

# primitive shapes

ntu design industries 2023

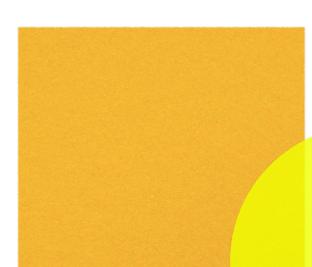
Just as education forms the foundations of our unique and diverse paths, primitive shapes provide the base of complex forms.

Like primitive shapes we too evolve: Through learning we grow and mould into new structures; Like Boolean operations we combine through collaboration; And through sharing knowledge we divide, giving others the chance to develop from our experiences.

We've grown resilience through university, building the foundations we need to stamp our authority and inspire our industry.

We all start as primitive shapes.





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James Dale Head of Product Design

We have spent a great deal of time in the Product Design department this year experimenting with the use of Artificial Intelligence (AI) software as a creative tool, to enable our design students to explore ideas and approaches to their work that they may have never normally considered. Rather than some of the kneejerk negative reactions to the use of AI in higher education, our approach has been to experiment, test and prototype the technology, to see what it can achieve and to try and understand the limitations and challenges that this new technology represents.

So far, the opportunities that AI offers are fascinating, but the core to how we engage with this technology, ensuring that our students can curate and evaluate the information with an open mind and a critical eye while clearly referencing the input and role that the AI has played in the creation of our products. But rather than stand on the beach calling on the next wave to turn back, we need to accept that change is here, evolve and move forward positively.

With that in mind, I asked OpenAI.com to suggest an inspirational forward to this year's Product Design brochure; it offered up a twenty-year-old quote from Steve Jobs talking about the iPod (remember that!) and the sort of glowing platitudes you have probably come to expect from my introductions to brochures like these over the years (which may well have been drawn upon by the AI in order to write its own version).

So instead, I will simply say that we are here today to honour the 'actual intelligence' of these supremely creative, passionate, design graduates and their dedication, hard work and good humour; it has been a pleasure working with you, and for you. As a department we wish you all the best in your future careers – remember to keep it real (even when some of it may be unreal).

Jim

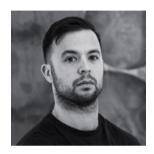




# **BSc (Hons) Product Design**

Our BSc (Hons) Product Design course at Nottingham Trent University concentrates on the design of products for manufacturing, digital, industrial, electronics and medical applications, placing technology, and scientific advancement at the core of the design process.





Joseph Stewart Course Leader, Product Design BSc (Hons)

As your undergraduate degree studies come to a close, it is pertinent to reflect upon your personal journey; not just over the past year, but the duration of your time at Nottingham Trent University (NTU).

Your time at NTU began with a focus upon core design skills and material and manufacturing appreciation in Year 1. In Year 2, you took part in a series of live projects and a diverse guest lecture series. Some of you then went on to complete a placement year or the PIP scheme. Lastly, Final Year included a Study Trip to Barcelona and extensive project work, which this year includes some intriguing and engaging outcomes: a domestic vertical farming system, toys for autistic children, and an innovative food allergy test kit, to name but a few.

Who knows what the next stage of your journey will entail. Perhaps a graduate role in product development, design engineering, manufacturing, or even postgraduate study? Whatever the future holds, I hope that as graduates you recognise the broad range of transferable skills you possess, and subsequently move forward with confidence, diligence, and proficiency.

As the BSc (Hons) Product Design 'Class of 2023', you have overcome the adversity of a global pandemic to get to this point. In spite of this and other challenges, you have acquitted yourselves effectively and professionally throughout, for which I applaud each and every one of you.

"Education is a passport to the future, for tomorrow belongs to those who prepare for it today." – Malcolm X

## Class of 2023 - BSc (Hons) Product Design



Akua Anim-Boadu



Calvin Atem



Demi Atiba



Kirsty Autherson



Daisy Balasingam



Millie Baxter



Tom Beaumont



Charlotte Brockett



Harry Bureau



Priten Chauhan



Adam Cliffe



Hannah Cox



Ben Daymond



Josh Dennis



Ollie Dennison



Alex Dzaghigian Vadet



Harry Esposito



Robert Evans



Rhys Greedy



Buster Green



Tom Griffin



Kritey Gulati



Molly Gurr



Deeya Halai



Alex Harwood



Luke Hedley



Ben Holmes



Devishi Kapoor



Gene Keng



Mohamed Nuair Kobattay

### Class of 2023 - BSc (Hons) Product Design



Ben Lawrence



Libby Manning



Alessandro Marazzi



Luke McCorkindale Brown



Tom McNeil



Ethan Murray King



Javier Oldham



Wil Poxon



Sophie Puffett



Jasmine Ram



Oscar Robinson



Jonathan Rumball



Will Seekins



Drew Sharp



Charlie Sissons



Evan Stokes



Lauren Thompson



Alfie Topping



Aiden Ward



Angelika Widz



Joey Wong

#### **Calvin Atem**



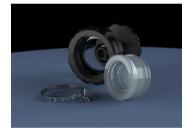
I am an innovative designer who looks to solve problems in the modern world. I am able to adapt to each project by using various CAD software to best visualise my ideas. I believe users should be at the heart of most design decisions.

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#### LCD

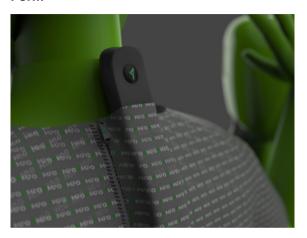




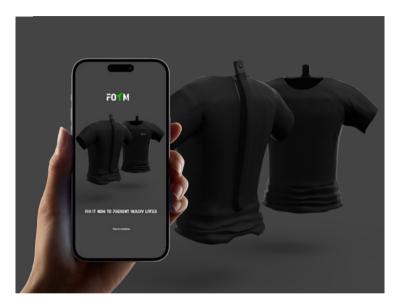


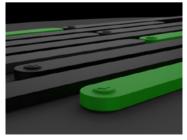
LCD is a kitchen liquid dispenser for the visually impaired. The product dispenses a set amount of 1 table spoon every squeeze, so the user knows exactly how much is going into their food. LCD is a product designed for the blind but beneficial to all.

#### **Form**



Form is a wearable technology that will help you perform lifts correctly to prevent back injuries at the gym. Sensors detect rounding or hyperextension on three different areas of your back and alerts you via audio, video and vibration. Download the Form app to see exactly where you lift improperly and advice on how you can improve on the next set.







#### **Demi Atiba**



I consider myself to be a problem solving designer, that enjoys using my creativity to overcome difficult situations.

#### DripPowder

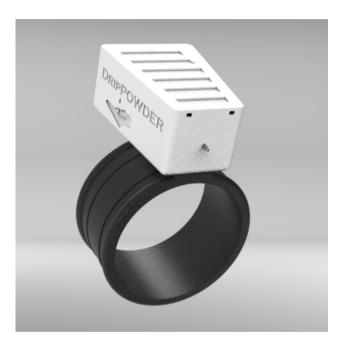








DripPowder allows users to immediately access powder when exercising, thanks to its liquid powder dispenser. Everyone can use the device easily thanks to the adjustable protective strap. It also helps in guarding the wrist of the user. This product's advantages include reduced calluses, blisters, and early eczema.





#### **Kirsty Autherson**



I am a designer with an interest in finding practical solutions to real world problems. I enjoy the creative process of brainstorming initial ideas and concepts and developing them into a tangible products. Projects that challenge me to improve sustainability and include technology are of a particular interest.

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#### 360 Ski Pass

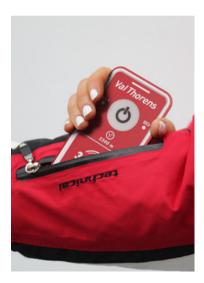


This project expands on the concept of a ski pass by incorporating a GPS locating system that the user can activate with the push of a button. It uses an app to send their specific location to ski patrol, significantly improving rescue time and precision.











#### **Daisy Balasingam**



My design philosophy centres around an honest approach to design through prioritising people's needs. My projects are influenced by my enthusiasm for travel and experiencing cultures. I hope to further my career and develop my skills by finding opportunities to observe the cultural impact of design worldwide.

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#### **Roots**



Roots is a personalised subscription service that increases consumer awareness of scalp care. This is done using various methods of exfoliation, catering to varying levels of dandruff and scalp build-up. This improves overall scalp health to achieve healthy hair.









#### Millie Baxter



I am a designer driven by problem solving. The products I create tackle real issues and my design decisions are highly intentional. I strive to enhance the lives of those around me through technical and functional solutions, whilst still highlighting the beauty in their purpose.

#### glow



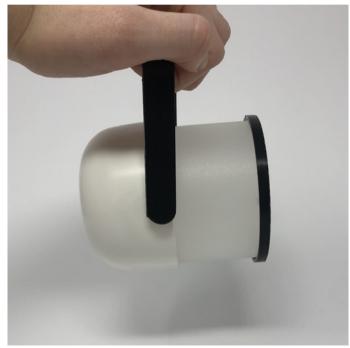






Glow is a multifunctional lighting device, mainly for use in countries with erratic electricity supply. It is a solar-powered device that can be used to modify the light output by adjusting the position of the handle or changing the height of the inner shade.





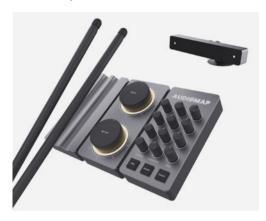
#### **Tom Beaumont**



With a background in performance technology, my drive for design comes from a desire to create new and better experiences. I use my prior engineering studies to make products from a systems level up, applying new technologies and ideas that can improve user experiences.

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#### **Audiomap**

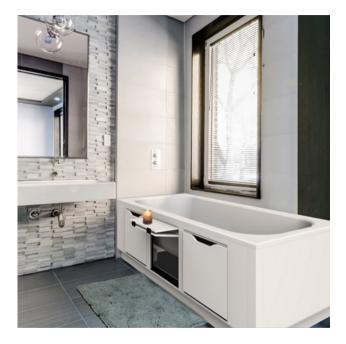




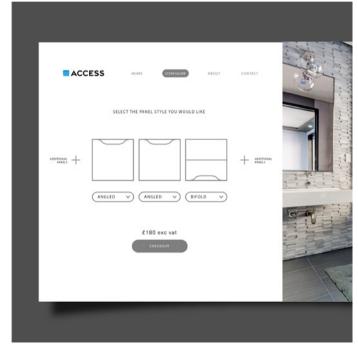


Audiomap offers a new way for musicians to practice, perform and produce drum and percussion tracks without the need for large or noisy equipment. Audiomap tracks the movement of the sticks and maps any surrounding to an individual note or sound, creating an expressive music experience within the space around you.

#### Access



Access is a modular bath storage panel, designed to maximise the available storage space in the bathroom. Inspired by tiny home design, the product enables access to the cavity found around and underneath the bathtub through a range of high-quality acrylic bath panel modules.



#### **Charlotte Brockett**



Fuelled by a passion for utilising design to create positive change. My focus lies within social issues; creating innovative products that also promote environmental sustainability. This can be seen in my work where I explore often overlooked or stigmatised design areas, attempting to push the boundaries of possibility.

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#### eden.





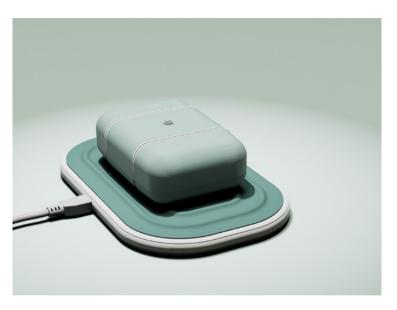


eden. is a compact, hand-powered washing device for reusable period pads, empowering anyone to take up a sustainable hygiene routine. Discreet and easily stored, eden. is crafted from recycled HDPE. The device is easy to repair, and reduces water usage by up to three times compared to other washing methods.

#### **ALF: Allergen Lateral Flow**



ALF: Allergen Lateral Flow is a portable food analysis device designed to detect potentially life-threatening allergens in food. ALF utilises multiplexed lateral flow technology to test food samples for allergy proteins, providing peace of mind when eating out.







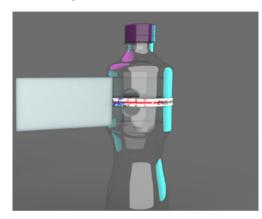
#### **Harry Bureau**



As a designer, I have ambitions to create a better world through the power of design. I want to contribute in a positive way to people's lives and help them through innovativation. I want to fuse my design work with something that has helped me massively in my life. For me that's sport. As such, my aspiration is to design equipment for the top sporting teams in every sport.

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#### **World Cup Bottle**







For my Commercial Project, I designed a promotional soft drinks bottle for the Qatar 2022 Football World Cup. The design includes a collectable wristband, each representing a different country, concealed under the label.

#### **EDU-Tackle**



Through evaluated research, tackle technique was found to be a significant contributor to the rise in concussions amongst contact rugby players. EDU-Tackle aims to counteract this by educating novice players the correct tackle technique.







#### **Priten Chauhan**



I am driven to create impactful products that prioritise the needs and wellbeing of the user to a professional standard. My passion for medical design has led me to focus on projects that can positively impact the lives of users and those around them.

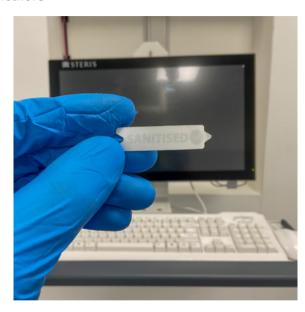
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#### **Device Sanitisation Indicators**









Only 38% of medical staff surveyed felt comfortable using the digital devices within their ward. This figure should be considerably higher. The use of a Device Sanitisation Indicator builds the confidence of staff through a smart, low cost and reusable product suitable for all non-clinical digital devices.

#### Sation



Bacteria found in kitchen cleaning fabrics multiplies at a rapid rate in damp conditions, leading to products being thrown away due to bad odours and discolouration, creating unnecessary waste. Sation's disinfection dome and storage compartments improves the user's experience when disinfecting and storing kitchen cleaning fabrics and detergents.





#### **Adam Cliffe**



I am an energetic, selfstarter designer, committed to seeking opportunities to acquire new skills and develop myself in the design world. Throughout my final year, I have ventured into projects that assist people with their personal challenges, as well as designing for a new, postpandemic world.

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#### SIMBIO Series 1







Dysphagia is the medical term for swallowing difficulties and affects one in six adults. Sufferers find it difficult to drink in public due to the embarrassment of using a special cup. The Simbio Dysphagia Cup provides a medical cup for dysphagia sufferers to use, while also maintaining a discreet aesthetic.

#### Pill



The Pill Smart Desktop Fire Extinguisher is a desktop miniature fire extinguisher capable of extinguishing small electrical fires as well as alerting the user to other fires at home. Its aim is to improve the safety of hybrid workers by reducing the risk of a major fire developing at home.







#### **Hannah Cox**



I am an inquisitive and curious designer, constantly exploring new ways that I can improve my work and experiment further. I aim to create inclusive designs that can be used by as many people as possible.

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#### Redesign of a Low Budget Trainer





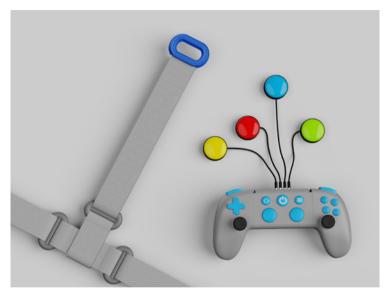


The project focused on making a shoe more sustainable throughout its lifecycle. The end result is a mono-material, fully recyclable, TPU trainer which would reduce waste during manufacture by roughly 14%. The shoe would also be unisex and available in sizes 3-13.

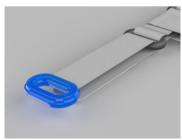
## **VRSE**



The project aims to approach the design of VR accessories and devices to make them more inclusive and accessible than they are currently. The Flex Controller is an adaptive VR controller with removable sides and the Loop Strap allows users to better adjust a VR headset.







# **Ben Daymond**



I am an open-minded designer who aspires to create aesthetically pleasing products without sacrificing functionality. I have a passion for the manufacture of products and enjoy using traditional handcrafting skills alongside the digital parts of the process, such as 3D rendering. I am always looking for opportunities to improve my skills.

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## Wabi-Sabi Kombucha



Wabi-Sabi Kombucha is a ceramic fermenting pot for kombucha with ceramic cups and a bottle. This product aims to promote a healthy and regenerative relationship between food and drink with fermentation. Kombucha is a very beginner-friendly fermentation process that can kickstart a new world of fermented foods for users.





## **Crux-Board**



This hangboard allows climbers to mount it onto a doorframe, making it suitable for those living in a temporary residence. The modularity also allows climbers to train in a way that is best for them, with the addition of rock holds for skin conditioning and horizontal training.







## **Josh Dennis**

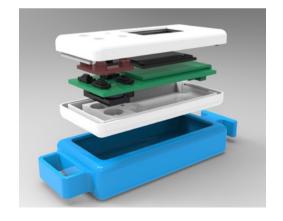


As a child, I enjoyed watching films about robotics. This has heavily influenced my design projects, where I focus on using technology to improve the users' life. I hope to be part of the group that continues to bring new technologies into the mainstream.

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## **CIPO**

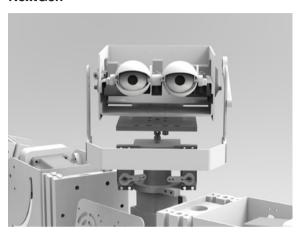






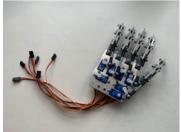
CIPO aims to reduce food waste by alerting users when the food begins to expire. By fixing tags to items in the fridge, users can monitor all their food via an app and receive live updates.

## NextGen



NextGen is a full-sized humanoid robot, built for education. The unit can be used for demonstrations, competitions and lessons, allowing young people to engage with technology that used to be far out of reach of most education establishments.







### **Oliver Dennison**



I'm a designer who prioritises functionality first and foremost. In my mind, aesthetics mean nothing if the product doesn't achieve its goal. I aspire to push the boundaries of what can be achieved within the 3D prototyping industry.

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### **Rescue Drone**

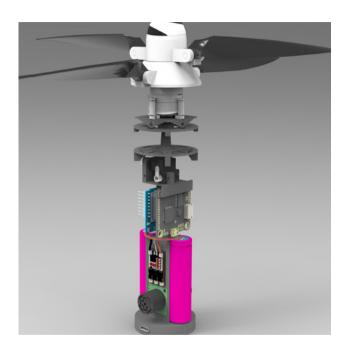








Rescue Drone is an autonomous solution that enables lost people to alert rescue teams of their position. Once launched, the drone flies as fast as it can to an area with signal, whereupon it broadcasts the location of its user. It then gently lands itself in a clear space.





# **Alex Dzaghigian Vadet**



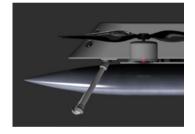
As designers our ultimate goal should be to have ideas and create things that will live longer than us. "Ars longa, vita brevis" - Art is long, life is short.

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# **Stymphalian Drone**

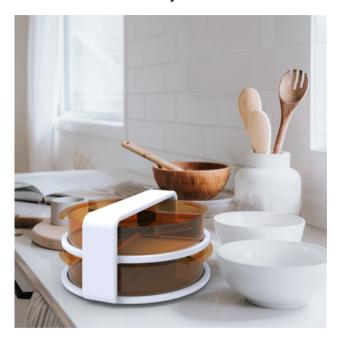






The Stymphalian Drone is a counter-terrorist drone designed to destroy military vehicles. It carries an explosive payload of up to 4.5kg for 30 minutes and delivers that to its target through a fast dive attack. The drones can also be flown in swarms which are even harder to combat.

# **Microwaveable Food Tray**



The product is a food tray designed to be used in the microwave to cook multiple different foods. The product is primarily designed to assist the blind and visually impaired, who have trouble cooking and separating foods.



# **Harry Esposito**



With my designs, I aspire to contribute to the development of user accessibility, experiences and product functionality. I aspire to work freelance after university, before setting up my own design consultancy.

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# Helping alleviate marine pollution

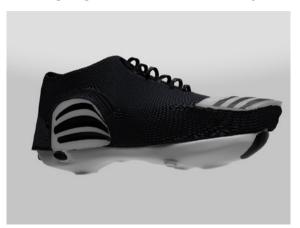




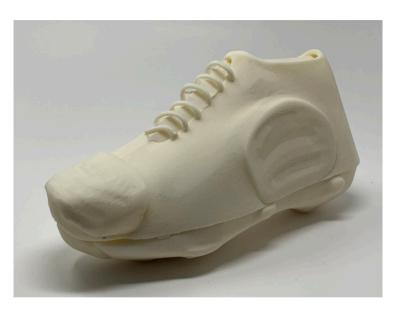


This project aims to help alleviate the marine pollution caused by urban run-off waste water that is a consequence of human activity. This project provides an accessible user experience in home filtering waste water.

# **Re-designing Trainers for Sustainability**



The aim of the project was to design a cheaper trainer that is more suited to the current cost of living crisis. The design, which was modelled in virtual reality and 3D printed, also has a significant focus on sustainability.







### **Rob Evans**



I am driven by a passion to learn and explore new tools in order to enhance my skills as a designer. I seek to use new and developing tools in creative ways, blending both the technical and creative aspects of design. My inspiration come from various places and I believe that "Designers should read about everything other than design".

### **VOLTA**









The VOLTA speaker set features three individually designed, cylindrical housings tailored to the specific parameters of each driver. To connect them, an organic structure informed by Al-based software was created to blend traditional and contemporary design techniques.

## **XL Mules**



Modern shoe design and manufacturing methods are creating huge amounts of waste at landfill. The XL Mule sought to reduce the number of components needed in its design to the bare minimum, whilst retaining comfort and a modern aesthetic. The shoe is also fully recyclable as part of a circular economy.





### **Buster Green**



As a sustainable product designer, I strive to incorporate innovative technologies and manufacturing techniques in my work. I am passionate about using cutting-edge materials and mechanisms to create functional and desirable products. From ideation to manufacturing, I enjoy all aspects of the design process and thrive on problem-solving challenges.

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## **Microponics**



Microponics offers a fresh approach to growing your favourite salad greens, vegetables, and herbs. We are currently very detached to where our food comes from. Microponics changes our relationships with how we get our food, bringing it into the home; reducing food waste, food miles, removing pesticides and plastic packaging.





## **EZT**



The device enable golfers with physical limitations to continue to play the game while maintaining golf etiquette independently. The device accommodates users' physical constraints, making the game more accessible and comfortable for elderly golfers or those with limited mobility or strength, especially those who find it difficult to reach the floor.





### **Tom Griffin**



I'm a versatile and driven designer who is constantly looking for problems to solve. I thrive in the research and development stages, especially when working with a diverse range of people. I look to create highly functional designs that meet the needs of people today, without compromising future sustainability.

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#### **ECO Hive**



ECO Hive is a modular insect farming unit, adaptable to different species and industry environments. ECO Hive offers start-ups and medium-scale operations affordable entry into insect farming whilst reducing energy costs and maximising yield; in addition to providing businesses with a scalable platform to keep up with growing demand.





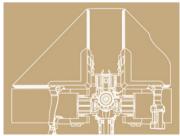
## Ricosheld



Ricoshield is a rifle-mounted ballistic shield for use with Kalashnikov and NATO rifle platforms. The design uses ballistic materials and angled plates to protect the head and upper torso of light infantry from incoming small arms fire and shell fragments during trench and urban fighting, whilst maintaining low weight and manoeuvrability.







# **Kritey Gulati**



As a passionate and creative designer, I approach problem-solving with an artistic eye, utilising my skills and knowledge to create designs that are both functional and visually appealing. I am driven by the desire to tackle real-world problems, using my passion for design to make a positive impact.

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## **HI-GEN Bidet**







A portable bidet designed for international travellers to the UK which provides comfort for postpartum cleaning with water, accommodating those not accustomed to using toilet paper due to cultural reasons. Suitable for both travel and permanent accommodation, the bidet offers a practical and convenient solution.

# **Designer's Tool**



The Designer's Tool is a computer mouse designed specifically for designers, offering high-end technology and features to enhance their efficiency and effectiveness while using design software. Its unique design provides power and precision in the hands of designers, allowing them to create and innovate with ease.







# **Molly Gurr**

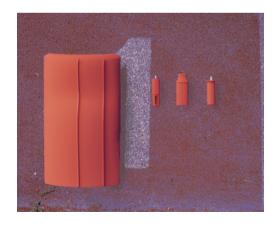


This year I've enjoyed delving into footwear, sustainability, sports and medical sectors, as these are all areas I'd love to pursue. I'm inspired by the crossover of science and art, and hope to continue this in a career in sports performance design.

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## **Balance Boost**







Balance Boost is a hormone testing device for competitive female athletes. It allows Athletes to utilise and work with their cycle for improved training and enhanced performance.

## Re-Sole



The recycled trainer takes the current lifestyle shoe and turns this into an eco-conscious, budget friendly alternative. Every year, billions of shoes end up in landfills, and with more than half of these being trainers, their design must evolve and focus on the future. Sustainability should be accessible to all, therefore, this trainer is focused around making affordable changes. Every component of the trainer was evaluated and changed to a recycled version that helps the planet but keeps the cost low.



# Deeya Halai



I'm an enthusiastic, selfdriven designer. I approach each project with energy and creativity, which, alongside my commitment to finding practical solutions, ensures that my designs deliver on both aesthetics and function.

### **Oatilicious**









Oatilicious is a plant milk making kit, primarily but not exclusively used for Oat milk. With this product, consumers can make homemade milk in one container, compared to the conventional way which requires multiple containers and equipment. Oatilicious has everything in one, blending, filtering, storing, and pouring.



### **Alex Harwood**



As a highly-driven and conscientious designer, I am motivated by the prospect of taking on new challenges. I am passionate about creating sustainable, innovative products that positively impact both the user's life and the environment. I look forward to gaining more experience in the industry and growing as a designer.

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### Sole 2 Soul



With 22 billion pairs of shoes going into landfill each year, the sleeping mat aims to reduce brands environmental impact through repurposing post-consumer trainer soles while improving the daily lives of the unsheltered homeless. The mat uses shredded EVA soles to create a low-cost, insulating and waterproof layer of comfort.





## Hone



A field hockey training aid designed to improve a player's technique and accuracy of skills. The detachable, stick-mounted device contains sensors to track motion of the hockey stick, providing detailed feedback on potential errors through an app. This integration allows coaches to deliver an individualistic, accessible approach to all performance levels.







# **Luke Hedley**



I am a designer with a passion for creating practical and aestheticallypleasing products. With expertise in CAD, prototyping, and manufacturing, I am able to turn ideas into tangible solutions.

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# Skydry



With the cost of living crisis in the UK, many people find it challenging to dry clothes in an affordable and practical way. Skydry is designed to be used outdoors, preventing damage to your house or health from drying clothes inside. Skydry allows you to save on electricity bills from hungry appliances, all year round.





## Cue



The Cue drinking aid is a revolutionary fluid tracking device designed for individuals with dementia. This compact gadget utilizes smart sensors to send gentle reminders and tracks water intake on a progress bar throughout the day. With it's user-friendly interface and customizable settings, Cue ensures that individuals with dementia stay hydrated and healthy, promoting overall well-being.







## **Ben Holmes**



My personal interests and hobbies strongly influence my style and objectives as a designer. Through my love of mountain sports and photography, I've developed a hands-on, perfectionist attitude, backed by an eye for composition that is reflected in my work.

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### **Mountain Rescue Medical Rucksack**









I identified through empathetic research that Keswick Mountain Rescue Team's Immediate Care rucksack was in need of a redesign in order to streamline rescues. The rucksack innovates over it's predecessor by utilising three configurable fold out compartments that organises the contents intuitively. This is shielded by a hard-shell outer made of X-PAC VX21; an extremely hardwearing and waterproof material.

# MyMokka



From personal experience and talking to the target market, making good espresso-style coffee whilst wild camping has always burdened the outdoor enthusiast, weighing down the coffee lover's rucksack with unreasonable bulk and weight. MyMokka is an ultralight coffee percolator designed for an outdoor and adventure goods company bringing the luxuries of the home to the ultralight camping market.







# Devishi Kapoor



I am a product designer who enjoys in-depth research and observation of users to enable problem solving through ideation and development. Consistently self-developing through challenges, my ambitions lie in designing solutions in digital and physical spaces, focusing on research, innovation, usability, and experience.

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### **Lumen Lane**

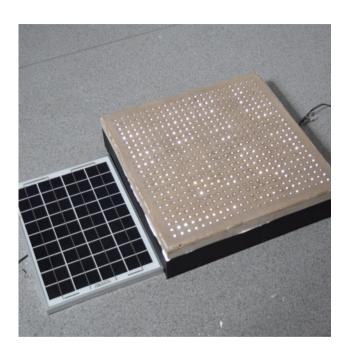








Lumen Lane transforms basic concrete flooring slabs into a luxurious lighting solution, catering to a niche market. With material innovation at the core of its design, it underwent continuous research and development to balance aesthetic, structural strength and technology.





# Gene Keng



The core of my design projects is innovation. I always try to engineer products with unique functionality and user experience, to stand out in the market. My aspiration is to become a design engineer, specialising in bio-mimicry. I believe the combination of technology with nature-inspired design has great potential to thrive.

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## **World Cup Promotional Bottle**



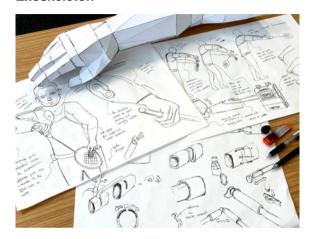






This product is a limited edition World Cup promotional bottle for a soft drinks company, featuring a cylindrical ice mould embedded in its dent section, accompanied by a football player figure as a collectable. The ice moulds can be inserted into a limited-edition cup, creating a non-floating ice effect and a football game diorama.

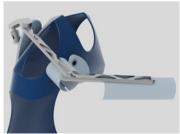
## **Exoskeleton**



The Exoskeleton is a task-specific training aid that assists badminton beginners through establishing muscle memories. The TENS unit simulates user's muscles to conduct involuntary muscle contraction, and with guidance of the mechanical units, the user can perform badminton backhand serve. The product aims to induce muscle memories faster than conventional training.







# **Mohamed Kobattay**



Design has allowed me to use my creativity when developing intuitive digital experiences. With a background in UI/UX design and an understanding of user-centered design principles, I thrive on crafting innovative designs that meet the needs of today's fast-paced digital landscape.

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### **Academate**









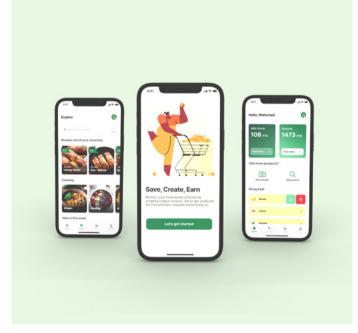
Academate is an academic support app designed to help university students manage their studies and reduce stress. With its comprehensive resources and tools, students can access personalised academic support, track their progress, and connect with mentors and tutors.

## MealMend



MealMend is an application that provides users with data and information about their current food inventory, and create recipes out of available produce to prevent it from going to waste.

MealMend acts as a food waste reduction system in a community.



### Ben Lawrence



My interests in design reflect my interests away from design. A passion of mine is sport, and I am greatly interested in looking into how products are developed for this sector. I also have a keen interest in the sustainable influence that design can have on this field.

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### **AccesSki**



AccesSki is a highly adjustable sit ski outrigger, aimed to allow disabled snow sport to become more accessible. The product can be customised to the unique abilities and limitations that a disabled user may have, allowing increased participation and increased independence on the slopes.













# **Libby Manning**



I am passionate about inclusive and user-centred design. I believe design should be accessible to everyone, regardless of their ability or background. Placing the user at the center of the design process, I strive to create solutions that are intuitive, easy to use, and meet the needs of diverse audiences.

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#### Contrast

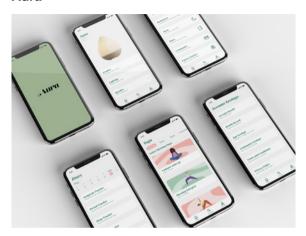






Contrast is an inclusively designed chopping board system developed for visually impaired individuals. The dual-sided, multi-colour boards provide high contrast against the food being prepped. With six colour options available, users can maximise their food selection alongside the streamlined storage case. This provides a minimalistic, compact finish, ideal for use in the kitchen.

## Aura



Aura is a premium lamp crafted to enhance sleep quality for women experiencing menopause. Aura is designed to help the user relax before bed promoting a restful night's sleep. Through a holistic design approach, Aura combines relaxation techniques with lighting to aid sleep.







#### Alessandro Marazzi



Ever since I was a child I've been fascinated with how things work, often taking apart my toys to see what makes them tick. As a designer I find myself drawn to the technical side, I love to find a problem and design a solution that is both practical and desirable.

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#### Frame-Work







Due to the substancial increase in home-working, it is essential that an employee has a physically and mentally good area to work. Frame-Work was designed to accommodate IT equipment for home workers and evoke a relaxed, productive working atmosphere whilst providing an aesthetically pleasing design outside of work hours.

# Vista



Vista is a visual aid for use in the kitchen. It attaches underneath an upper kitchen cabinet and can fold down to provide light and 3x magnification. This assists the user when reading small text in recipes, ingredients and measurements.







#### Tom McNeill



I love to work on anything and everything in design. My work always has the user at the forefront and I work passionately to get the best possible outcome. My main area of interest is in developing products and interfaces that are aimed to best suit the people that use them.

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#### Re-Sole







With Re-Sole, old trainer soles are shredded, heated, and compressed into orthopaedic insoles for daily use. With no adhesive used, the insoles can be continuously recycled, making the product fully cyclical. The inexpensive insoles provide several physiological benefits to all users.

## **Lead Solo**



Lead Solo allows climbers to lead climb without the need for a partner. The purely mechanical design allows gyms to get climbers cheaply and quickly on the wall without a partner. The design encourages trust and is made to a very high safety standard.







# **Ethan Murray King**



I'm a passionate design student with an interest in user-centered and pragmatic design. I aim to help people with the products I design, making the world a better place.

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# **Soothing Scented Dog Bed**

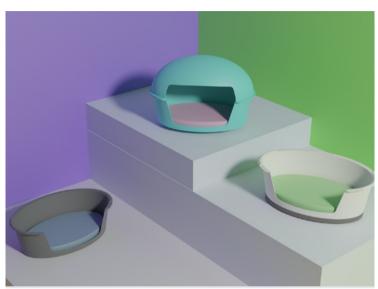






The Soothing Scented Dog Bed aims to soothe dogs that experience separation anxiety. It incorporates the owner's scent and a heated element to provide comfort when the owner is away.









#### **Javier Oldham**



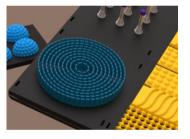
I'm an eco-conscious designer who designs with the needs of the consumer in mind. With my combined background in engineering and architecture, alongside the skill set I have acquired from Product Design, I consider myself an extremely well-rounded product designer.

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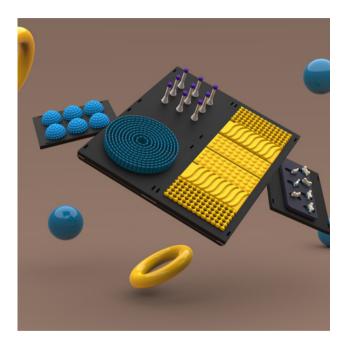
#### Sense

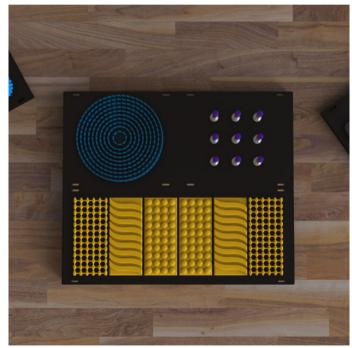






Sense: The Dog Sensory Board provides stimulation for each of a dog's senses: sight, taste, smell, and hearing. Stimulating the dog's senses can prevent behavioural issues and keep them mentally engaged.





#### Wil Poxon



I am an inquisitive, conscious designer with a particular interest in environmental sustainability in design. I aim to create products that are bold, unique, and incorporate the circular design aspects that are important to me. I want to ensure the products I design have a positive impact on the environment.

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# **PolyFusion**

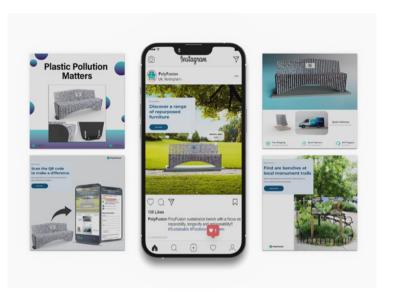








PolyFusion is a furniture brand that repurposes plastic bottles into functional outdoor benches. The aim is to spread awareness about the plastic bottle crisis and encourage a change in legislation. The PolyFusion benches focus on repairability and longevity while incorporating various circular design aspects such as repairable and replaceable standardised parts.







# **Sophie Puffett**



As a designer, diversity is always at the heart of my work. I am passionate about creating user-friendly products which cater to the user and envoke positive experiences when used.

#### **Unlabelled Minds**







Unlabelled Minds is an educational toy, designed to educate pupils about gender stereotypes. By assisting teaching, these stereotypes can be challenged at a young age, to allow children as many opportunities and breadth they want in the future.









#### **Jasmine Ram**



Since childhood, I have spent lots of time creating and making, which has been developed further through studying product design. I have a particular interest in designing children's products that are imaginative and playful, as well as artistic sculptural pieces.

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#### Form-A-Friend









Form-a-Friend is a collection of sensory figures that can be tailored to the individual sensory needs of children with Autistic Spectrum Disorder. Each sensory figure provides a different form of sensory feedback, including touch, sound, and sight.

# Prep Pal



Prep Pal is a child-safe, food preparation kit that encourages children to engage in cooking alongside their parents. Made entirely of plastic, Prep Pal includes cutters, slicers, a grater, zester, strainer and fun cutting shapes to encourage children to try new foods.







#### **Oscar Robinson**



At my core, I am a designer who excels at problem solving. My favourite aspect of design is the initial ideation stage, generating numerous ideas, from the practical to the far-fetched. Through this brainstorming process, I eventually refine and focus my ideas into a well-thought-out and meticulously-detailed concept.

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#### No Trace



No Trace aims to reduce the environmental impact of abandoned camping equiptment at music festivals. Specifically designed for rental services with a focus on reparability, functionality, and reusability, No Trace aims to promote sustainable practices and reduce waste.





## Slot



'Slot' is an innovative kettle aimed to improve energy efficiency by reducing overfilling. The slot function allows the user to reduce the boiling container size, reminding and limiting the user of how much water they boil. As a result, the boiling process is sped up due to the reduced volume of water to heat.



#### Jonathan Rumball



Curious, passionate, and driven by detail, design has always aligned with my personal interests. It provides a career path that I strive to succeed in. Unrestricted by boundaries, my designs express true dedication to our craft and attempt to meet the demands of the world.

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## **Purpose Cycles**







This project was dedicated to the construction of bespoke bike frames and the origin of mountain biking. Using both traditional and modern techniques to offer a custom fit every time, the concept uses a business model that revolves around reducing carbon footprints and improving rapid development within the industry.









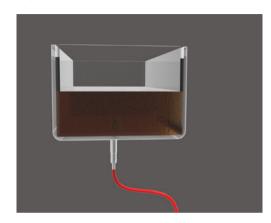
#### Will Seekins

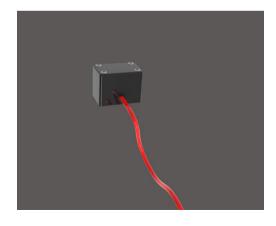


I'm an engineering solution focused designer with a passion for sustainability. I believe no product should reach an end of life without there being a second purpose for it later down the line.

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#### Monitoil







Monitoil is an engine oil analysis sensor that provides the user information about the health of their engines oil. It also informs the user when the engine needs servicing based on the condition of the oil rather than approximated manufacturer recommendations.





# **Drew Sharp**



I am a motivated designer with a great interest in inclusive and innovative design. I aspire to go into 3D visualisation and CAD, which I have gained a passion for throughout university.

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# **Plunge**







Plunge is a vegetable-cutting device designed for the elderly with a focus on inclusivity to combat the issues associated with food preparation and the decline of fine motor skills.

# Capsule



This project is an automatic pill dispenser with a redesign of prescription packaging. It focuses on the organisation and reduction of stress for people with chronic illnesses and the increasing quantity of medication they have to take.







#### **Charles Sissons**



Living in Bahrain for 13 years, a small island in the Arabian Gulf with a diverse population, enlightened me to the importance of being culturally minded in one's approach to product design. I am excited about the future and look forward to utilising the skills I've developed at NTU to help solve design problems globally.

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## **World Cup Promotion: The Collectors Dream**



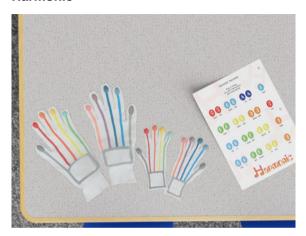






The concept is a sustainable bottle design, including sixteen football-kit inspired marbles in four rare designs, which also offers buyers the chance to win World Cup final tickets. This bottle, made of recyclable materials, helps to reduce plastic waste while boosting World Cup excitement.

#### Harmonic



School closures during the Covid-19 pandemic led to a worrying decline in fine-motor skills amongst young learners. FunkyFingers aims to develop finger strength, coordination and dexterity, with a fun and creative learning experience. Easy to use and classroom friendly, individuals as well as groups can play along with their favourite nursery rhymes.







#### **Evan Stokes**



Driven by human-centered design, my passion for graphic design has led me to take on freelance projects. Drawing inspiration from my experiences in sports and travel, I strive to create designs that are both visually engaging and functional.

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# **Fold-Away Shower Chair**

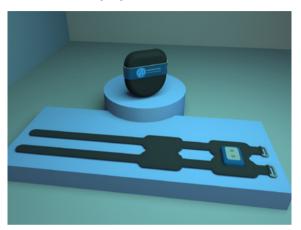


Fold Away is a compact shower chair that was created with the user's needs in mind. Its innovative build allows for a lightweight structure as well as a sleek, minimalist form. The textured curved seat that provides comfort and stability to the user, Fold Away fits into any modern bathroom decor.





# **Pulse Recovery Sport Band**



The Pulse Recovery Sport Band combines heat therapy and muscle stimulation to alleviate Delayed Onset Muscle Soreness (DOMS) after strenuous workouts. The accompanying app instructs users on proper muscle recovery techniques for optimal results.







# **Lauren Thompson**



As a nature-inspired designer, my work is characterised by organic shapes, natural materials and a calming colour palette. I enjoy creating sustainable and eco-friendly products, designing outdoor spaces that promote a connection with nature and using biomimicry to solve design problems.

#### Luminae









Luminae is an integrated light and display system for house plants. Luminae provides plants the perfect environment to flourish whilst allowing enthusiasts to make the most of their space. It allows users to bring the outside in, customising how they wish to display and light their room.





#### **Aiden Ward**



Being unique and ambitious are character traits I want to carry with me throughout my design career. When designing, the goal is to be innovative. This is what excites me about design and why I love what I do. I pride myself in my versatility, creativity, and my drive to always be learning.

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#### Serene







Overworking is an epidemic that can result in mental health issues and the physical symptoms of stress. Serene encourages regular breaks and switching off after 60 minutes of work, whilst the app encourages therapeutic activities.

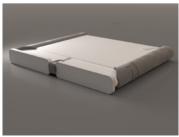
#### Junboi



The Junboi is an innovative chopping board that cuts preparation time in half by preventing cross contamination whilst preparing food. This is due to the Junboi's dual surface design which are elevated off the kitchen counter. Additionally, the Junboi's waste unit creates ease of disposal, minimising trips to the bin.







# Angelika Widz



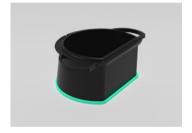
I am an all-round designer who is a skilled problem solver in both 2D and 3D. I am constantly evolving and developing, inspired by purpose-driven design, whether graphic, physical, or digital. My aim is to design impactfully across any discipline I pursue.

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#### Coloratic







This project is user-centred, ergonomic redesign of a traditional tint bowl, used for hair dye mixing and application. The bowl encourages casual users to experiment with their hair colour more by streamlining the process and centring the product around the needs of the user, whilst also providing a more professional approach to hair colour.

#### Kabi



Kabi is a spice rack that frees up counter space by moving spices up to a secure floating shelf. It has a height adjustable pole that is ideal for small, space-constrained kitchens and a rotating feature that allows it to work with other items on the counter.



# **Joey Wong**



As a designer, I aim to create elegant solutions that fit into user's lives seamlessly, by using my eye for detail and the skills that I have developed over time. I use prototypes and CAD to innovate on solutions as well as refining my projects to suit my user's needs.

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#### **Above**



The top shelf of wall cabinets is an underutilised space since many people lack the height and reach to completely access it. Above is a pull-down storage system that is renter-friendly, easy to access, and allows users to personalise their kitchen storage.





#### Tasker



Tasker is a desk timer that helps with work productivity by improving three factors that can increase procrastination: Choice anxiety, time management, and smartphone use. The phone is put away into the product, and a task is selected randomly for the user to do, timed using the Pomodoro Method.













We wish to extend our thanks to Julian Hughes for heading the photography effort, in adition to the course leaders, module leaders, tutors, technical staff, and administrative staff for their persistent support this year and throughout our time at NTU.

Lastly, a thank you to everyone else who has helped us on our personal and collective journeys through product design at NTU.

# thank you

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Grant Baker

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Daisy Balasingam



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Hannah Cox



Abbie Foggo



Luke Hedley



Francis McDonald

# exhibition



**Guto Davies** 



Josh Dennis



Robert Evans



Alex Harwood



Anya Pivcuka



Aaron Robinson



Maitri Shah



Isabel Ward



