 2022
Audience Award

Tokyo Game Show - Sense of Wonder Night 2022
Best Technological Game Award,
Best Presentation Award

Yong Zhen Zhou



Staff Achievements



Sampan
One Holland Village Public Art Furniture Design Competition 2022
Christophe Gaubert, Poh Yun Ru, Tan Wei Jing & Cynthia Chan



Dezeen Awards 2022 – Longlisted for Design Studio of the Year
Design Incubation Centre



Alumni Rising Star Award 2022
Poh Yun Ru



Teaching Excellence Award AY 2021/22
Christophe Gaubert



College Educator Award AY 2021/22
Lee Jung-Joo & Clement Zheng (Not pictured)

STAFF INDEX

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Song Kee Hong
Deputy Head (Admin & Finance), Assistant Dean, Master’s Programmes & Lifelong Education & Associate Professor

Lee Jung-Joo, Ph.D.
Deputy Head (Research) & Assistant Professor

Christophe Gaubert
Associate Professor & Director, DIC

Christian Boucharenc, Ph.D.
Associate Professor

Hans Tan
Associate Professor

Yen Ching-Chiuann, Ph.D.
Dean’s Chair & Associate Professor

Donn Koh
Senior Lecturer

Clement Zheng, Ph.D.
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Kate Sangwon Lee, Ph.D.
Postdoctoral Fellow

