

DESIGN & INNOVATION

**OU DESIGN SHOW
CATALOGUE 2023**



**The Open
University**



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Design Group

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<https://www.open.ac.uk/blogs/design/>

INTRODUCTION

This is the sixth year that the Open University Design Group have invited entries, from across all stages of study, to an exhibition of student work. In these pages, you will see work that reflects the diversity of OU design students. All of the work you see here has been done in response to briefs set within the design modules. This year we asked students to submit a main image plus working images either showing detail or the design process alongside a description of their work.

Each year design staff vote on the entries to choose winners from each stage of study and one overall winner - this is a hard task as there are always so many good ideas and designs to choose from.

We hope that you enjoy this catalogue which brings all of this work together.

The OU talks in the shorthand of module codes. If you are not familiar with the modules you need to know the following:

U101 Design Thinking is a 60 credit Stage 1 entry module, there are no formal qualifications required to study it as the OU has completely open entry.

T217 Design Essentials is a 60 credit Stage 2 module further developing design skills. T218 is a cut down version of T217 for engineers.

T317 Innovation: Designing for Change is a 60 credit stage 3 module that is taken not only by design degree students but also students from engineering, business and computing.

Open and enjoy!

02

U101



The Open
University

Work Life Balance Game

I created a game representing a service. Being a single working parent, I considered a 'service' due to the steps needed to reach the ideal end point of retiring with a good income and happy children. I was inspired by my mum who is a head teacher and also a single parent. My game is called 'Work Life Balance'. The aim is to reach a balance between home and work. Heart tokens represent home and money notes represent work.

Players begin with 1 heart token and 1 money note. To win the game, players have to reach the end of the board with 3 of each. Players progress on the board by rolling a dice. There are squares on the board saying "choice" which prompt a player to pick up a choice card. There are also 3 roundabouts on the board where players are prompted to pick up a roundabout card. There are randomly placed squares which say "move to roundabout [1,2 or 3]" which jumps a player to these roundabouts. These two types of cards give players a dilemma that working parents could face with options that result in the gain of money/ a heart token but at the cost of a heart token/money. Additionally, there are traffic lights on the board which prompt a player to pick up a traffic light card. These cards result in a gain/loss without making a choice.

Examples:

Choice: It's your daughter's school sports day tomorrow. She really wants you to go but it means missing work. Do you...

Take time off work to go +heart token and -money note

Miss this year's sports day +money note and -heart token

Roundabout: You have been offered a promotion at work.

Do you:

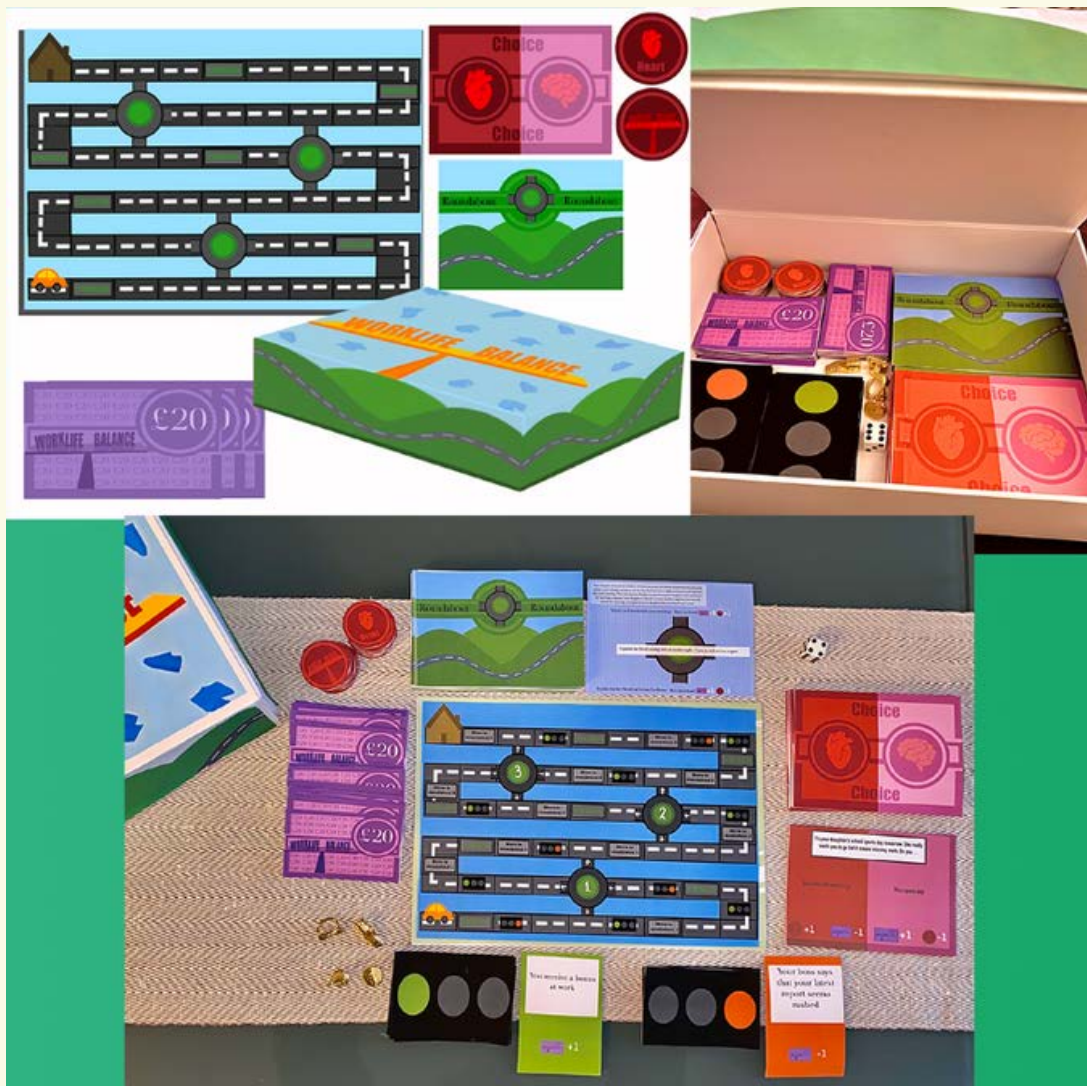
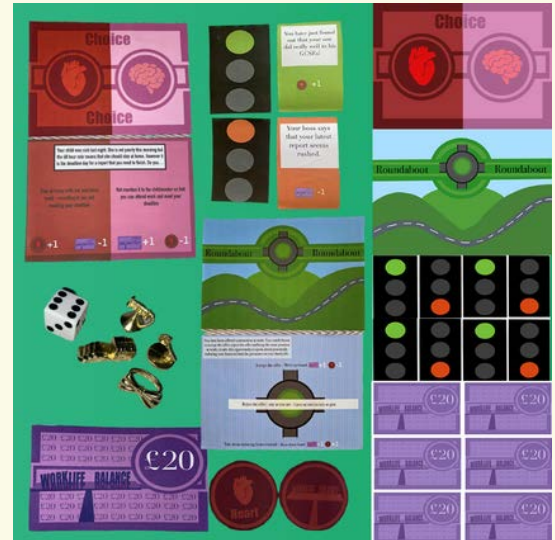
Accept the offer and spend less time with children- move up the board +money note - heart token

Reject the offer - stay as you are and no loss or gain

Use this opportunity to talk about reducing your hours due to stresses on home life - move down board +heart token -money note

Green Traffic light: Your boss loved your report +money note

Red Traffic Light: Your daughter got into trouble at school -heart token.



Journey of Life

The design of my t-shirt represents the journey of life. On the back of the T-shirt, I have aimed to create a maze like complexion using of my thumbprint, to create an aspect of a difficult journey.

The lines begin in a darker tone and fade out to show life eventually coming to an end. I have also depicted this concept through the hands that I have used for wings, with the darker toned hand being younger and the lighter toned hand being older. I drew these from an image that I photographed of my grandmother's and mother's hands. I wanted to create minimalist illustrations of these hands but kept the wrinkle lines to depict the difference in age.

My choice of the green colouring of the emerald and the angel-like composition represents the archangel Raphael who is believed to be an angel that supports and guides people on journeys. To support the overall meaning of this design, I included the word 'sonder' on the front of my T-shirt. This word is a part of The Dictionary of Obscure Sorrows which defines the meaning as "the realisation that each random passer-by is living a life as vivid and complex as your own". (www.dictionaryofobscuresorrows.com) To keep fluidity in my design, I made this text green.

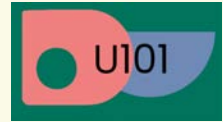
Email: abigailt10@outlook.com

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TikTok: [@ryefield_creations](https://www.tiktok.com/@ryefield_creations)

Facebook: [www.facebook.com/Ryefield Creations](https://www.facebook.com/RyefieldCreations)

Abigail Tyers



The Early Bird's Strong Coffee

My goal was to design an item that can be used alone or as a multifunctional tool to aid people with limited mobility with baking.

My concept design embodies the idea of using a kitchen glove with a rolling ball on the palm section. This ball will be used to roll out dough. Using less heavy material than a normal metal/wooden ball, the glove will be flexible enough to fold and be stored away. Also, the glove would be comfortable for someone with hand mobility problems, an aid to stop the forearm or wrists from extending. This simple method would be easy to roll over the dough in one simple swirl movement. It will also eliminate the need to grip hard on to a long wooden cylindrical shape and be a more one-handed aid, placing less strain on fingers.

My initial idea was to design a tool that would combine different utensils to incorporate a space-saving aspect. I applied functional analysis to my thinking when looking at the main function of different types of rolling pins, as they have a solid shape. I used a kitchen roll tube as inspiration for my design shape, playing around with ideas of folding over and adding attachments. I then used associative thinking by looking at the opening mechanisms of different glasses cases and how I could incorporate that movement in my baking tool, whilst also allowing for storage of the baking tool attachments. The idea of having something with a multifunctional element would eliminate the need for more than one base.

About me

I have a passion for design and by taking this course, I wanted to build up my skill set. This course complements my current occupation as a cake maker and designer. Since having done well in my TMAs I am considering taking Design and Innovation as a degree with the Open University.

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Solar BOB

Solar Bob is a smart bin with three receptacles that uses solar energy and high technology to scan and identify recyclable items and dispose of them into the appropriate receptacle in order to reduce waste generated by coffee-to-go service systems and to keep the community clean. It has extra built-in functions such as a 3L bin for cigarette disposal mounted on the side, an advertising screen, a LED clock, a map with all the smart bin locations, and a free IOS and Android app.

I began with the problem statement: “How can we provide a coffee-to-go service that maximises sustainability opportunities throughout the service lifecycle?”

The demand for coffee-to-go service will always be high, therefore the negative environmental and community consequences generated by this demand must be re-discussed and improved through a more environmentally conscious redesign of the service.

Solar Bob has been designed based on research from objective and subjective sources of information, observations taken in a coffee shop and the analysis made from a customer perspective as well as analysing the coffee-to-go situation in the community. General facts about the coffee service industry have been explored and the impact on the environment, generated by service components, such as paper waste generated from coffee cups, plastic pollution generated from packaging and so on. Solar Bob has been designed as a long-term and efficient solution to reduce waste produced by coffee-to-go services and to persuade customers to support this cause through a reward system.

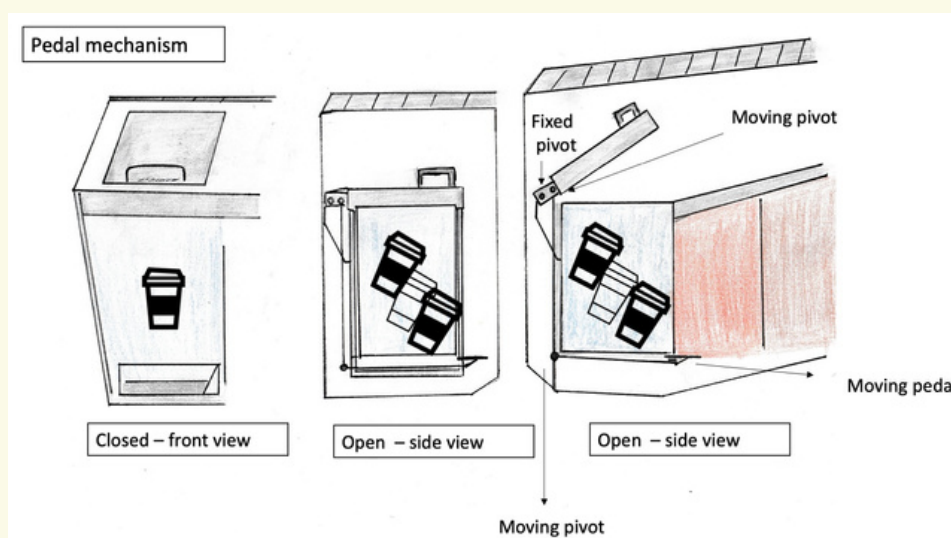
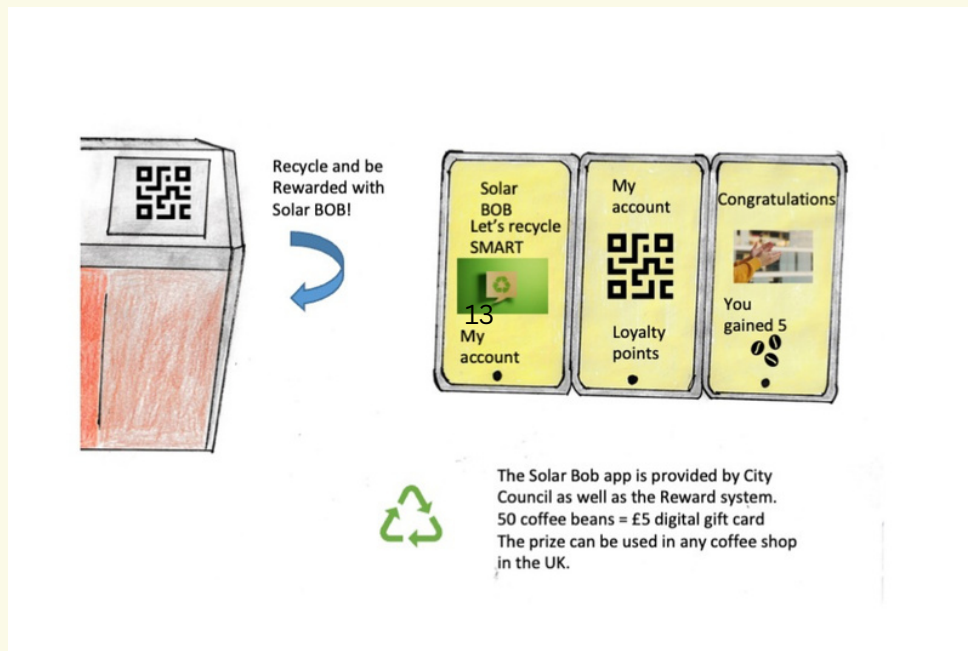
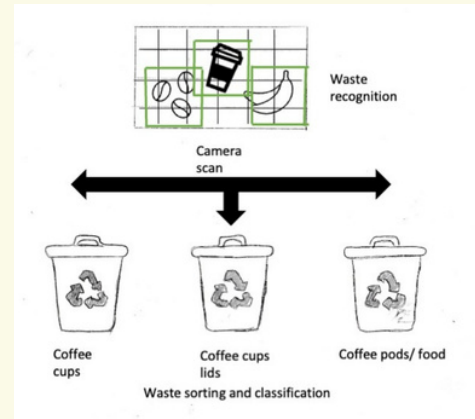
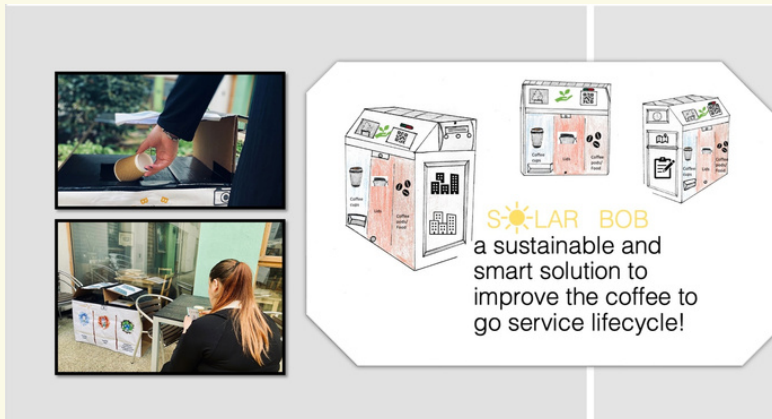
Solar Bob has a positive impact on the coffee-to-go lifecycle as a whole and represents a good sustainable opportunity. With Solar Bob coffee cups, lids and coffee pods or coffee grounds can be recycled. Food is also accepted in the compost bin.

About me

I joined the OU 2 years ago. I am currently studying Business and management undergraduate degree for personal and professional development. My aspirations after graduation are to explore new career paths and to develop a business plan for myself.

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All Aboard! –Travel Edition (board game)

The project I chose to submit is a travel edition of the board game I designed for TMA03. It is based on the service of transportation by bus, and it encourages healthy public transport etiquette by awarding points to passengers who behave well and it takes away points from passengers who act poorly.

Public transportation is a vital service for many different groups of passengers such as students, the elderly and people heading to or returning from work every day. As a user, I had experienced the difficulties passengers face when using public transportation. However, I wanted the players to have a more realistic and relatable experience when playing the game and for that reason, I researched online reviews of bus companies and included the feedback passengers left to enrich the gameplay of my board game.

Public transportation plays an important role in communities as it decreases the carbon footprint of citizens, reduces congestion in towns and cities and offers cheaper access to the job market.

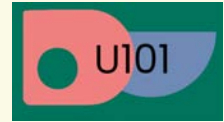
About me

My name is Dimitrios Spyridon Chytiris, and I am from Corfu, Greece. I moved to the UK in 2016 from Colombia and I started studying Computing and IT and Design at the Open University in October of 2022. After graduating I would like to work at the Open University to help more people accomplish their dreams.

Email: dim.chytiris@yahoo.com



Emily Ball



Tea Time Game

Tea Time is a board game to get everyone around the table.

Players start by choosing a counter next to a mug – this begins as their mug. They must roll the dice and make their way around the board to the short platforms. These contain tokens representing ingredients for making tea. The first to collect all 6 wins, responding to chance cards along the way.

The problem was to design a board game based on a service, using recycled materials, to be used for entertainment/learning purposes. This is experienced by anybody who plays or wants to play board games who are impacted by the impact of waste creation or those who would like to see their culture represented in the form of gameplay.

Initial ideas were generated by researching the process and history of tea making and what it means to different cultures as well as my own. I learned a lot, from tea making communities to relevant legislation. I generated my initial ideas by sketching my thoughts and allowing them to develop, refining them by combining ideas and tweaking rules, colours and game pieces as well as speaking to friends about my concepts.

The game is built by placing the board on a base and sitting 'the bin', also used for storing pieces, through a hole in the centre of the board, allowing the board to spin. Made from recycled materials, it recreates the feeling of sitting around the table drinking tea together.

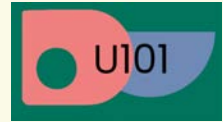
My goals through the module were primarily to learn and develop my creative thinking skills, while building confidence in this area. I aspire to use my learning after graduation to make a tangible difference using design in the areas of climate change and/or sustainable engineering and business practices.

About me

My name is Emily. My goals through the module were primarily to learn and develop creative thinking skills, and building confidence in this area. I aspire to use my learning after graduation to make a tangible difference using design in the areas of climate change and/or sustainable engineering and business practices.

[Emily Ball | LinkedIn](#)

Emily Ball



Let's Play Ancient

My design is a board game based on ancient woodlands. It is trivial-like, where you only move forward if answering each question correctly. Each player will pick a character such as a bat, a fox or a tree. There are four sets of cards representing four different woodland categories.

With the shortage of housing, many new developments are now being built, but at what cost? Many woodland areas are being destroyed to give place to these.

The idea for my board game was inspired by a group of residents who bought an ancient woodland in the community where I live, with the intention of maintaining its integrity and biodiversity. They have been very successful.

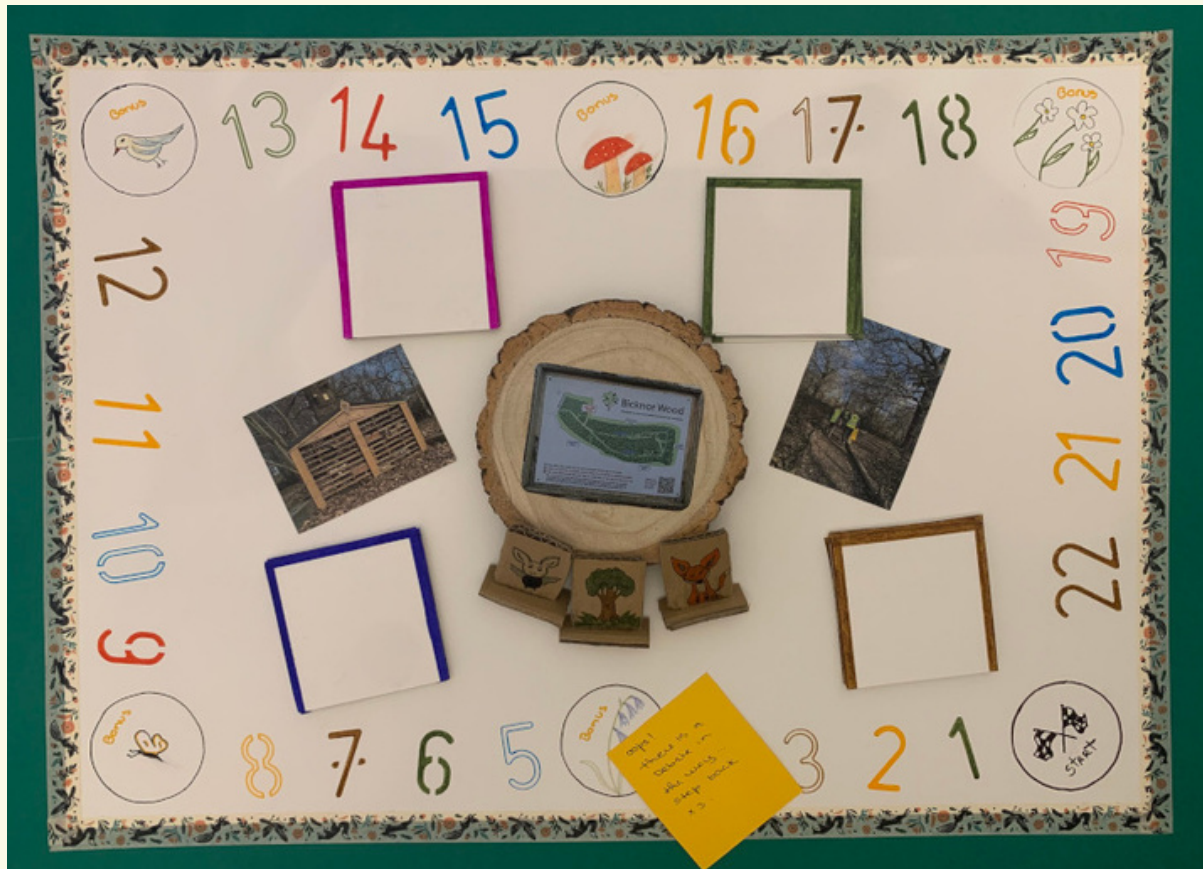
As part of my research, I spoke with their social media administrator who kindly replied to my questions and passed me their blog where I found more information about the importance of ancient woodlands.

The purpose of my design was to find a fun way to learn about nature and how important woodland areas are, especially ancient woodland due to its unique biodiversity. With this board game, families can gather together with their children and grandchildren and have a great time learning about nature.

About me

I am a 36-year-old dog mum who is passionate about creativity, decoration and all that comes with it

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K9 Dog Coat

How might we encourage people to take away their dog waste and dispose of it in an environmentally friendly way?

10.2 million families own a dog, creating an estimated 1,133 tonnes of waste a day, most of which ends up in landfill. We all feel we are doing our bit by using biodegradable dog poo bags however, I discovered rubbish tips don't create the right conditions to break down biodegradable bags and can even mummify them!

In researching this problem, I discovered two age-old technologies coming together: gas lamps and bio-digesters, which create gas from animal waste. Sight Designs developed a working prototype that turns dog waste into lamplight in the UK in 2019 and post-COVID, they are now ready to market K9, their bio-lantern.

I designed the dog coat to fit in with the bio-lantern system. The coat has a pocket to collect the waste to transport home to a bio-lantern. The "My Poo Powers" tagline, is a talking point with other dog walkers, raising awareness of the K9 system and the simple and effective way waste can be turned into something purposeful in an environmentally friendly way.

About me

For the past six years, I have worked in the Voluntary Sector running a charity. The bits of my work that I love are being creative such as designing services that make a difference to families with young children and demonstrating their impact in compelling reports. When I am not doing that I'm singing, running, knitting or drawing. I never sit still

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The Journey to Energy

How the K9 system creates gaslight

Step one: take your dogs on a walk in their K9 coats



Step two: pick up their waste with a K9 bag and put it in the dog coat pocket



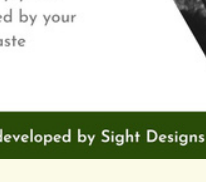
Step three: bring the waste home and put in the K9 unit



Step four: turn the handle



Step five: enjoy the lantern powered by your dog's waste



K9 Bio-Lantern developed by Sight Designs Limited Contact: brian@sightdesigns.co.uk



The Power of Waste

The K9 System

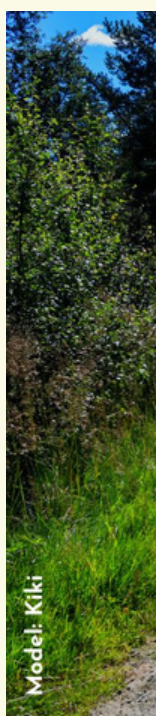
An advanced waste system that's easy to use, environmentally friendly and creates energy.

Sight Designs developed the UK's first bio-digester street lamp in 2019 and the technology is now available to pet owners across the country.



Kiki wears the Standard K9 coat

- The K9 coat creates easy transport for dog waste whilst out walking
- Bio-digester poo bags can be stored and collected in the pocket
- Once back home, the poo bag is entered into the bio-digester lantern
- When the handle is turned the bag and waste are broken down
- The unit digests the waste into biogas as part of the natural carbon cycle
- The gas is used to power a garden gas lamp



Model: Kiki



The K9 Dog Coat is a talking point on walks



Title of the project: Dog Waste Reward Scheme

Project Detail: The scheme has two parts: a modified bin and an application. Users sign up and answer questions including reward types, bin ordering and their dog's details. The bin is for home or park use, so users without space can still benefit. Solar panels on the outside power the scales within the bin. These scales double as an RFID writer so that when users put dog waste inside, the RFID in the bin's lid is updated with the weight. The home bin has wheels, and the park bin has a rod to secure it. The lid sensor allows the scales to be reset when opened. After dog waste is put inside, users scan the bin (RFID) with the application to log it. Later they receive their reward (e.g. council tax reduction).

My problem statement was: How can we encourage the proper disposal of dog waste? Waste was the research area, and dog waste left in fields/streets is a problem experienced by walkers and farmers alike. Dog waste can spread diseases and cause over-fertilisation.

While researching dog waste globally and locally, I found it was an issue everywhere. Ideas were generated using two creative sessions where I allowed everyone five minutes to develop as many ideas as possible before discussing our favourites. Each idea was put through two evaluation grids to generate a score out of 60. The best and most comprehensive idea was the Dog Waste Reward Scheme.

This project incentivises dog owners to properly pick up and dispose of their dog waste using rewards (such as money off dog food or council tax). This will create cleaner streets and fields and lower the risk of disease spread and over-fertilisation.

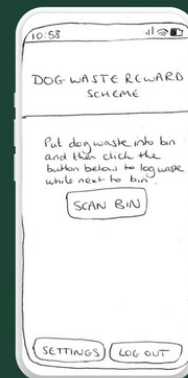
About me

I am formerly a software engineer who loves to create. I'm doing a BA in Design and Innovation to learn about designing alongside the humanities modules to learn about creative writing.

Email Address: helenanneporter@gmail.com

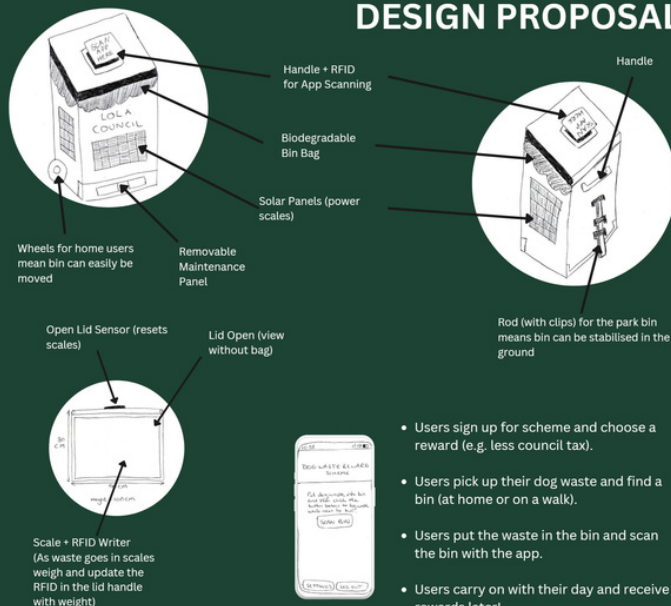
DOG WASTE REWARD SCHEME

The Dog Waste Reward Scheme aims to incentivise dog owners to properly pick up and dispose of their dog waste.



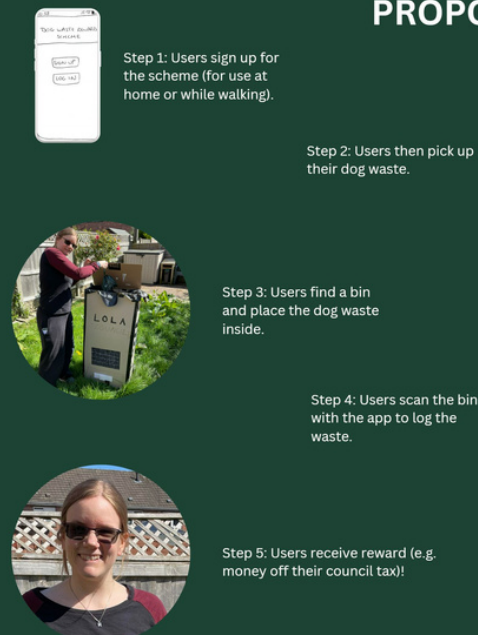
Dog waste left in the streets and fields carries disease to people and animals and can cause over-fertilisation. To combat this the Dog Waste Reward Scheme comprises of a bin that weighs the waste a dog owner places inside and with the help of an app rewards the user for using the special bins (at home or in the park).

DESIGN PROPOSAL



DOG WASTE REWARD SCHEME

PROPOSAL IN USE



DOG WASTE REWARD SCHEME

LHANDSCAPE.

This is the T-Shirt design that I submitted for the U101 EMA. It is a development of my TMA01 – T-Shirt design brief – hands. My concept is based on a photograph I took of my palm that reminded me of hills. My abstraction was developed to resemble a landscape or Lhandscape.

The problem was 'How do I take the drawings and tracings I did from the main photograph of my hand and develop them into a design for my T-Shirt to give an impression of a landscape?

As it shows in my abstraction photograph, I simplified the drawings to produce a shape that resembles three hills, then used symmetry and repetition of this shape to look like a landscape of hills. I tilted the shape to give a more organic feel to the design. I researched colour meanings and added my choices to the design. The text was added to pull the design together as I liked the play on words.

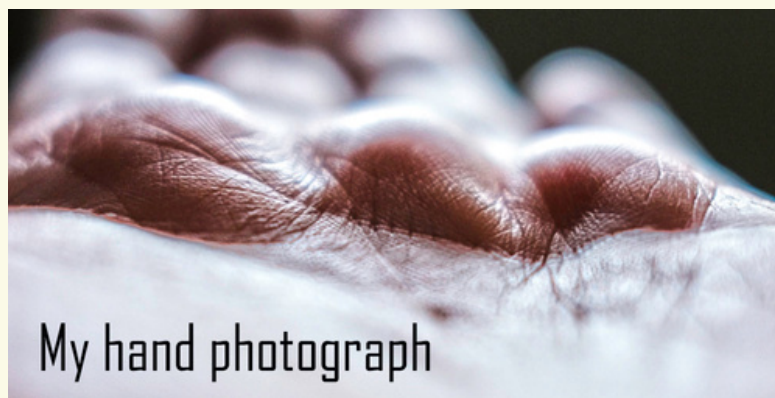
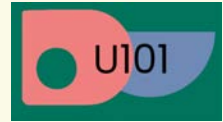
My design fulfilled the brief and I use a less obvious part of my hand to develop and deconstruct. My hands show a landscape of my life, with all the bumps, scars, and lines I can see when closely observed, so my design choice is relevant to that.

About me

I am 63 and retired at 55 after 29 years doing a job in Occupational Health and Environmental Safety. Leaving school I did art and design then window dressing for a few years, so I did this O.U. Module to get back to something I really love – being creative.

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Jacqueline Quinn



GRIPPIT is

GRIPPIT is a simple device that enables doors with round handles to be opened easily by people who have difficulty using their hands to grip or twist. These include arthritis sufferers, people who may be missing fingers or a thumb and older age groups with a weak grip.

GRIPPIT works by placing a rubberised tape over a round door handle. The excess tape is then pulled through the hollow handle. Levering the handle then causes the tape to be trapped against the doorknob thereby tensioning the tape against the knob allowing the knob to be turned easily.

I believe the device would be inexpensive to manufacture and easy for consumers to use and understand.

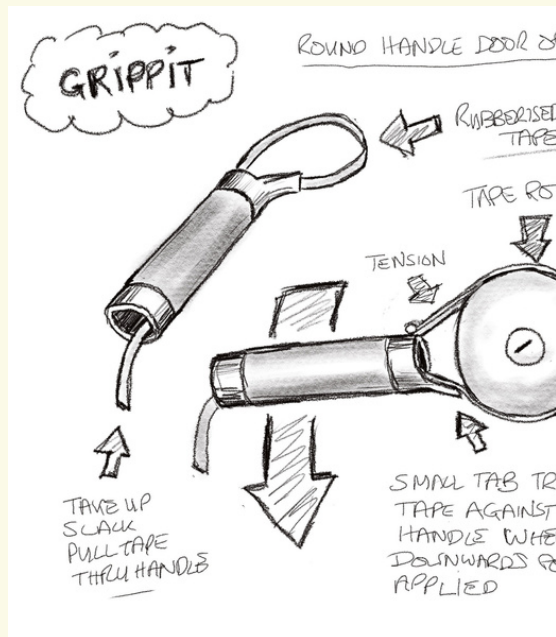
I'm a mature student (enough said!) who has always held a passion for design and finding creative solutions to everyday problems.

About me

My philosophy has always been to discover and learn something new each day so the Open University is really helping me maintain this and hopefully, in time, I'll achieve my goal and earn the qualification I've always wanted!

Regardless of whether or not I achieve my academic acknowledgement, I will always continue to create in one form or another as this is what really keeps me motivated and driven.

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ROUND DOOR KNOBS AND JAR LIDS GETTING A LITTLE TOO HARD TO HANDLE?

GRIPPIT

OPENS WITH EASE!

Introducing **GRIPPIT**, a simple-to-use, lightweight device that will help to open any door with a round knob, round handled taps and even tightly fitted jar lids.

GRIPPIT is designed to be simple to operate and can easily be carried in your pocket or handbag so its always there... just when you need that little extra help!



Erratic Engineers Board Game

You play against up to 3 other opponents and take turns using dice, the goal of the game is to cross the finish line first.

Initially I created this based on having insight into the industry but with help from Dr Baldwin I was able to see how this could be used as a educational game perhaps as a training tool for engineers.

I worked in Smart metering as a business analyst, I ended up managing multiple operational processes which gave me insight into different scenarios faced in the industry, I was able to draw on these experiences to create a board game in response to the assignment.

I had struggled to come up with an idea for but was drawn to some form of transport game inspired by Rachel Lowe's board game "Destination" ([Link](#)) and the idea came to me from there.

The game could be used as a training tool for engineers or to educate others about the life of an engineer to help people and engineers understand the job in more detail. Personally, I never thought about my gas and electricity, unless it was not functioning, before working in the industry.

About me

I work as business analyst, and I am working toward a degree in business management and would like to pass my U101 module. I would like to complete a full design cycle and design a product that I can take to market.

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[John Paul Dyer](#) | [LinkedIn](#)



Recycling service

My design proposal is a non-web-based service that allows for bulky items to be recycled for customers who have no access to technology or transport.

A local representative would secure access to transport such as a local worker's van and would arrange item pickups and drop offs.

The problem is that some people have good items they no longer require such as furniture or old TVs, but they have no access to transport or technology. These items could be re-used instead of new ones being made, frees up space for those giving it away and reduces waste going to landfill.

For my TMA submission, I created a complex service to try and reduce waste however I struggled to communicate my design idea. After feedback and discussion with Dr Baldwin, I decided to simplify this and choose 1 element of my overall design for my EMA.

I visited a local waste recycling centre, Forth Resources and got a tour along with a visit to Edinburgh Council Recycling and user workshop, I undertook an interview and online research.

The service I designed is attempting to stop people from storing items they don't use that could be used by others such as schools or neighbours nearby. This could lead to a reduction in items being dumped in the street, going to landfills and stopping new items being made.

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Dining table cabinet

I wanted to combat the lack of storage and the amount of space that a dining table and chairs take up in a home. This problem is experienced by people who may live in a smaller property such as an apartment and can impact their daily home life. Firstly, to tackle this issue I researched options for space saving dining tables, but a lot of these still took up a large amount of room and came with no storage. In order to generate starting ideas I held a creative thinking session with a group of my friends, this proved to be useful as it gave me some ideas of the pros and cons of dining table designs. To refine these ideas I decided on 3 designs and analysed them to work out the pros and cons of each. I then picked a final design and made a physical prototype as well as a digital one.

My proposed idea is a cabinet that has 2 drawers, storage for 3 foldable chairs and a drop-down table top that is attached to the back of the cabinet, allowing the user to open up the table when needed. The underneath of the cabinet also has wheels for easy mobility. I believe that this will combat the lack of storage and the amount of space that a dining table and chairs will take up.

About me

I am currently enrolled in my first year of Design at The Open University and also work in a coffee shop as a supervisor. I have always loved design, especially homeware and furniture. I hope to one day work as a designer for a homeware company or even go into advertisement design.

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Instagram: <https://www.instagram.com/kalvincroucher/>



Dining table cabinet

By Calvin Croucher

I wanted to combat the lack of storage and amount of space that a dining table and chairs takes up in a home. This problem is experienced by people who may live in a smaller property such as an apartment and can impact their daily home life. Firstly, to tackle this issue I researched options for space saving dining tables but a lot of these still took up a large amount of room and came with no storage. In order to generate starting ideas I held a creative thinking session with a group of my friends, this proved to be useful as it gave me some ideas of the pros and cons of dining table designs.

In order to refine these ideas I decided on 3 designs and analysed them to work out the pros and cons of each. I then picked a final design and made a physical prototype as well as a digital one as seen above. My proposed idea is a cabinet that has 2 draws, storage for 3 foldable chairs and a drop down table top that is attached to the back of the cabinet, allowing the user to open up the table when needed. The underneath of the cabinet also has wheels for easy mobility. I believe that this will combat the lack of storage and amount of space that a dining table and chairs will take up.



Trash Swap

My project is called Trash Swap, a recycling system to provide easy access to recycling facilities for soft plastics as well as encourage behavioural changes towards recycling.

I began with the problem of waste and narrowed the focus of my research to soft plastic waste and how it can be recycled. I was able to generate the problem statement: How might we design a solution that allows soft plastic waste to be recycled easily and responsibly?

Soft plastics are widely believed to be unrecyclable, however, this is not the case at all. 70% of plastic waste comes from packaging, and 22% of this is soft plastics. Currently, approximately 6% of soft plastics are recycled in the UK, this is an issue that affects everyone.

I held a creative session and asked the participants to consider the problem statement and through a variety of activities, we generated many ideas ranging from new products to systems that could be adapted to encourage use. I combined a number of ideas to produce a design proposal for a new type of recycling bin and a system to encourage recycling.

Trash Swap is a system where users can drop off their clean soft plastic waste at one of the recycling points and get points for their deposit. Points can be redeemed for cash-back, a donation to a charity or to buy reusable products that reduce plastic use i.e. wax wraps, water bottles, tote bags etc. The bin will register the deposited waste and display a QR code, the user can then scan with their phone and their points will be uploaded. Social media campaigns and competitions can be used to promote usage.

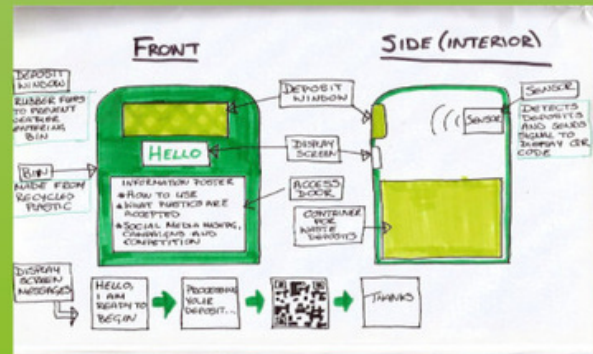
About me

I am a Computing, IT and Design student. I live near Glasgow with my husband and three children and enjoy being outside and exploring, reading and many, many different crafts.

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Trash Swap

Trash Swap is a system that encourages consumers to recycle their soft plastic waste and issues rewards for each deposit.



Users deposit their waste in the bin, scan a QR code and receive points that they can redeem for cash, reusable products or donate their balance to charity.

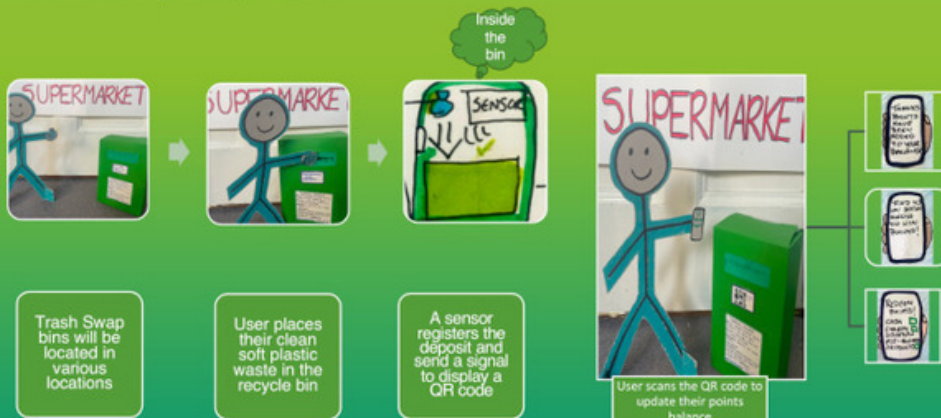
The bin has a generous opening for deposits and lined with rubber flaps to prevent contamination. The sensor within the bin registers deposits and signals to display a QR code to the user.

The bin has been designed to be easily recognizable and made from recycled materials that can be recycled again when at the end of its life.

There is a large container within the bin for easy collection and the access door is also an information board for users.

Trash Swap

Drop off your soft plastic waste
Scan the QR code
Collect your points



Easy Drain Upside-Down Gumball Machine Bird Bath

After researching the wide variety of bird baths currently available, I found that the majority must be tipped over to be cleaned. This often results in the user getting wet/dirty, something I frequently experience. Moreover, tipping the bath over can be hard for people who struggle to lift heavy objects.

My problem statement is: How might we design something for garden birds to bathe in that is easily drained/cleaned?

To generate ideas, I held a brainstorming session. Key themes explored included bird safety, water waste, encouraging the user to clean the bath, and the exterior design of the bath. I then combined many of those elements together to form the final design.

How it works:

You simply step on the foot pedal, the plug hole opens, and the dirty water drains into the 'gumball' flower planter below. Step on the pedal again, the plug closes, and the bath is ready to be refilled with clean bathing water. No heavy lifting or getting wet/dirty is required.

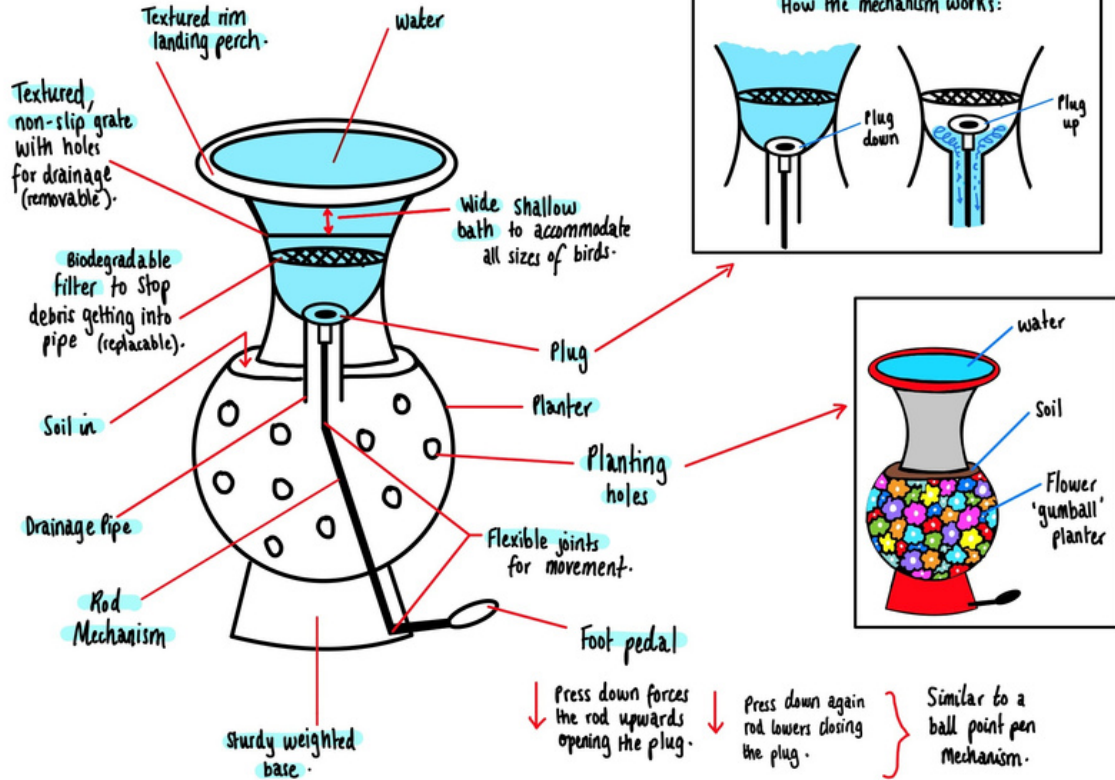
The user is motivated to regularly drain the bath to water their gumball flower display. In turn, this will ensure the birds continually receive clean bathing water. This solution helps reduce water waste through the repurposing of dirty water.

About me

Hello, I'm Lauryn, I'm 21 years old and I'm working towards a Bsc in Design and Innovation. I deeply care about the environment, and my goal as a designer is to connect people with nature, encouraging everyone to help preserve the wildlife surrounding them.

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Easy drain upside-down gumball machine bird bath



* Used by bird watchers, gardeners, wildlife enthusiasts and nature lovers.



Parcel Monkeyz

Parcel Monkeyz is a four-person board game based on a parcel delivery service with a fun monkey twist to appeal to the whole family.

Game highlights:

- Experience the twists and turns of parcel delivery.
- Fun for all ages.
- Use re-delivery cards to decide your next move.
- Answer questions to deliver extra parcels and win!

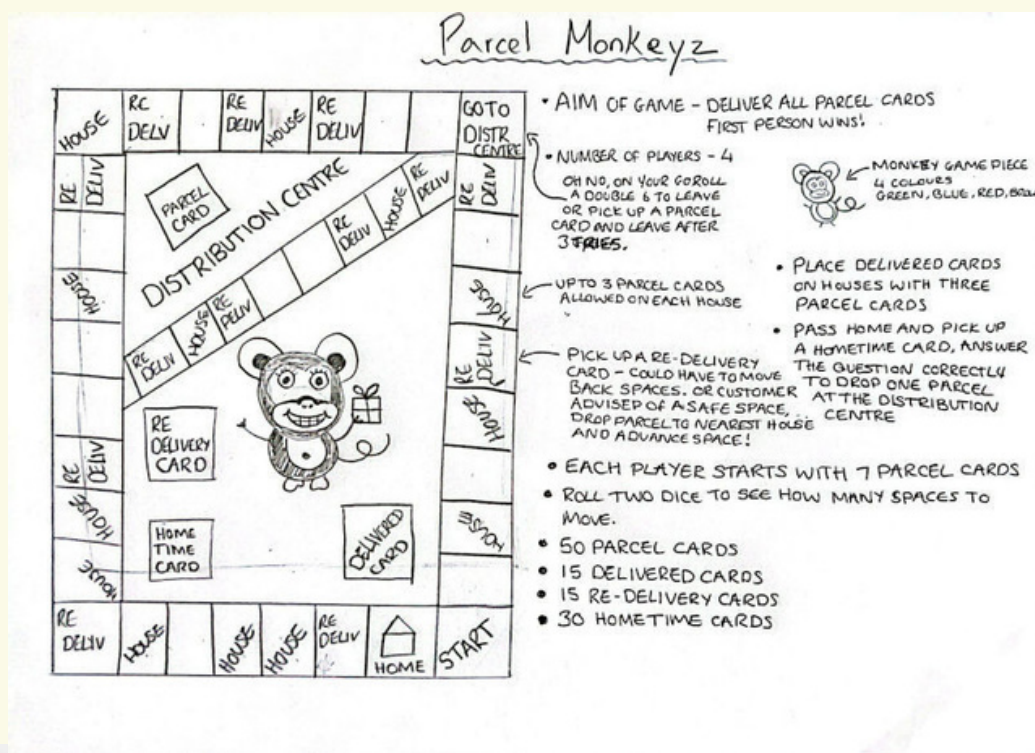
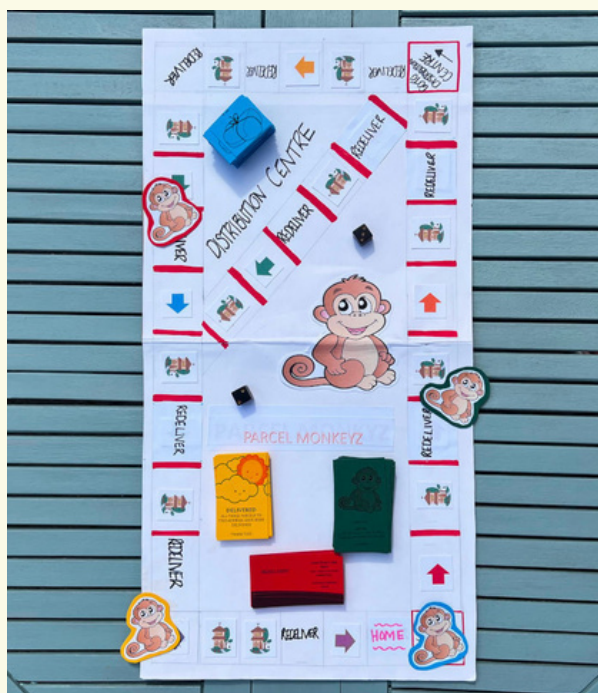
We were tasked with designing a board game that revolves around a service. Upon studying parcel delivery, I decided to develop a game that captures the thrill and unpredictability of this. The game's theme is relatable and can be enjoyed by all ages, making it an excellent choice for spending quality time with family.

My interest in parcel delivery stemmed from my mother working for a delivery company. I started my research by speaking to my mother about her work, where I heard a running joke comparing the delivery drivers to 'parcel monkeys'. I then watched informational videos to investigate the process further. After the observations, I had the information and ideas I needed to create a game combining all aspects of parcel delivery in a fun way that entertains families.

Parcel Monkeyz is a game that simulates parcel delivery and provides entertainment to players. It includes various components such as redelivery cards and parcel cards, engaging players in a fun environment. Families may be concerned about the complexity for children, but it is easy to understand due to its similarity to the real thing.

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PARCEL MONKEYZ

A four-person board game based on parcel delivery!

Become a monkey and race to deliver all your parcels. Overcome twists and turns such as:
 Redelivery struggles
 Forgotten parcels at the depot
 Trivia questions & more!

Game Components

- **Delivered cards** — Place on houses where three parcels have been delivered.
- **Home Time cards** — Pick up once you've passed the 'Home' space and answer the question, if answered correctly, you may drop off one parcel to the distribution centre.
- **Redelivery cards** — This card decides whether you're able to deliver your next parcel or you may have to move back spaces.
- **Distribution Centre** — If you're unfortunate enough to land on this square, you may have to spend some time with the forgotten parcels at the depot.



Design by Molly Thomas

Reusable Shopping bag

My project aims to address the issue of clothing waste by proposing a solution that involves reusing shopping bags for returning clothes to fashion brands. This approach would enable convenient redistribution to charity shops, effectively reducing the environmental impact of discarded garments.

I began with the Problem Statement:

‘How might we find a solution to recycle/ reuse all the clothing items we no longer use.’ The problem I tackled is the accumulation of rarely worn clothes and impulsive purchasing habits, which contribute to clothing waste. This issue affects individuals who find themselves tempted to buy new clothes without considering the environmental consequences, resulting in guilt and an overfilled closet.

Process: To develop my solution, I conducted extensive research on waste and clothing consumption, including studying journalist Rob Greenfield's story. I generated initial ideas by reflecting on my own habits and the influence of marketing tactics. The idea of reusing shopping bags for clothing returns was selected and refined based on convenience and the potential for widespread adoption.

My proposed intervention involves using modified shopping bags as a means for customers to conveniently return their clothes to fashion brands. The brands would then take responsibility for distributing the garments to charity shops, promoting clothing resale and reducing overall waste.

As an individual, my goal during this module was to design a practical solution that addresses a pressing environmental issue. I am passionate about creating impactful and sustainable designs that address real-world problems. After graduation, I aspire to continue working in the field of sustainable design, actively contributing to a more eco-friendly future.

About me

As an individual, my goal during this module was to design a practical solution that addresses a pressing environmental issue. I am passionate about creating impactful and sustainable designs that address real-world problems. After graduation, I aspire to continue working in the field of sustainable design, actively contributing to a more eco-friendly future.

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DESIGN PROBLEM

FAST FASHION AND ITS IMPACTS



It's estimated that more than two tonnes of clothing are bought each minute in the UK, more than any other country in Europe. **That amount produces nearly 50 tonnes of carbon emissions, the same as driving 162,000 miles in a car.**



The carrier bag in which we buy our clothes can be reused to drop off clothes we no longer use




Add the details on the paper bag and seal it



Drop off box at the shops for collecting all the paper bags



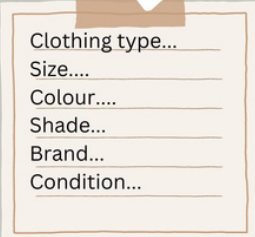
All the paper bags collected and donated to charity shops

A shopping bag that converts into a sealable bag to recycle/ reuse the clothes we don't use.



Resealable top to secure the top of the bag

Each bag comes with a label to attach to the bag with the details of the clothes



Clothing type...
Size....
Colour....
Shade...
Brand...
Condition...



These bags can be dropped off at all major stores from where they get distributed to charity shops

Smart Lace

The Smart Lace is a motorised shoe fastening device that can be transferred between shoes and promotes independence for those who have physical impairments.

The design is inspired by my husband who is without a left hand and uses a prosthetic leg. His impairments make it difficult to tie shoelaces and he is unable to wear slip-on shoes due to stability issues. This creates a dependence on others to tie his laces and restricts his choice of shoes. Smart Lace allows my husband and others with similar impairments to independently fasten their desired shoes.

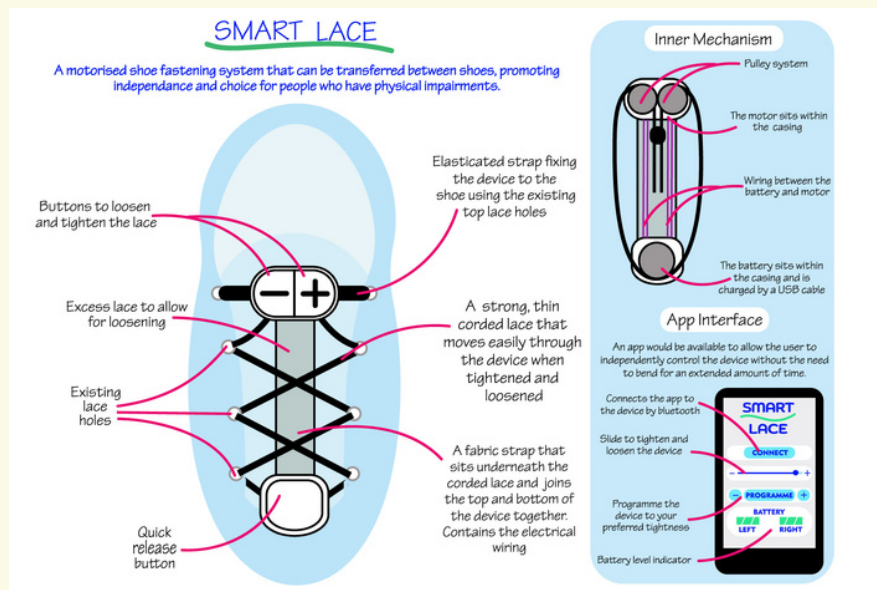
My brief was 'Design a way to fasten footwear that is transferable to other shoes and promotes independence for those who have physical impairments.'

Following research on solutions currently available and a successful creative session, I created the Smart Lace device. Laces are replaced with a motorised cord and pulley system. Once fitted the user can fasten shoes with the touch of a button, either on the device itself or within an accompanying app. The plus button tightens the shoe whilst the minus button loosens. A rechargeable battery powers the motor with a manual override in situ. All plastic elements would be made from recycled plastic that would otherwise be sent to landfill.

About me

I live with my husband and four children in Norfolk. I have been self-employed for 9 years, selling my designs on greetings cards and prints. Following my studies with the Open University, I hope to progress into employment within the design industry, possibly within interior design.

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Invisible Disabilities Tee-shirt

I began with the problem statement “Design a T-shirt that effectively represents the challenges faced by individuals with invisible disabilities. The design should visually convey the hidden nature of these disabilities, highlighting the struggle of navigating a world that often fails to recognise or accommodate their needs. The shirt should raise awareness and promote empathy towards these individuals' unique experiences.”

The design process aimed to capture the experience of feeling invisible as a person with a hidden disability. To achieve this, a suitable font was chosen to vertically display the word 'invisible' in a comic-book/urban graf-style on the left side of the frames. The bold, block-colour scheme was influenced by WATCHMEN. The hand image was incorporated to create a sense of movement, reminiscent of analogue film frames. Learning British Sign Language inspired the use of the downward motion sign for 'invisible.' To maintain clarity and movement, the hands were designed carefully. The Glaser Babyteeth Solid type font enabled the creation of a glyph effect, making the word 'invisible' visually dynamic and adaptable to its surroundings. Asymmetrically repeating comic-book-style elements such as hands, faces, and frames on the T-shirt highlighted the word's significance and centralised its importance. The face was crafted using Character Creator 3 and traced in block colour with Adobe Illustrator, with closed eyes emphasising the final frame's meaning.

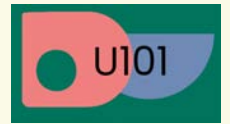
My design embodies the principles of design justice, disability activism, and the 'nothing about us without us' approach. By prioritising the perspectives and experiences of disabled individuals, it conveys a strong and impactful message that challenges conventional narratives. It aims to provoke discussion about multiple sclerosis (MS) while avoiding clichéd and patronising portrayals, instead presenting a raw and authentic representation rooted in personal experience.

About me

I am a resilient person living with secondary progressive multiple sclerosis, an incurable neurodegenerative disease. Throughout this module, my goals are to gain a deep understanding of my subject and develop strategies to overcome challenges caused by periodic loss of hand and voice use due to numbness and mobility issues. Beyond graduation, I aspire to advocate for disability rights, raise awareness about my condition, and contribute to research advancements in multiple sclerosis treatment and support.

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Simon Lloyd Lewis



Let's protect the turtles together!

I designed the T-shirt to raise awareness and support the important cause of saving turtles from the plastic pollution in our oceans.

I settled on the problem of the ocean being polluted with plastic multipack rings and how we should cut them as a risk management technique. It is a hazard to sea life that can cause animals to choke or become disfigured.

When creating my design I decided to use a turtle shape and then I used the process of abstraction to create a simplified version of it. On the turtle's shell, I put a cutting gesture with a plastic 6-pack holder where one of the rings is already cut open. This intentional imagery speaks volumes, reminding us that even a single small action can have a big impact on our environment. By highlighting the significance of breaking free from plastic entanglement, this design serves as a visual call to action.

Embracing eco-friendly products is a great choice, one that can truly make a positive impact. Opting for sustainable alternatives such as metal water bottles instead of plastic, glass straws, and soap with plastic-free packaging not only helps in preserving our planet but also plays a crucial role in purifying our oceans of plastic waste.

I am happy to wear my t-shirt and spread a positive message.

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Sustainability lesson

This design is a decorative rose that will become a lesson in my school's scheme of work teaching pupils about sustainability and reusing materials whilst also giving them an opportunity to be introduced to the wood lathe before they use it for GCSE work.

About me

I am a 26-year-old budding designer from South London. Alongside my studies, I teach KS3 pupils at a local secondary school. Really enjoying my studies so far.

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Instagram: <https://www.instagram.com/tcook96>





Leave Ivory To Them

The idea was to produce a design that would deliver a message. The incorporation of the heart-shaped hand gesture with the elephant composition not only represents love for these creatures but also projects an active call - "Leave Ivory To Them."

The inspiration was derived from visits to Africa and exposure to anti-poaching campaigns. The design intentionally avoided incorporating tusks into the composition to convey a message that the elephant's life is what matters, rather than its tusks. Hands here represent action and choice; they can be used to either continue spilling an elephant's blood or to prevent it from happening.

The composition was redrawn about a dozen times before reaching a satisfactory design. Tracing and carbon paper, along with a ruler, were effective tools throughout.

The transfer process itself went smoothly, but the first trial needed some improvements in colour finishes and the initial font style chosen. When redoing the transfer, the only additional white t-shirt found was kid-sized. The smaller size, in my opinion, turned out better with the image more proportionate to the empty space on the fabric, which was something I had not previously considered.

The t-shirt was modelled by a willing junior helper.



Jacket Lift

This device aids in the dressing process for upper body garments, particularly jackets and coats, for individuals with limited mobility in their shoulders. It resembles a floor lamp stand, featuring an additional horizontal bar that raises the garment onto the individual's shoulder when the button is pressed using one's foot. The circular frame eliminates any sharp corners, providing a modern twist and enhancing the aesthetic appeal of the Jacket Lift.

In the UK, around 10 million people have arthritis, and more than 350 million have arthritis globally. It is also a leading cause of joint replacement operations, with the most common being carried out on hips, knees, shoulders, and other joints. How might we enable those with restricted shoulder mobility to independently put on upper body garments (e.g., shirts, jackets, coats)?

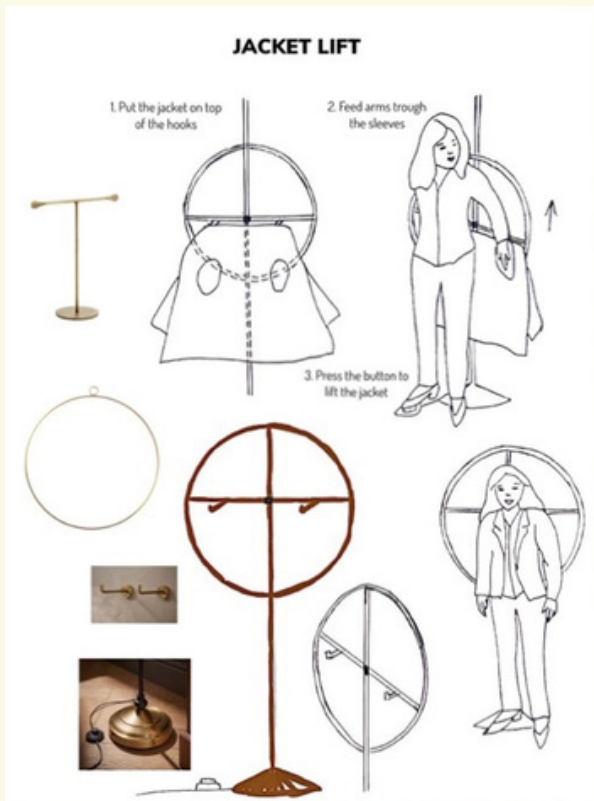
I wanted to explore this opportunity with a focus on the following user groups: Elderly individuals with restricted upper-body mobility, primarily but not exclusively due to arthritis. Individuals who have undergone post-shoulder replacement operations. Caregivers.

As part of the research, I conducted several conversations with individuals who experience limited shoulder and arm mobility, including my father-in-law, who has been delaying his recommended shoulder replacement operation for many years due to fears of an uncomfortable and lengthy recovery. And although he is quite an active gentleman who exercises daily, he finds some day-to-day tasks challenging. One of them is independently putting on an upper body garment.

In his own words: "To put on a shirt is uncomfortable, a jacket is challenging, and a coat is impossible."

The intention was to create a design that is both functional and visually appealing in its simplicity. The Jacket Lift successfully addresses the set objectives by elevating a jacket onto individual shoulders. This design not only serves a functional purpose but also has the potential to be an elegant object that seamlessly integrates with the interior design setting.

I would love to bring this project to life. However, in order for this product to be constructed at its actual size and tested with real users, the involvement of other specialists, such as a mechanical engineer and an electrician, would be necessary.



03

T217



The Open
University

A Playful engagement piece for use at a national park – Signposted trail

My signs are designed to educate parkgoers about sustainability. Each sign includes a different animal sound, animal design, sustainability tip and patterning to encourage children to learn about the environment. The signs are there to help users stick to the correct paths to prevent countryside erosion and littering.

I tackled the issue of visitor engagement in my brief. National parks experience littering and erosion due to a lack of signage and education. Children must be taught about sustainability to spark an interest in issues such as global warming which they may go on to solve in the future.

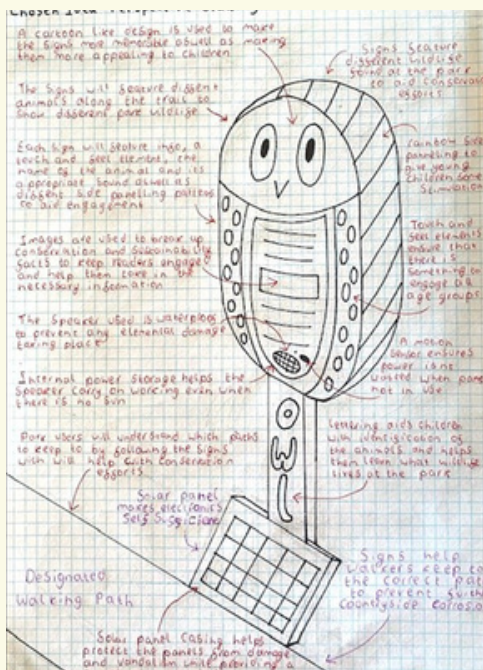
I researched pre-existing trails to better understand what engages children and brainstormed with my family to produce ideas surrounding our childhood engagement. To generate my ideas, I created a mood board exploring colours and materials which focused on inspiration from the park's problems. Using a selection matrix, I shortlisted my five design ideas and my animal signs scored best, I further developed them orthographically before creating a rough model to help me visualize my idea.

My design proposes signs to follow to keep visitors on track to reduce countryside erosion. Each sign features sustainability facts alongside a cute animal design and motion-activated sound effects. This will help visitors learn about the sustainability of the park and what they can do to help the environment.

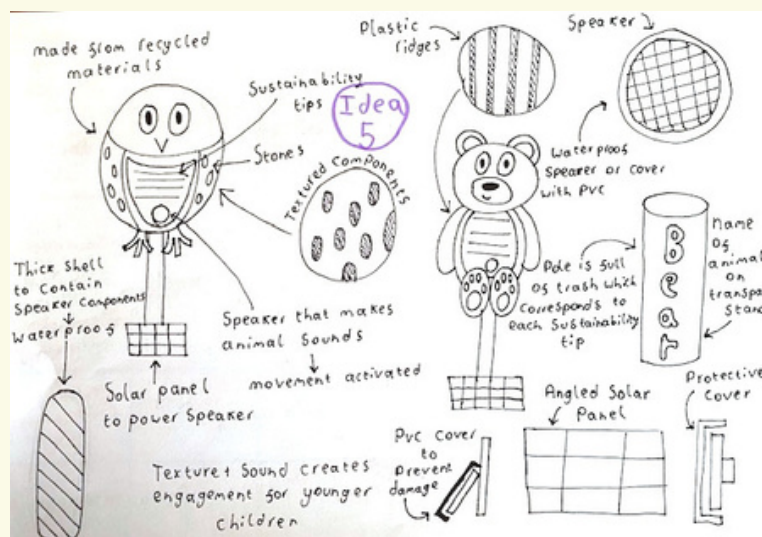
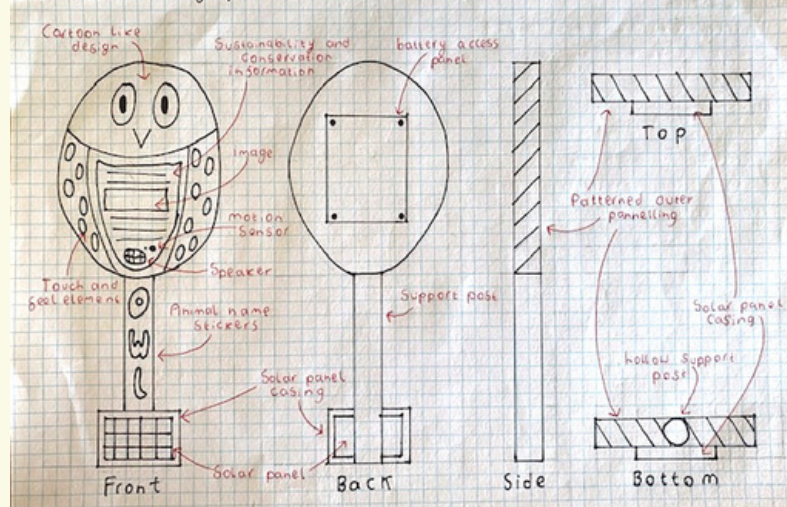
About me

Hi! I'm Aimee aka Acorn a 21-year-old student from the west midlands. I'm hoping to improve my confidence and produce a portfolio ready for future employment. After graduation I'd love to get a job working with LEGO, specifically minifigure design, which I have had a keen interest in since childhood.

Email address: alcornhill@icloud.com



Chosen idea - Orthographic Projection



A product to encourage visually impaired people to visit Ditchling Beacon and to enhance their visit

The National Trust and Sussex Wildlife Trust aim to provide everyone with the chance to learn about and engage with wildlife. The physical layout of the Ditchling Beacon, however, and the absence of amenities for visually impaired visitors, may deter them from visiting the site. It is well known that nature benefits both mental and physical health. Making the site accessible to visually impaired people may aid in their fight against diseases such as diabetes, heart disease, cancer, and depression.

The target user group are people of all ages that live with a visual impairment condition. They may live nearby to Ditchling Beacon. They may like to spend time in nature, but they may be afraid of the unknown and the challenges they may encounter.

The 3D information boards not only want to help blind people to enjoy and explore the views through the sense of touching but also to bring the views closer to people with low vision. During the development stage, it was clear that this experience can be enhanced by bringing people closer to the flora and fauna as well. Staying loyal to the 3D concept, insects, flowers and butterflies can be 3D printed and exposed along the trail.

Even if the product was developed for visually impaired people, it may be used by anyone. The product's height may be adjusted from 500 to 900 mm, making the 3D structures accessible to both children and adults.

Another advantage of this design concept is that it blends with the site and its surrounding, not interfering, in this way with other visitors' experience.

The top's circular design allows users to navigate around the product, and the inside legs eliminate any obstacles that conventional legs may create.

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Features

- 3D designs of the views



- 3D designs of Ditchling Beacon specific wildlife



- Information available in English and Braille



- Adjustable height



A chair to encourage 6–10-years-olds to read for pleasure at home

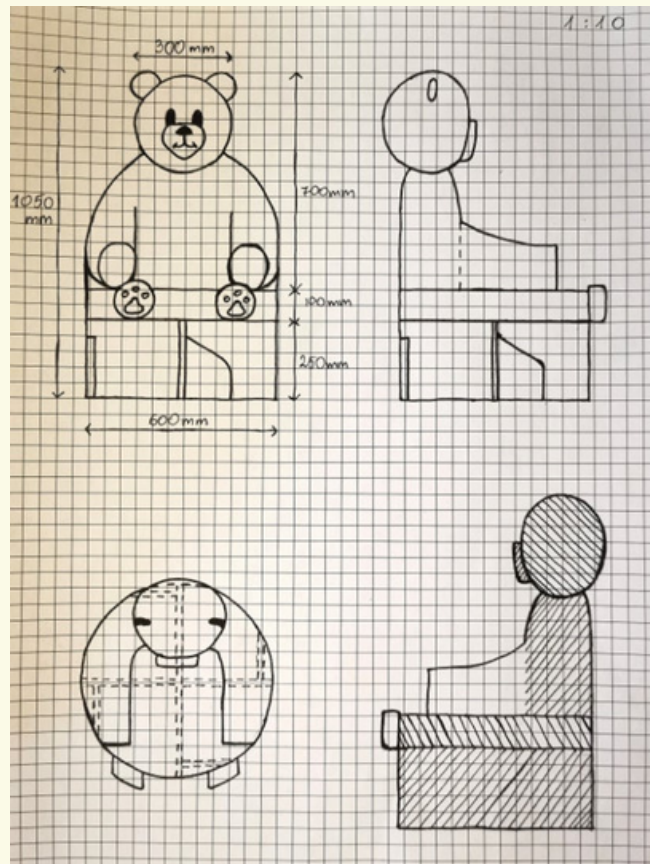
Recreational reading has important benefits for children, such as: encouraging brain development, improving concentration, developing language and communication skills, and preparing for academic success.

According to OECD (2010) 10-year-old children who read often for enjoyment gain higher results in school. However, Department of Education (2017) research showed that only 35% of 10-year-old pupils in England like to read. One way to support primary-aged children to read at home is to create a comfortable reading environment for them (gov.uk, 2022). Other than a well-lit and distraction free room, a playful and comfortable reading chair can encourage children to pick up reading or extend reading sessions.

My design concept is playful and invites children to use it. It is simple and functional, with each component serving a specific purpose: the base holds books, the raised seat provides a comfortable sitting position, and the armrest and backrest provide support and promote ergonomic position. The design concept permits the use of soft materials and warm colours, which help reduce negative emotions and convey emotions such as reassurance and comfort. The product can be customised, with colour and material options based on customer preferences.

I researched ergonomics and targeted user needs in terms of visual and tactile stimuli before beginning to work on the design concept. Once they were determined, I considered the elements required for reading, such as a seat, bookshelf, and lighting, and considered how I could incorporate them into my design. Nature served as a source of inspiration for this project.

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Storage for a small bedroom

My project is designed to create more storage inside a small space bedroom, I designed it to be a tall standing shelving unit with multiple drawers, including little drawers for bits and bobs which can be stored in it. Also, there are side shelves that can have some decorations put onto them to fit the aesthetic of the room itself so it does not look out of place.

The problem that I hit in this design was making sure that the weight distribution was in a good balance to see if the unit was stable enough to stand on its own. So I designed it to have a bigger storage space on the bottom of it to pull the weight downwards and make the base more solid to equalize the weight that has been placed onto the side shelving.

To make sure that my design would have the best possible outcome I looked into multiple different unit sizes which can go into a small-sized bedroom, and ones which would help with the storage space that is needed in it. I picked the tall standing unit because it takes all the storage space up instead of downward and across. So, there would not be so many tripping hazards.

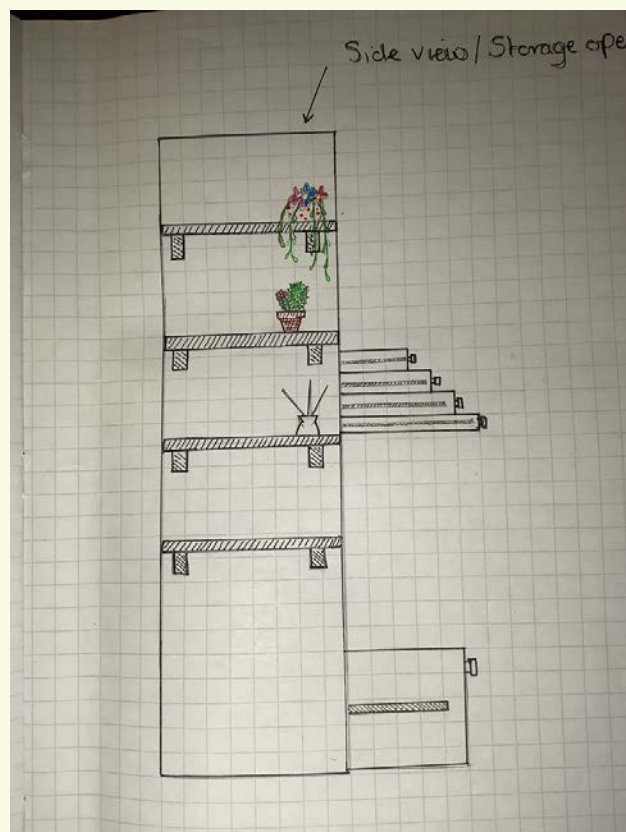
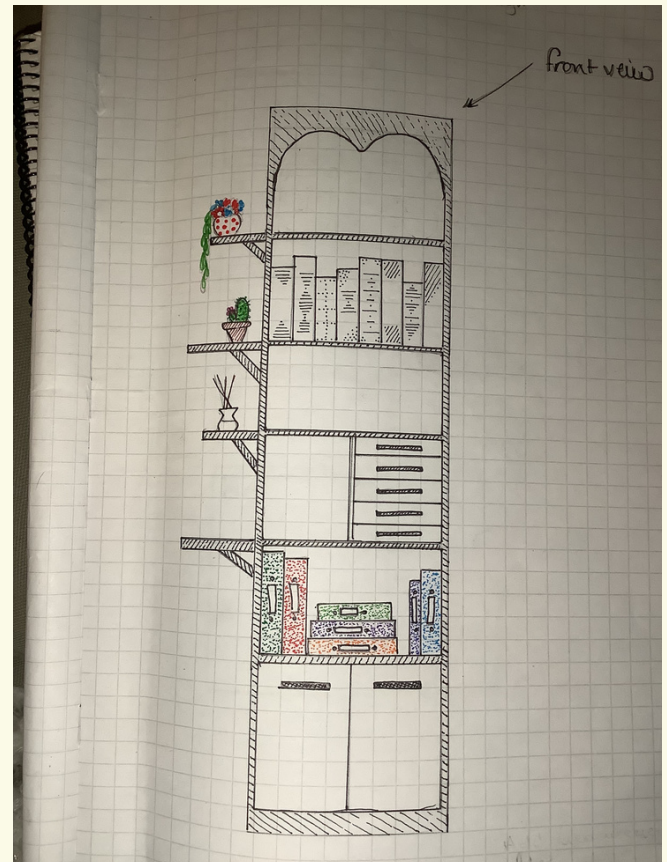
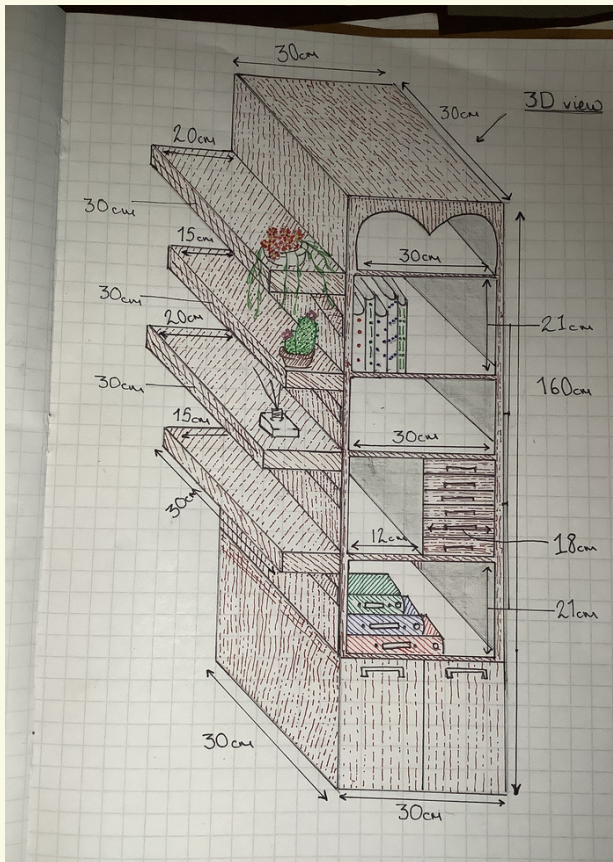
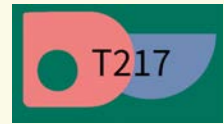
The use of this design would help many people who have small-sized apartments and bedrooms to have more storage space. This is needed so there isn't clutter all around them. And this project is also designed so that the person can decorate it with the things that they like so it can blend into the room's aesthetic and not stick out like a sore thumb.

About me

I am 29 years old and my goal during this module was to prove to myself that I can keep up with everyone and reach the end by completing everything that has been asked of me. And when I do graduate I hope to go into the graphic design field or prop design for films

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Alisha Doran Park



The Employees' Seat

My product is a temporary seat: A chair, or a stool-ischial chair. When it is not used, it works as a stand. It stays visible as a reminder of employee's rights, and evidence that the business cares for its staff's well-being.

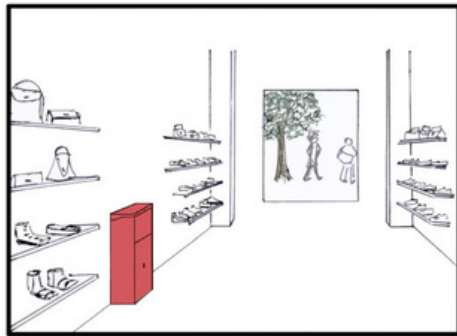
The upper face spins 90 degrees on a hinge and works as the surface of the stand or as the back of the stool. Two-thirds of the front face is missing, exposing another cuboid that can be used as a chair. The seats and the back stool are ergonomically curved.

The problem I identified was that shop assistants must be standing all the time and remove their uniforms during breaks. Pausing or reducing the pace is not well observed. This can generate mental and physical health issues, as well as aggravate existing ones.

Initially, I focused on the shopper's companion, who sometimes has some impairment and cannot find seats around. I investigated the issues that can prevent them from enjoying the shopping experience, i.e. walking difficulties, or back pain. However, observing different scenarios I realised that shop assistants may have the same issues and are forgotten. Then, I adapted my product to this new user.

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The employees' seat



The product provides a seat to the sales assistants when they need it.

When it is not use, it stays visible, offering a stand for products, but also reminding us that the employees' wellbeing should not fade into the background.

The employees' seat

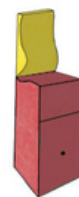


Chair

The product stop being a stand when someone needs support.

Its light weight allows it to be easily transported.

When it is not in use, it is not folded to remain visible.

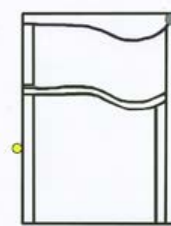
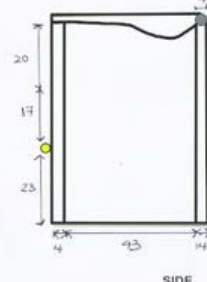
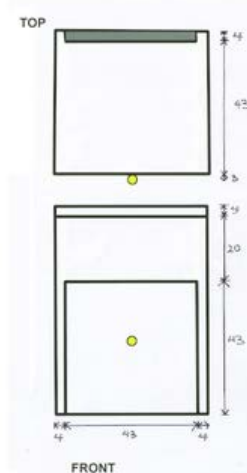


Stool or ischial chair



Stand

The company having this product makes a sound statement: They have a human-centred approach, including their personnel in their analysis.



CROSS SECTION

SCALE 1:10

The Hedge Log

Project detail:

The design I used was from TMA05. It is an environmentally friendly log cabin made into a café. It consists of a roof made of grass and flowers.

Problem Statement :

The problem was to provide refreshments to a historical iron age hill fort in the South Downs called Ditchling Beacon. This is a wildlife walk with a small car park area. Local walkers and visitors would use this facility and profits taken would help go back into the area.

The Process:

My ideas for the log hut started from a mobile van in the shape of a hedgehog. Other research started from being a regular walker and someone who has visited similar National Trust areas and you are limited to what can be built on historic sites like this. My ideas came via holiday log cabins but also environmentally friendly grass that would cover the roof. I also wanted a wildlife animal theme.

In Use:

I wanted to attract visitors and younger people to the cafe, so I went for a more fun approach in the shape of a Hedgehog. This would help sell Hog Dogs, Hedge-burgers, sandwiches, and coffee.

About me

I love to design things, especially using models or 3D images. This is my second year in T217 and have booked T317 for next year. I would like to go on to do Graphic or Web design which I am also studying.

No Hedgehogs were eaten in the making of this design. 😊



Hand pastry roller for people with limited mobility.

My goal was to design an item that can be used alone or as a multi-functional tool to aid baking for people with limited mobility.

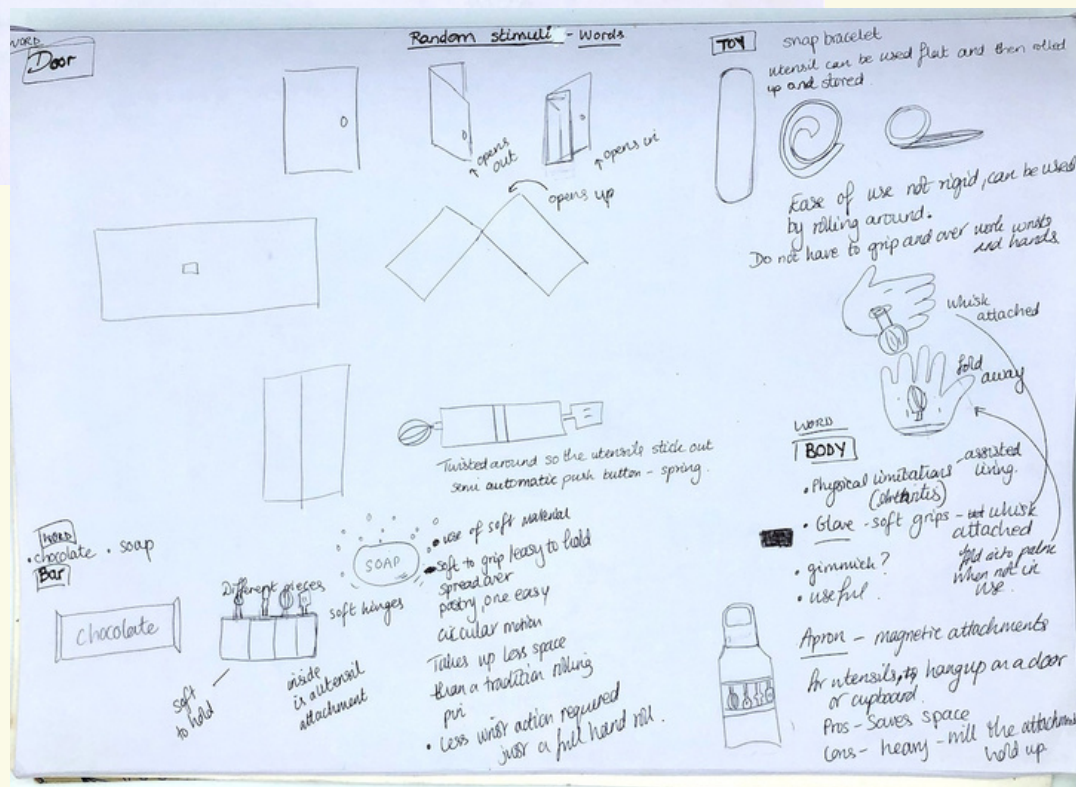
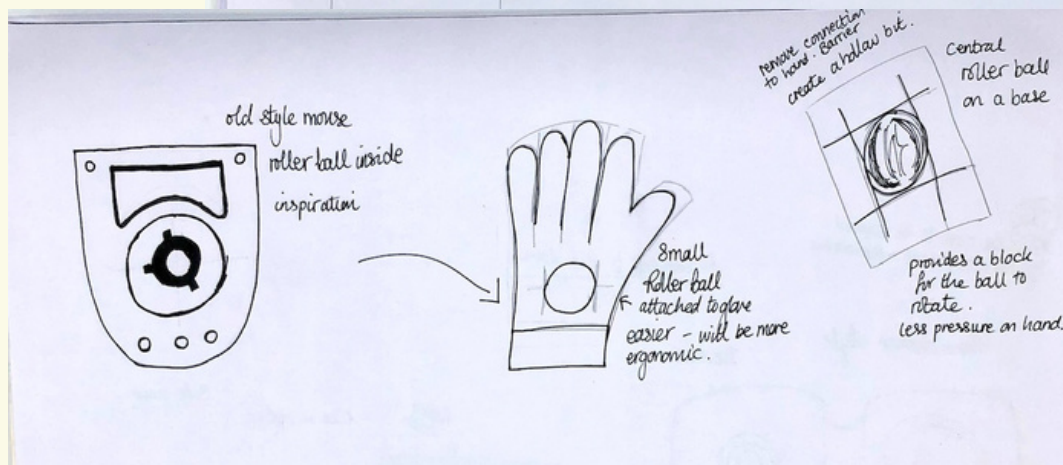
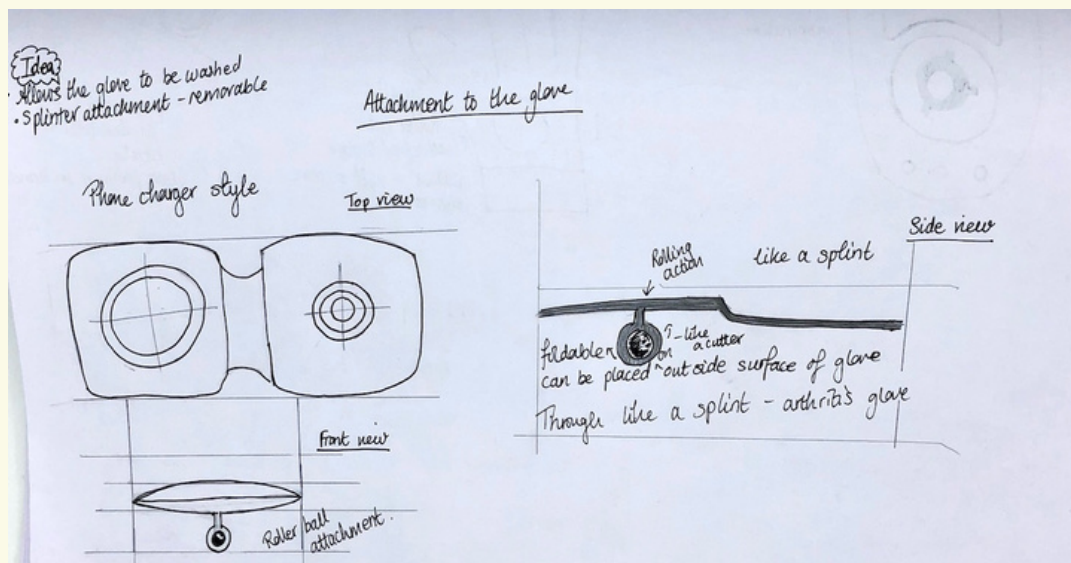
My concept design embodies the idea of using a kitchen glove with a rolling ball on the palm section. This ball will be used to roll out dough. Using a less heavy material than a normal metal/wooden ball, the glove will be flexible enough to fold and be stored away. The glove would create a comfortable aid for someone with hand mobility problems and could help stop the forearm or wrists overextending. This simple method would be easy to roll over the dough in one simple swift movement. It will also eliminate the need to grip hard on a long wooden cylindrical shape, placing less strain on fingers.

My initial idea was to design a tool that would combine different utensils to incorporate a space saving aspect. I applied function analysis to my thinking when looking at the main function of different types of rolling pins, as they have a solid shape. I used a kitchen roll tube as inspiration for my design shape, playing around with ideas of folding over and adding attachments. I then used associative thinking by looking at the opening mechanisms of different glasses cases and how I could incorporate that movement in my baking tool, whilst also allowing for storage of baking tool attachments. The idea of having something with a multi-functional element, would eliminate the need for more than one base.

About me

A mother of two, currently in the second year of my design and innovation degree. I have just completed T217 and I am very excited to apply what I have learned and the methods of design, to help me develop my skills in looking for a new career in design.

Email: annie.kk.star@gmail.com



VeggieStation

I began with the problem statement “Design a new or improved raised bed planter product which attracts and enables people with little to no experience to grow their own vegetables and makes this achievable in a small outdoor space.”

The VeggieStation offers a modular approach to vegetable growing, allowing the user flexibility to adapt it to suit themselves. The workstation itself provides the work surface, storage, growing spaces and optional tools. The user then purchases their preferred vegetable modules, with app guidance, which include container, soil, seeds and instructions.

Having identified the problem and existing solutions, I took an imaginary user trip, which, as a novice, was time-consuming and overwhelming. I created an online questionnaire which garnered useful insights. Through mind-mapping, brainstorming sessions and associative thinking I generated several ideas. Hello Fresh, IKEA's MICKE desk and the idea of a modular system of collectibles were influential. A selection matrix revealed multiple top scoring ideas from which I pulled elements into the final concept design.

VeggieStation is an all-in-one system designed to eliminate laborious research and sourcing of materials/products, making getting started easy. Users could start with 1 vegetable module, adding more as confidence grows. The app provides all guidance required for ordering products and growing successful crops. It's compact size and use of vertical space is ideal for small outdoor spaces.

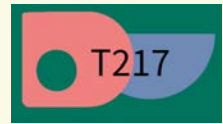
About me

I'm from Glasgow and am studying a BSc (Hons) Computing & IT with Design degree part time and T217 completes Level 2. My goal after graduation is a career in tech, likely in UX Design or UI development. I work full time and am taking steps towards my career goals there too.

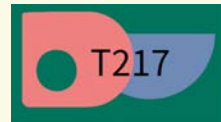
Email: becksreay@gmail.com

Instagram: <https://www.instagram.com/becksreay>

Becks Reay



Becks Reay



Wireframe

fool-proof
ordering
system

narrows
options
based on
previous
choices

VeggieStation
Order your modules

Which month will you be planting in?

March
April
May
June
July

In March these vegetable are best to plant.
Choose which variety you'd like

Pots

Tomatoes
Salad
Courgette
Peppers

Which style and size of module would you like?

Hanging Basket - small
Hanging Basket - large
Trough - small
Trough - large
Single Main bed
Vertical Herb Donscape

You have chosen tomatoes which require a poly tunnel.
Would you like to include one for your Hanging basket?

☐ Yes, please
☒ No thanks, I already have one

VeggieStation
Join our community

View our support pages for guidance

Planting
Watering
Pests
Harvesting

What to plant by month

AUG - 2016

S	M	T	W	T	F	Sa
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3
4	5	6	7	8	9	10

View gallery and share images of your results

100 x 100 100 x 100 100 x 100

Ask our community

Message

FAQs

Contact Us for Support

support

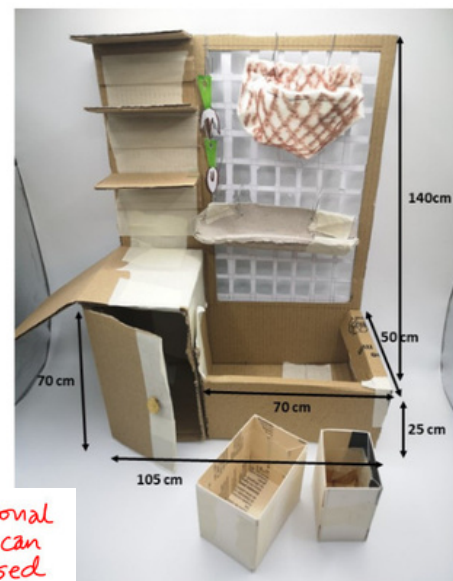
gallery

community

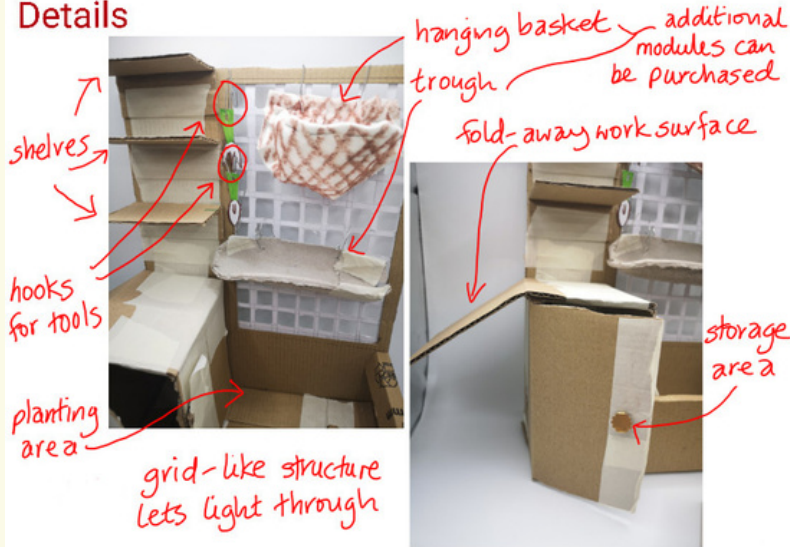
Dimensions

small enough
to fit in a:

- balcony
- terrace
- courtyard
- small garden



Details



Stacking Planter

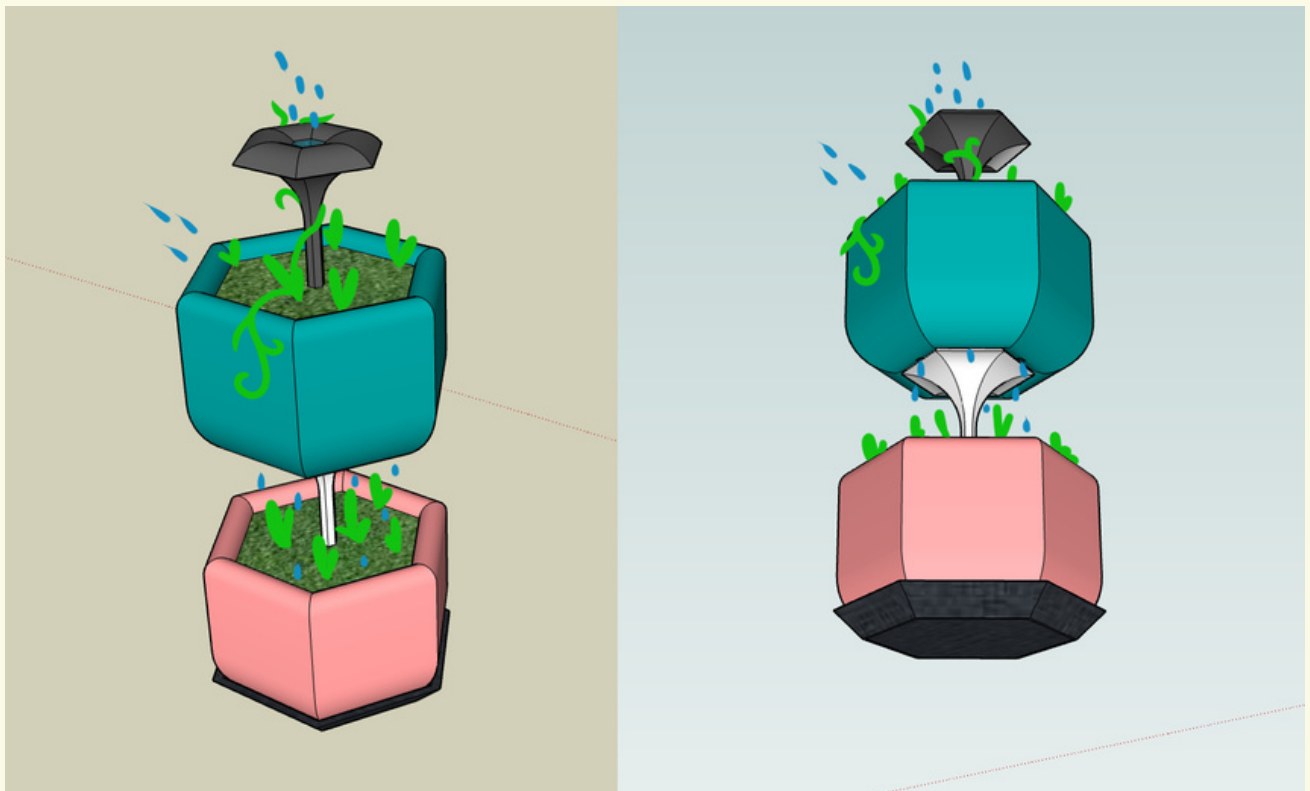
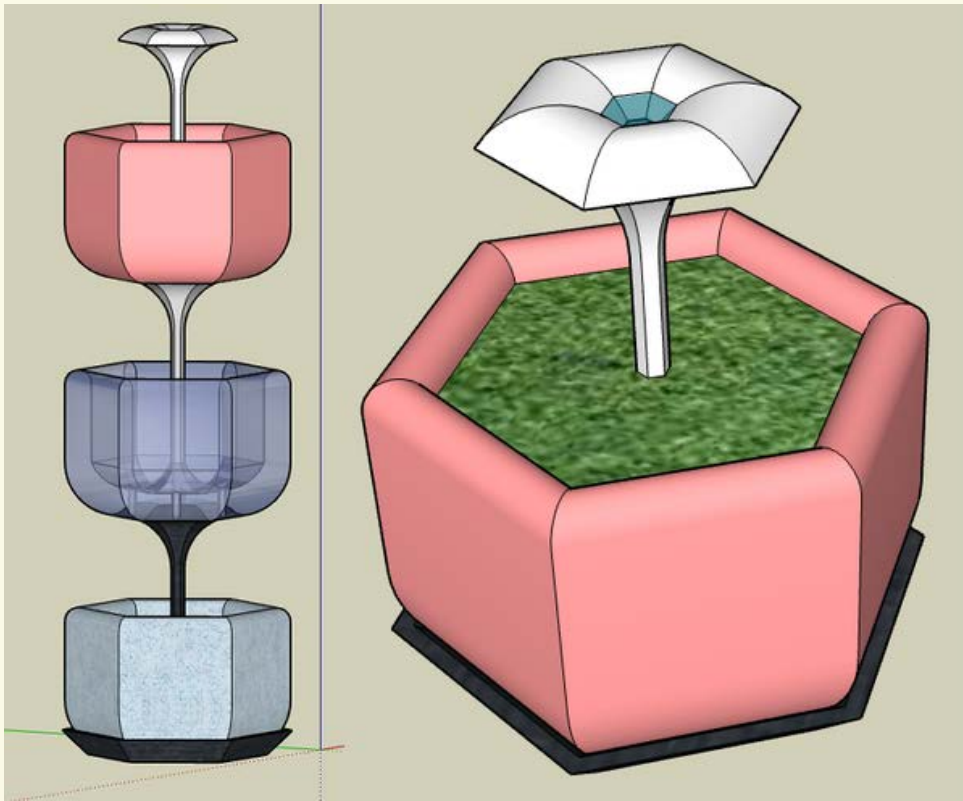
This design is a modular, hexagonal planter that can be stacked and tessellated to make efficient use of space within small areas, making gardening more accessible for people without easy access to traditional outdoor garden spaces.

I identified the need to encourage and enable people living in towns or cities to grow their own vegetables. My design focuses on maximising the space available for gardening within limited spaces (such as small homes without garden access), and making watering easier, faster and more accessible.

To research this project, I analysed existing products, missing market niches, and new developments in technology and manufacturing. This design is intended to be manufactured using 3D-printing, injection/blow-molding or vacuum-forming processes; using recycled plastic (PET) waste. These methods also allow the form to be hollow, rather than filled with plastic, reducing the amount of materials needed for production; although this design could also be created with thicker materials such as cement or recycled plastic terrazzo.

The frame contains drainage holes on the bottom, making it easier to water and feed the whole garden (allowing water to flow down to lower layers); and an umbrella-like cover which doubles as a stand for upper layers. The thick/hollow base insulates and protects plants from frost and heat.

Email address: chloel.jablonski@gmail.com



PC: Unplugged

I chose to design 'a product to help children under 12 years old learn'. After researching the subject, I developed my idea of an educational learning aid focusing on teaching computer science to children without internet connection or using electronics (unplugged computer science).

My problem statement was "Design product to help children under 12 years old to learn about an area of computer science in an 'unplugged' and hands on way". The digital divide prevents some children from accessing the internet or computers. Computer science should be fully accessible, regardless of this divide.

I noticed that most toys on the market had a focus on software and programming. There was a significant gap for affordable, unplugged products that teach the hardware side of computing. Holding a focus group and taking a user trip highlighted to me what parents were looking for and how current products help to teach children. I sketched my ideas, narrowing them down using selection matrices until I had my final idea of "PC: Unplugged".

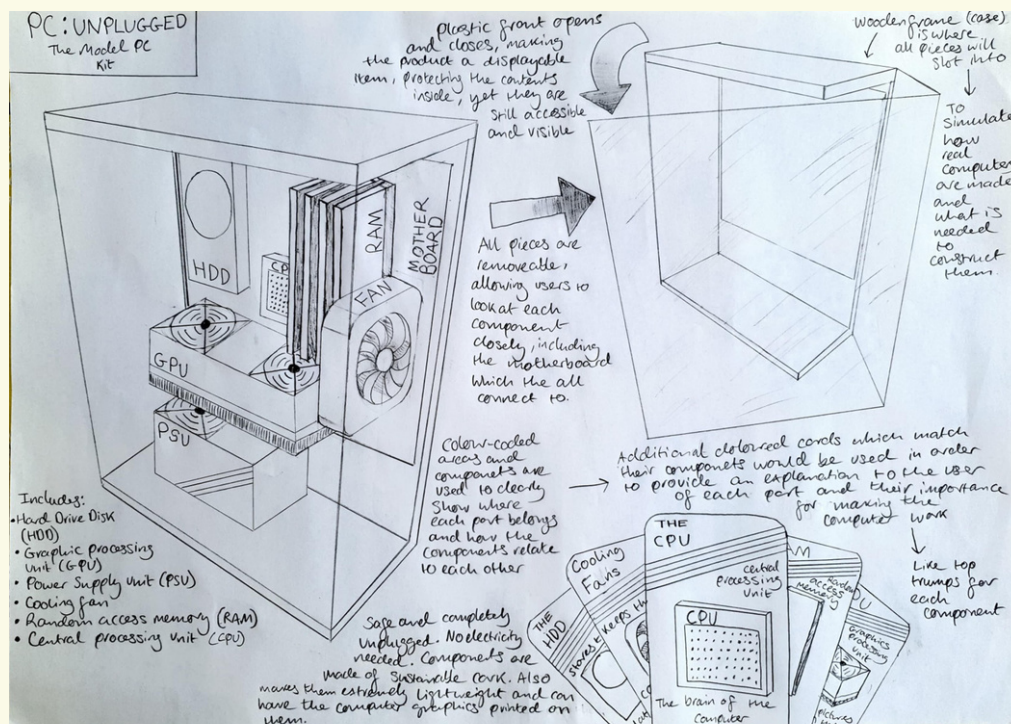
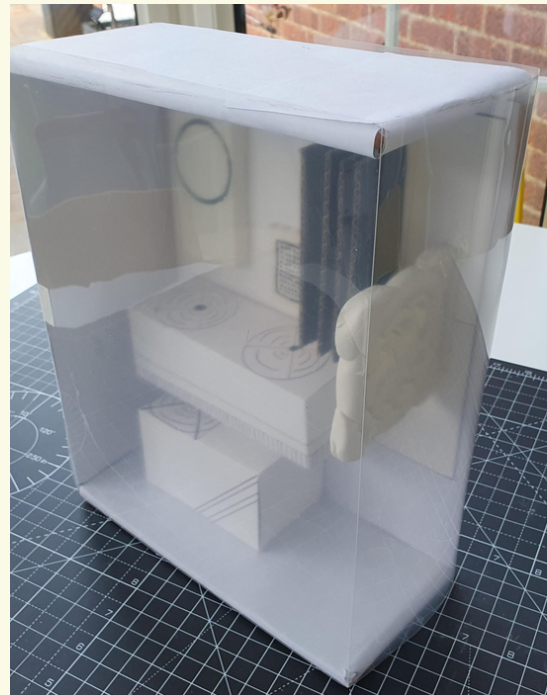
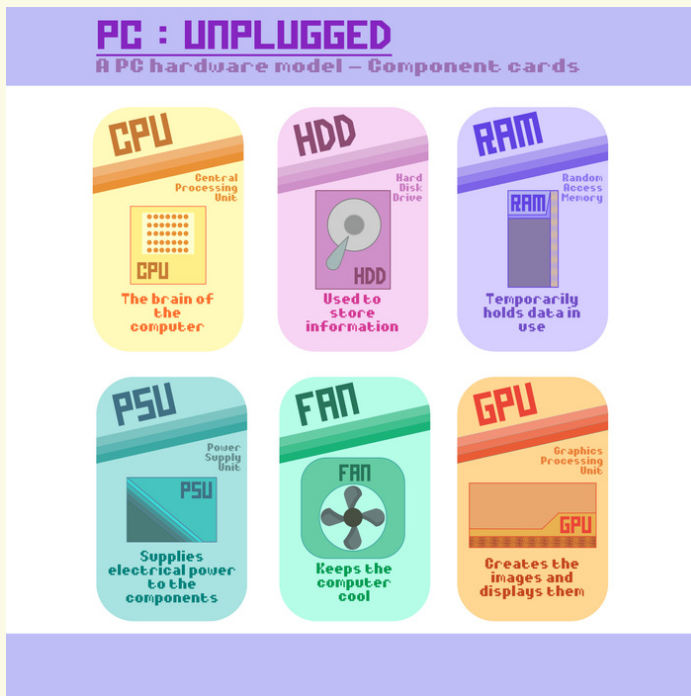
Children need to understand how computers work, not just how to operate them. "PC: Unplugged" is a hands-on learning aid that allows children to build and rebuild a model PC. The components replicate the real thing, with cards explaining each. No electronic components make them safe for children to handle.

About me

I am 20 years old and a full-time student studying BSc Computing & IT and Design. I have studied Computer Science and Design since GCSE and I hope that I can keep combining these two subjects after I graduate! I look forward to using what I have learned in these past design modules and applying them to my next computing module TM356 Interaction design and the user experience.

When I am not studying, I enjoy crafting such as crochet, knitting and jewellery making. I also love video games, and baking.

Email: e-magnier@virginmedia.com



Folding Whisk

The folding whisk is exactly as the name suggests, a whisk that is able to be folded, this is done via a central shaft that allows the 2 main bodies to fold and interlock within themselves during use or to fold flat for when not in use and being stored.

Problem statement :

The aim was to make the whisk a more space efficient utensil, with many people living in smaller accommodations due to the housing crisis, space inside one's kitchen is at a premium and every item needs to be carefully thought out so as to maximise the space available.

Process:

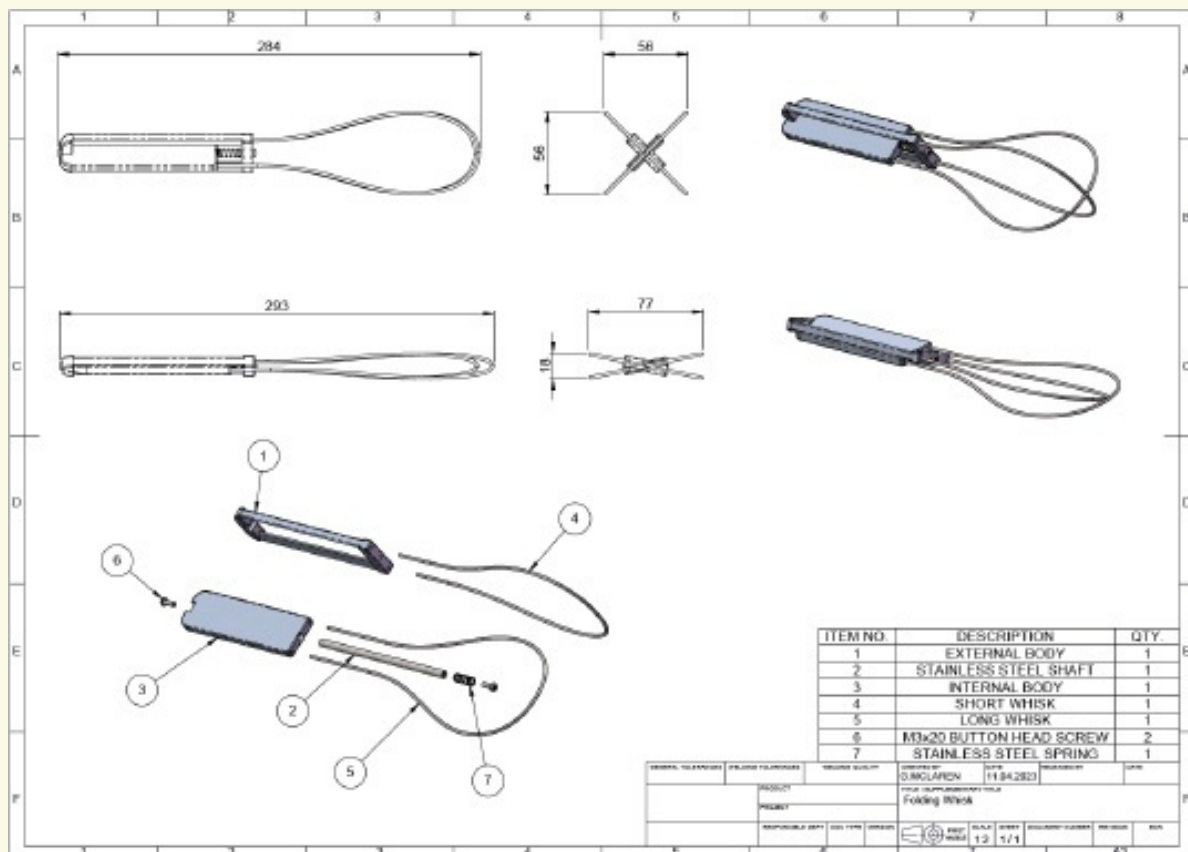
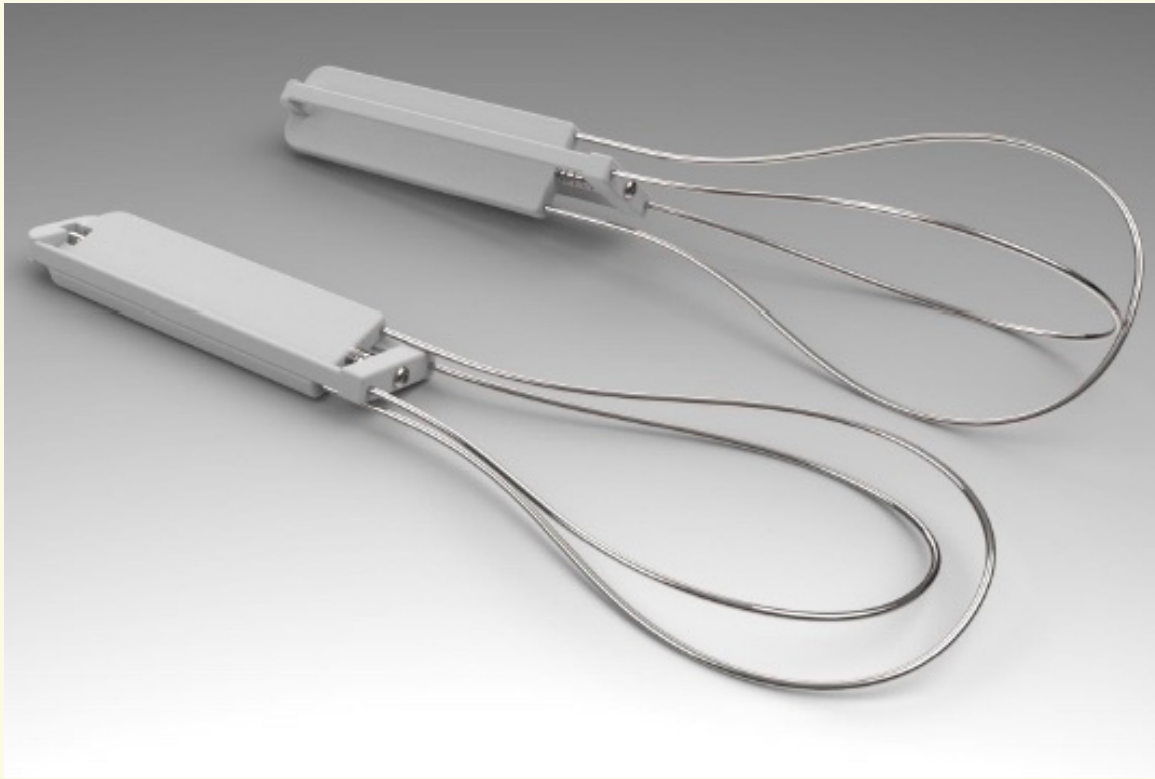
The research started with a user trip completing a task using a whisk, it then moved onto observation of another user completing the same task as that from the user trip. From this, concepts were created using methods such as adaptation, dreaming and sketching. The selected design was chosen through a matrix selection and refined further through sketching, CAD modelling and finally with a 3D printed working prototype.

In use:

The new whisk allows for easier storage than a traditional whisk, this is achieved by re-designing the whisk to allow for it to be stored flat, this will allow for more space in the kitchen for other utensils, the design also aimed to give the user physio and psycho-pleasure.

About me

I currently work as a jig and tool designer, my goals during the module were to learn design engineering methods within the process of creating a new product as well as learn methods to become more creative, I aspire to start my own design company producing new and innovative products.



Ditchling Beacon Play Equipment

The UK National Park in the South Downs is popular with visitors of all ages, it is important that young visitors should be engaged and feel enthusiastic about the conservation, sustainability, and the landscape. For this project I designed a piece of play equipment that would incorporate all of those needs.

During my research I looked at other national parks around the United Kingdom to gain insight into the types of designs, materials and engaging equipment they use. I found that the favoured material for children's play equipment appeared to be natural wood and economical materials to fit in with the area surrounding it. I generated my idea by combining the history of the Ditchling Beacon and the lighting of the Beacon and combining it with something that would make the history fun.

After generating a few possible ideas, I settled on the Beacon as I felt it would generate more questions from youngsters surrounding the Beacon and the challenge involved in climbing it and lighting it as quickly as possible. The design should attract visitors to the area who are interested in how important the national park is and how essential the conservation of the area is.

About me

I am hoping to make a career in design, whether it be product design or drawing out design. I have always had a passion for drawing and design but have only just been given the opportunity to chase my dream, starting with my degree. My main strengths are animal drawing, real life/people and cartoons.

Instagram: https://www.instagram.com/harpers_handiwork

TikTok: https://www.tiktok.com/@_lmjh90_



Ditchling Beacon

Do you want to have a chance at climbing and lighting the Ditchling beacon?

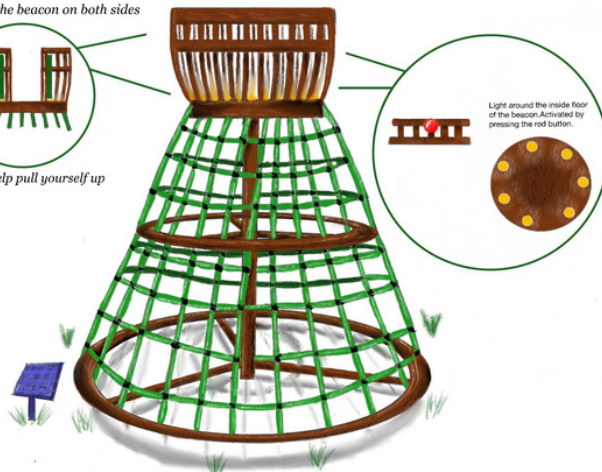
Bring your young explorers and let them soak in the history of the Ditchling beacon, climb until their hearts content, and have a lovely family day out.

Can you climb the beacon?

Gap to climb into the beacon on both sides



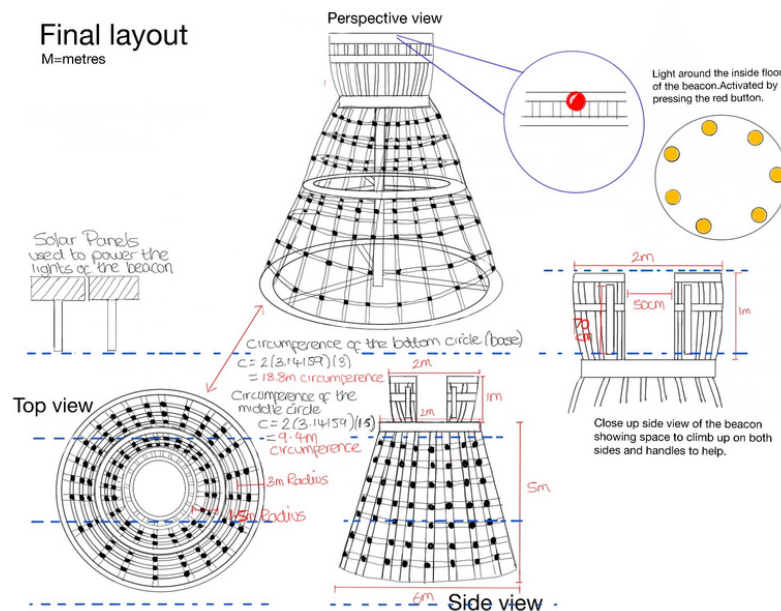
With handles to help pull yourself up

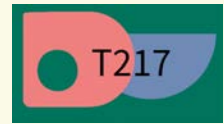


Light around the inside floor of the beacon. Activated by pressing the red button.

Final layout

M=metres





A Sustainable Refreshment Hub in Ditchling National Park

The project aspires to create a sustainable refreshment hub within Ditchling Beacon National Park with a dual purpose: generating revenue for conservation efforts and fostering a deeper connection between the park and visitors while promoting sustainable living. The design vision includes creating a welcoming, hospitable environment for visitors.

The primary challenge is to design a revenue-generating hub that can fund conservation efforts through the sales of refreshments and snacks. Moreover, the hub should be a catalyst for increased engagement with the park and should be instrumental in promoting sustainability among visitors.

I conducted user research via questionnaires, user trips and observations of similar refreshment hubs. By using associative thinking, namely adaptation and amalgamation of existing solutions, supplemented with sketches, I explored various design opportunities. Considerations, such as the project's brief, the unique ambience of the National Park, space constraints, and waste management requirements informed the design solutions. A matrix-based evaluation methodology driven by relevant criteria allowed for careful selection among design alternatives.

Through zoning and iterative processes, I developed a sustainable refreshment hub that respects the site. The hub caters to staff requirements, prioritises visitor comfort and offers locally sourced, sustainably packaged refreshments. A pre-booked picnic hamper service encourages visitors to engage with the park, promotes sustainable living and effective waste management.

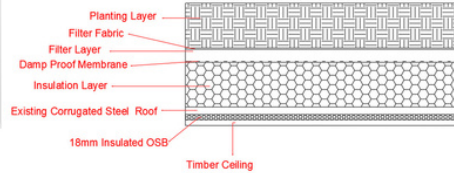
Email: peterdyer8@googlemail.com



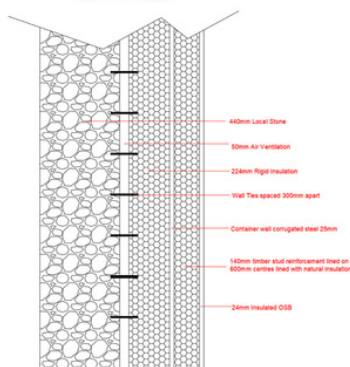
Solar Analysis



Green Roof Detail



Stone Wall Detail



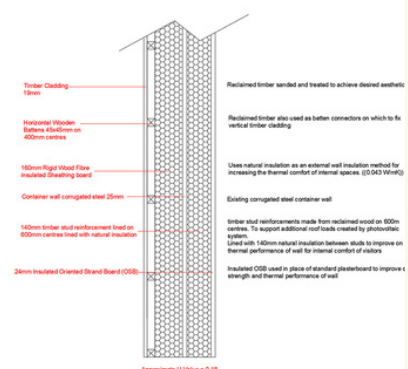
Exterior cladding: Locally sourced reclaimed timber sanded and treated with weather resistant coatings.

Local stone fitted in traditional masonry fashion alongside modern wall make up for improved thermal functionality and to meet with current building regulations regarding U values.

Interior walls : Timber stud reinforcement lined on 600mm centres and filled with natural insulation

Ceilings & Flooring: locally sourced reclaimed timber.

Timber Clad Wall Detail

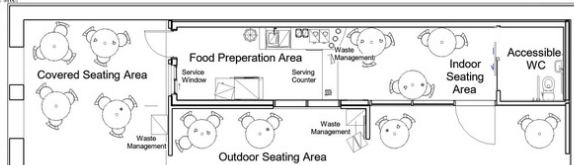


Approximate U-Value = 0.18





My final design proposal for the converted shipping container refreshment hub incorporates a combination of natural and reclaimed materials to blend in with the surroundings of the site and promote sustainability. The exterior cladding of the container will be made of reclaimed wood planks sourced from local suppliers. The use of reclaimed wood not only adds character and texture to the design but also promotes sustainability by reducing waste and supporting local businesses. Using local stone has several benefits for the design of the refreshment hub. Firstly, it fits perfectly within the landscape and can be sourced and constructed locally using traditional masonry techniques, thus reducing transportation emissions again supporting the local economy. Additionally, alongside the specified wall build up, it provides excellent thermal functionality, therefore improving energy efficiency by reducing heating and cooling demand. Moreover, local stone is durable, long-lasting, and requires minimal maintenance, making it a cost-effective and sustainable option for the exterior cladding of the refreshment hub. Lastly, the use of local stone also contributes to the preservation of regional heritage and cultural identity, enhancing the overall aesthetic value of the site.



Introducing our delightful hamper service! Our team has hand selected a range of local and organic produce to create a delicious selection of food and drink hampers. Each hamper is thoughtfully crafted to provide the perfect picnic experience for visitors to Ditchling Beacon. We are committed to supporting local producers and reducing our environmental impact, which is why we have carefully chosen recyclable and compostable packaging for our hampers. So come and indulge in the beautiful scenery with our sustainable scrumptious hampers!



The seating area of repurposed tribute to the of the space.

Counter made from stone, three-waste and envi-



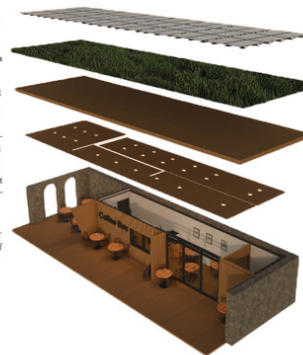
will feature a mix chairs that rustic aesthetic

tops will be quartz which crushed waste free - reducing ronmental impact

The converted shipping container refreshment hub will be powered by solar panels installed on a green roof.

In addition to improving the photovoltaic performance through cooling evaporation, the green roof will also provide natural insulation, reducing the amount of energy expended by the building. It can also create a habitat for local wildlife, supporting biodiversity in the area.

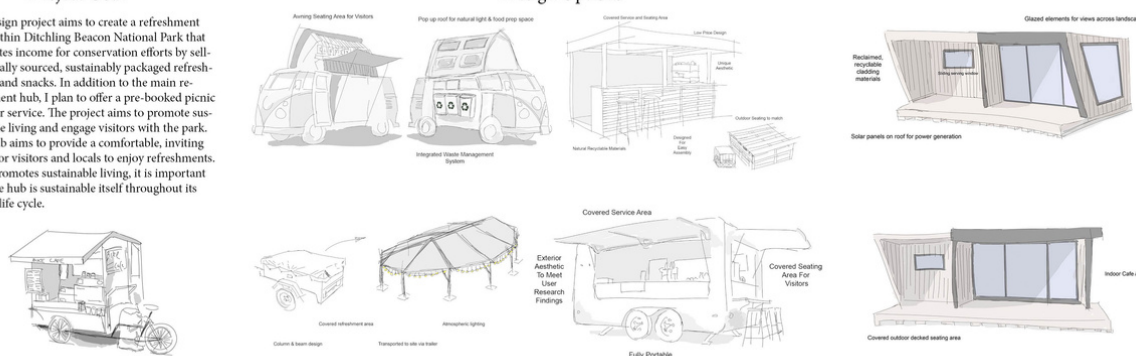
Solar analysis of the roof shows that the 91m2 roof area is capable of generating an annual energy yield of 13,596 kWh/yr resulting in annual savings of approximately £2,039.



Project Goal

My design project aims to create a refreshment hub within Ditchling Beacon National Park that generates income for conservation efforts by selling locally sourced, sustainably packaged refreshments and snacks. In addition to the main refreshment hub, I plan to offer a pre-booked picnic hamper service. The project aims to promote sustainable living and engage visitors with the park. The hub aims to provide a comfortable, inviting place for visitors and locals to enjoy refreshments. As it promotes sustainable living, it is important that the hub is sustainable itself throughout its whole life cycle.

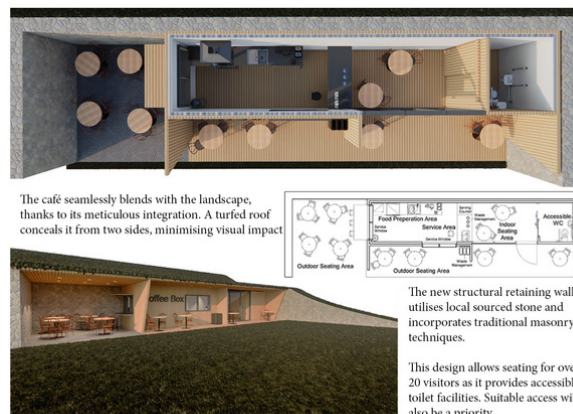
Design Options



Initial Design



Second Iteration



Synesthetic Wind Chimes

The Synesthetic Wind Chimes is a set of proposed installations to be placed at the Ditchling Beacon National Park. It combines colour and sound to create a synesthetic experience. Each installation showcases a different local species. A multisensory approach raises awareness of the diversity of the local flora and fauna, while simultaneously raising questions concerning the coexistence and interconnectedness of all living things. Each installation will be colour (and sound) coded depending on the colour or specific characteristics of the species.

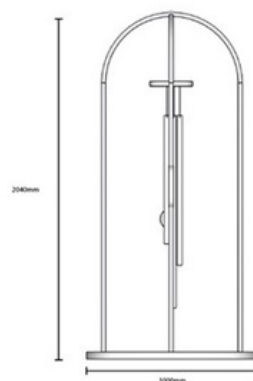
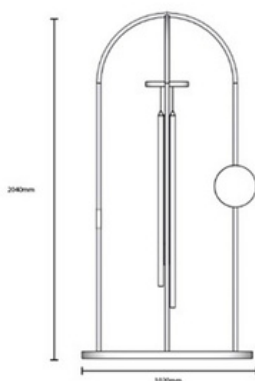
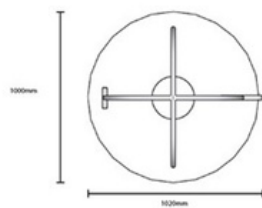
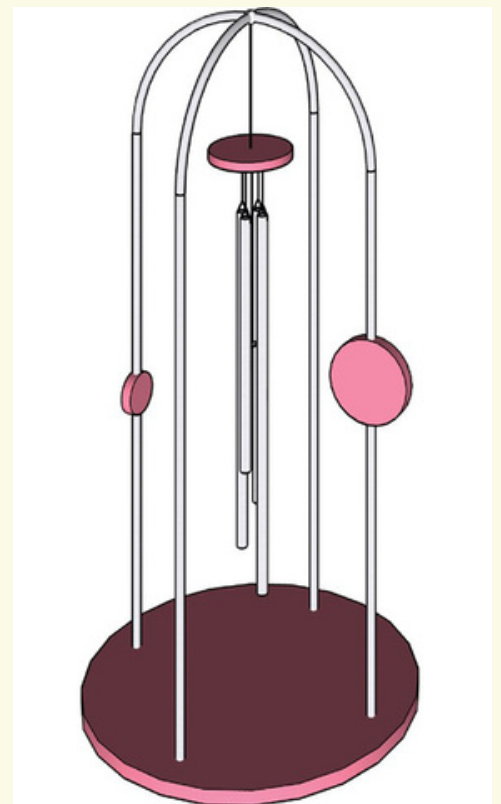
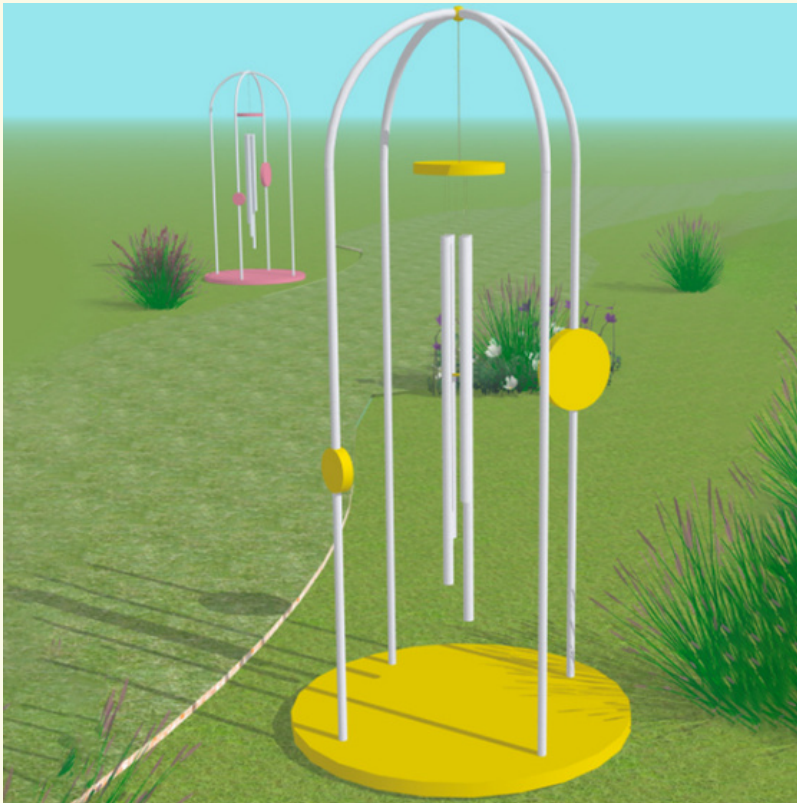
Made of light-weight materials it is envisioned to be easily installed at various points at Ditchling Beacon. The placement will encourage the flow of traffic at specific footpaths, mitigate issues related to erosion and help preserve the park's natural beauties. As a "phygital" installation it bridges the gap between tangible and digital interaction. Park visitors scan with the QR codes placed on signs at each installation, and see via Augmented Reality, 3D models of local species.

For the purpose of this project, during ideation and research, I conducted a design workshop including a perception of materials testing session. After a brainstorming session I produced 5 different concept designs. I selected this concept as it was the most promising of the generated ideas and developed it further. This project was a great opportunity to work on Sketchup and produce 3D designs and mock-ups while working at the same time on a design solution that promotes sustainability and environmental awareness, and is targeted to wide types of users.

About me

I'm currently working as a UI/UX designer and I'm based in Athens, Greece.

Email: hello@petrosantoniou.gr



Ditchling Beacon Playful Engagement

I focused on the area of Playful engagement, looking to make a child's toy/ game that would relate to the park and could be available for purchase at the visitor centre.

My design idea is the reversible, chalk hill blue caterpillar/butterfly plush toy.

The chalk hill blue butterfly is a rare and unique little butterfly, it's existence is dependent on a variety of factors that are all currently present in this very special and unique area of the UK. I have designed this reversible, 2 in1 toy to not only highlight the importance of its conservation, but also to act as an educational aid, encouraging children to find the wonder in the incredible transformation that takes place from caterpillar to butterfly.

My problem frame was that the design had to be easy for a small child to use, I aimed to design the toy so that it could be easily reversed in under 10 seconds. This toy required no stuffing as the butterfly's wings once reversed doubled up as the caterpillar's stuffing. I opted to use recycled polyester fur and plush as my main materials. I created a working prototype to better communicate my idea.

Email: robynalexandradean@gmail.com

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National Trust x Rocketbook Collaboration – Nature Notebook

The Nature Notebook is a proposed collaboration between The National Trust and Rocketbook. Made from durable materials and featuring erasable pages and a QR code function to save and access work online. It can be used repeatedly and is an eco-friendly way for users to record what they see.

The problem I identified was to create an interactive product that uses a fun, playful approach to engage young visitors to a national park and fuel their enthusiasm for conservation and sustainability.

During a user trip, I observed that older children became bored quickly and had to be constantly reminded to put their phones away. I concluded that they would benefit from something that makes going on woodland walks more interesting and engaging.

I used tools such as user research, user profile/personas, product analysis, product scenario, self observation and immersion to help understand my problem. I then used associative thinking, adaptation, combination and random stimuli to help generate ideas.

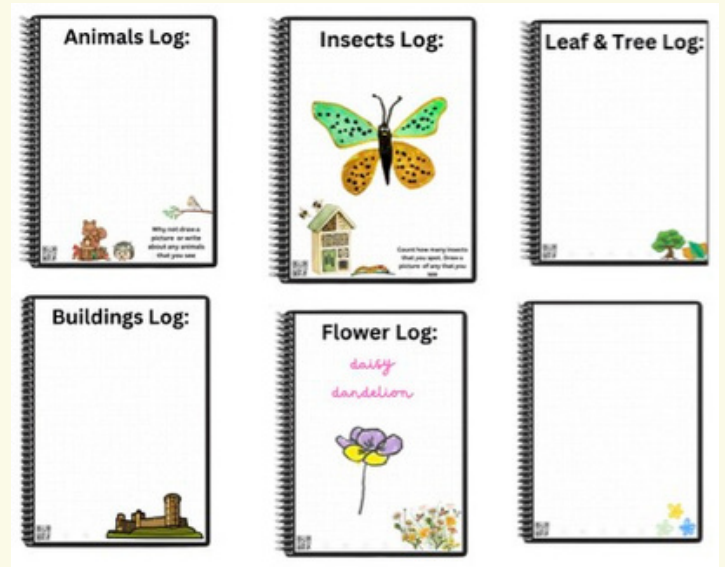
My design fits the brief and is fun and appealing to children and young people and will stop them from becoming bored during a woodland walk while encouraging them to learn about conservation and sustainability.

About Me

I am a Mature student, Mum to 3, based in Scotland. I am in my 2nd year of an Open Degree, so far studying Business Management and Design and Innovation, and am about to begin Creative Writing. I currently work freelance for a small charity and oversee their admin and marketing.

Email: taraduncan@sky.com

Facebook: facebook.com/taraduncancreative



04

T317



The Open
University

The Active Bee –Children's Activity Calendar

"Active Bee" desk calendars provide children with a daily schedule of engaging activities. There will be a new activity or task related to cognitive, physical, social, or environmental development every day. Each activity will be accompanied by instructions and guidance in the calendar. Calendars indicate all holidays and events throughout the year. The children will be able to express their moods without feeling overwhelmed.

Many children have a collection of unfinished activity books at home that often go untouched. These books often lack the necessary engagement to keep children interested, resulting in them being discarded or ending up in landfills unnecessarily.

Extensive research was conducted and each stage, including email survey, user observation, interviews and questioning for insights into children's behaviour and preferences. School curriculum information was gathered through school user trip and teacher interviews. Immersion guided materials selection and online research provided detailed product information and sustainability considerations. A selection matrix aided in the selection process.

The proposed design is the "Active Bee" desk calendar, designed to promote children's development, support the education system, and foster sustainability. Through a range of engaging activities, it aims to enhance cognitive, physical, and social skills while instilling a sense of responsibility towards the environment, creating a holistic learning experience.

About me

I'm Anita, a Polish mother of two daughters. I've been living in Aberdeen, Scotland for over 15 years. Currently, I work as a design engineer in the oil and gas industry. My aspiration is to transition within the engineering sector to concentrate on enhancing critical thinking and problem-solving abilities while further developing my skills in the product development.



Resonature

ResoNature is a range of inclusively designed, vibro-acoustic public seating which create equal opportunity nature spaces. A gong within the seat base creates sensations of full-body vibration and gentle tones. The universal base design is customisable to many different needs including wheelchair users, the mobility impaired and people with sensory conditions.

This design tackles the lack of provision within public open spaces for people with non-mainstream needs. This lack of provision can severely limit their interaction with the natural environment and their feelings of inclusion within the community, leading to a lower quality of life and worse mental and physical health.

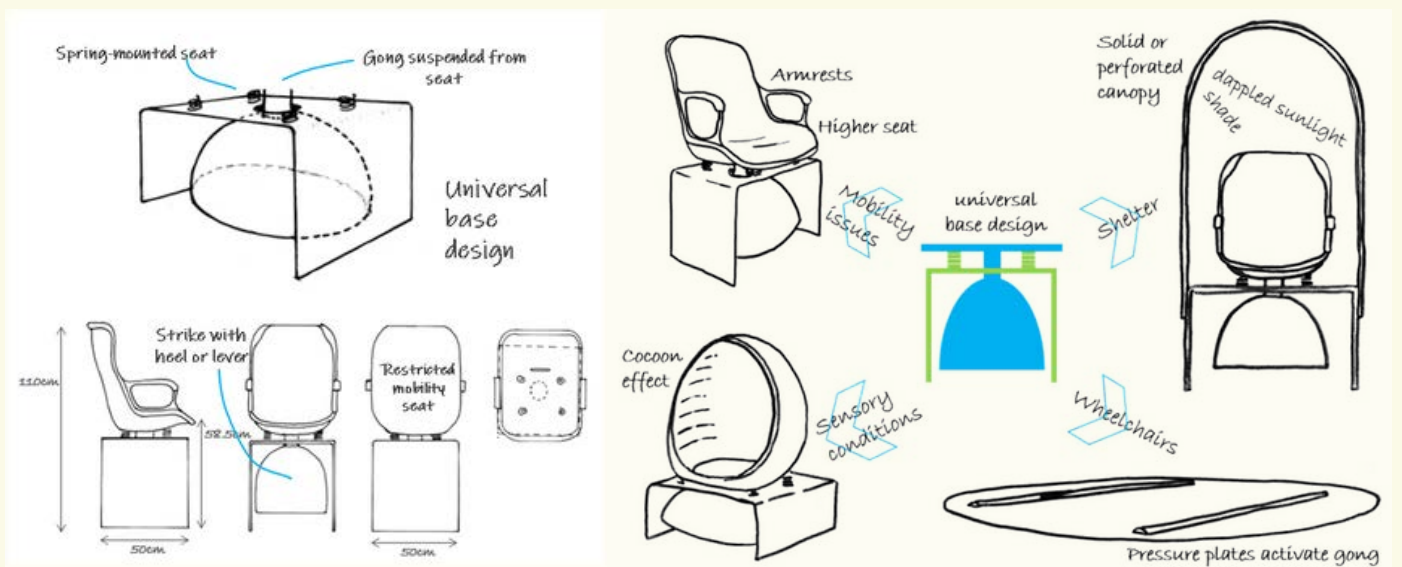
This design began with the desire to improve my local park. Site visits and user-centred research identified a lack of provision for people with disabilities and the elderly, and, also, a lack of community feeling. Psychological theories such as Attention Restoration Theory also informed ideas about ways in which nature spaces benefit users. Resonature grew from exploration of relaxation methods, e.g. vibro-acoustic cushions for autistic users, and alternative medicine techniques such as gong bathing.

Resonature is versatile, to cater to a wide range of needs but using a universal base design and robust materials aims to keep it affordable. Grouping different Resonature seats together adds a valuable social element to the experience and creates opportunities for mixing between different groups.

About me

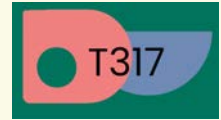
I am a mature student who has recently completed an Open Degree focused on design and psychology. My hope is that a better understanding of how individuals and society function will give me new perspectives on how design around human behaviour.

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What's out there already?





Help: A System of Dementia Support

The design has three elements:

Console: Provides access to a dedicated helpline, emergency services and a TAG notification system, a two-way speaker and recording function.

TAG's: Bluetooth points, linked to the caregiver's app and console.

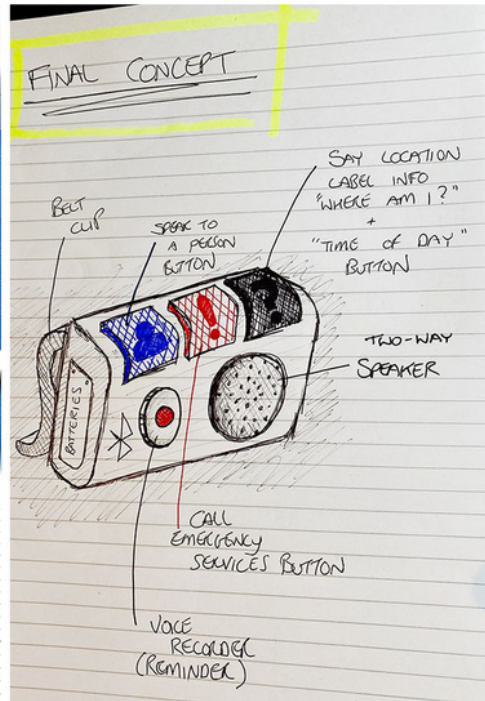
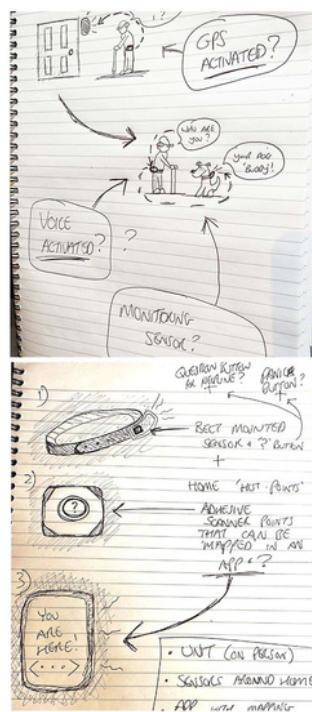
App: Builds a profile of the patient and populates the messages that are sounds through the console on the TAGs.

The problem statement I identified was "How might we re-design an interactive product, service or system to address neurological degeneration in senior citizens?"

This statement identifies the need for a renewal of independence within the expanding community of UK dementia patients. The more patients can do for themselves, the more dignity and independence can be retained.

I recorded a 'user journey' from my grandfather's carer and noted the daily activities that he found the most difficult. I brainstormed, using random stimuli, the most obvious fixes to these issues until I arrived at the key needs to define a user persona. Dementia patient's central hindrance in daily life is failing memory, so I sketched out a product list that could provide reassurance, support and heightened independence.

The iHelp Console, Tags and App are designed to be a day-to-day tool for dementia patients, providing reassurance, information utilities and emergency services. The console accessories are for the caregivers to tailor their patient's environment using the Tags/ App, maintaining their supervisory relationship whilst increasing independence for the patient.



BRIEF.

- The solution needs to be physically accessible.
- The solution must stimulate the user's memory.
- The solution must support the user and their caregiver in day-to-day lives.

PROBLEM.

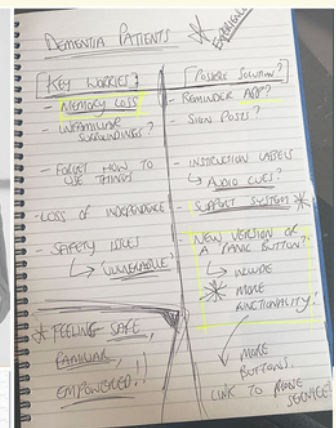
"How might we re-design an interactive product, service or system to address neurological degeneration in senior citizens?"

VISION.

A Product that a dementia patient can use themselves.

A Service that restores independence in the face of neurological degeneration.

A System that delivers comfort and support.





Child seat for public toilets

This toilet seat has been adapted to aid caregivers and children when using public toilets.

It aims to assist users in two ways;

- allowing women to use the loo with privacy without restrictions.
- it has smaller toilet seat for children when needed.

Project statement: The lack of privacy and safety that caregivers often experience when using public toilets. What happens if you don't have help?

Women and children are mostly affected by this fashion, leaving them to face dilemmas when simply trying to use the loo, e.g. children need adjustments to use the bathroom and women with children need help too!

But what if they were babies?

Do you leave your child outside wondering?

Or would you keep them with you?

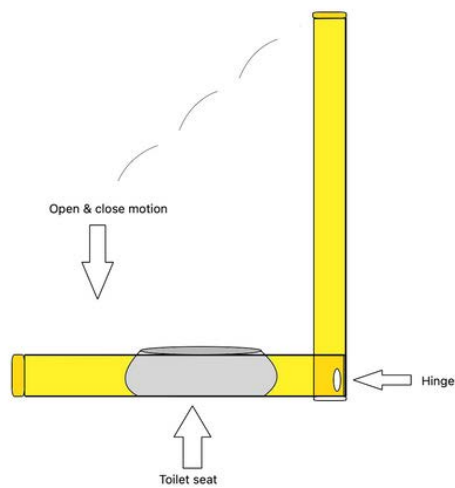
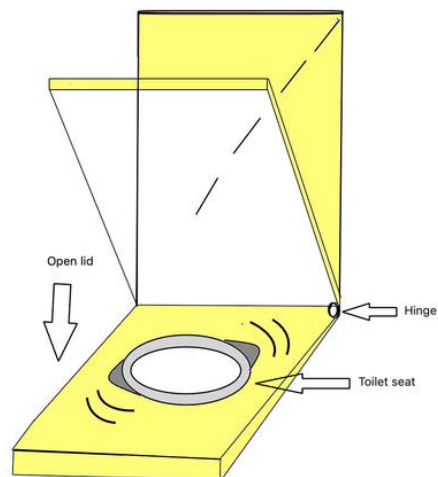
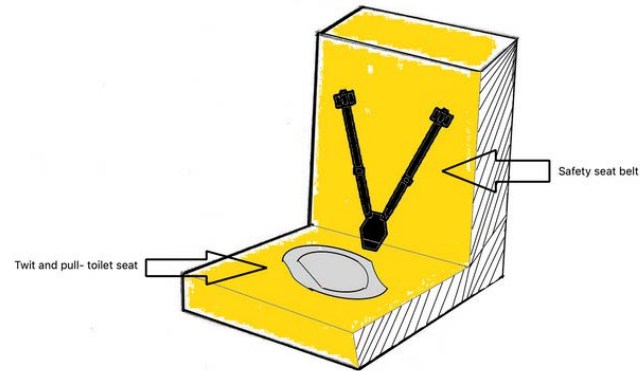
What if there was no room?

Would you leave the door open?

The process:

CLOSE THE GAP

It seemed apparent that many caregivers share common discomfort with public toilets, expressing that they aren't suitable for children (unhygienic) and often leaving moms with unpleasant situations. I once, when shopping with my son, had him on a shopping cart ready to pay when I suddenly needed the loo. I was alone with a child and trolley full of shopping. I could not dare to leave him outside and felt scared to ask a stranger to keep an eye. And there, it dawned on me, what if I could just keep him on the trolley-baby-seat and just take that part into the toilet with me? There seems to be too many restricting scenarios when mom's needs toilet!



VestiTeca (The Clothes Library)

VestiTeca is a collaborative consumption system that extends the used life of the fashion garments.

The system comprises of the following elements:

- A mobile application that enables access to a peer-to-peer rental platform
- A product-to-service system, focusing on service delivery excellence to attract users
- Job creation: outsourcing garment upkeep and repair services to local job seekers

The overconsumption of fashion garments is a major factor in the environmental degradation caused by the textile industry. Clothing underutilisation leads to considerable economic and material loss globally. The industry faces growing internal and regulatory pressures to develop innovative business models, but the consumption rate continues to accelerate.

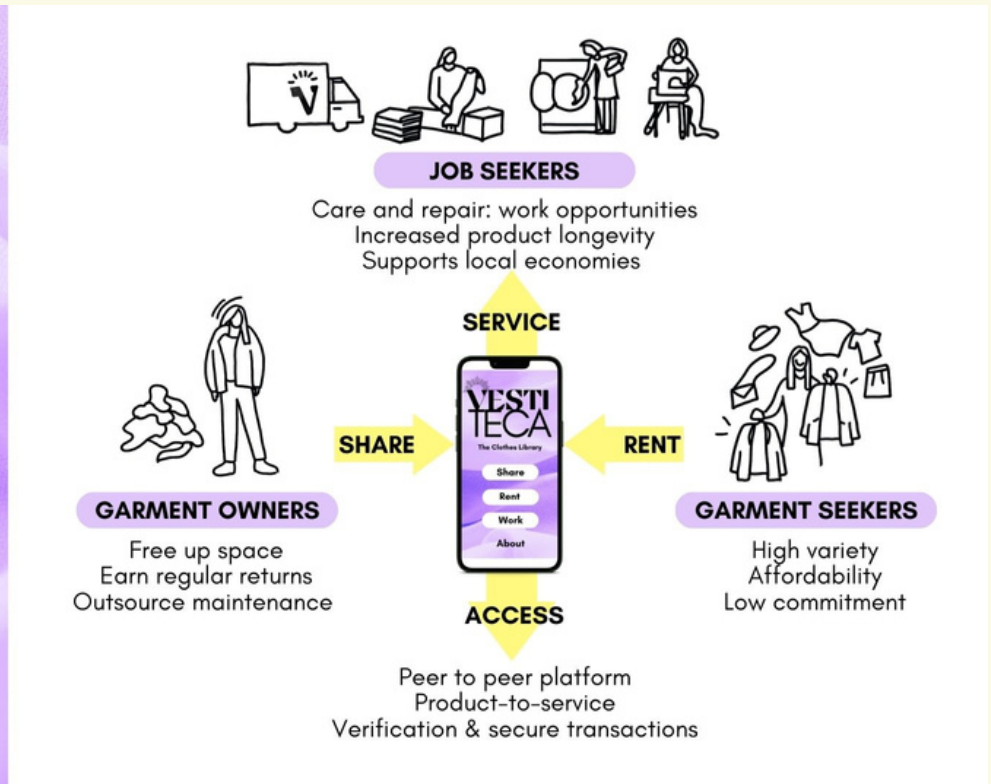
Starting with constructive discontent and 'fashion guilt', secondary research was conducted guided by the elements of the Innovation Frame. User-centered techniques were applied to define user barriers and motivations, leading to a deeper exploration and evaluation of the problem on multiple levels. Ideation involved design thinking methods and a selection matrix to evaluate ideas. Finally, concept refinement included creating personas and storyboards, alongside with other visual representations to generate feedback.

The solution reduces the environmental impact of wasteful fashion consumption by extending the used life of existing garments. It addresses prominent consumer barriers related to second hand reuse, while financially incentivizing users to join both from the supply and the demand side. Additionally, the system creates jobs boosting local economies, increasing the need for skills that promote product longevity.

About me

I am a third-year Design and Innovation student at the OU. Originally from Hungary, I moved to Switzerland over a decade ago. I got into design when I decided to stay at home with my son. Previously in Early Years Education, I felt the need to learn new skills in order to gain professional and financial flexibility. My areas of interest include sustainable development and social innovation, both of which I consider to be indispensable for our future.

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The Anderson House

Solution to any housing crisis

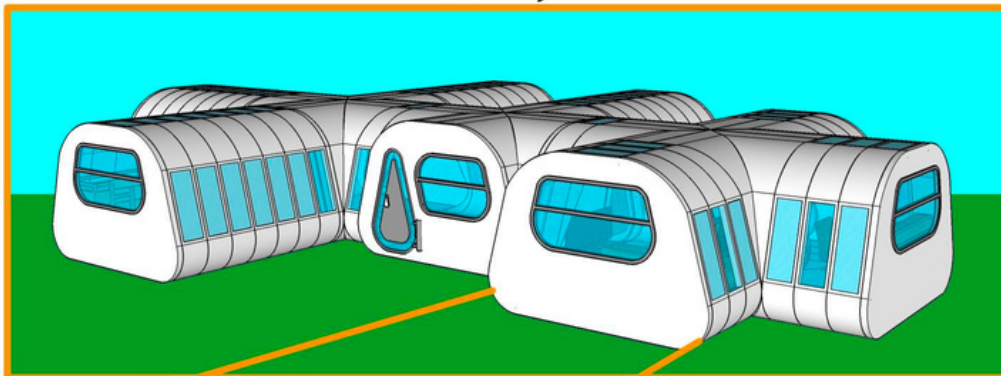
About me

A 50 something looking for ways to exercise my vivid imagination. I have already written and published one children's picture book, the sequels are nearly ready. I have worked in kitchen, crockery, website and interior design, so I think it's in my blood. I am married, sell chainsaws, play tennis and holiday, a lot.

Email: martinboon01@hotmail.com

Website: www.boonboonbooks.com

Main Image



Constructed from a simple reinforced core element, made from plant based plastics, which is formed into a few main construction sections, the main hub section and the wall sections.

Easy to transport, easy to assemble, easy to maintain and easy sustain.

The Problem

For many reasons, including war, civil unrest, natural disasters, financial problems, and famine, there are over 150million homeless worldwide. As one of our basic necessities for living, a home is vital for many reasons.

Solutions exist, but they are inadequate tent-like, short term plasters, not a final solution.

The Process

Out of the original eight concepts, three variants were chosen to move forward to be entered into a selection matrix. One early concept used one box made of 18 easy to handle sections.

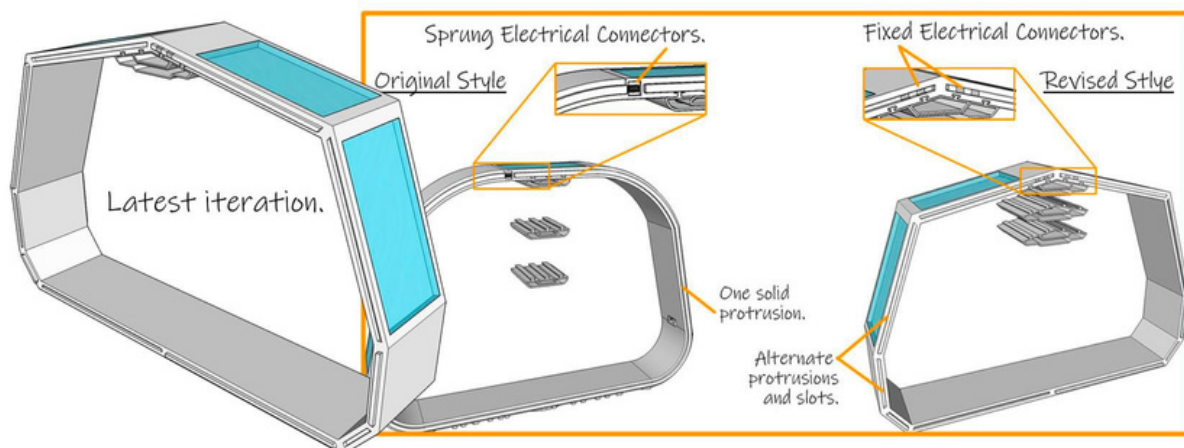
Another contender used the Solomon R. Guggenheim Museum as a primary generator, which give some beautiful ideas. Which were really too expensive given the purpose of this project. Finally, my favourite source of ideas, completely unexpected inspiration, an aeroplane fuselage!



Proposed Uses

This is a low-cost emergency housing solution. Not just disaster relief, but also where financial difficulties make purchasing a family home impossible. With built in electrical systems, water, lighting and heating, The Anderson House is simple to install in any environment, by people not experienced in construction.

Revisions already in progress...(detail images 2 & 3)



Every Drop Matters

I discovered that consumers want the beauty industry to promote sustainability, but product design is rarely revisited after launch.

Every Drop Matters is an accountability machine where consumers can swap foundation bottles they cannot fully empty for vouchers redeemable on their next purchase. This decreases product waste by safely disposing of inaccessible goods.

Ever reached the bottom of your foundation bottle and discovered that there was still product remaining which you could not reach? This applies to most foundation bottle designs which causes beauty consumers to purchase replacements sooner than necessary whilst contributing to unnecessary product waste.

I deemed observation essential and made a user trip to a retailer to review the in-store experience. I also needed to learn from my network about their purchasing habits, so I designed a survey which I then analysed. I generated 8 concepts using constructive discontent whilst exploring opportunities offered by new technologies. I selected one concept using a selection matrix and weighting that aligned with my core values to further develop through president research.

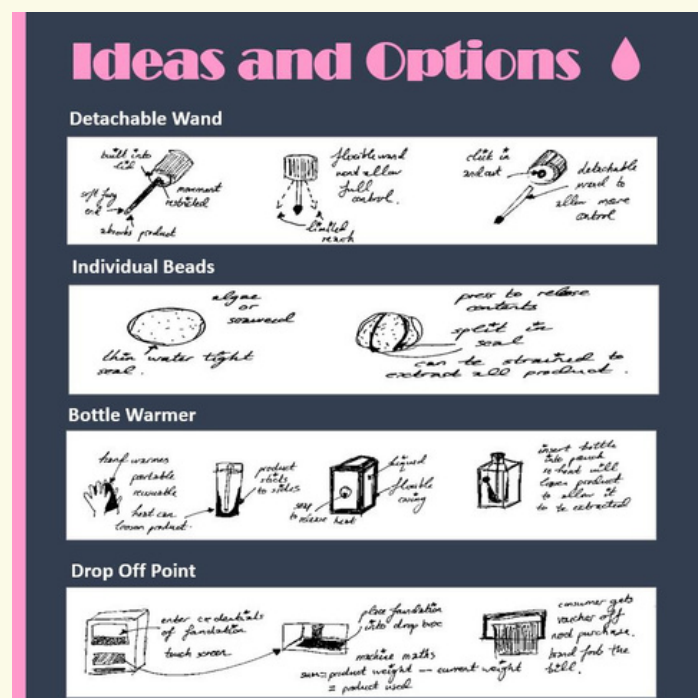
Every Drop Matters holds makeup brands accountable by charging them for vouchers if their products are fully inaccessible. Consumers enter their foundation information into the machine, scan the barcode, and weigh their bottle. The machine calculates unreachable product and subsequently issues discount voucher.

About me

I am a 37-year-old single mum who loves learning and challenging myself, so I am in the process of completing a BA in Design and Innovation with the ambition of making my mark in the world by contributing to a more sustainable future.

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Title: The 'Spin-Bin'

The 'Spin-Bin' is an adaptable stand-alone unit that protects wheelie bins from theft, giving the user better control over their recycling. It can be used in backcourt areas and public places. It is made from recycled materials, using natural resources and prevents vermin infestations, making it environmentally and eco-friendly.

The problem was the lack of recycling bins in our backcourts. Due to wheelie bin theft by local kids (for the purpose of setting them on fire for a quick 'high'), led to us having no recycling facilities and resorting to using large Taylor bins that were unsuitable.

My design process included information researching on local councils & housings and other websites, surveys to other OU students, friends & family, conducting interviews with stakeholders, user observation & immersion. My idea was to take an existing innovation and improve it. I wanted to design something that had never been done before, taking all the other designs I had seen into consideration, helped me to refine it by adding in incremental changes to the design.

The 'Spin-Bin' has various unique functions that would help people take an active interest in recycling. By adding in the mobile phone app and using technology, my goal here is to change people's ways of starting a good recycling ethos, and be better for the environment in the long run.

About me

I am a mum of 2, an adult returner to education and a recent cancer survivor. My goal throughout the module was to learn more about Product Design. I am hoping that after my next module I can look forward to graduating and getting a decent job.

Facebook: <https://www.facebook.com/Alleykat75>

Instagram: https://www.instagram.com/pauline_mcnaught75/



My Solution (with prototype): The 'Spin-Bin'

An adaptable stand-alone unit to contain recycling bins. It is designed to minimise bin theft and fires. Using recycled materials, the Spin-Bin is a safe & secure unit.



Adaptability for Public Places

- Can be altered in appearance and materials to suit public locations (e.g. pop-up tents for weekend festivities)
- Three types of bins can be used, 1 for paper, 1 for plastic bottles and 1 for general waste.
- Flooring remains static (no spinning action required)
- Easily accessed by the public.

Prototype



TE-CHO: Eco community housing for everyone

E-CHO is an eco-friendly, self-sufficient community housing project that consists of “Pods” that are connected by tunnels. These come in 4 different formats: base; apartment; greenhouse and facilities. The whole structure is powered off-grid using solar and biomass renewable energy technologies. The community works together for the good of everyone.

Modern housing is not eco-friendly or self-sufficient and the construction of it is damaging to the environment.

Our entire lives revolve around how and where we live. Some people don’t even have a home. This project addresses that and the problem statement above by providing eco-community housing for everyone.

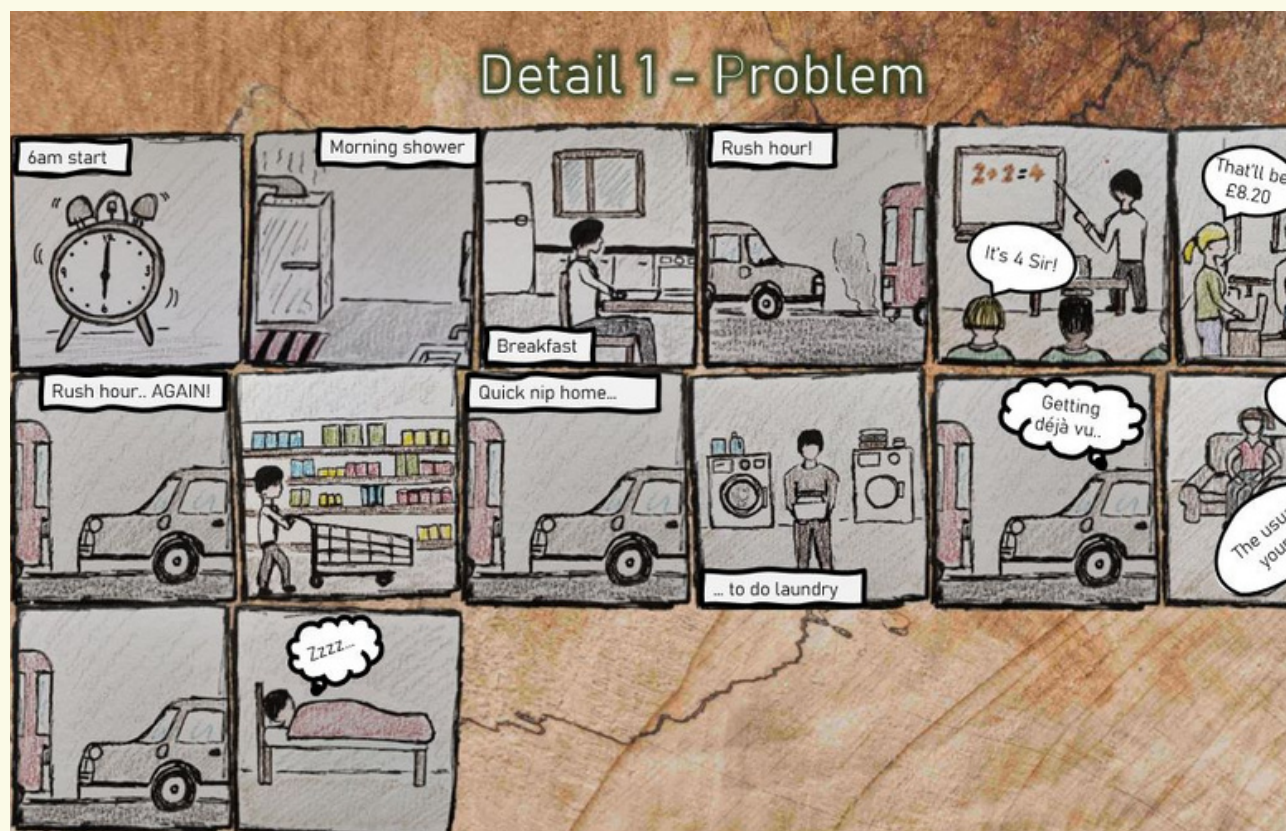
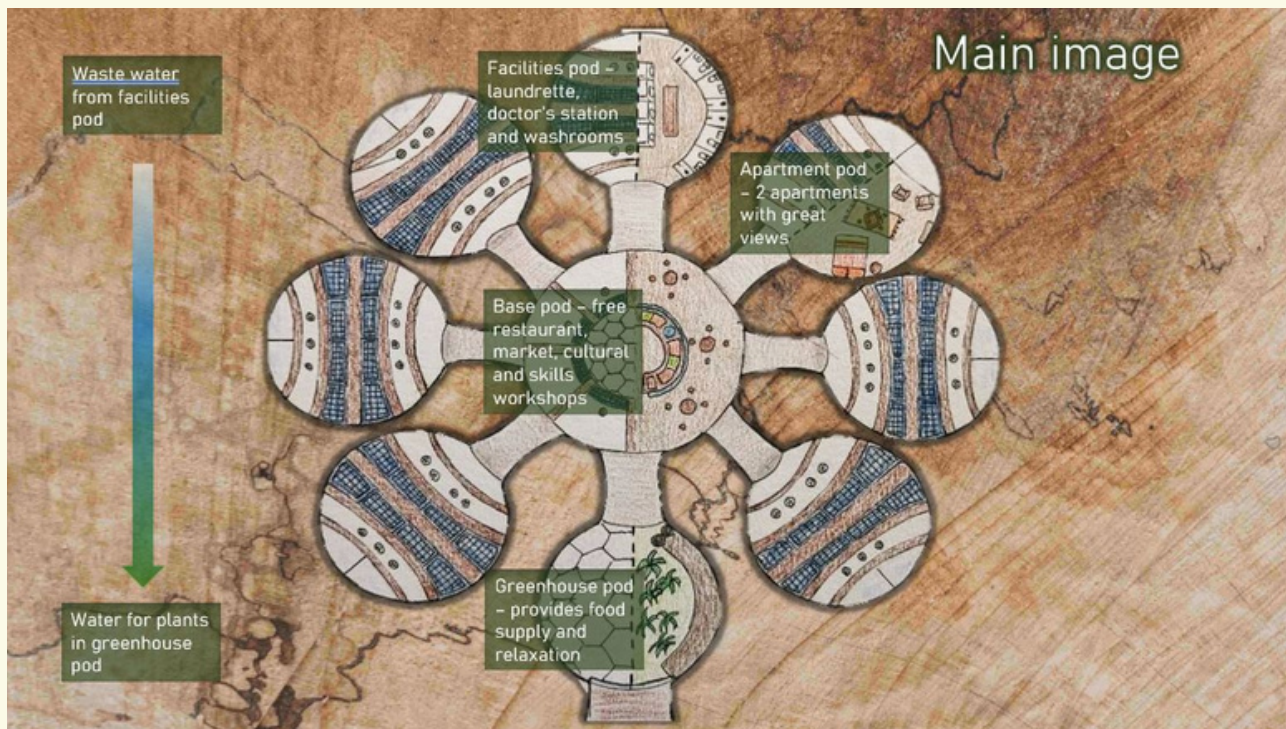
Inspiration for ideas came to me during a visit to the C.A.T in Snowdonia, North Wales, which spends a lot of time researching, developing and testing new green technologies and construction materials to tackle environmental housing issues. Research was conducted as surveys and interviews, as well as online searches, websites, and TED talks. I selected and refined the problem by constructive analysis using an evaluation matrix and gaining feedback from others.

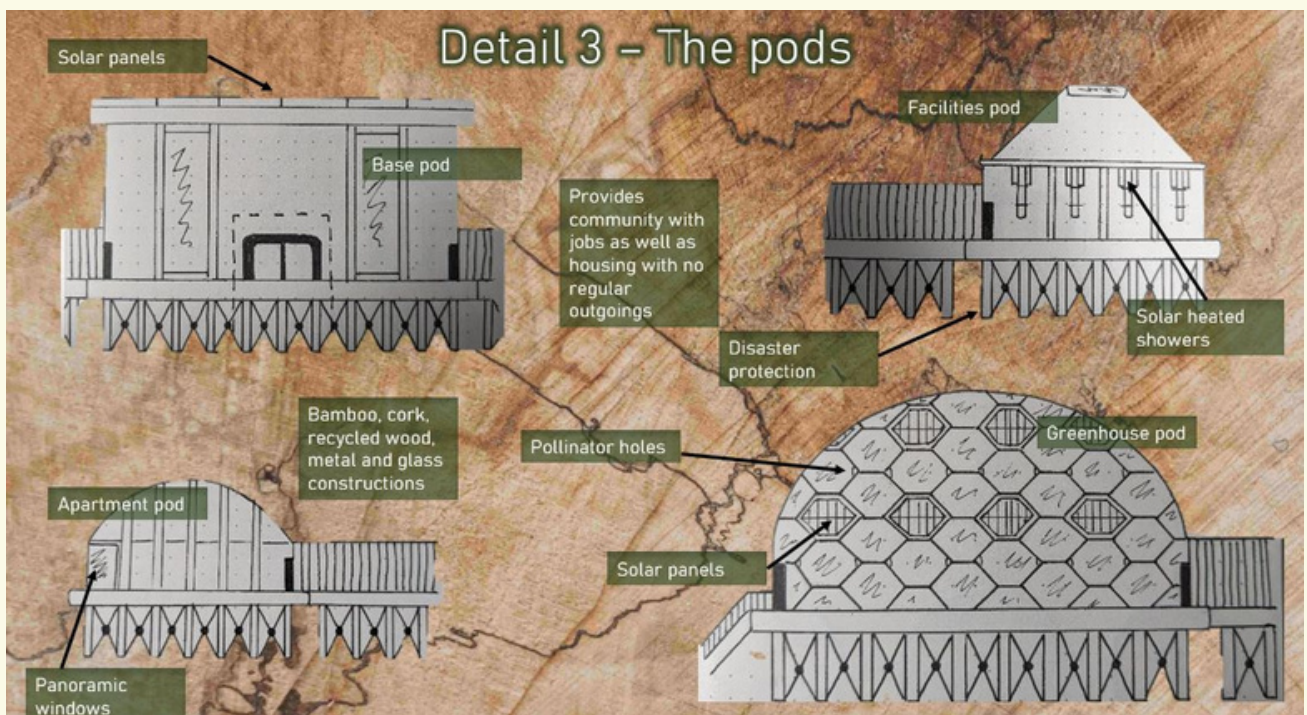
I would like these housing communities to be constructed across the country to provide a cheaper eco-friendly alternative to modern housing that is inclusive of everyone. My design addresses the problem identified by dramatically reducing the population's carbon footprint and damage caused by the construction of current housing estates.

About me

I have many creative passions including music, photography, and literature. I hope to become a UX designer encouraging people to live a more environmentally friendly lifestyle. After my graduation, I aspire to have my own eco campsite whilst working freelance as a designer. I currently live in Lincolnshire, UK.

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WasteWise: Empowering Communities for Sustainable Food Waste Reduction

WasteWise is a community-driven project aimed at reducing food waste and promoting sustainable behaviours. It incorporates a smart bin with an integrated scale system, a user-friendly app and a reward system. Users can track and manage their food waste, receive feedback on environmental impact and earn rewards for waste reduction efforts.

The project addresses the global issue of food waste, which impacts both the environment and people's well-being. Food waste contributes to greenhouse gas emissions, depletes resources and perpetuates food insecurity. WasteWise aims to empower individuals and communities to take action and reduce food waste, promoting a more sustainable and equitable future.

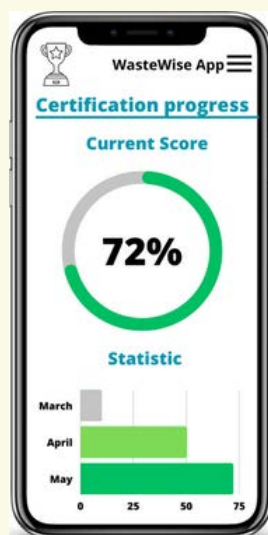
The project involved extensive research on food waste, sustainability and user behaviour. Initial ideas were generated through brainstorming and concept development workshops. Feedback and insights from potential users were gathered through surveys and questionnaires, informing the selection and refinement of the final design concept.

The proposed intervention includes the use of a smart bin with an integrated scale system and a user-friendly app. Users can easily dispose of their food waste, track the amount of waste generated, and receive real-time feedback on CO2 emissions and financial impact. The app also provides tips, educational resources and a reward system to incentivize and motivate sustainable waste reduction behaviours.

About me

I am a passionate sustainability consultant committed to creating positive change. During the module, my goal was to develop an innovative solution that addresses a pressing environmental issue, food waste. After graduation, I aspire to continue working on sustainable design projects, collaborating with communities and organisations to make a meaningful impact on a larger scale.

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Smart bin

Integrated scale that measures the weight of the food waste being disposed of.



WasteWise app

- A mobile application linked to the Smart Bin that allows users to track their food waste and receive personalized feedback on how to reduce it
- Users can select the type of food they are disposing of and the app will calculate the associated CO2 emissions and monetary value
- Provides educational resources and tips on reducing food waste

ABOUT WASTEWISE CERTIFICATION

Certification and Reward

Designed to encourage households to reduce their food waste by setting achievable waste reduction targets.

Milestone	Reward
Bronze 25%	5% discount at groceries at participating stores
Silver 50%	A gift card to a local restaurant
Gold 75%	A free energy audit of the house
Diamond 90%	50% discount on council tax

Gardens in the sky – The future shop.

Grow fresh produce by vertical farming at UK wide local supermarket locations.

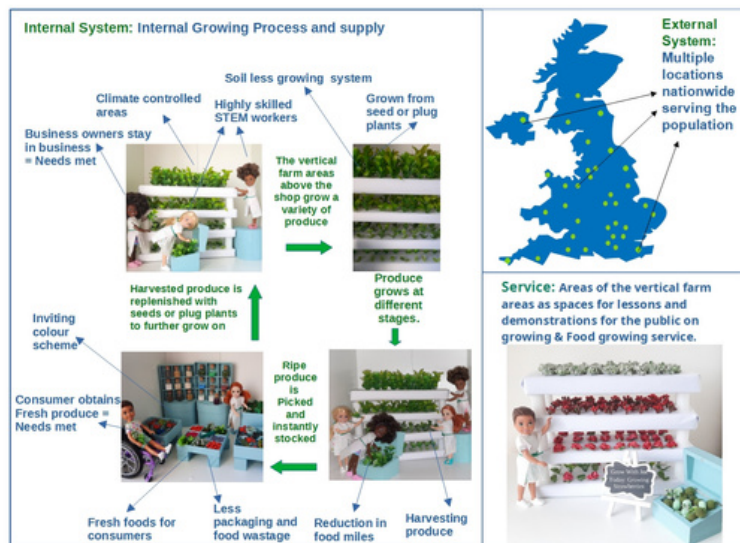
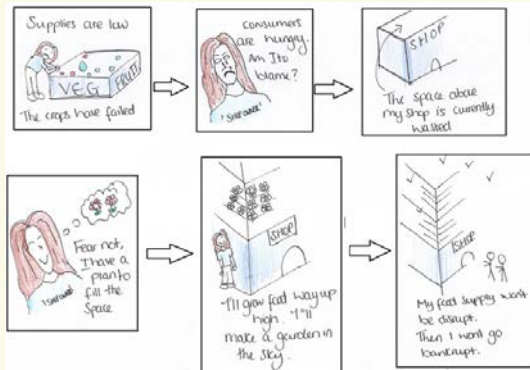
A multi-level supermarket space, as part of many across the UK as an external system, with internal commercial vertical farming growing systems with climate-controlled environments. High yield fruits and vegetables grow in the traditionally unused airspace above shops. Some areas are accessible to the public for educational purposes. Utilises aeroponic growing which requires no soil, only water and fertiliser and LED grow lights.

The import of food is a fragile system which consumers and business owners rely on. Explore ways to increase UK food produce growing and reduce food miles, whilst helping consumers to gain knowledge, reconnect and rehumanize the process of food produce growing, and facilitate nutrition needs.

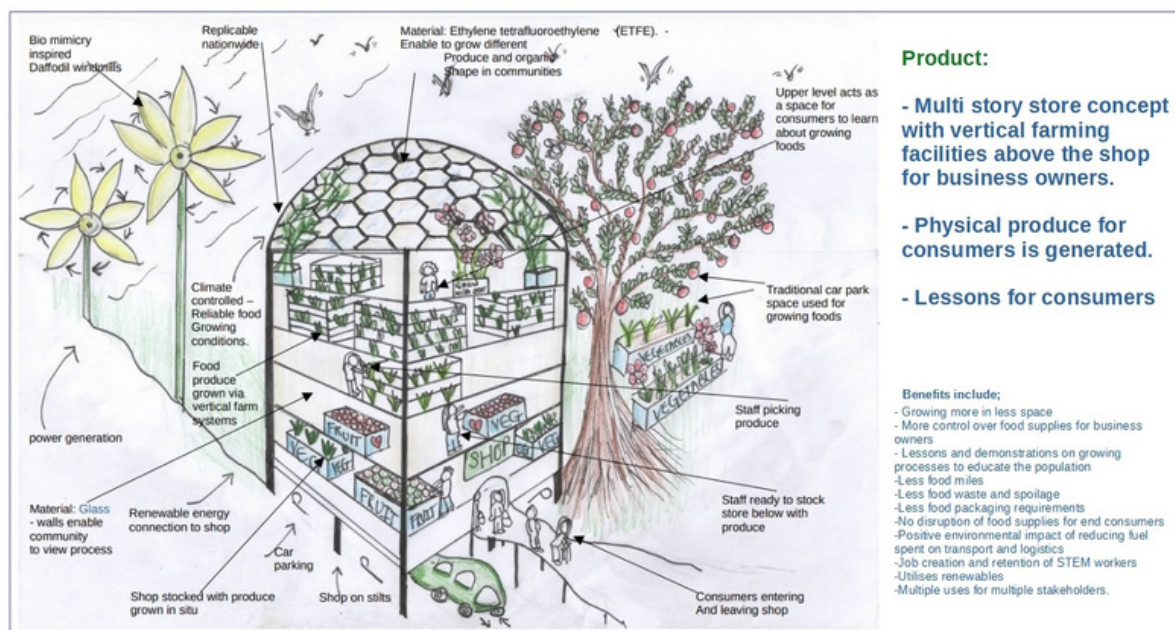
Mind mapping, Information Searching, User Trips and Immersion were used to explore a wide range of problems. Factors of the problem were identified, a complex and intricately co-dependently linked food import system compromising of products and services, as part of a system.

Intuitive creativity techniques, Lateral thinking techniques, Heuristic methods and Systematic creative problem-solving technique of Morphological analysis were used to generate eight initial concept ideas. The final idea chosen due to its reliability and replicability.

Produce grown consists of high yield fruits and vegetables. This produce supplements other land based activities and imports. Consumers are able to partake in lessons on growing foods at local hubs. The climate-controlled environment allows year-round produce production, which reduces demand on imports and increases the UK food production.



Gardens in the sky - The future shop



Dep-Re-Bin

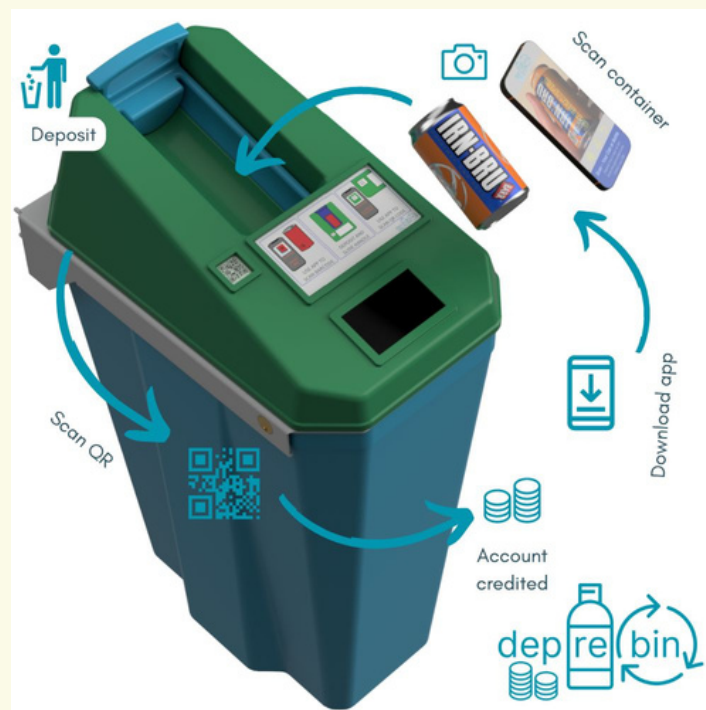
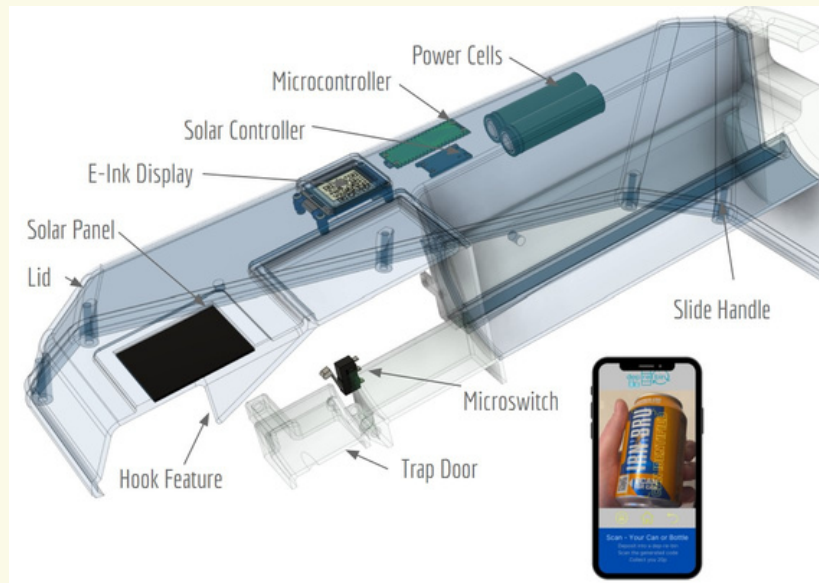
Scotland's upcoming deposit return scheme (DRS) will add a refundable 20p deposit to all single use drinks containers sold.

The Deposit Return Bin (Dep-Re-Bin) system receives empty drinks containers, and credits 20p to the user's account.

- The App scans the container
- The container is deposited via the slide handle
- A unique QR code is shown on the E-Ink display
- App scans the QU code and credits the user's account
- A digital wallet stores credit

The design is in response to a contextual change, driven by emission targets. There were extensive legislative resources available for research, as well as a handful of existing products which do the job at scale. A leading recycling bin manufacturer responded to a survey request, providing valuable industry insight. Government appointed administrator Circularity Scotland, kindly agreed to interview, offering legislative insight, and were particularly receptive to use in schools and workplaces.

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ReLS: Recycling Labelling Scheme

ReLS introduces improved text instructions along with coloured shapes, printed on to product packaging which allows consumers to identify materials, and match them to the correct recycling container. This is paired with labels which consumers or councils attach to their existing recycling bins. A smartphone app can provide additional instructions by scanning the packaging barcode.

Packaging recycling is confusing for consumers and labelling on packaging is inconsistent across products. Labels don't always contain enough information on how and where to recycle. Consumers often place packaging in the general waste although collected by kerbside recycling, which leads to negative impacts on the environment. User trips into current recycling services were taken, and a consumer survey and recycling activity was conducted. These determined consumer experiences and understanding of packaging recycling and confirmed the initial problem statement. This led to ideas ranging from approaching councils to change their services, to education to improve understanding, to the use of available technologies to assist consumers. The design which best fit the brief was selected and refined using prototyping and user feedback.

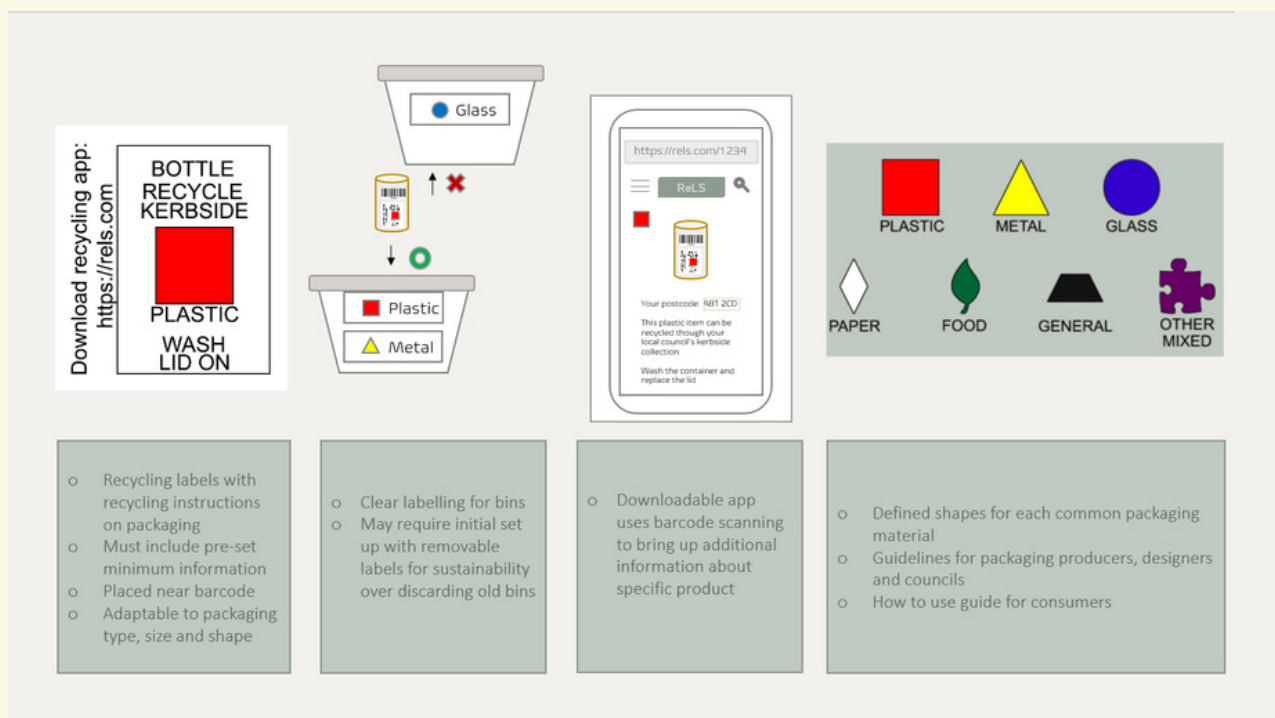
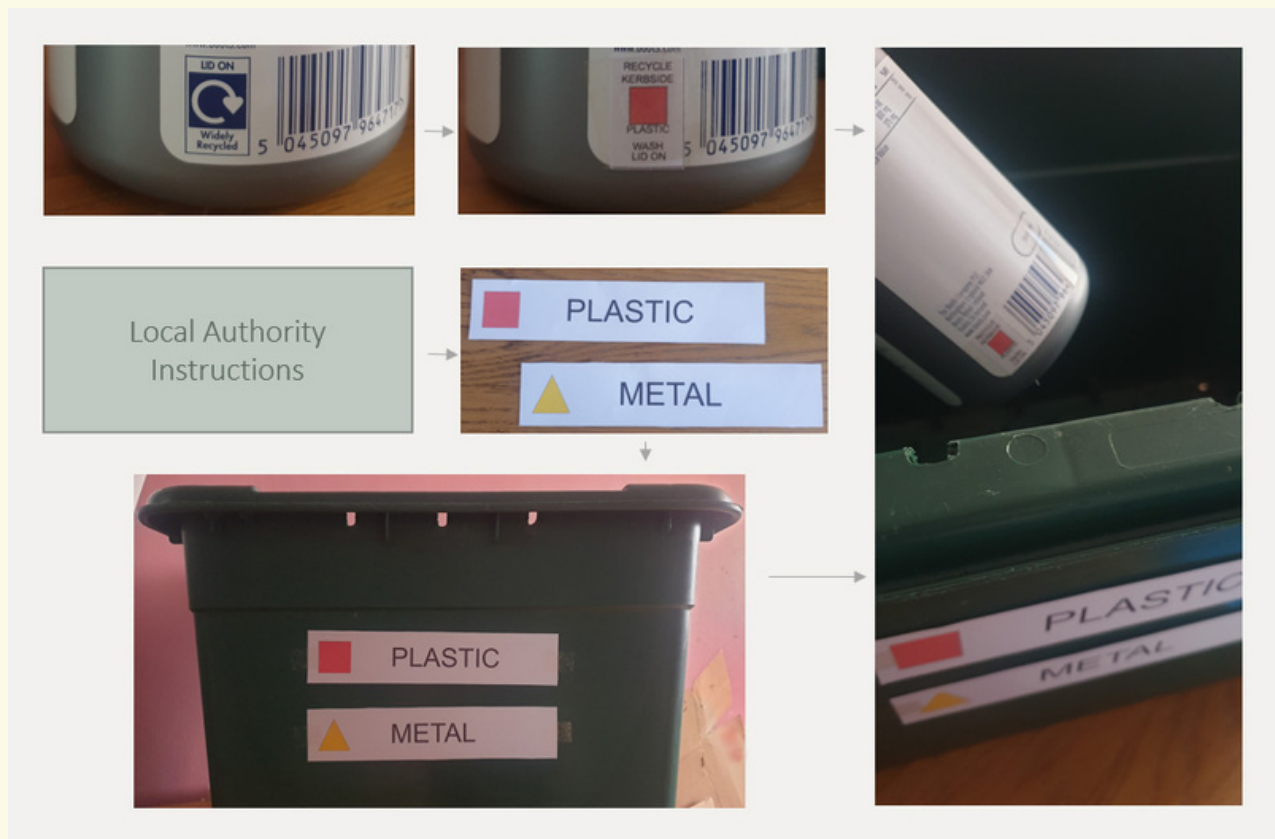
The improved labelling includes words and shapes like the children's toy where shapes are matched to holes in a container, which most young children can use with ease. After initial set up, most adults should be able to match packaging to containers using a similar method.

About me

I have an interest in web design, product design and mobile and cloud technologies. I also have an interest in coordination and organisation, looking at ways of assisting productivity, and making processes more efficient.

My goal is to be involved in designing and improving products, services or systems that are accessible and environmentally compatible

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Applying quantum locking and gyroscopic technology to reimagine trains in service of mass-transit systems to ease railway overcrowding through development of new infrastructure

Introducing the M4L, Multi-Modular-Mag-Lev-Mechanism

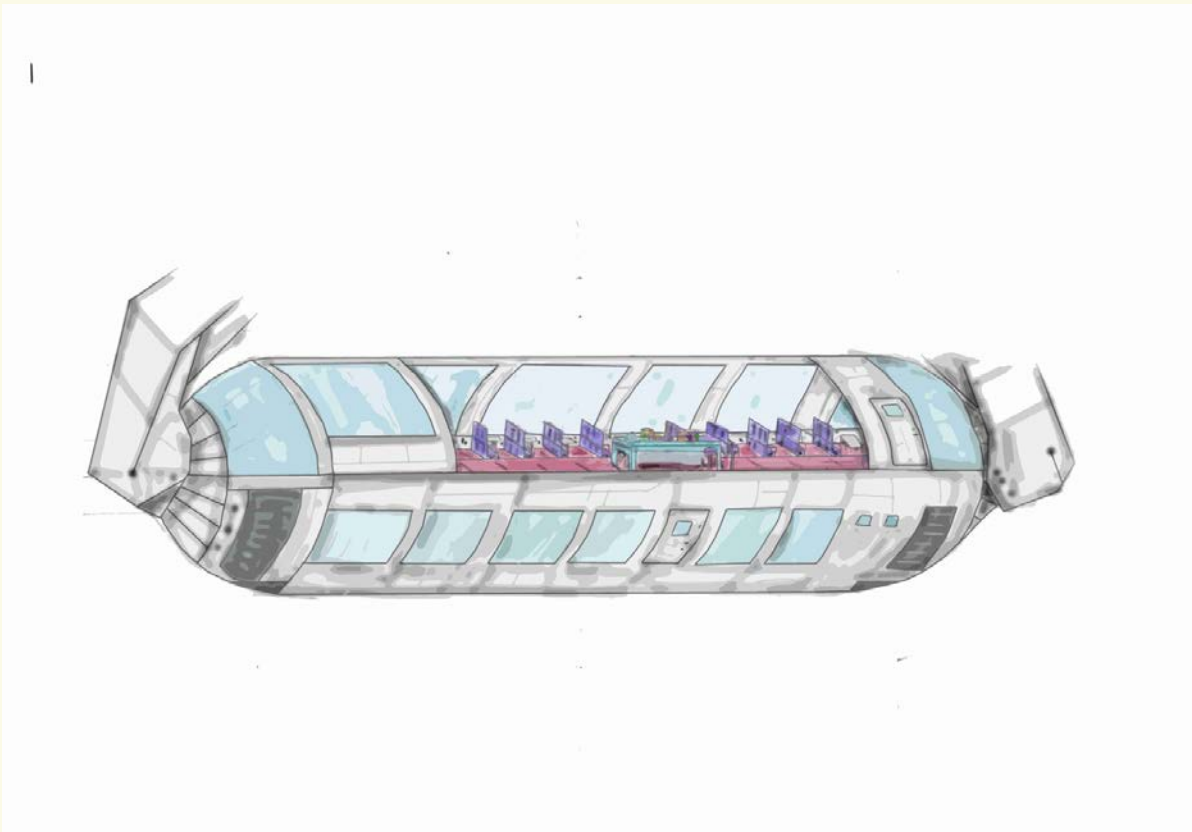
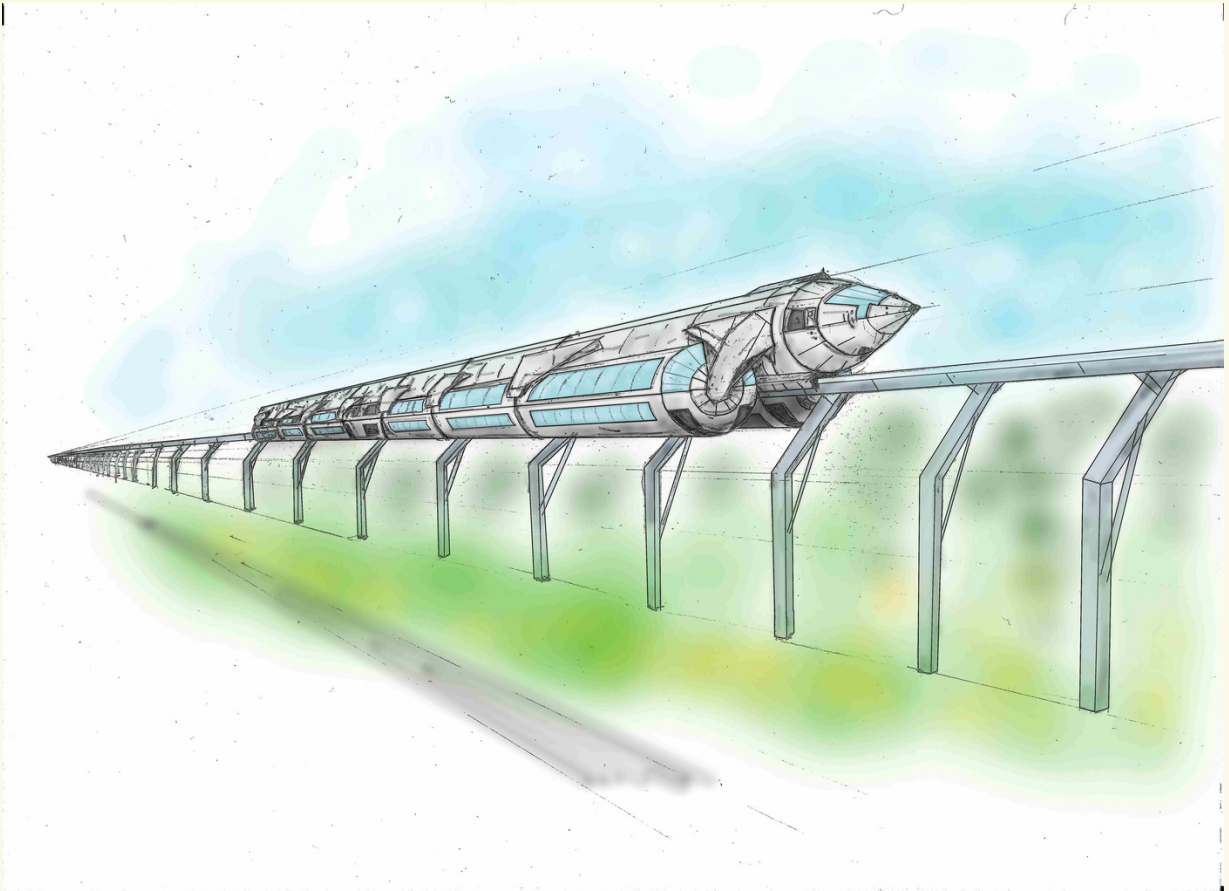
The M4L is designed for long distance commuters, giving fast travel with minimal stress and environmental harm. Frictionless movement is provided by quantum locking technology. A graphene superconductor allows levitation over a rail composed of neodymium magnets. Liquid nitrogen cools the superconductor creating a stable magnetic field, locking the train to the rail, then driven by electromagnetic propulsion using electricity.

Passenger, and cargo compartments are mounted on arms extending from the main body. Each compartment is gyroscopic, enabling tilting around corners for easier navigation through complex terrain maintaining high-speed. Commuters require efficient services reducing travel time and stress. Primary and secondary research shows Train travel currently underperforms in the UK. Overcrowding is main issue, shows most commuters unable to travel comfortably regularly. Carriage capacity on railways cannot accommodate peak-time numbers.

The problem identified was to overhaul mass transit systems to improve the traveling experience providing fast, safe and efficient travel that is less stressful with a focus on reducing overcrowding.

The idea for the M4L was a combination of several early design concepts, involving interchangeable carriages, a mag-lev monorail train and double-decker rail carriages. With carriages mounted to other side of the train, the carrying capacity is doubled. The gyroscopic arms allow for cornering at higher speeds to negotiate terrain. This allows for more frequent services between transport hubs, and more people moved to their destination at speed, educing overcrowding.

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