SCHOOL OF PRODUCT DESIGN

CLASS OF 2023 GRADUATING PROJECTS



🖥 | Product Design 🕅 | Hanga Otinga

www.productdesign.ac.nz

UNIVERSITY OF CANTERBURY

SCHOOL OF PRODUCT DESIGN

The School of Product Design at the University of Canterbury was founded in 2018 to meet the industry's growing demand for creative and technically literate graduates. A Bachelor of Product Design at the University of Canterbury combines design and engineering to produce skilled and creative designers who understand aesthetics and technology. There is also a business focus in this degree that helps cultivate an understanding of how to create and innovate, and effectively take things to the market. With an emphasis on end-user, sustainability, and ethical design, the University of Canterbury is leading the way with its multidisciplinary Bachelor of Product Design. We offer Bachelor's Degree majors in four areas: Industrial Product Design, Applied Immersive Game Design, Chemical Formulation Design, and Digital Product Design. We also offer Masters' Degree in Product Design and Product Innovation.



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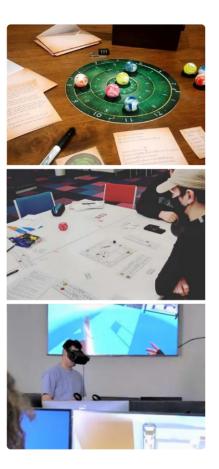
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APPLIED IMMERSIVE GAME DESIGN



APPLIED IMMERSIVE GAME DESIGN

Applied Immersive Game Design covers virtual and augmented reality, where the software and hardware are beginning to massive growth. The development of games for entertainment and applied games (for training, education, and the carrying out of remote activities) are included in this major. Facilities for Game Design students include computer labs with some of the most powerful computers on campus and a virtual reality lab with leading-edge technology, motion capture and gaming consoles (strictly for educational purposes, of course!). Students use this latter space for VR experience testing and game evaluation, studying existing game design, and user testing of student-created games and applications.







ADRIAAN BAKKER

Dredge Discord Bot

This project is a software solution created for Black Salt Games. The aim is to increase engagement within the community they have created from the game DREDGE that they released in March this vear.

This project is a fishing game that users can play through Discord, an online chat service. Players can type commands to interact with the game, and through those commands catch fish that can be found in DREDGE.

☐ adriaanjbakker@gmail.com

@Adriaan

..

Adriaan caught a Parhelion Jellyfish!

Size: 34cm Type: Coastal - Aberration Reward \$25 Current Inventory used: 38 / 40 Extra Rewards: Parhelion Jellyfish. ID: 96

Two spires of light shine from within its hood. Stinging spiked tentacles trail below.



DREDGE Fishing Bot BOT Today at 12:29 AM ... @Adriaan

A Fish has Appeared!

Press the button to catch it. (Fish will escape in 5 minutes)

Catch Fish

DREDGE Fishing Bot BOT 10/27/2023 4:47 PM

Adriaan Purchased the Oceanic Rod!

Refresh Status

Next Weekly Refresh in 4 days Next Daily Refresh in a day

Current Region: Stellar Basin

Catchable fish in this region:

-Aurora Jellyfish - Coastal Fangtooth - Abyssal -Barreleve - Abyssal Firefly Squid - Coastal -Red Snapper - Coastal Giant Amphipod - Hadal -Loosejaw - Abyssal Snailfish - Hadal -Coral Grouper - Shallow Glowing Octopus - Shallow -Anglerfish - Abyssal Barracuda - Shallow Hammerhead Shark - Oceanic -Crown of Thorns - Pot -Blue Crab - Pot Spiny Lobster - Pot

1: Cod

Type: Coastal Found in: The Marrows price: \$18 Largest Catch: 86cm Total Caught: 5 Unique Aberrations Caught: 1/3

Description: Plentiful and basic



Adriaan used / DREDGE Fishing Bot 10/30/2023 12:51 AM

Adriaan's Stats

DREDGE Fishing Bot 10/31/2023 3:15 PM

A Coelacanth has appeared! The next player to use /fish will catch this rare fish!

> Total Fish Caught: 53 Unique Fish Caught: 22/127 Score This Month: 2077 Current Balance: 877

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SABRINA COOKE

Tangled Visions

Tangled Visions is a hyper-casual puzzle game for mobile platforms that has the player unravel various 'Visions' by swapping the fragmented images within each puzzle piece.

My roles in this project were Producer, Programmer, and Designer. The duration of this project gave the opportunity to establish real-world experience by work closely with Dunedin-based studio Runaway Play.

Tangled Visions utilizes procedural mesh generation and visual manipulation to create infinitely variable puzzles, which were then optimized to run on mobile devices.

Sabrinalcooke@gmail.com



JOHN DANIELS

Tangled Visions

Tangled Visions is a mobile puzzle game designed to test the unique mechanics of swapping image fragments within the pieces of a puzzle. As image fragments are swapped, they warp to fit the puzzle piece they have been moved to. Players must solve puzzles by using their intuition and deductive skills to locate the correct position for each image fragment.

➡ thisisdionidaniels@gmail.com



DESIGNED FOR RUNAWAY PLAY





The

09



LUCAS DAVEY

Project Water World

Project Water World is a cozy cleaning game where you must clean up the mess created in an underwater laboratory. To clean you use your trusty spray gun to use different cleaning materials to fix and clean away the slime and broken parts of the facility.

Project Water World was created as part of a client project in collaboration with Tiny Kiwi games.

☐ lucaspd2805@gmail.com



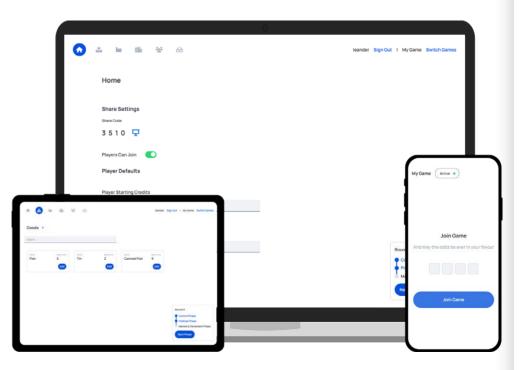
NADRIC DUMTE Barrage

Barrage is a VR shooter inspired by Doom and Quake with fast movement mechanics and fast gunplay focusing on keeping the flow of the game fast and intense while combating motion sickness to make the game a satisfying experience in VR.

My role in Barrage was to develop the AI from the new framework we had created and to create new 3D models for assets such as certain weapons, enemies and environmental objects.

🖻 nadum8@gmail.com







LEANDER HACH Struggle For The Old Sector Online

Struggle For The Old Sector Online is a digital tool aimed at managing the economy in mega games, which are large-scale in-person RPGs with 20+ players. This project simplifies creating complex gameplay systems by digitizing the economic elements, helping control team members by giving them an easy way to create and tweak goods, cities, and industries. It also offers a user-friendly app for players to interact with the game's economy, enhancing their engagement and ensuring fair gameplay.

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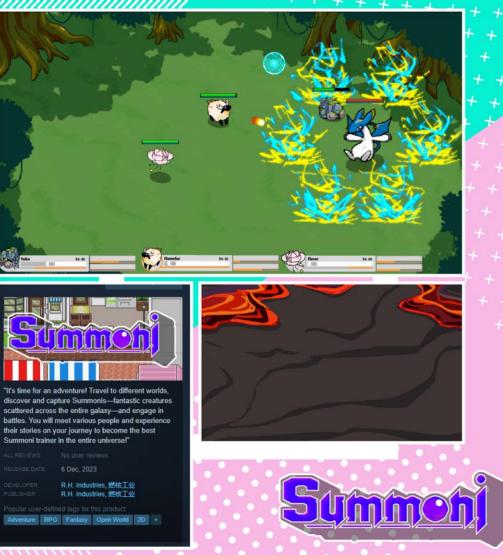
XU HUANG Summoni

It's time for an adventure! Travel to different worlds, discover and capture Summonis—fantastic creatures scattered across the entire galaxy—and engage them in battles. You will meet various people and experience their stories on your journey to become the best Summoni trainer in the entire universe!

Game Design – Nankun & Xu Programming – Xu

Art – Nankun

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ASHWIN KUMAR

Barrage

As the lead Level Designer for the second level of Barrage. The concepts for this level were 3 general areas with 2 variations each (Ship, Cave Systems and Town).

Ship was chosen. For the vertical movement its concept showed. The next steps were creating a first draft of objectives and further refining concepts. Afterwards the level would be grey boxed, playable, play tested, reviewed.

The efforts of testing showed the issues within the level and could be resolved, before polishing.

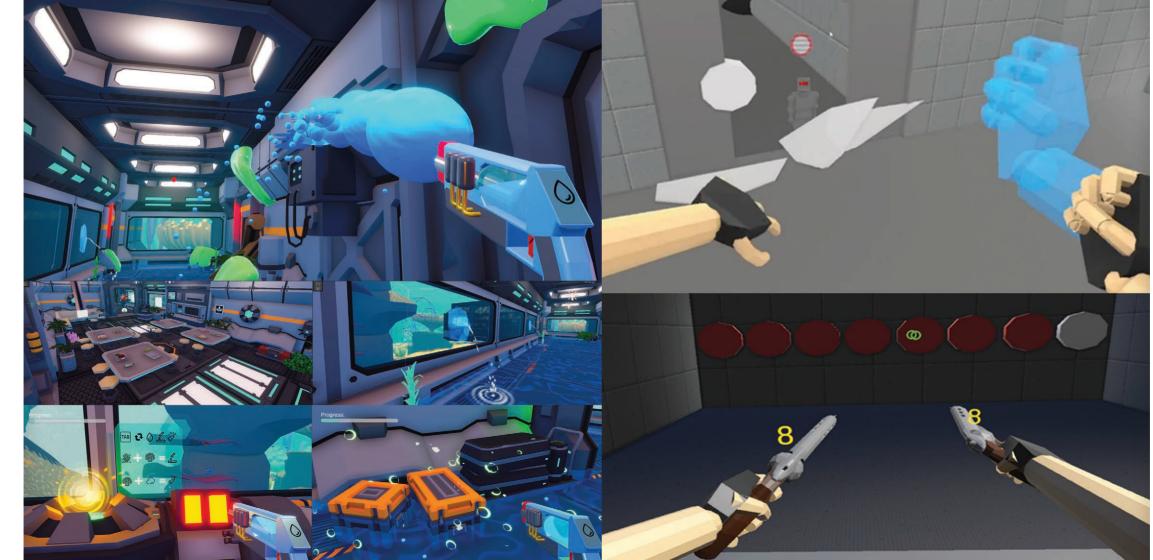
☑ general.instinct@gmail.com



AARON LIN HydroPurge

I am proud to present this project that my partner and I have built: a casual cleaning game set in an underwater facility. Players can immerse themselves in the tranquil atmosphere of the environment and experience the satisfying process of cleaning the level and restoring order.

🖻 aaronlinal7@gmail.com





GILES MCGRATH

Barrage

Barrage is a Virtual Reality movement shooter. In the game, the player has three main tools at their disposal: a Slingshot to fly around the map, a Power fist to break doors or enemies, and a Heat Revolver to dispose of foes from range. To make the player move as smoothly and freely as possible, we used rapid iterative development to identify and reduce any friction in the player's flow so that they could fly through the levels with ease.

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HAMISH PARLANE Tangled Visions

Tangled Visions is a mobile puzzle game we made for Runaway Play. The aim of the game is to put images back together similar to a jigsaw puzzle but when pieces are in the wrong player they appear stretched and distorted. Our group managed to take this game idea from me moving picture slices in Photoshop as an early prototype to a fully made game in Unity.

➡ hamishhp147@gmail.com







CAMERON ROONEY Tangled Visions

Tangled Visions is a hypercasual mobile puzzle game with a unique twist. Instead of moving pieces around like a regular puzzle, players swap the image fragments inside the pieces themselves and the fragments will morph to fit their new piece. This is an industry project sponsored by Runaway Play, which gave us the opportunity to work under the guidance of industry professionals and experience all facets of the game development process from conception to a polished vertical slice.

☐ cameron.g.rooney@gmail.com

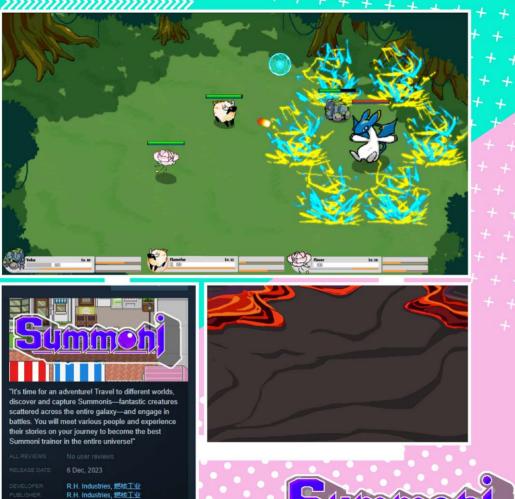


NANKUN ZHU Summoni

It's time for an adventure! Travel to different worlds, discover and capture Summonis-fantastic creatures scattered across the entire galaxy-and engage in battles. You will meet various people and experience their stories on your journey to become the best Summoni trainer in the entire universe!

Game Design – Nankun & Xu Programming – Xu Art – Nankun

🖂 sorkrimzhu@gmail.com



Adventure RPG Fantasy Open World 2D +



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Leging.

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TOMINO



CHEMICAL FORMULATION DESIGN

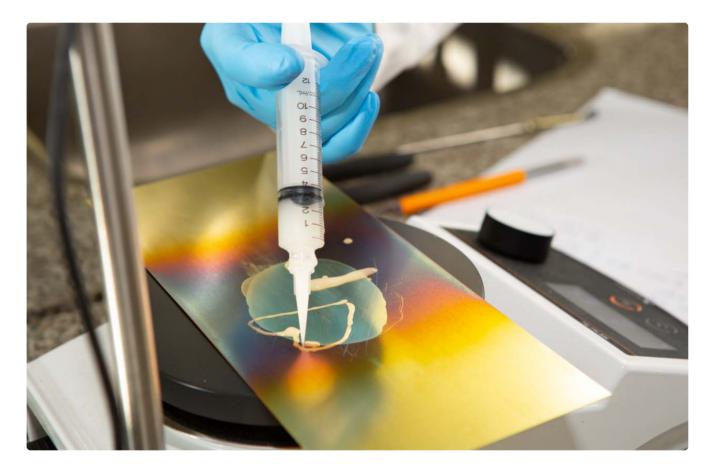


CHEMICAL FORMULATION DESIGN



This stream looks at designing products from weedkillers to lipstick, healthcare and cosmetics. Formulation designers are needed in the innovator and generic pharmaceutical industries and for all sorts of chemical products, including cosmetics, fragrances, paints, foods, adhesives, and many household products. The Formulation Laboratories are where students create a range of formulations and conduct their research. The formulation labs include formulation science, a fully-equipped fragrance design lab and, from 2021, a new research lab and a food-grade formulation lab. Equipped with sophisticated scientific instruments such as a gas chromatograph-mass spectrometer, freeze dryers, blending and tabletting machines, and equipment for extracting active ingredients from plants. Students attend formal formulation science labs and have flexible access during their main design projects to create their various lotions and potions.







EMMA ARVIDSON Altie

Altie serves as a bridge between traditional dairy products and plant-based alternatives. All our offerings are crafted from a combination of oat milk and pea protein, fortified with essential vitamins and minerals. Sustainability lies at the core of our focus, promoting local support and prioritizing allergy-friendly production. Our initial product line includes two versatile offerings: an oat milk powder and a multifunctional oat creamer, both meticulously designed to minimize waste.

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JOANNA BROWN

Weightless

Did you ever think to imagine that a shooting star could be an astronaut's underwear?

The laundering and cleaning of clothes is a common and regular practice often resented by individuals; except for those living on space stations and in waterstressed conditions. There is no current solution for clothes to be laundered in space.

Enter Weightless a brand dedicated to improving the human experience in space; starting with dirty laundry.

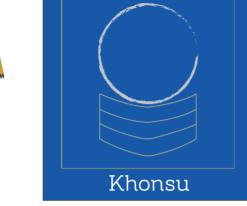
➡ brown.j.joanna@gmail.com



HEATH GALLOWAY Khonsu

Khonsu is a men's orientated, fragrance driven product line that layers an aroma across formulations. We aim to create a cultural shift in young men's attitude towards self-care, in particular shaving. We have a cleansing charcoal facewash loaded with bottom notes, a smooth shaving butter packed with middle notes, and to finish it off... a top note packed eau de parfum that rounds the fragrance with sweet florals and masculine warmth.

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Currently across the world young men are beginning to involve themselves in self-care routines. With social pressures a major deterrent to many, Khonsu aims to alleviate perceived pressure and awkwardness around the socially taboo topic of self-care for men, specifically facial grooming for young men.

Face Wash

Midnight Depths

Proposal

Create a three piece mens kit that give young men a routine in their life through shaving. Our products stand out because they're a layered scent that intoxicates your nose with every breath.







CHAE RIN LEE

Spher

At Spher, we take a multidimensional approach to solving skincare issues. We acknowledge the intricate connections between these and their broader consequences on mental health and social relationships.

Our first line of products target acne and complications such as hyperpigmentation and scarring. Efficacious solutions and discreet products specifically designed to blend in with your skin, belongings and your lifestyle. To enable you to wear your skin with confidence.

☐ crlee924@gmail.com



RUBY LOOMB SPIN

At SPIN Skincare, we have created an everyday skincare routine that redefines skincare for young, delicate skin aged 13-17 years. Our product range is designed with the unique physiology of young skin in mind, offering specialised solutions that prioritise gentle care and optimal nourishment. Introducing our Mandelic Acid Exfoliate Serum. Bakuchiol Renew Serum, Refresh Cleanser, and Recover Moisturiser.





HANNAH MAUNSELL

Heatwave

Inspired by the growing heat therapy market, Heatwave provides a cosmetic product line that induces a safe and comfortable topical warming sensation. With three dosage forms, including a cream, a balm, and an ideated spray-on moisturiser, Heatwave caters to a diverse target market.

Heatwave's topical warming product line is designed to solve a health issue by providing a convenient preventative option for chilblains. Additionally, Heatwave eliminates the need for individuals to choose between warmth and precision in their everyday lives.

☑ hannahmaunsell02@gmail.com

Scientificallu researched and designed to deliver a topical warming sensation that protects you from the cold.

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Balm



CASEY PHILLIPS Helix curlcare

Having curly hair should not be as difficult as it currently is in New Zealand. Helix is the solution to the current problems people with textured or curly hair are facing. Our mission is to create affordable, high-quality products that meet our consumers' needs. We help encourage people to embrace not only their hair but themselves fully by creating a community. We embrace diversity and therefore have a large range of products so that every curl type's needs are met.

➡ phillipscasey28@gmail.com





LYNA PICH

Mceuticals

Mceuticals offers a skin treatment plan consists of 4 different products, all working synergistically to prevent, treat, and manage hyperpigmentation. Developed with dermatologists and experienced formulation chemists around New Zealand. we have utilised our knowledge of skincare chemistry and design innovation to deliver remarkable product formulations cater to all skin types and complexions. Mcueticals aims to bridge the gap between the skincare and clinical skin treatment industries, giving consumers another skin treatment option that is evidence-based, safe and more accessible.

Iynapichq15@gmail.com



SARAH STEWART Aster

Aster is a skincare company that creates tailored solutions for breast cancer survivors. With breast cancer being the leading cancer in women in NZ, Aster has a vision and mission to redefine post-cancer care. This is done by tailoring products to support those in their journey to recovery. The product line concept for Aster is to help craft routines that bring a sense of luxury and normality, whilst focusing on efficacy to help heal the skin barrier as a damaged result of cancer treatments.

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SARAH TZIKOUCOS

Brothers & Co

Brothers & Co is a skincare brand aimed towards men with sensitive skin. Brothers & Co is a family brand built on deep rooted faith and values of authenticity, honesty, and integrity. We are firm believers in helping people where and how we can. Knowing what it's like to deal with sensitive skin personally, we understand the struggles and stresses and use these experiences to create quality products you can trust. Relatable, accessible, and honest. By family, for family.

🖂 xsarahtzikoucos@gmail.com



LEAH WILLIAMS Skincare for Keratosis Pilaris

Kare redefines skincare for Keratosis Pilaris, a common yet underserved condition. Our flagship products, the Exfoliating Body Bar and Nourishing Body Milk blend gentle exfoliation with potent nourishment, addressing KP's unique challenges. Designed with inclusivity in mind, our fragrance-free formulations cater to diverse skin sensitivities. Based in New Zealand, Kare's mission is to offer accessible, effective solutions for healthier, happier skin.

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INDUSTRIAL PRODUCT DESIGN

Every product we buy has a combination of elements in both design and usability. This major teaches how to design products that solve a problem and create the desire in consumers, using hand sketching and ideation methods, computer-aided design (CAD), and physical prototyping. Our Makerspaces are where students develop, design and produce handcrafted models as well as assemble and as well as finishing high-quality prototypes. Available equipment covers an enormous range of modern maker needs, including 3D printers, laser cutters, vacuum formers, hand mills, numerous workshop machines, electronics, a CNC router and other equipment to turn digital designs into physical concept models. Materials used by the students include foam, cardboard, wood, plastic, steel, resins, textiles, glass and more, depending on what they have designed and the intended functionality.







HARRIET ALDERSON

Social Seating

Following the 2011 earthquakes, Christchurch experienced a surge in construction projects, revitalising the city with innovative architecture and urban planning. Despite these efforts, the cityscape remains fragmented. To create cohesion, I have designed modular seating units that are adaptable to the everchanging urban landscape. The seats foster creativity, community engagement, and accommodate both individuals and groups, prioritising comfort with ergonomic and durable materials. The design has a recognisable and harmonious presence in the city, with links to the Avon River.

☑ harrietalderson222@yahoo.co.nz







HAMISH BELL

Portable power station and generator

A power station for powering devices that includes a turbine, designed to use the power of wind and water. Existing products on the market only employ solar power as way of charging offgrid, and therefore my product aims to provide a simple to set up way to harness the untapped power around us.

☑ hamishdcbell@gmail.com



EMILY BENNETT Ocean Plastic

The bottlecap dolphin sculpture aims to raise awareness about the impact of plastic on our oceans, affecting sea life and human health. Crafted from an MDF spray-painted skeleton and plastic bottle caps sourced from Riverlution Eco Hub, the sculpture depicts a common New Zealand dolphin, symbolizing the presence of plastic in our daily lives and its harmful consequences.

➡ emily.bennett5220@gmail.com







KOBE BREWER

Pure - Hydration Companion

The Pure Hydration Companion is a unique portable device that monitors the amount of water a person drinks. A timer monitors the amount of water to be consumed. The Pure Hydration Companion allows the user to know how much water they have consumed and how much more they need to drink to reach their daily target.

In addition to the timer, the product has a LED system will light up to remind the user to drink water at regular intervals throughout the day.

☑ kbr98@uclive.ac.nz



MATTHEW CALDERON Basket

A smart lamp consisting of mostly recyclable materials to reduce the impact of e-waste in the world.

☐ matmat9@rocketmail.com



Orthosis







MATT CALVERT

FlexFit Orthosis

Significant resource costs are associated with fitting and adjusting wrist orthoses. Current orthoses offer limited control, can become uncomfortable, or require multiple visits to specialists to fit or adjust.

FlexFit redefines preoperative care for Carpal Tunnel Syndrome (CTS) by improving the quality & control of wrist orthoses. Replacing multiple low-quality braces with a single, superior product allows practitioners to tailor non-invasive care to a patient's needs, improving the accuracy of care and patient comfort while reducing costs for our healthcare system.

☐ mcalvertwork@gmail.com



BENJAMIN CASS SailAbility ParAble Seating

This seat project revolves around designing a durable, tilting seat system for sailors with Spinal Cord Injuries in Sailability's new vacht class. With a focus on accommodating diverse medical needs, ensuring ergonomic support, and optimising sailing convenience, the seat aims to strike a balance between freedom of movement and a secure feel. Adhering to specific dimensions and weight requirements, the design aligns aesthetically with the boat and offers sailors an empowering sailing experience.

☑ bencass03@gmail.com



Harmony Space offers a vast collection of wallpapers categorized based on users' preferred usage scenarios rather than just by image style. This approach emphasizes personalization from the user's perspective.

As the central hub for smart homes, Harmon Space providing IoT capabilities to control and manage various smart devices in the household.

The integration of an Al image generator provides users with a broader array of choices, enhancing the overall personalization options available.



Transforming Homes into Productiv



KEVA CHEN Harmony Space

Harmony Space is an innovative smartphone APP aimed at providing users with a personalized and immersive workspace experience. Also, it acts as a comprehensive IoT control centre for smart home devices but also prioritizes user personalization and immersive experiences. By offering a wide range of wallpapers, integrating Al image generation, providing customizable ambient sounds. and enabling advanced projection functionalities, Harmony Space aims to redefine the user's digital workspace, making it truly personal and immersive.

☑ kevachen184@gmail.com



KELE (CHESS) CHESHIRE

Beginner's Strength

Beginners Strength is an innovative alternative to traditional skin-revealing pole dance attire. Specifically designed to indirectly address self-confidence and strength limitations, these specialized shorts offer ample coverage while ensuring optimal grip for beginners. By providing the necessary support and traction, these shorts empower individuals to effortlessly execute moves that may otherwise require significant physical strength. With this garment, aspiring pole fitness enthusiasts can embark on their journey with enhanced confidence and the ability to conquer new challenges.

☐ chessire.things@gmail.com





OLIVER COCHRAN

Electric Mini Jet-Boat

Design an easy-to-use electric alternative for a mini jet-boat with a high-tech user experience. For a high-end eco-conscious client with limited knowledge of watercraft. The user interface must be simple and intuitive while it guides the user through operation and maintenance.

🖻 olicochran03@gmail.com



ELIZABETH COOKSON

Avalanche Assistance Device

Introducing AvyHandles an avalanche avoidance device. The primary focus of the AvyHandles is to reduce risk of avalanche accidents. Used by laying the poles parallel to the slope, an accelerometer indicates risk level to the user via five LEDs: green safe, orange - moderate risk, red - high risk. This risk assessment works by measuring the slope angle which is an important factor indicating avalanche conditions with avalanches occurring on slopes with an angle between 30 and 45 degrees.

Iizcookson7@gmail.com

















ASHTON CORKERY

Focus has been designed to keep your phone out of sight and out of mind. A wellbeing product aimed at those who struggle staying focused on their work. The sleeve design allows users to access their phone when needed whilst keeping it hidden during your focus sessions. Focus features a dual LED timer on its natural front edge. Using Pomodoro's' time management technique to communicate the time left to work or rest helping to improve your wellbeing.

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MARIO CVETKOSKI Formabilis and Papier Brut

Formabilis and Papier Brut is a two part project combining material and product development. Formabilis is an environmentally friendly paper based material that is made from recycled waste paper or cardboard and uses poly(vinyl) alcohol as a binder. Papier Brut is a line of four office stationery products (A sticky note holder, pen holder, tape holder, and scissor handles) that were designed to showcase the material properties of Formabilis and how it can be manufactured using compression moulding.

🖻 mariocvetkoski@outlook.com









KENT DAVIDSON

Ghost Guard

This is ghost guards, a fully reimagined wrist guard for snowboarder. They are lightweight, custom and fit under the glove easily and are designed to go unnoticed by the user. When heated the guards become malleable and can bend to fit the user then harden the cool to become ridged. This lets each guard be custom to each person ensuring a comfortable fit.

🖻 krdavidson15@gmail.com



ROSA DAVIES Deflect Ear

The Deflect Ear attachment ensures wind passes over the microphone of Behind the Ear and Receiver in the Ear hearing aids. This reduces the wind noise effect while still allowing the ability to hear sounds/ talking for wind speeds up to 22km/h head on. BTE and RITE hearing aids make up over 80% of hearing aids on the market. The attachment is subtle in design while meeting the sporty aesthetic and being user friendly for people with limited mobility.







NATHAN EDWARDS

Ski Touring Crampon

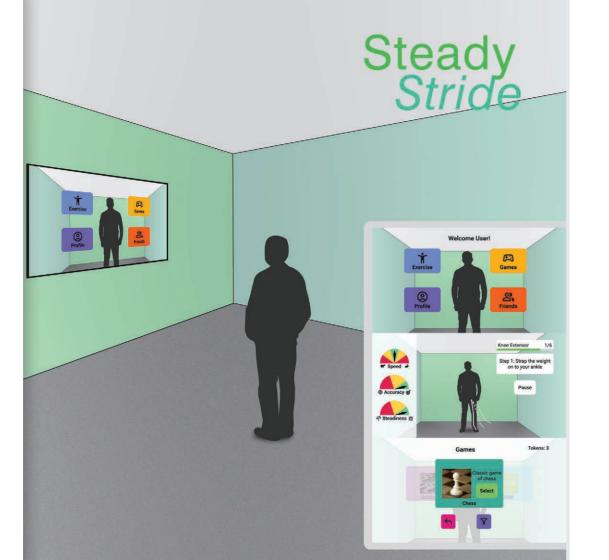
This innovative crampon is specifically tailored to effortlessly accommodate the tech insert on the toe of all alpine touring ski boots, ensuring seamless adaptation to various sole types. This groundbreaking design not only provides universal compatibility but also empowers companies to enhance boot designs by strategically relocating the tech insert, significantly improving overall skinning efficiency. The crampon features lightweight aluminium plates, contributing to reduced weight, and a robust central cable with a PVC coating for durability and smooth performance in challenging terrains, making it an indispensable companion for ski touring enthusiasts seeking optimal efficiency and reliability.

☑ nathan86edwards@gmail.com



GEORGE FEAST Steady Stride

Steady Stride is a software program that helps elderly users complete the Otago Exercise Program to maintain their strength and balance. The program uses a 3D camera as the input device and can track progress to alert carers of any significant decline in performance. Steady Stride allows users their own custom plans with exercises of their choosing. Steady Stride includes games for users to play individually or compete against their friends while subconsciously improving their strength and balance.







KIERAN FELLOWES

Kitset Guitar

This is designed to be a kitset that can be customised when ordering and then put together by the consumer. My project is the amalgamation of vintage parts and modern construction, using the CNC to precisely machine the wooden components.

☑ fellowesk25@gmail.com



JAMIE HAENRAETS Fragranzi for Me

Step into a world of selfexpression with Fragranzi for Me. In the comfort of your own home, mix and match a range of scents without handling messy liquids. The elegant system lets you craft a fragrance as unique as you are. The project reimagines Fragranzi's in-store service to be mailable and user-friendly, featuring innovative scented 'petal droplets.' This redesign encompassed creating a new system, packaging, branding, and more.

➡ jamiehaenraets@gmail.com



fragranzi For VIQ.

Express yourself through perfume











JAYDEN HANN

GateMate

GateMate is the solution to the problem that almost any kiwi has experienced getting out of the car to open gates constantly, just to get somewhere. By removing the need to leave a vehicle to traverse a gate, GateMate aims to eliminate the massive time sink and injury risk associated with manually opening gates when moving through a farm. Giving farmers much needed time and energy back.

☑ hannjayden@gmail.com



JAMES HARVEY Gen Optics

Gen Optics allows you to tailor and personalise your unique set of mountain bike glasses. Gen Optics uses cutting-edge Al facial scanning technology to precisely identify your facial dimensions. This invaluable data is used within the generative design space to generate side-arm and nose piece variations, allowing you to craft the ideal fit and look. Ensuring your glasses fit flawlessly is paramount for peak performance on the trail.

☐ jamesharv38@gmail.com





KATHERINE HOLLAND

LockLatch

The LockLatch is a seat belt locking mechanism that stops neurodiverse children from unbuckling their seatbelt during transport. The mechanism covers the release button on the seatbelt so children cannot press it. A magnetic key is used by the caregiver to uncover the release button, allowing for the seatbelt to be released, ensuring secure and controlled transport.

➡ katelizholland@gmail.com



JOSH HOLMES Steady Stream Neck Weight

A neck weight is an essential piece of equipment for free divers training and competing in pools. The 'Steady Stream' is a 3D printable neck weight for free divers, offering a costeffective alternative to expensive options. It improves accessibility, adjustability, and affordability while maintaining high performance. Users can customize size and weight preferences. Developed with input from the Christchurch Freediving Club, the design comprehensively meets user needs. The product will be accessible through the club's website, benefiting the freediving community.

☑ kearton.holmes@gmail.com

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DOORING

DEFENCE





ANDREW JANTKE

Dooring Defence

Dooring Defence is a safety solution to prevent cycling accidents caused by suddenly opening car doors. This system utilises laser lights projecting lanes with proper passing distances. The front laser, positioned 1-1.5 metres from the bike's side, marks the door zone, prompting cyclists to assert their legal right to 'take the lane' when passing parked cars. Simultaneously, the rear light indicates the necessary road space, alleviating pressure on cyclists to stay close to parked cars.

☑ apjantke@gmail.com



ANNA JIANG Circulation of Supermarket Bags

Introducing Froggy Bag Share: an innovative way to encourage the circulation of reusable supermarket bags. Given the energy-intensive production of reusable bags, they need multiple uses to merely break-even with single-use plastic. This friendly frog-shaped receptacle, inspired by New Zealand's Archey's frog, leaps to the rescue when you forget your bags or want to reduce the unused pile at home.

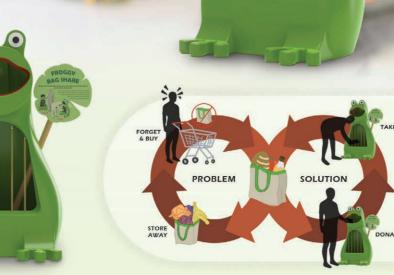
Hop on board to reduce waste, foster sustainability, and promote a greener world one shared bag at a time.

➡ annajiang27@gmail.com

FROGGY BAG SHARE

CIRCULATION OF SUPERMARKET BAGS

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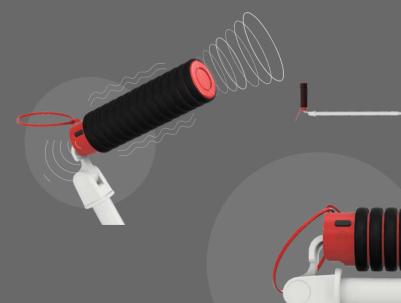


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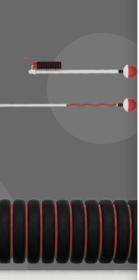
BAG SHARE

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Wayfinder.









KIANA KING-TE AMOHANGA

Wayfinder

Wayfinder reinvents the classic white cane by addressing the challenge of detecting chest and head-height obstacles. Equipped with ultrasonic sensors, the Wayfinder cane alerts users through vibrations and an optional speech output. Along with this, its compact, telescopic fold and spring suspension ensure a safer and more confident experience, enhancing independence for those with visual impairments.

☑ kiana.kingteamohanga@gmail.com



ELLA KORTEGAST The Tatiana Bilbao Chair

My Project was based around the 2023 Builder Architecture Competitions brief 'The Architects Chair'. The basis of this competition is to design a chair inspired by the personal style and design ethos of an architect of your choosing. My design is inspired by Mexican Architect Tatiana Bilbao. Her style is modern, feminine, and elegant. Her most important value is her connection with nature, and designs being led by nature. My design reflects her work through my eyes.

➡ ellakortegast@gmail.com



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SEBASTIAN LAMPEN PULL

Pull presents an elegant, functional, and innovative shock absorber for dog leashes. The motivation behind this project stems from the prevalent issue of injuries caused by sudden pulls during dog walks. Existing dog leashes lack mechanisms to mitigate the abrupt force, leading to injuries towards owners. Pull aims to address this by integrating a clutch system that effectively disperses force, enhancing safety and comfort during walks. Pull seeks to redefine the dog lead, offering a secure and reliable solution.

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KAYLA LANE Focus

This innovative tool is designed to support 7-8-year-old children with ADHD in low decile schools by reducing hyperactivity and enhancing focus in the classroom. Placed on a classroom table in a quiet corner, it provides a physical and visual aid to block out distractions. Users engage in a structured breathing exercise by moving a bead along a wire, facilitating a 4-4-4-4 breathing technique. This calming process helps children regain focus and control, promoting better classroom participation and emotional well-being.

🖻 kaylahlaneee@gmail.com







XINWEI LI

Snack n' Snap Cup

Snap n' Snack cup, a foldable, eco-friendly takeaway delight designed for a joyful snacking experience with its compostable material and cookie lid.

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GEORGE LINDORES E-Assist Wheelchair Wheels

This project started with the idea of incorporating an existing electric bike system and making an electrically assisted wheelchair wheel. After defining the scope of the project and planning how to achieve milestones set an in-depth look into how modern bikes work. After researching this, ideation was completed, and idea were formulated and through a long process of developing and validating parts a final design was reached. This result being two all in one all-terrain electrically assisted wheelchair wheels.

☑ george@lindores.co.nz











ASHLEY LOWE

Re-Cap: The Reclaim and Repurpose system

Re-Cap is a reclaim and repurpose system designed to provide a seamless solution for the disposal and upcycling of used swimming caps. This project was inspired by my teenage years as a competitive swimmer and the growing pile of old caps at home not yet thrown out. To ensure these products don't end up in landfill, the two-part system, consisting of the Reclaim bins and the Re-Cap Glow Lamp, was designed to spark conversation about material waste and sustainability.

☑ ashhalowe@gmail.com



DANIEL LYNCH Tackle Suit

I have designed a tackle suit that you would wear in rugby training. This suit is has heavy duty padding that is still lightweight and allows the wearer full mobility. Its purpose is to reduce injuries in rugby by giving the ability to train perfect tackling technique, to then reduce injuries that occur when tackling.

☑ daniellynch202@gmail.com







JAMES MALONE

Pangolin flex protective brace

The pangolin flex protective brace is a bio inspired mountain biking shoulder brace which aims to mimic the amazing protective scale structure of the pangolin.

With shoulder related injuries including factures and dislocations, making up a significant majority of serious mountain biking injuries the pangolin flex protective brace aims to provide riders with the support and protection they need without sacrificing their comfort or riding experience.

➡ malone.j.mc@gmail.com



LIAM MAY

Pro-Duce - Plastic Bag Alternative.

The idea was to present a suitable, cheap environmentally and sustainable plastic bag alternative that would rival the classic plastic LDPE bag that we have historically been accustomed to.

This back can hold 19 pieces of produce without critical failure (~3.4kg), is water-resistant and during critical failure wont spill all the contents. As a bonus the produce is kept locked in with freshness - just like plastic! Comes in packaging sizes 550-750 bags for under \$25 a roll.

liammay@live.com





LEWIS O'NEILL

Multiply-optimised structures

Opti-louver is an outdoor louver canopy that is primarily constructed from extruded 2D components that are optimised for material, geometric and manufacturing properties. Shape optimisation and generative design were used to create extrusion profiles and components that retain the functionality, aesthetics and structural integrity of the original design, while reducing the amount of total mass and material used.

☑ lewisoneill34@gmail.com



SHIVAAN PREMA

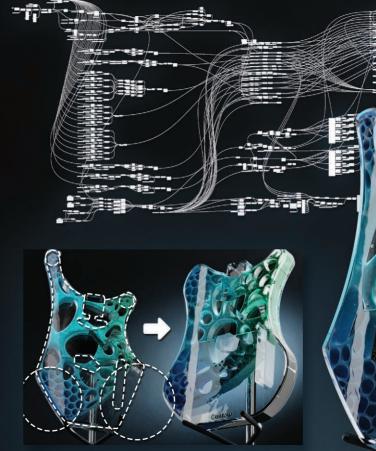
AeroPulse - Smart Inhaler Project

Addressing the global health challenge of poorly managed asthma, my project aims to revolutionise inhaler technology. With over 262 million affected in 2019 and an expected increase to 400 million by 2025, AeroPulse, a Smart Inhaler, is an innovative solution to assist asthma management. Coordinating dose delivery precisely with the user's inhalation, this advanced inhaler ensures optimal medication effectiveness. Enhanced with an intuitive LED indicator, it provides real-time feedback, empowering accurate and effective medication use for improved asthma management.

Shivaanprema@icloud.com



For Designers, For Consumers. S.A.M.C.









SHANE REYNOLDS

System for Adaptable Mass Customization

The System of Adaptable Mass Customization can be used to design and customize any product/product feature; designers build the system around the consumer's needs in Grasshopper. Consumers can then edit parameters to customize their product using numerical inputs, by uploading images, sliding sliders, and more. As the system autonomously generates 3D models, manufacturing data can be crafted as soon as the consumer is finished designing, thus allowing the consumer to receive their product ASAP.

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TOMAS SENIOR EcoBottle

I created a single-use water bottle using only natural materials in an attempt to reduce the amount of plastic pollution. The bottle material was made by mixing Agar, a powdered form of seaweed algae, with water. The mixture was heated before being rotation moulded within pre-made moulds. These bottles would keep their shape whilst fill of water and decay rapidly and naturally after the water has been consumed.







HUNTER SLEE GENLEG

GENLEG is a generatively designed transtibial prosthetic limb. By successfully implementing generative design and incorporating cost-efficient manufacturing techniques, this project aspires to deliver a ground-breaking solution that not only improves the well-being of prosthesis users but also reduces the financial burden associated with acquiring and maintaining prosthetic limbs. The ultimate aim is to provide an accessible, aesthetically pleasing, and costeffective transtibial prosthesis to enhance the quality of life for those who rely on it.

☑ hunter.slee10@gmail.com



CONNOR STOTT

FrameGuard - Beekeeper Storage Protection Device

The FrameGuard is a device created to help prevent the destruction to hive frames caused by wax moth and other pests whilst they are in storage. The aim of the product is to fit on the top and/or bottom of a standard Langstroth hive and protect the frames within by preventing wax moth from laying eggs between the cracks of the hives and causing irreparable damage.

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The Slope Stow







GEORGE WALTON The Slope Stow

This project focused on enhancing the storage and transport of snow sports equipment, emphasizing accessibility and modularity for user-friendly interaction. It offers the flexibility to adapt to various boot storage requirements with ease. The design incorporates a flat-pack assembly for convenient transportation and storage. Sustainable and durable plywood is easily machinable for manufacturing and is the material of choice, aligning with ecoconscious sustainability values and quality craftmanship.

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LACHLAN WELCH SportAlign

SportAlign is a 3D-printable custom foot and ankle orthotic designed for individuals recovering from ankle sprains. Crafted through playdough moulding, 3D scanning, and editing and modelling in Meshmixer and Fusion 360, it offers a slim-profiled solution to in-shoe ankle supports and braces. The design ensures a seamless fit within the shoe, providing personalized, userfriendly support for accelerated ankle sprain recovery.

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JOSHUA WILSON

Desktop Wind Tunnel

Develop a low-cost desktop wind tunnel that can be used in classrooms and educational laboratories to enhance student engagement and performance in aerodynamics studies.

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ALEXANDER YALLOP GoRoll

GoRoll emerges from the necessity to aid professional athletes in their pursuit of peak performance. Filling a market gap where standard foam rollers lack in on-the-go recovery, GoRoll delivers a truly functional and travel-friendly solution. Athletes deserve effective recovery tools, wherever their journey leads them.

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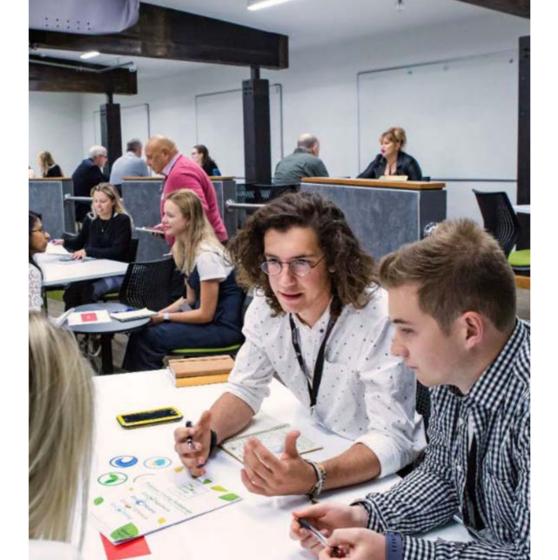






MASTER OF PRODUCT DESIGN

The Master of Product Design (MProdDesign) takes advantage of UC's research expertise in a range of commerce, IT, and engineering fields. The programme provides a mixture of practical work and theory with original supervised research. Postgraduate studies in Product Design present students an opportunity to prepare for the ever-changing consumer market with advanced design, manufacturing, and business analysis skills. Students use dedicated facilities for creating and testing product ideas, e.g., design studios, laboratories, workshops, 3D printers, and a gaming lounge with AR and VR spaces and equipment.



MASTER OF PRODUCT **INNOVATION**

The Master of Product Innovation (MProdInnovation) is opened to students of any study background. The programme offers a perfect opportunity to access specialised facilities and industry experts at university while beginning to develop their product or business ideas. Product designers have an exciting and everchanging career, needing to understand and anticipate market trends, design innovative concepts, and create interest in new products. Students get one-on-one support and guidance to help bring a project to life and ensure business success.



REBECCA HAISMAN 3D Printed Personalised Orthoses

Ankle-foot orthoses (AFOs) are medical devices which can help patients walk independently after stroke. This project aimed to improve users' satisfaction levels by employing a novel holistic user-centred design approach in collaboration with stroke patients and clinicians. Contemporary digital methods including 3D scanning, topology optimisation, and 3D printing were used to develop a custom-fitted orthosis. Interchangeable aesthetic pieces, which can be tailored to meet each patient's needs, were incorporated to promote choice and autonomy. User evaluations found that this design improved patient satisfaction, suggesting that personalised devices which consider functionality, usability, and aesthetics lead to improved rehabilitation outcomes following stroke.

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MEMBERS OF STAFF



A MESSAGE FROM THE HEAD OF SCHOOL

SCHOOL OF PRODUCT DESIGN

The School of Product Design Graduating Projects Showcase and Booklet were launched in 2020, to celebrate the amazing mahi of our first cohort of graduating students. In the 3 years since, it's been amazing to watch as the ongoing changes in our school and the world around us is reflected in the work of our students, and the ever-increasing variety and quality of the outputs they produce.

The 2023 graduating cohort is no exception to this ongoing excellence, with their imagination, creativity, technical ability, and effort to work through complicated problems to find ingenious solutions to wicked problems evidenced in this booklet. I encourage you to take the time to reflect on your years of study and how you've grown and developed over this time, and as you look forward to the challenges ahead, I hope you feel prepared to make a difference in the world.

As much as this is a time to celebrate our graduates, it would be remiss to acknowledge those who have supported them on their journey. To our academic, technical, and administrative staff, as well as our tutors, design practice teaching fellows, student societies such as ProdSoc and GameDevSoc, and the many others who are directly involved in the delivery of knowledge and pastoral care of our students, thank you so much for all that you do, and I hope you take pride in your part in helping these students reach this point.

I would also like to take the time to remember our inaugural School of Product Design Industry Board Chair, Anna Wilson, who very sadly passed away early in 2023, and send our heartfelt thanks to her family, colleagues at Holmes Solutions, and the University of Canterbury Centre for Entrepreneurship for creating the Anna Wilson "Design for Tomorrow" award, to help a select few of our final year students get a jump start into commercialising their amazing final year projects.

To close, I would once again like to congratulate our graduating students and wish them every success in their future careers. Please stay in touch and feel free to visit anytime, we always love to hear about the amazing work you are doing.



DR ADRIAN CLARK

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Cameron Rooney
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	8	Hannah Maunsell
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Well done to the graduating cohort of 2023!

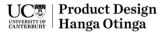
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