





Product Design

# PORTFOLIO



Sophie Nicolin



# About Me

Hi, I'm Sophie, a product designer with a drive towards accessible, impactful design, and a keen eye for detail. Through a user-focused empathetic design approach, I enjoy applying my skills in graphics, technical detailing and VR to tackle complex problems and provide elegant solutions. My interests in game design and fantasy novels also inspire my creativity to make me the multi award-winning designer I am today.

In my personal life, I love to dance, with a particular interest in musical theatre and tap, as well as being an avid reader and gamer.

## Experience

2024 - 2025 | Industrial Design Intern  
Mondelez International

2023 - 2024 | Student Technician and Mentor  
Nottingham Trent University

2022 - 2023 | Packaging Company Assistant  
Repackaging Services

2019 - 2020 | Design Intern  
Lower Bridge Shepherd Huts

## Skills

- Project Management
- Teamwork
- Leadership
- Organisation
- Problem Solving
- Critical Analysis

## Software

- Adobe Suite - InDesign, Illustrator, Photoshop, Premier Pro
- CSWP Solidworks, Keyshot Rendering
- Figma, Wix Website Editor
- Gravity Sketch VR, Shapes XR, Arthur VR

## Awards

- 2023 Starpack Students Gold Award
- Best Project Alpkit 2023



**01.** Cloud Case



**02.** Chocolate Design



**03.** AmbiTwist Controller



**04.** Additional Work





# 01. Cloud Case

Individual Project | 10 Weeks

Design a portable board game made primarily from plastic for playing during travel journeys (e.g. on flights). The game should be suitable for children aged 5-6, and act as a replacement for screentime.

# Research Insights

Through consumer feedback and testing, several key points informed the design process:

- The board games market is expected to double its net worth by 2032
- Parents are looking for more analogue toys games to avoid screen time
- Flights are a tense and anxious environment for parents with young children
- 41% of parents mentioned feeling embarrassed in front of other passengers during travel due to children getting bored, fidgeting and causing a scene

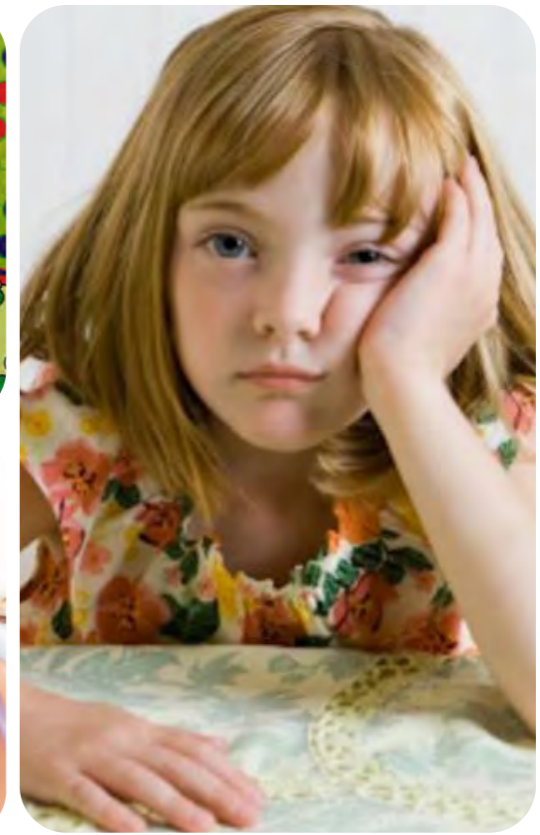
This feedback continued throughout my design process to inform my decisions and develop a successful project.



Children get bored and anxious on flights



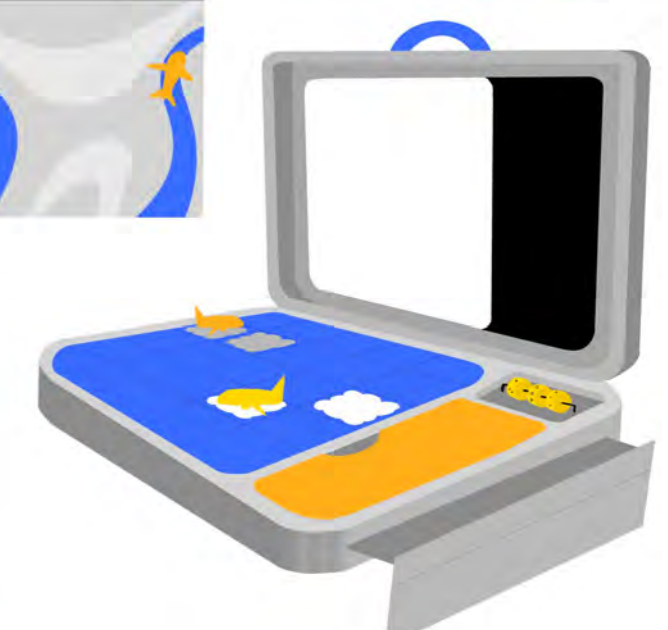
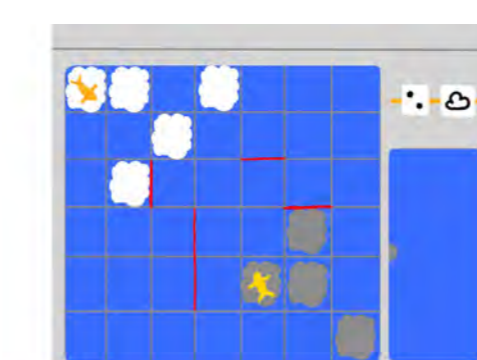
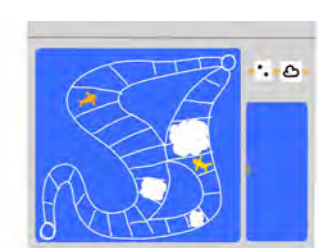
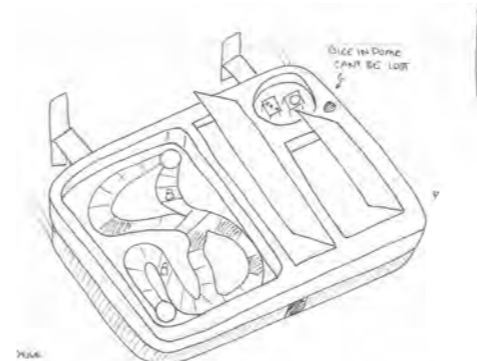
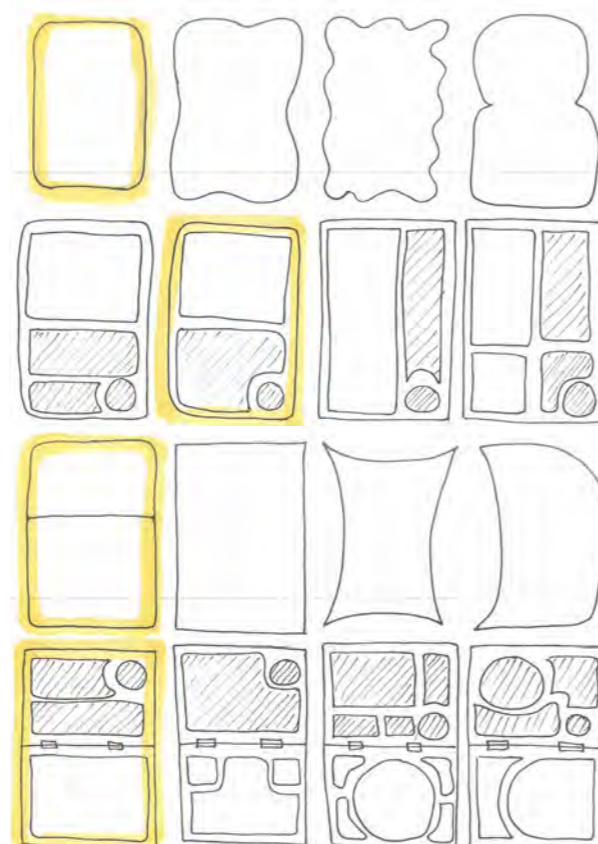
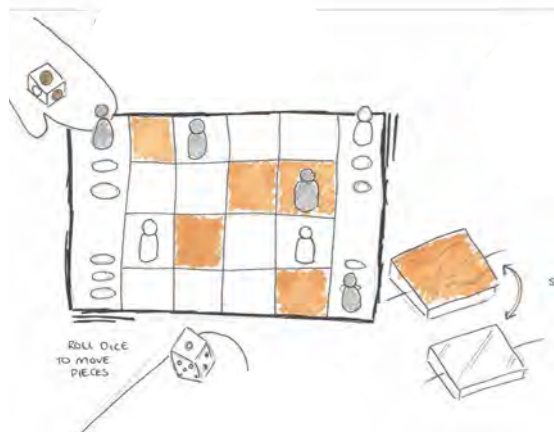
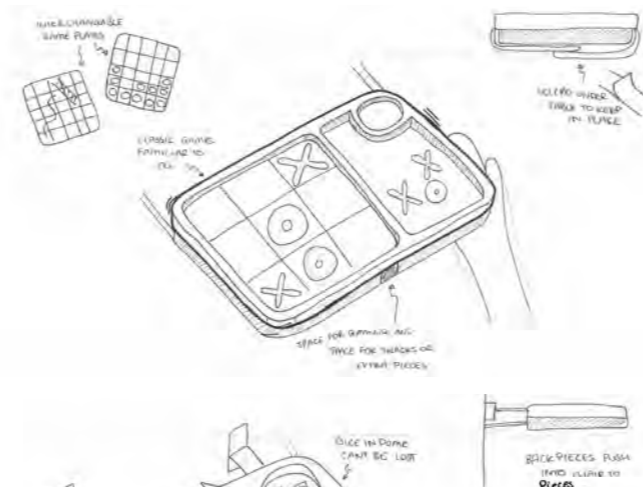
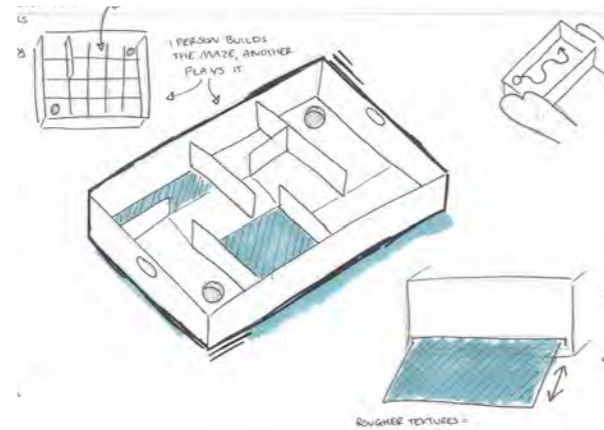
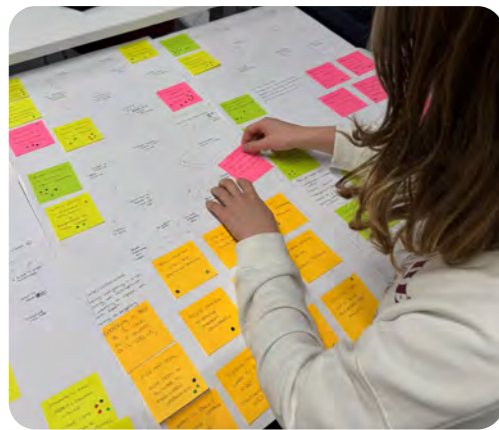
Scared of making a scene



Need to retain children's attention span

# Design Development

Design development began with Post-it notes, understanding key themes and game mechanics, including building features, interactive gameboards, and storage solutions. Following this, the activity table idea was developed into a multi-functional game and snack tray for endless entertainment.



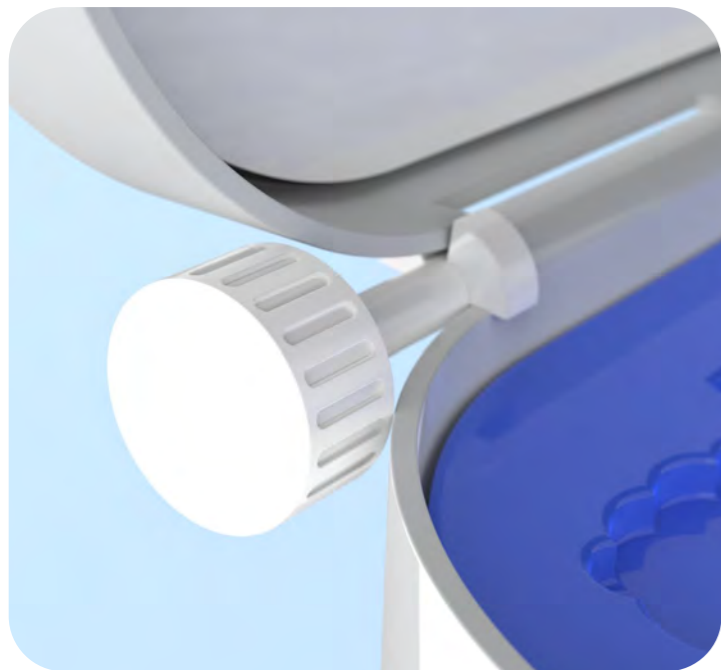
# Model Development

In context modelling was crucial in the project to understanding children interaction with the product, and product interaction with the airplane. I tested my models consistently in an aerospace fuselage to understand how it would interact within and airplane environment, define dimensions and understand material choices and mechanical detailing. This led to a fully functional final model, alongside a promotional video, which can be viewed here:

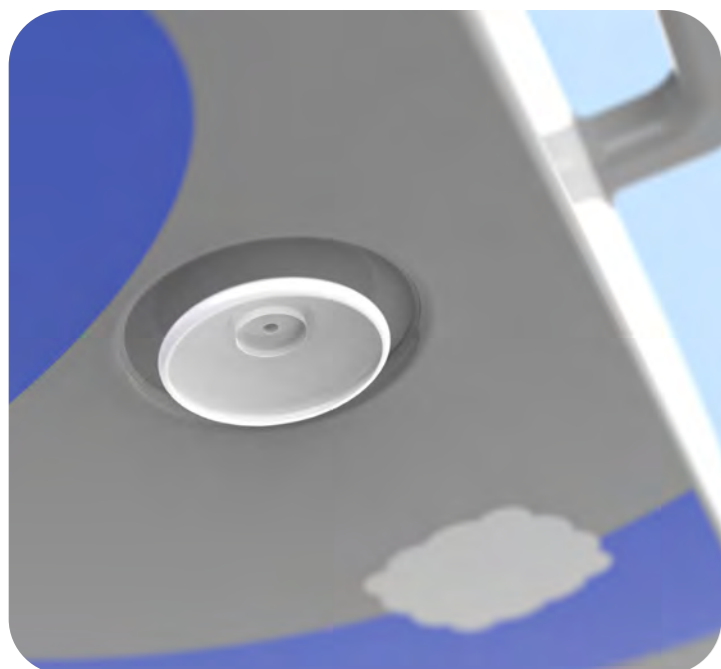
[Promotional Video Here!](#)



# Key Features



Lockable hinge to prevent accidents from falling



Suction cup to secure the table



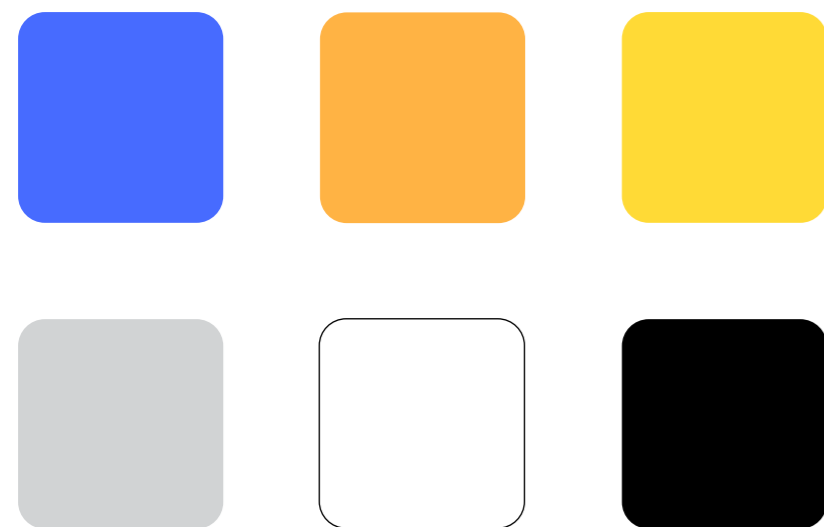
Alternative colour combinations for airline brands



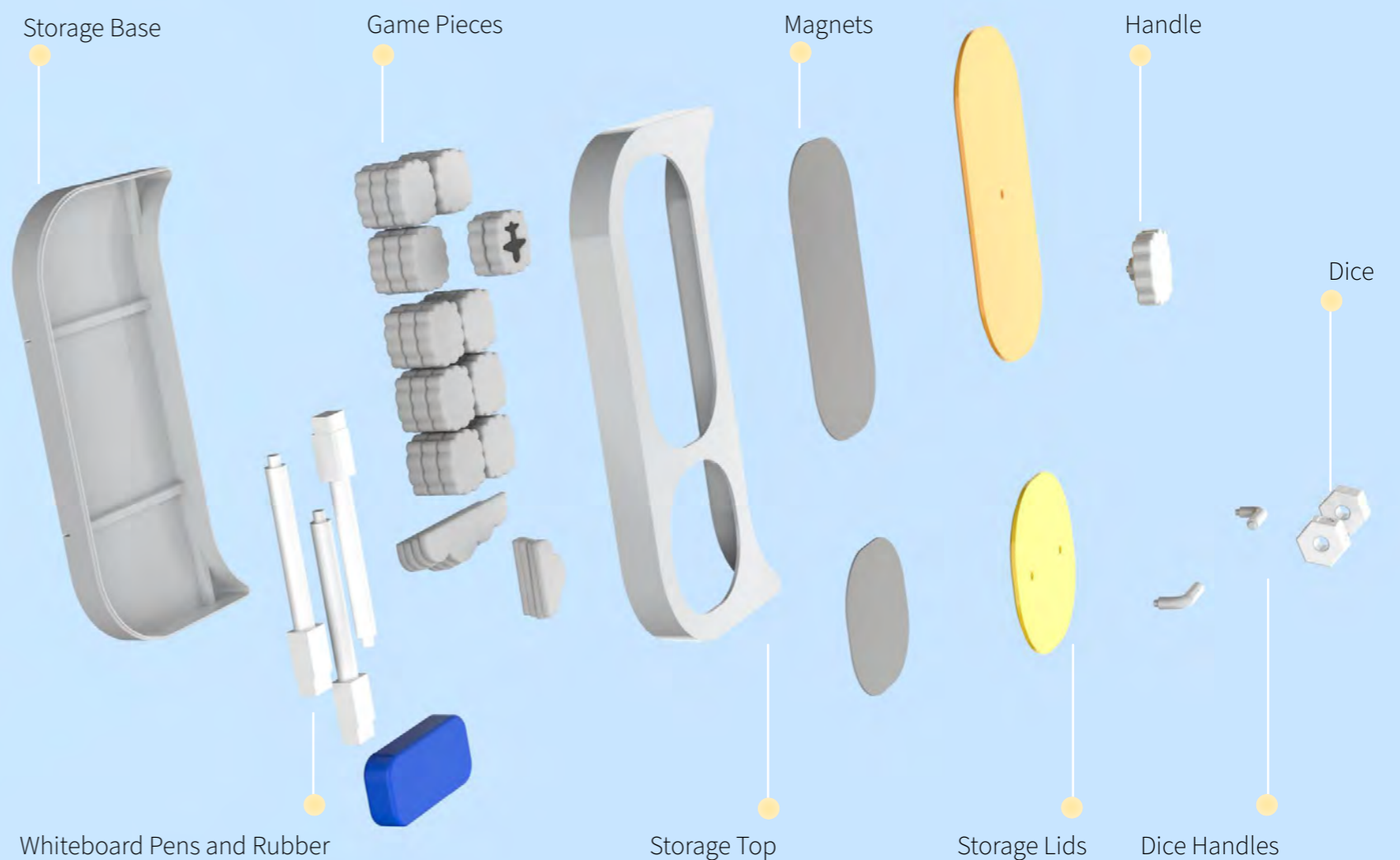
Foam games pieces for a softer, peaceful experience, and 6 ways to play

# Technical Details

The final product was made entirely from plastic and Eva foam, for a total cost of £20. This cost would be offset through the price of a plane ticket, providing a more premium and relaxing journey for airline customers. This would also instil a sense of loyalty to the brand and encourage returning bookings.



Bright and colourful decals excite children, whilst also being gender neutral and inclusive.



# Material Details

For the main casing, I chose ABS803L:

- Durable, easy to clean (medium-impact ABS)
- Food and child safe
- Cheap
- Suitable for injection moulding and pad printing
- Recyclable

For the games pieces, I chose EVA A25:

- Durable, soft and quiet (shore hardness A25)
- Food and child safe
- Suitable for injection moulding
- Recyclable

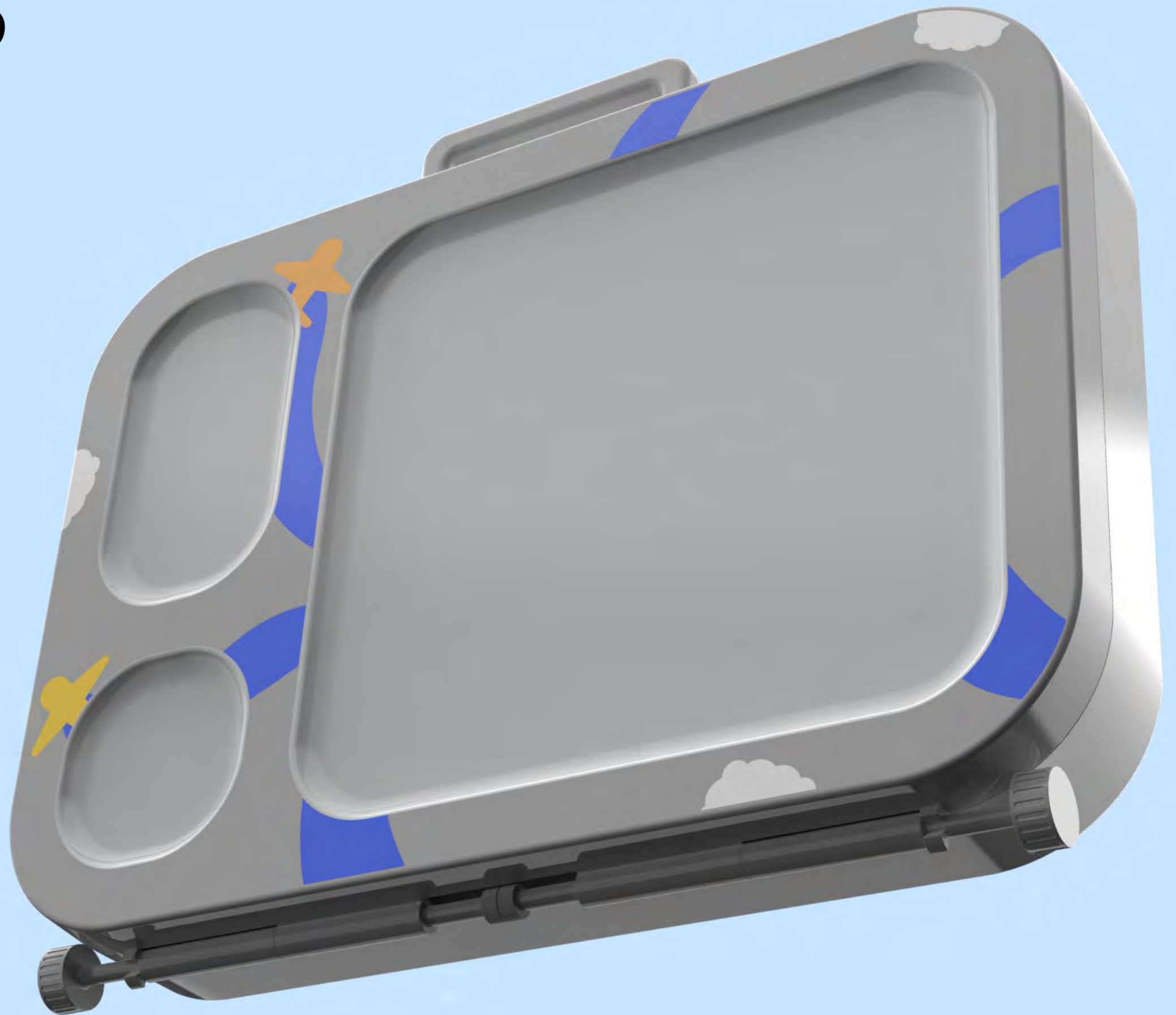
I chose specific surface finishes to ensure easy cleaning, scratch resistance, food safe surfaces and easy decor printing for a high quality and fun finish.



**PM-T2**  
**Textured**  
**Matte**



**SPI-A2**  
**High Gloss**



# Experience that magic feeling this New Years

**NEW**

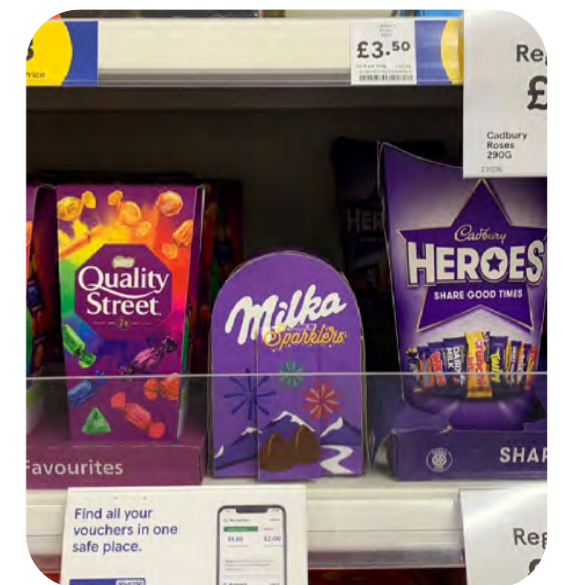


## 02. Chocolate Design

Individual Project | 1 Week

Design a new chocolate product for an unexplored market, using one of the iconic Mondelez brands. I chose to design New Year's popping candy truffles for Milka, as this market is untapped in chocolate innovation, and provided an opportunity for portfolio growth.

Popping candy truffles represent New Year's Fireworks



Milka

Milka

Rounded packaging design display  
Milka's values of tenderness

# Chocolate Sketches

## Individual Projects | 1 Week

Develop sketch renders exploring ideas for future chocolate products based on current market trends. These sketches were developed through Procreate and Keyshot Rendering and are not for commercial viability (due to NDA reasons).



Pop-out Stamp Celebration Bars



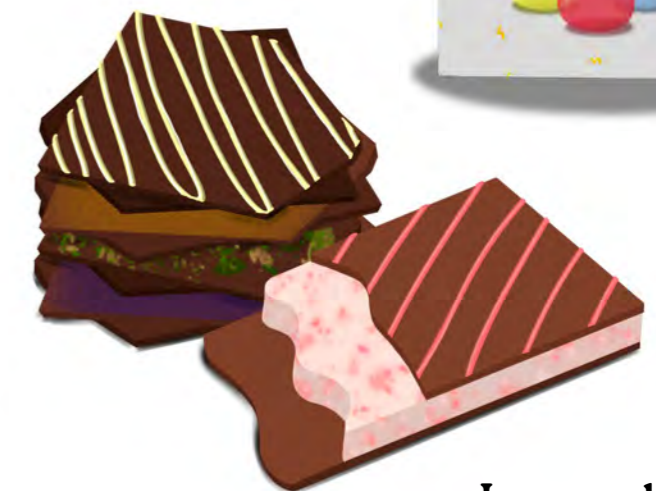
DIY Valentine's Kit

Chocolate Baubles

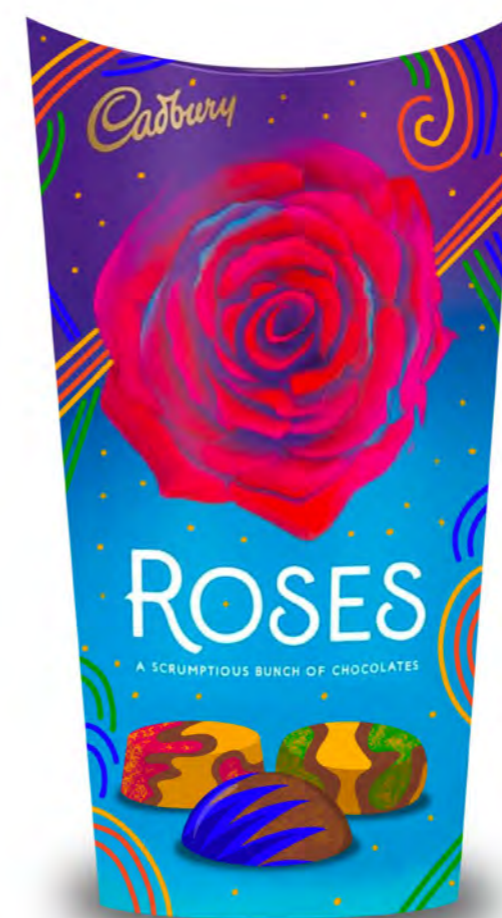


Luxury Truffles

Energy Sweets



Layered Bars



Diwali Limited Edition Roses



# Welcome to Ignite

## The Inspo

How well do you know your gut biome? Well the Gut Stuff is here to help, with their gut healthy drinks, fibre bars and DIY kits. Gut healthy food has been trending on social media recently, with many influencers claiming to have the ultimate solution to "flush your gut", keep your gut healthy and general wellness tips - however these are rarely well researched and often paid promotions. The Gut Stuff is a company aiming at promoting true gut health, with a dedicated team of nutritionists and doctors behind their products. Their new flavours of soda included increased fibre content, to encourage a better gut biome, whilst still tasty refreshing and delicious!



## The Design

Consumers are becoming more aware of the contents of their food, and looking for healthier options. However, current products can be unappetising, and feel more like fuel than food. Inspired by the Gut Stuff, I designed a new chocolate milkshake aimed at boosting your gut health, whilst making the world of healthy eating more fun and accessible. By using fun decorative packaging, and our iconic Cadbury Branding, the drinks feels less aimed at only "gym bros" or influencers, and more for the everyday consumer.

Designed by Sophie Nicolai  
Industrial Design Intern 24/25  
Mondelēz DESIGN HUB

# Welcome to Ignite

## The Inspo

Are you a fan of KFC? Do you dream of their delicious gravy, and wish you could experience it more often? Well worry not, as KFC have partnered with Hackney Gelato to create a world's first, Gravy Ice Cream! (Order online only for £5.50 per tub). This has caused a huge buzz on social media due to the controversial food combination. In a similar theme, Dominoes released a Garlic & Herb Dip Easter Egg as an April Fools stunt, that could be won for free through a competition. The nod to the iconic condiment, this Egg went viral on TikTok, and caused hundreds to enter the competition for a chance to try this herby sensation. These stunts, whilst possibly disgusting, have significantly boosted engagement for the brands, and solidified the iconic status of their most well-loved treats.



## The Design

Inspired by these viral food stunts, I took a look at Cadbury to see how we could use their iconic status to create low-volume limited edition products to ignite excitement in our consumers. Introducing the Cadbury Raclette - whilst it may look like your typical iconic Cadbury chocolate bar, don't be fooled! When broken, this bar is filled with gooey Raclette cheese, for that perfect "cheese pull" moment. Released as a limited edition, this bar celebrates pairings of chocolate and cheese, and shows off our playful side as a brand. Photos generated with Leza AI assistance.

Designed by Sophie Nicolai  
Industrial Design Intern 24/25  
Mondelēz DESIGN HUB

# Newsletter Design

## Individual Projects | 1 Week

Run a weekly design newsletter finding inspiration from market trends and products, and develop concepts using Adobe Firefly AI. In these newsletters, I focused on several key features:

- Logo Design
- Newsletter layout
- Moodboard development
- AI Render Development

I developed the renders through AI by submitting initial line drawings, and developing detailed prompts to create photorealistic images, of products, pack and context.

# Welcome to Ignite

## The Inspo

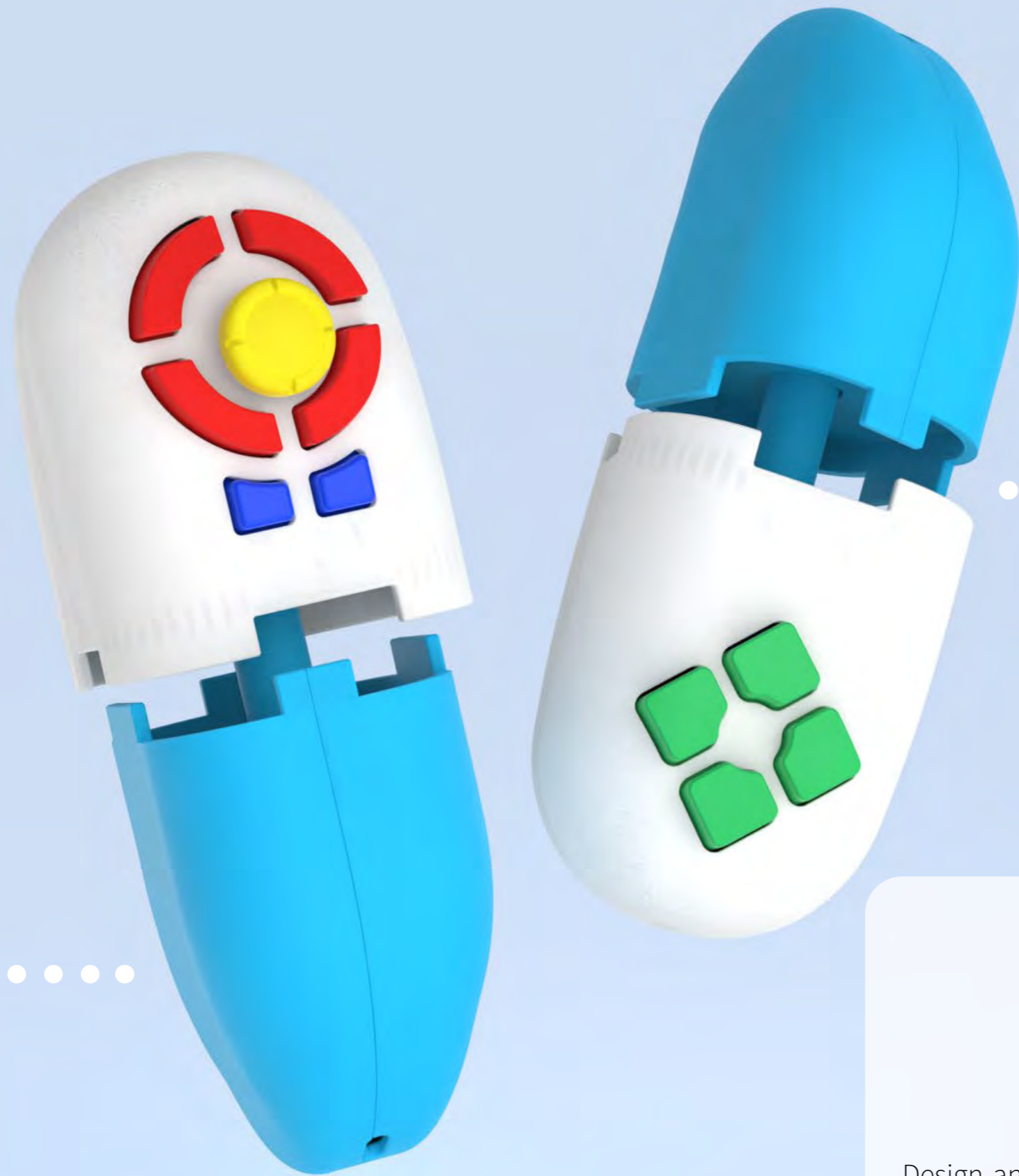
Ever heard of the Dubai Chocolate Bar? Well today we are looking at the latest chocolate trend on TikTok, which is Angel Hair Chocolate! These bars are going viral for their crazy "hairy" reveal of candyfloss (cotton candy) inside a colourful chocolate bar. The slow pull reveal has racked up millions of views, and could become the next big reveal for chocolate. Some TikTok users have even combined the two trends, to create a double layered reveal, with the crunchy pistachio and soft candyfloss. Some of the key take aways from these bars have been that consumers are looking for a big reveal that looks great on camera, and especially in Western countries, we are looking for flavours outside our culture that are new exciting.



## The Design

What is next for the world of viral chocolate bars? Inspired by the Dubai and Angel Hair bars, I have looked at Mintel trends to understand which flavours could be the next big hit. The first is mashed Ube (purple yam), which is popular in deserts in the Philippines, and has a striking purple colour, and sweet, nutty flavour. Japanese flavours are gaining traction in the UK, and "match popping boba" bar could also be popular, especially with a coloured chocolate, which is a new feature for our brands. All images are generated with Adobe Firefly AI.

Designed by Sophie Nicolai  
Industrial Design Intern 24/25  
Mondelēz DESIGN HUB



## 03. AmbiTwist

Individual Project | 4 Weeks

Design an inclusive games controller suitable for people with a limb difference below the elbow. The controller should be portable for eSports competitions, and adhere to typical gaming standards.

# Research Insights

User journey mapping and research revealed key insights into pain points and flaws with existing adaptive gaming setups including:

- Most disabled gamers prefer an adaptive system to a prosthetic as it allows faster reaction times
- Existing products value smooth, organic shapes and durable materials, providing comfort for intensive use
- eSports gaming require standard controllers with manual plugins for competitions

Alongside this I completed a product teardown, to understand the key features I would need to consider in my own design.



Unique disabilities

Bulky, complex existing products

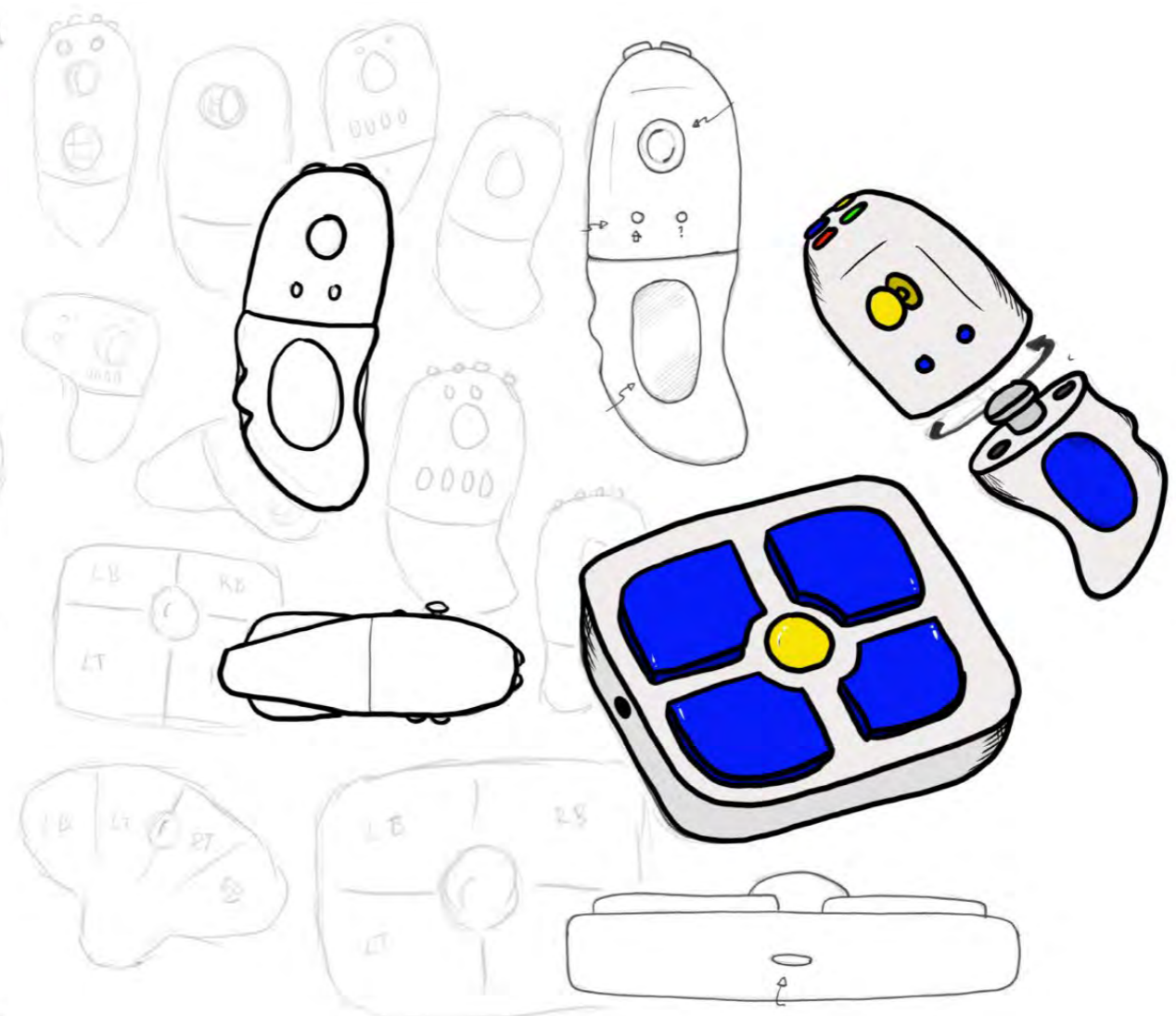


Need for customisation without prosthetics

## Initial gaming styles



## Combination handheld and foot pedal



# Ideation Process

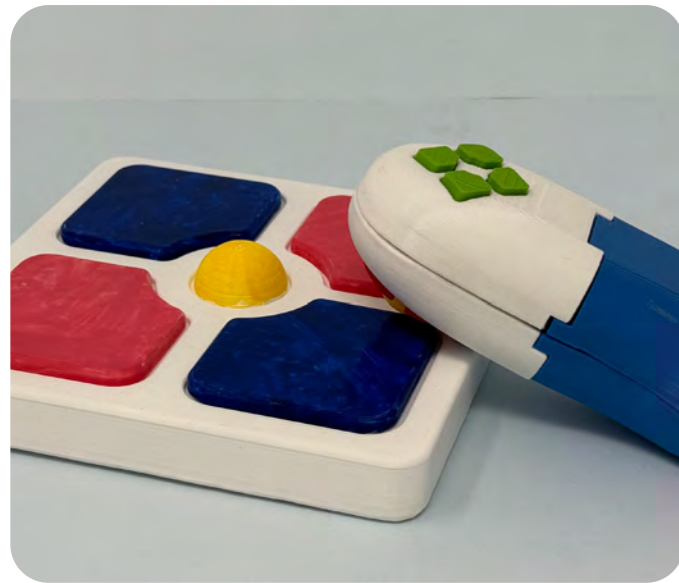
Using rapid ideation techniques, my sketch development process explored a range of ideas, from joysticks to mousepads, before settling on a twistable, ambidextrous design shape to provide an accessible product.

## Developing a single handed device



# Model Development

Throughout the process, modelling was crucial to understand design ergonomics and functionality. I used a range of modelling techniques, beginning with basic grey foam models before moving onto 3D printed prototypes. This process allowed me to understand pinch points and areas that required more grip or texture. Following this, I also developed the button layout, to ensure buttons could be pressed in combinations and without reaching, ensuring maximum movement speed during high intensity gaming sessions and tournaments.

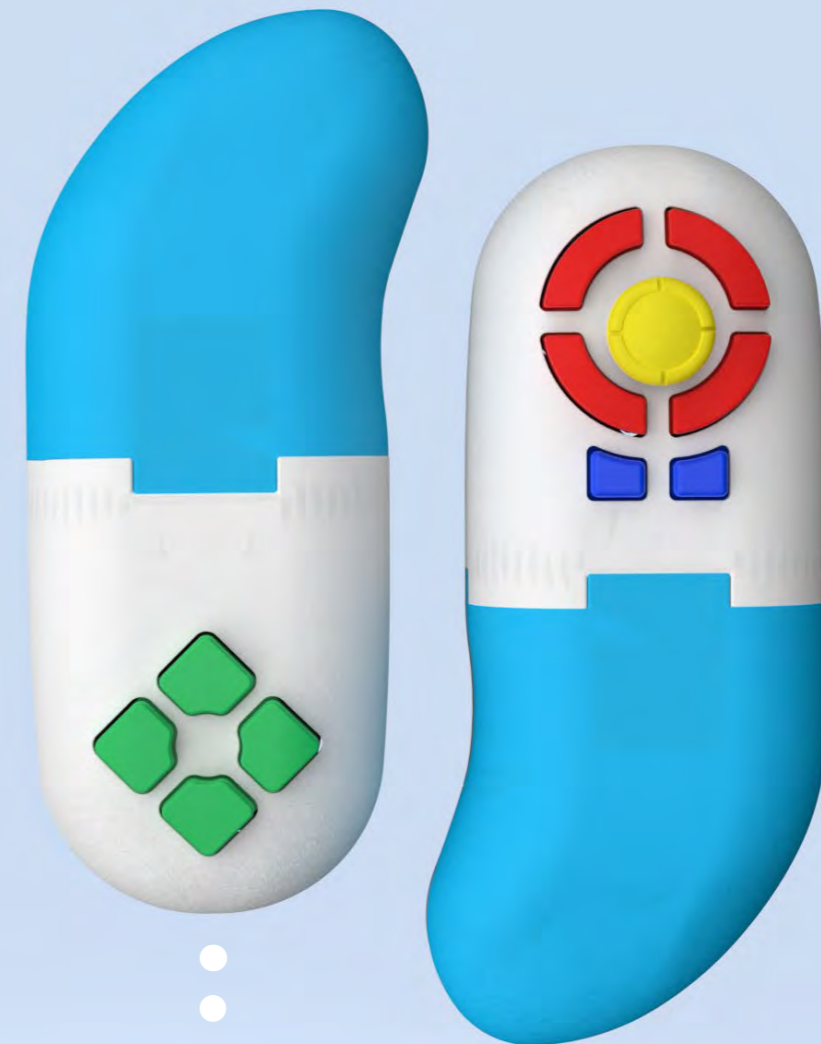




# CAD Testing

This project allowed me the chance to develop my CAD skills in SolidWorks Feature modelling and surfacing, to achieve the soft, ergonomic shapes of the controller. Throughout the CAD process I consulted industry experts to understand key manufacturing considerations for injection moulding including draft angles, ribs and bosses, split lines and fillets, and tested these models using 3D printing.

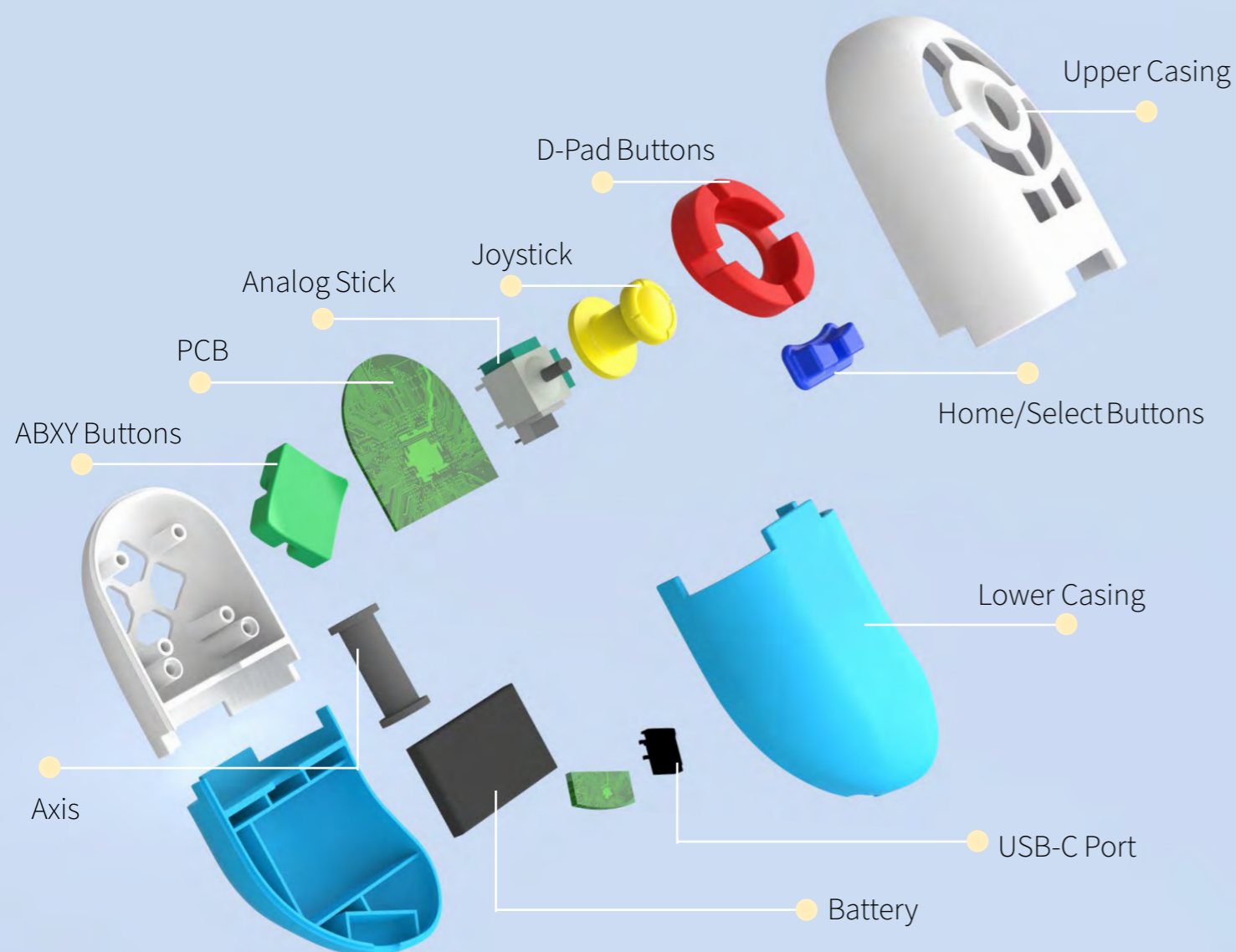
The CAD development also allowed me to ideate some of the technical features, including the button layout, to optimise usability and visual appeal.



# Technical Details

To ensure manufacturing feasibility, key details included:

- Main casing of Injection Moulded ABS with a PM-T1 finish, for its durability and rough texture for improved grip.
- Buttons with an SPI-B1 finish, for a glossy, attractive look.
- Manual USB-C ports on both the controller and pedal to comply with eSports competition regulations.
- A final manufacturing price of £51.70, with a wholesale mark-up of £109.99 to compete with existing market prices, whilst remaining affordable.



## Marketing

To ensure inclusivity, the marketing was developed to be fun and playful, for a range of ages, abilities and genders. The logo and slogan play off the key “twisting” feature to draw attention, and highlighting the unique selling points.

To achieve the greatest market scope, the advertising would include social media posts and videos, TV adverts and billboards for a large reach.

# Key Features

Bright colour palette to appeal to a range of ages, genders and abilities

16 buttons and two joysticks with custom mapping to allow customising

Combination pedal pad for alternative limb use and customisation

Ambidexterous design - twist the base to swap hands



# 04. Render Work

## Individual Project | 1 Week

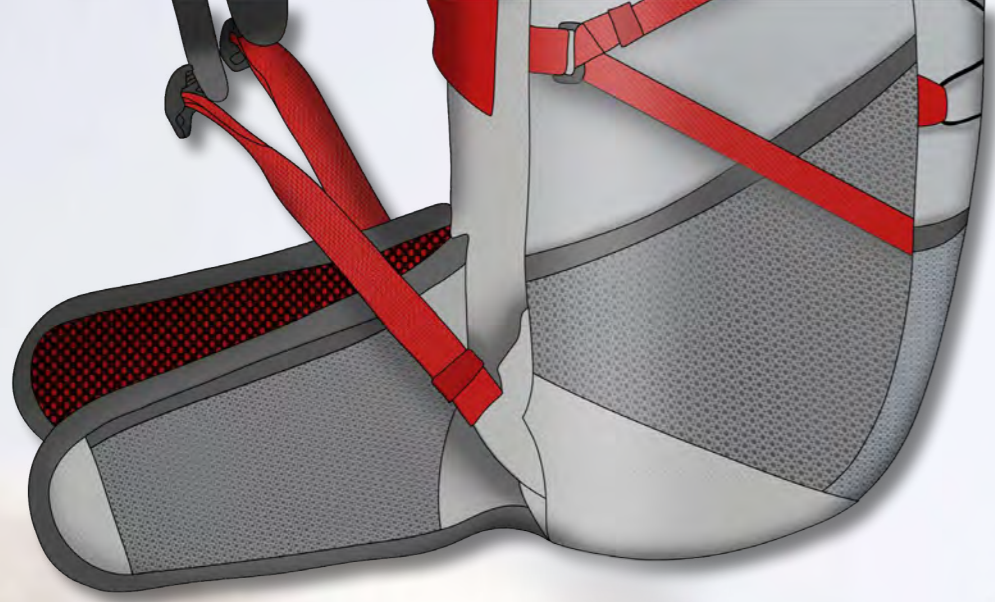
Create a photorealistic render of a coffee machine using Adobe Photoshop and Illustrator tools. I took this chance to improve my skills outside of traditional rendering in Keyshot, and gain a deeper understanding of shading and colour theory.



# Render Work

Group Project | 1 Week

Improve the carbon footprint of an existing rucksack for the Alpkit brand. Alongside a comprehensive teardown and LCA, I developed the Photoshop renders for our final presentation displaying the improved features.





Thank you!

# PORTFOLIO

Contact me!



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