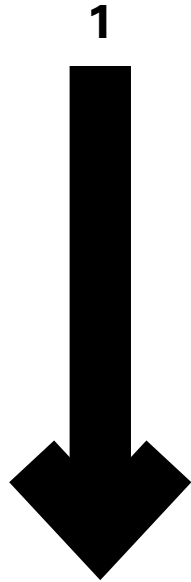


Jonah Scott

Read this document according to the arrows on this page.

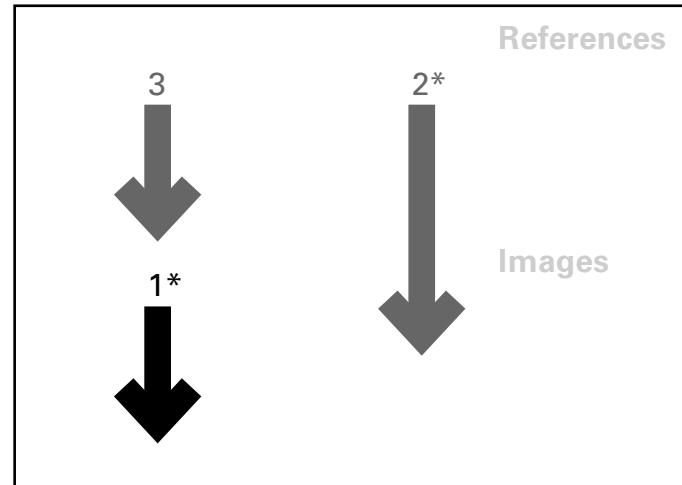


Github repo

<https://github.com/PandaBear3/CCI-DATA-project>



Sometimes this column will run onto the next page (3). The next pages core content starts at 1*.



References

Description

*
Description

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Description

Description

Images
Description

A
Description

B
Description

C
Description

D
Description



Wayfinding

I chose wayfinding (the design practice involving signage) because of its inerrant intersection with so many design realms; architecture, graphic design, psychology to name a few. Thinking with my design creative computing cap on I was instantly drawn to the idea of variable data within signage. I'll speak more on this later.

First lets get a few things straight >>>



What is wayfinding?

Wayfinding is the process or activity of ascertaining one's position and planning and following a route.* Romedi Passini argues that the process of wayfinding can be thought of in three distinct processes:
1 Decision-making and the development of a plan of action;
2 decision execution transforming decisions and the decision plan into physical behaviour; and
3 information processing, comprising environmental perception and cognition, underlying both precision-related processes.**

Wayfinding in history?

The way we think about getting from A to B has changed massively throughout history, even just in the past 20 years with the introduction of the satnav and other similar technology. Before digital devices became mainstream, the go to would've been the humble ordinance survey (OS) map, and use of road signs (Other types of wayfinding, say for buildings and high streets would've been much the same as it is now). Where using an OS map makes you into an explorer, the switch to the GPS has turned myself and my generation into passive passengers to the world around us. These two methods of navigating use different parts of the brain and therefore lead to different strengths and weaknesses for those who participate, OS navigation relies on the hippo campus, and GPS navigation relies on the caudate nucleus whos "strategy leads to more rigid behaviour"*** This also has knock on effects for wider society; lack of a need to stop and ask a local for directions, lack of confidence in navigation without a GPS, and in my opinion most importantly the use of the GPS leads to a less thorough examination of our surroundings.

Before more traditional maps, a long time ago we used marker stones and monuments for our navigation. also

* George, F. (2012) Concise oxford dictionary of current English. Memphis, Tennessee: Rarebooksclub Com.

** Frascara, J. (2002) Design and the social sciences : making connections. London: Taylor & Francis.

*** Dahmani, L. and Bohbot, V.D. (2020). Habitual use of GPS negatively impacts spatial memory during self-guided navigation.

A
Battered arrow I saw being thrown away

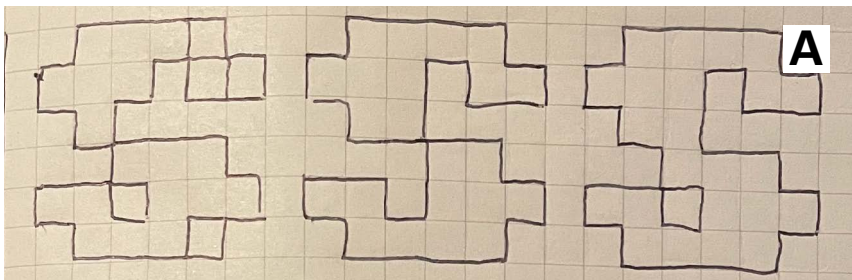
relying on local knowledge to get by. Remnants of these are hidden in plain sight with road names like 'Oxford road' in London leading to Oxford etc.

Wayfinding in the future?

Of course no matter how nice it would be, popularising a more primitive method for navigation into the mainstream would not necessarily be right for our time. We now need to be able to travel many miles to fulfil our daily needs. We now have seemingly immovable infrastructures in place that demand the use of the GPS. But have we completely lost our ability to take in our surroundings in that exploratory way that occurs when using an OS map, or relying on a monument as a point of reference to help us on our way to the grocery shop?

My experience in traditional wayfinding

Despite coming from a graphic design course, I have limited experience in designing signage for wayfinding. Therefore I decided that I would put my hand first to the more traditional wayfinding design practice before I go on to the main crux of my exploration into interactive wayfinding. This will hopefully give me a good starting point for the rest of my project. The design and thinking for this starter project was done throughout the course of the wider project so you may see influences from this mini project [p3-p6] coming into play throughout the wider project [p7-end].

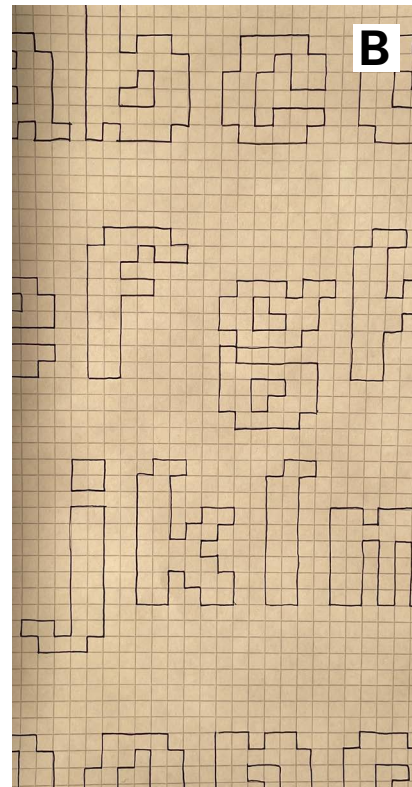


C³ Exhibition

The mini traditional wayfinding project was to create the signs for the C³ exhibition which debuted on the 28th of May.

As such a key role in the general feel of the exhibition I really wanted to hit the mark with the signs from concept to fabrication, right to installation. I wanted the signage to coherently represent our cohort as a whole while not taking away from the work that would be in the exhibition but rather leaving it room to talk for itself.

I was already in the process of designing a pixelated font that I thought represented us quite well, and realised it would be great to use for this project, so my first step was to design the last few pixels and digitize the drawings into a working font.



A Refining the s shape.

B last iteration before digitisation.

C digitised font using the app birdfont.

Exhibition signage theme

There had already been some promotional material that had gone out with an old TV on the front so I decided to explore further into the old tech concept to represent our cohort.

Caps or no caps?

As this exhibition was for works in progress, I decided not to capitalise any of the letter to give a prototype/unfinished feeling. I think the effect worked quite well.

A & B

Old tech found on google images

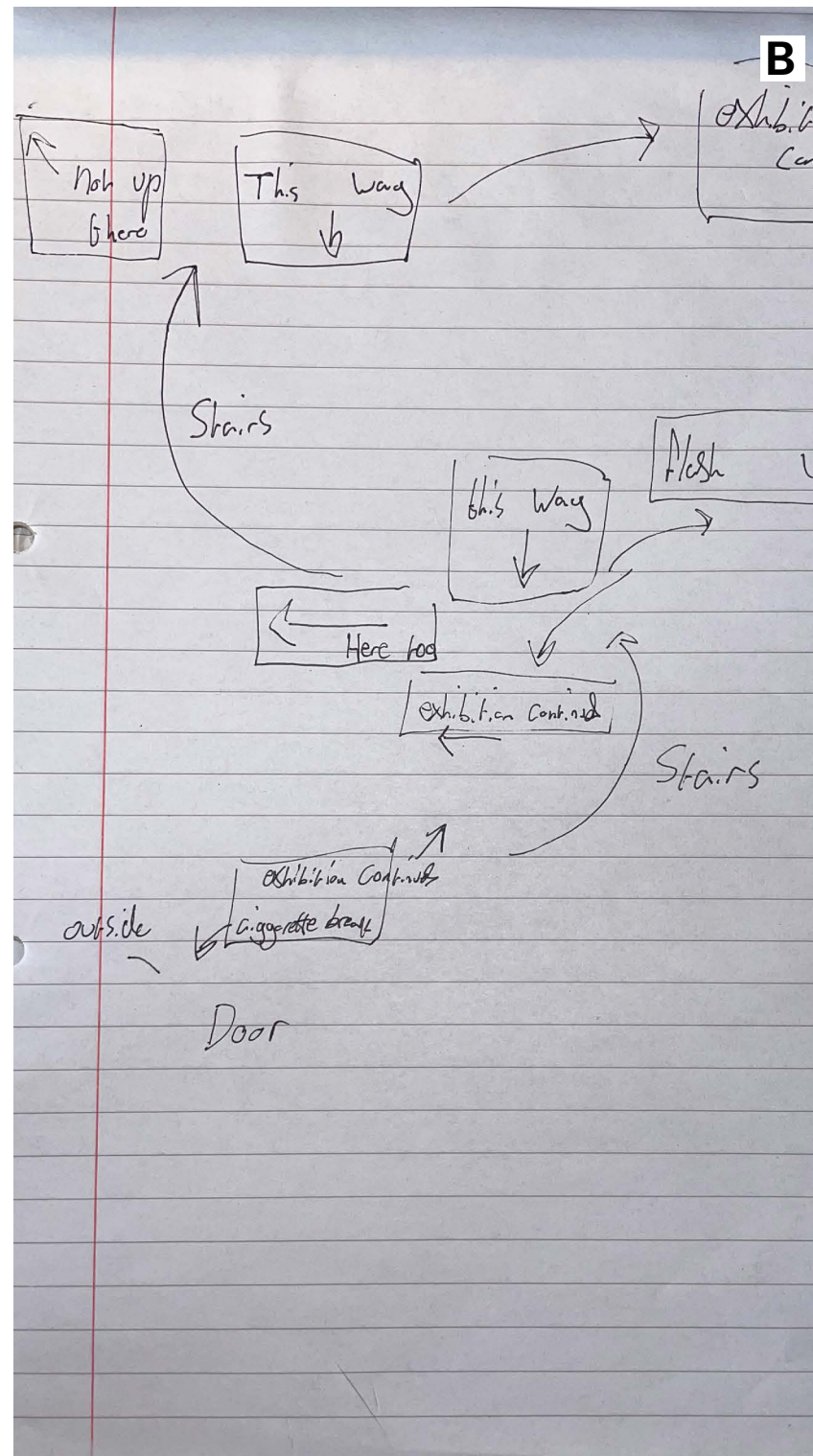
C & D

My sign designs incorporating old tech and my font.



Sign placement

This task was more difficult than I had anticipated. In particular it was hard to figure out where the best spot to put signs at an intersection with multiple entrances with people coming from both directions was. It was a great mental exercise to do. This task also involved visiting the space to work out what signs would be needed.



- A** Particularly difficult intersection.
- B** Sketch of my plan for sign placement.

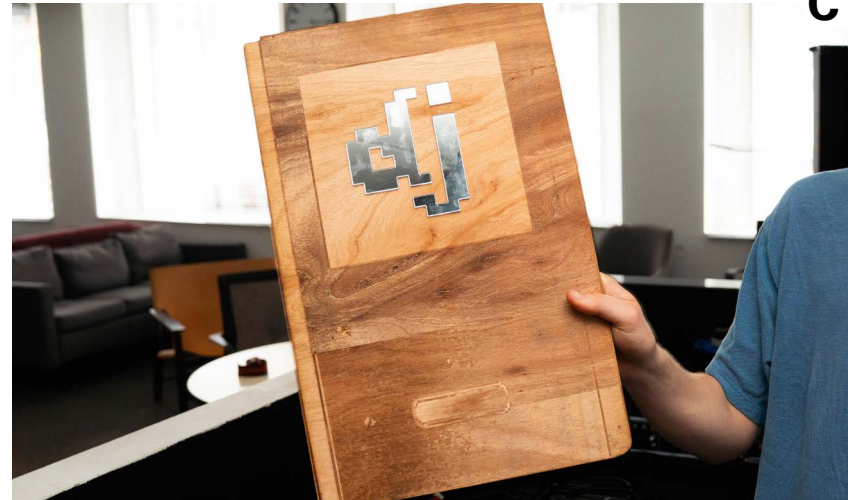
Signs in action

Here are the signs in the space. I used the laser cutter to etch the images into large pieces of wood I bought from B&Q, the font is cut from some reflective plexi glass. I gained so much from this traditional wayfinding project that I worked on. I saw the importance of preplanning sign placement, and giving plenty of time for fabrication. These signs worked well on the night for navigation. I received lots of feedback on the night that having the stylised signs gave a coherent feeling to the whole exhibition which is exactly what I was aiming for.



Romedi Passini

I loved seeing how clearly Romedi's 3 step process* (p2) for wayfinding worked so well in the real world. It was a surprise however to realise that signs aren't always actually necessary, and that wayfinding can often be done without them. The insight here is that signs and existing infrastructure work together as the surroundings in which wayfinding can happen. Signs can help but are never the only wayfinding tool we have at our disposal!



*Frascara, J. (2002) Design and the social sciences : making connections. London: Taylor & Francis.

A Exhibition continues on old digital camera.

B Flash warning, on old TV.

C dj, on mp3 player.

D This way, this way too, on tablet and early smart phone.

Conceptualisation of space

I want to explore briefly some research from some key thinkers on how we conceptualise space. One of Kevin Lynch's primary concerns is that of what he calls "imageability". A town has good imageability when its form is easily recognised or organised into a coherent pattern. He speaks about five key elements that inform one's mental image of a city; **1. paths**- the channels of movement (streets, walkways, transit lines). **2. Edges** - linear boundaries (walls, shores, freeways). **3. Districts**- identifiable sections of the city with a distinct character. **4. Nodes**- strategic points or hubs (intersections, plazas). **5. Landmarks**- external reference points (monuments, buildings).

As we explore a city we take note of these pieces of infrastructure and start to piece together a map inside our heads day by day, week by week, year by year. Lynch is interested in having a clear understanding of the residents' mental image before making adjustments to their space: what are the strengths of the city? What about weaknesses? And his design process follows on as something like this: What needs to be changed? What is the minimal amount of intervention needed to make that change?*

Yi-Fu Tuan argues that a place emerges when space is known, familiar, and emotionally invested in. That as a place gets steeped in relational memory our mental image of that place becomes more sure. Tuan also speaks about how a place can actually change the way a person thinks about themselves, that places of regular attendance hold such emotional significance that the place actually becomes part of that person's identity.**

Research

Guy Debord took a more Tuanian approach to his thinking. He used to take city walks where he would set out into Paris without an aim and see how the city moved him. He'd then sketch out the movement and separate neighbourhoods as and when they felt separated, connecting them only with strong or weak arrows.



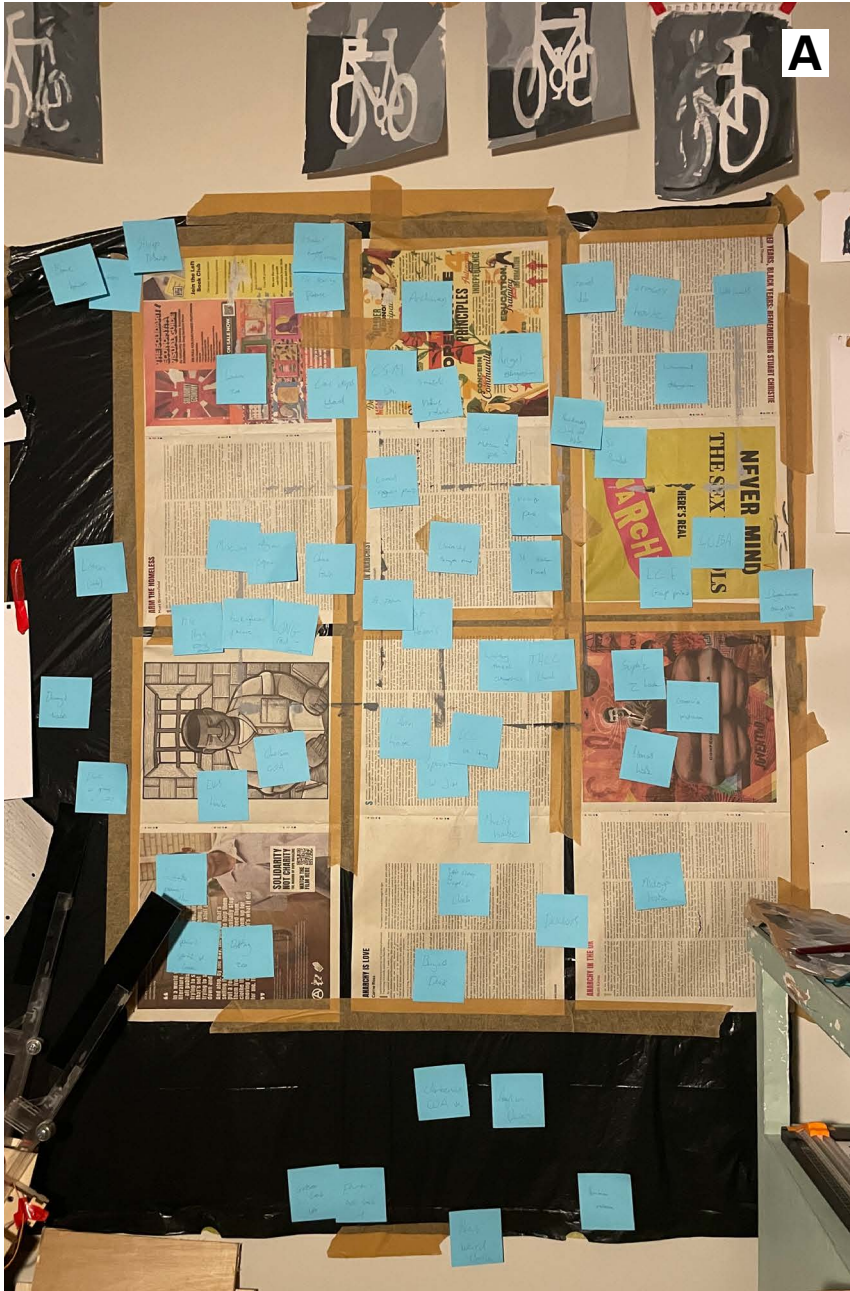
* Lynch, K. (1960). *The Image of the City*. London: The MIT Press.

** Tuan, Y.-F. (2001). *Space and Place: the Perspective of Experience*. Minneapolis: University of

A
Guy Debord, *Guide psychogéographique de Paris*

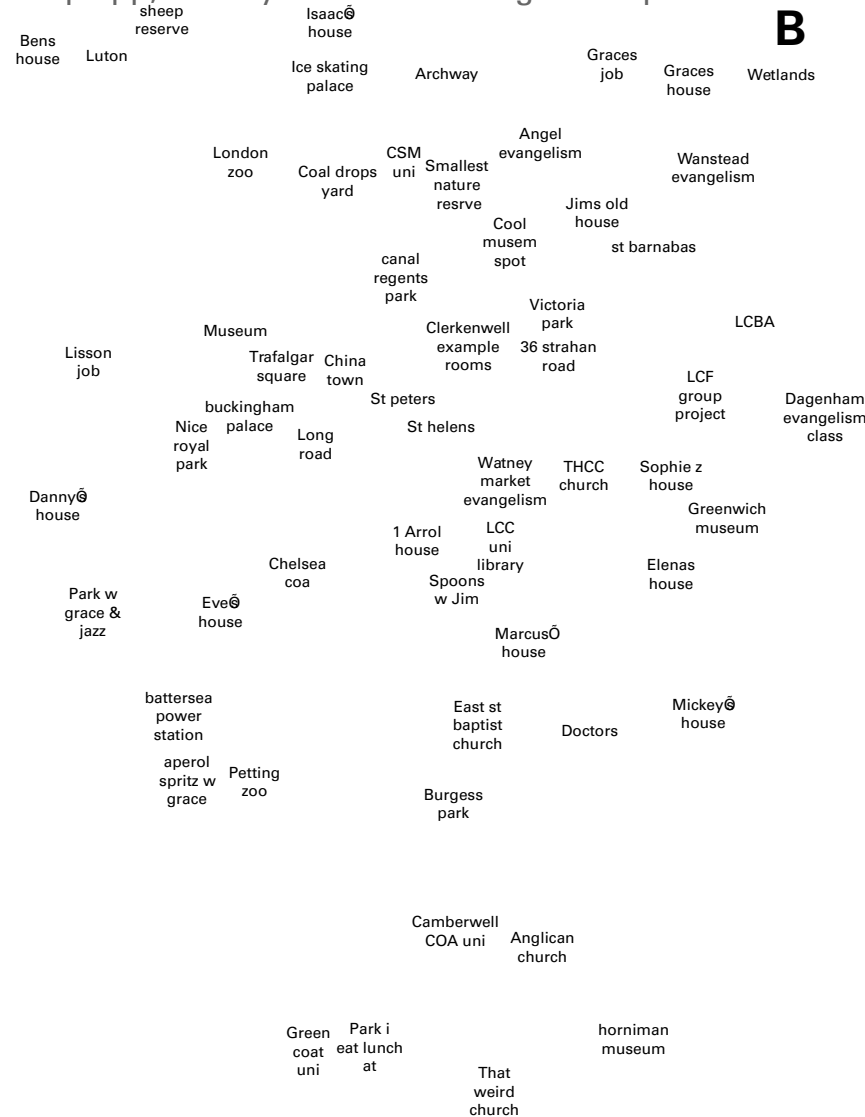
Exploratory workshop!

I wanted to have some hands on thinking for myself so I decided that I would try and map out London for myself based off how I think I categories the city in my own head.



Workshop evaluation

I was surprised to find that I associate different parts of London with a mixture of names and people and activities. As a cyclist I think that my visualisation of connections within London is probably stronger than that of someone who only takes public transport. But again I hardly ever go off sense of direction to get to where I need to go, instead I usually use my phone's map app, so maybe that's a wrong assumption.



A

Post it note London visualisation

B

Digitised visualisation



Design infrastructure that influences our mental image of the space

I want to start pulling some of this research together to form a clear direction for the project. But through doing these experiments and studies I have been shown the importance of knowing the infrastructure involved in wayfinding before I can really start designing signs for wayfinding. Lynch suggests there are 10 categories of direct interest for the designer that a designer might operate upon. they are as follows;

- 1)Singularity
- 2)Form simplicity
- 3)Continuity
- 4)Dominance
- 5)Clarity of joint
- 6)Direction differentiation
- 7)Visual Scope
- 8)Motion awareness
- 9)Time series
- 10)Names and meanings*

The more I think on these categories , the more I understand them in the context of what I have noticed about London and how I have categorised it in my own experiment. Maybe It's just because I'm a design student but I do associate each of the sticky notes with one (or a few) of the 10 categories. I had wanted to do the same experiment with a variety of people and compare results and see how different life experiences lead to different ways conceptualisation. I expect those who use public transport will have a more clustered concept of London. For those who've lived in London for a long time, I think there would be more emotional association with locations. Unfortunately I didn't end up replicating the workshop with anyone else.



*Lynch, K. (1960). The Image of the City. London: The MIT Press.

A

A cool wayfinding platform number at Stratford train station.

Proposition:

I want to go on exploring all the research I have outlined so far and respond to it;

- 1) I want to use the skills from working with traditional wayfinding signage for the rest of the project.
- 2) I would like to resolve (if possible) the issue outlined in p2 regarding our over reliance on GPS in exchange for fully realising our surroundings.
- 3) I also want to think around Lynche's 10 categories throughout the rest of the project.

Before I go on I want to highlight some case studies that pull these three things together and speak about what went well and what didn't for them. These signs should explore the interplay between; Live data, wayfinding, and conceptualisation.



A) An event centre room name board with changeable event card slots.

Strengths: Easy to understand, functional changing information, adheres to the design system in place meaning visitors have a cohesive mental image of the space.

Weaknesses: Manual change so will quickly get outdated without input.



B) A platform sign with the ability to direct through different routes depending on crowdedness.

Strengths: Easy to understand, functional changing information, adheres to the design system in place meaning passengers have a cohesive mental image of the space.

Weaknesses: Could be gameified depending on method used to count crowds.



C) A sign in a bus stop showing wait times for various different buses.

Strengths: Easy to understand, functional changing information.

Weaknesses: Easily vandalised or broken, It's actually quite ugly and doesn't conform to TFL's design system.

A Changeable events board.

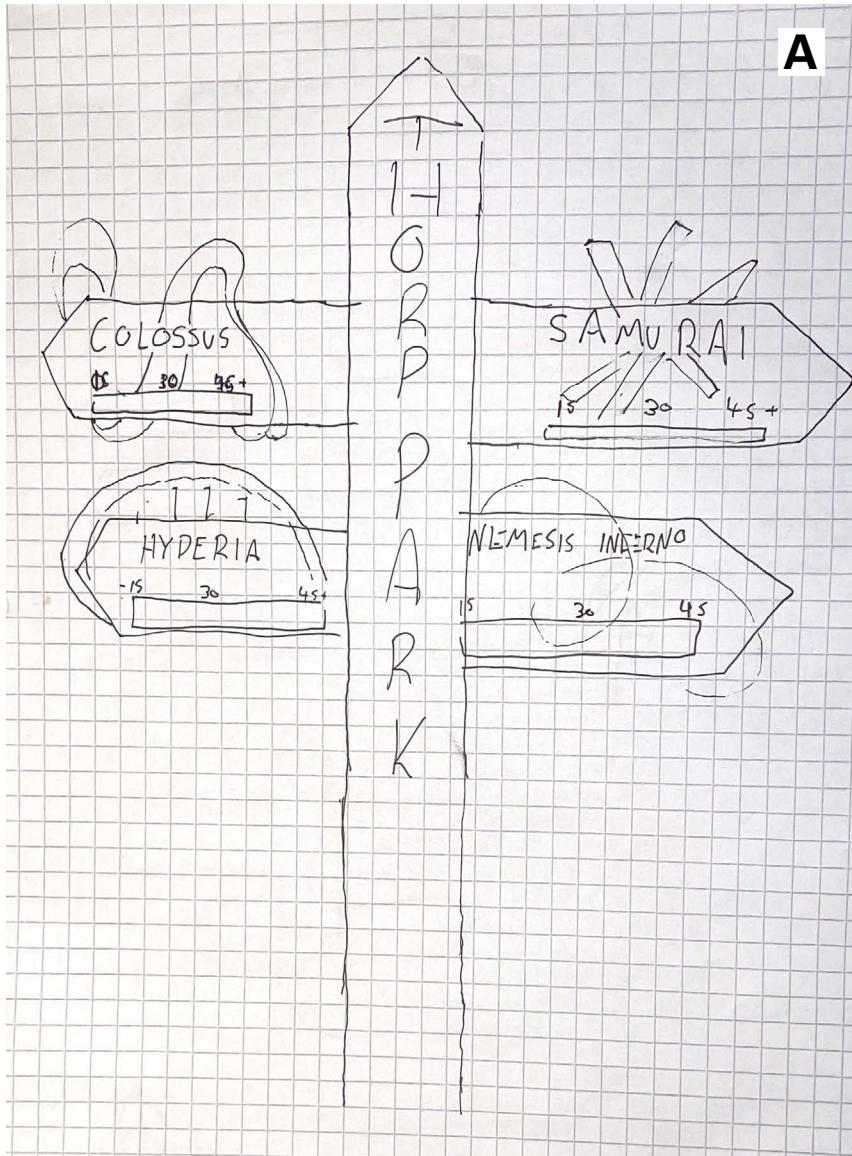
B Changeable crowd control sign.

C Changeable bus wait time sign.

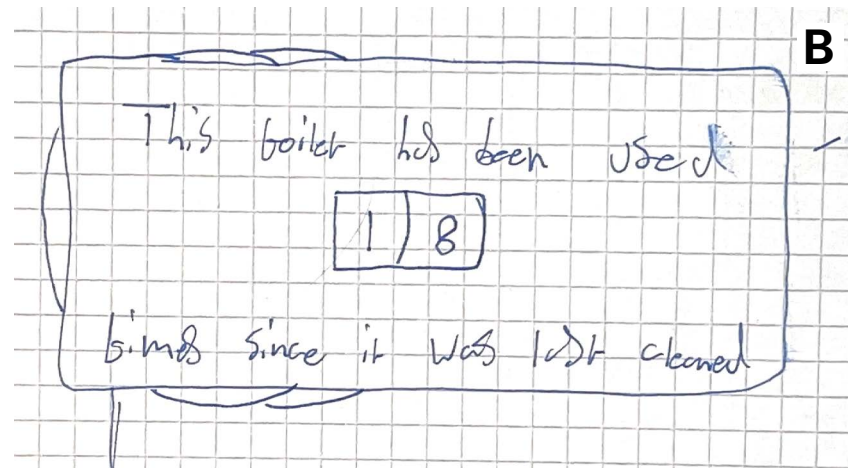
10

Applications

The rest of the PDF will walk through some of my real world applications pulling from all the research I've outlined so far. The plan is to make some work that reflects and explores the three ideals outlined in the last page. In short I want to make some signage exploring the interplay between; Live data, wayfinding, and conceptualisation.



A

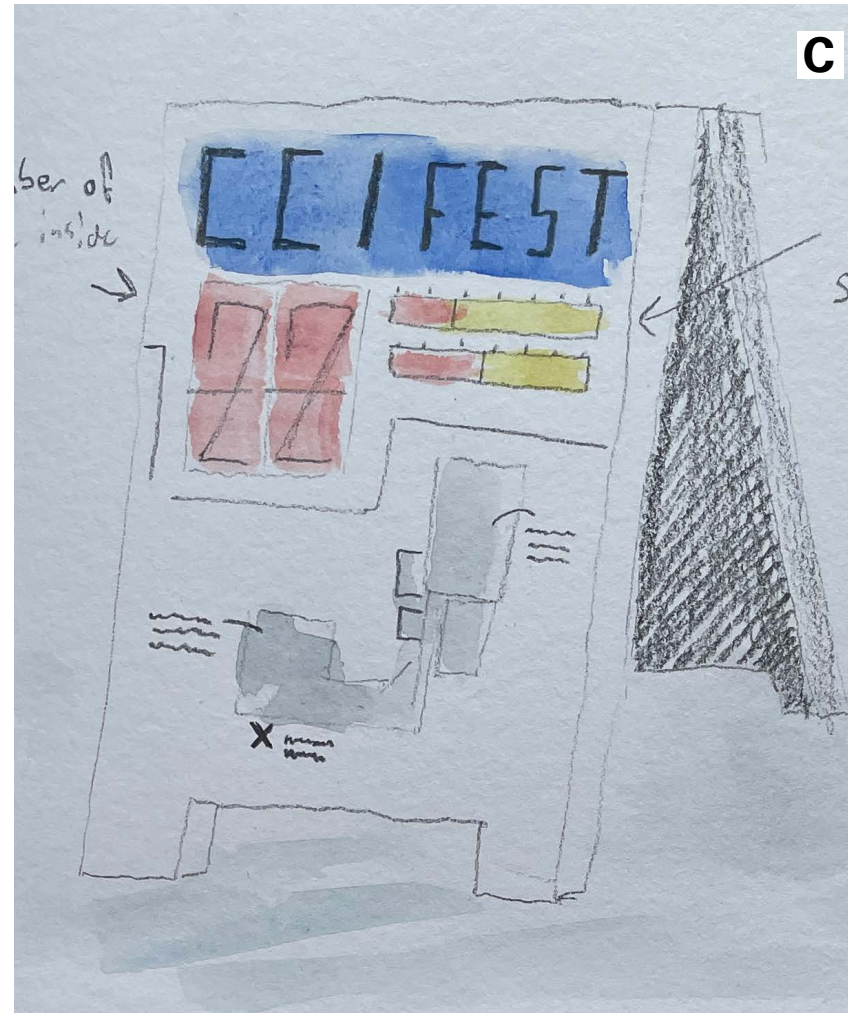


B

A Thorpe park queue wait time project. p26- p35.

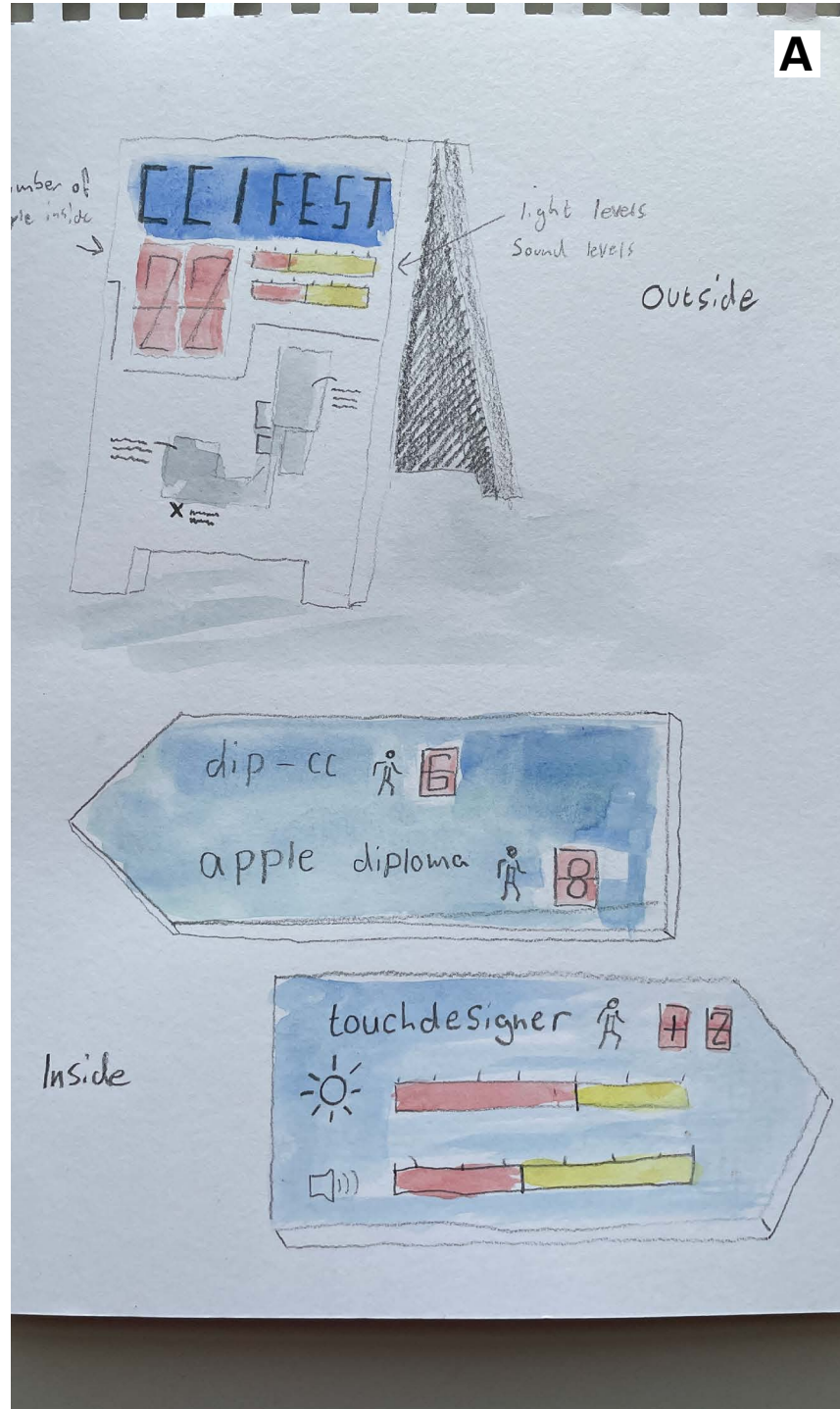
B Live toilet use counting sign. p20- p25

C Exhibition signage displaying live data. p12- p19.



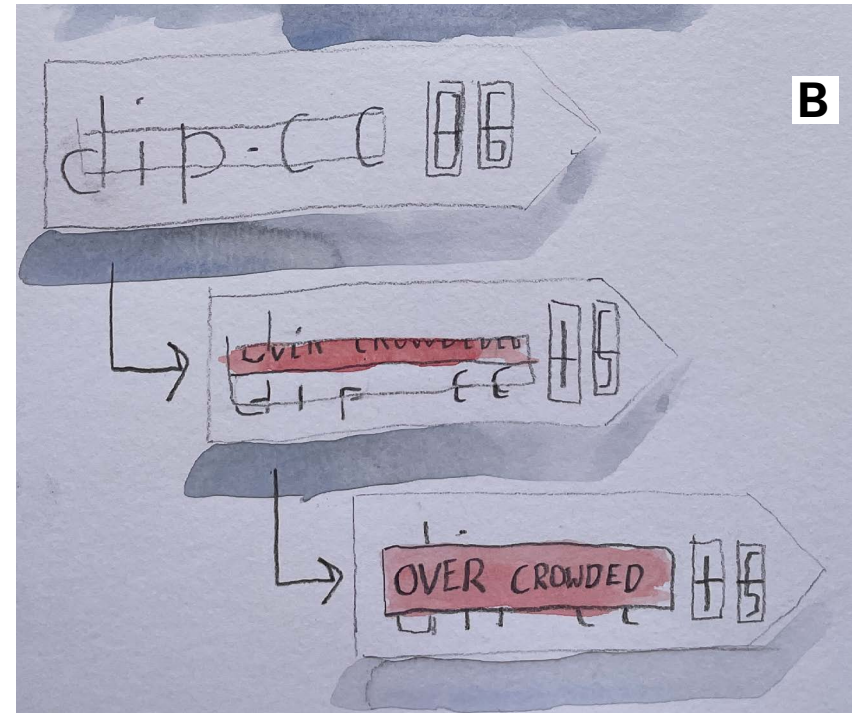
C

Exhibition signage sketching



My first exploration was into exhibition signage. I proposed to make some signs for the end of year show for CCI which was unfortunately rejected after some time. I wanted to create some signs that indicate and convey live details about the space inside, eg. how many people are inside, light levels, sound levels, and air quality.

Here are some initial concept drawings showing what I wanted to make. An A-board and some wall signs.



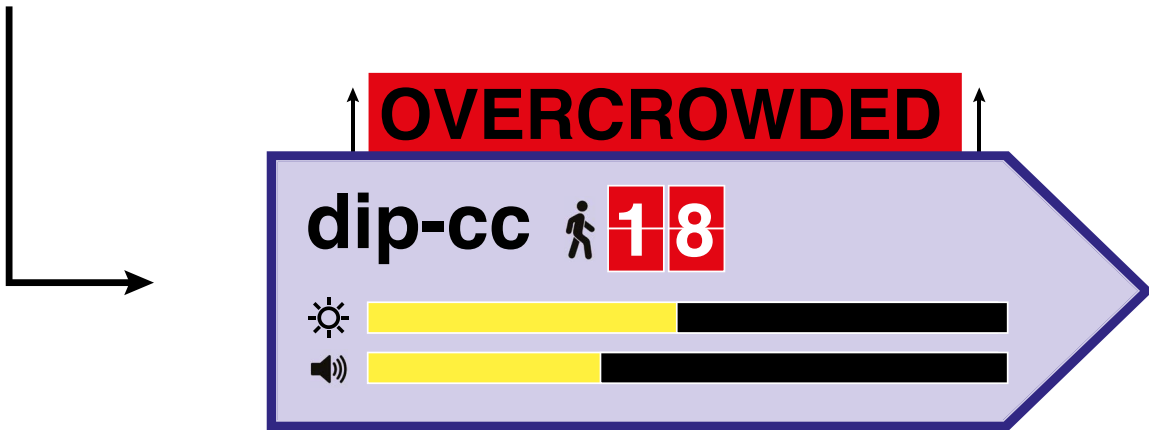
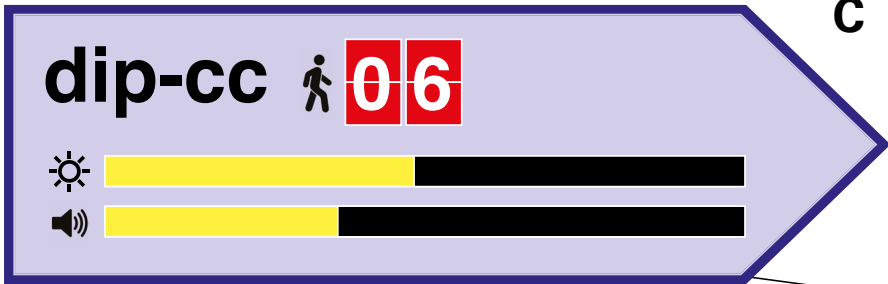
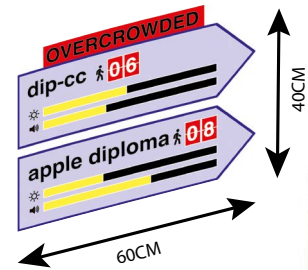
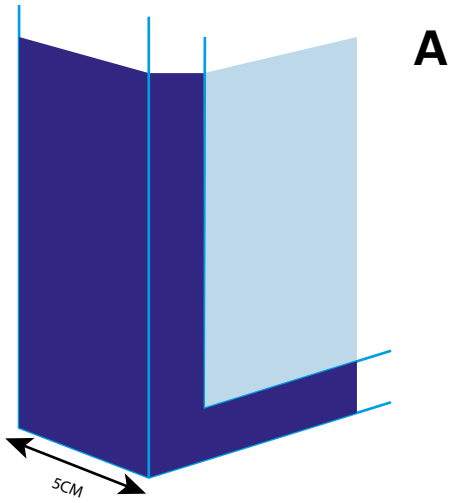
A
Watercolour drawing of interactive A board and signage.

B
A sign that reads 'OVER CROWDED' when visitors exceed a certain number.

C
A flipping analogue LED responsive counter that could be used for counting people.

12

Digital sketches



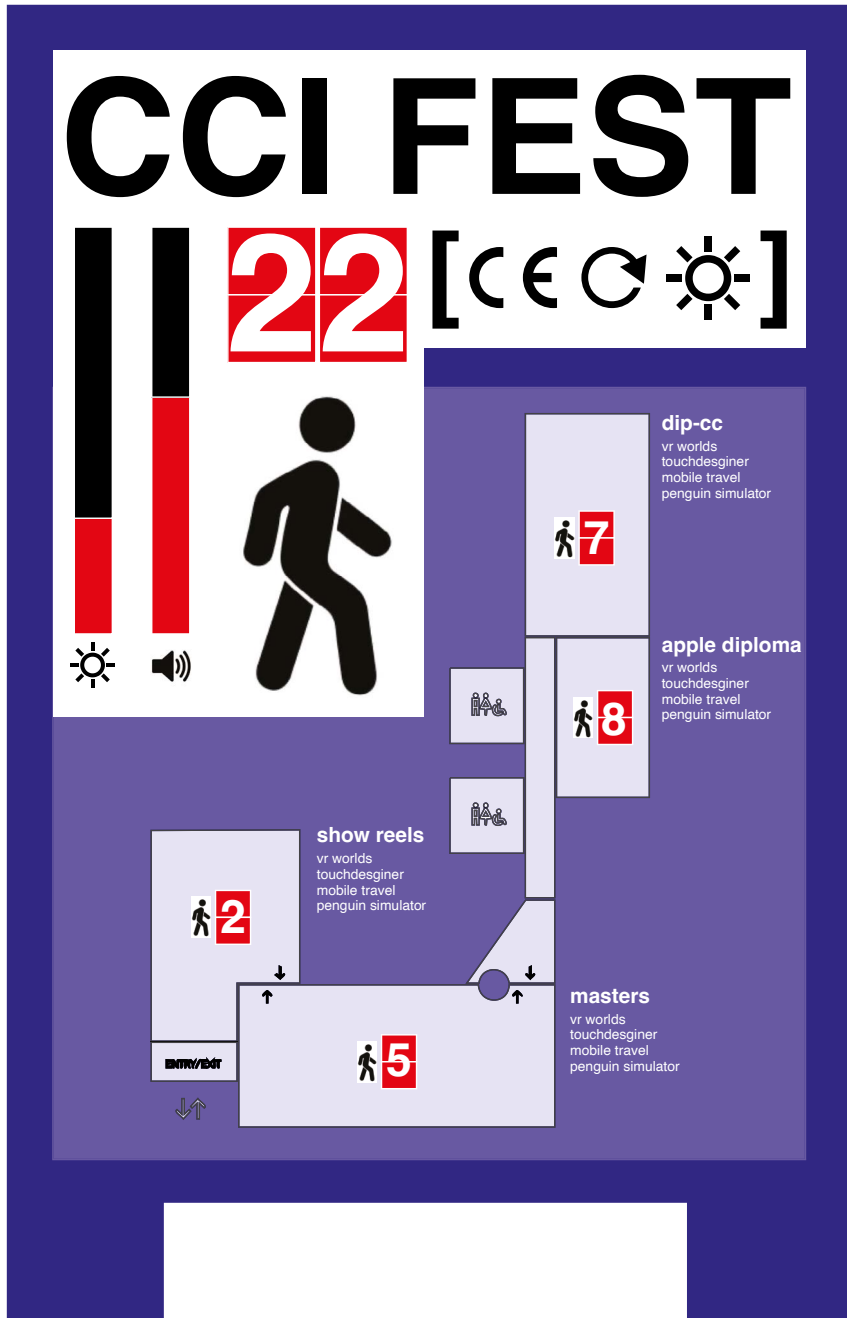
A
Proposed width of sign.

B
Size perspective on 90° wall.

C
Sign that displays 'OVERCROWDED' when room capacity is filled.

A-board sketch

A



Here's another example of the design the A-board could have taken. I took inspiration from previous summer festival visuals for my design. I also used the floormap from the slides from one of our lectures.

A

CCI FEST A-board proposed visual representation (moving parts in red).

B

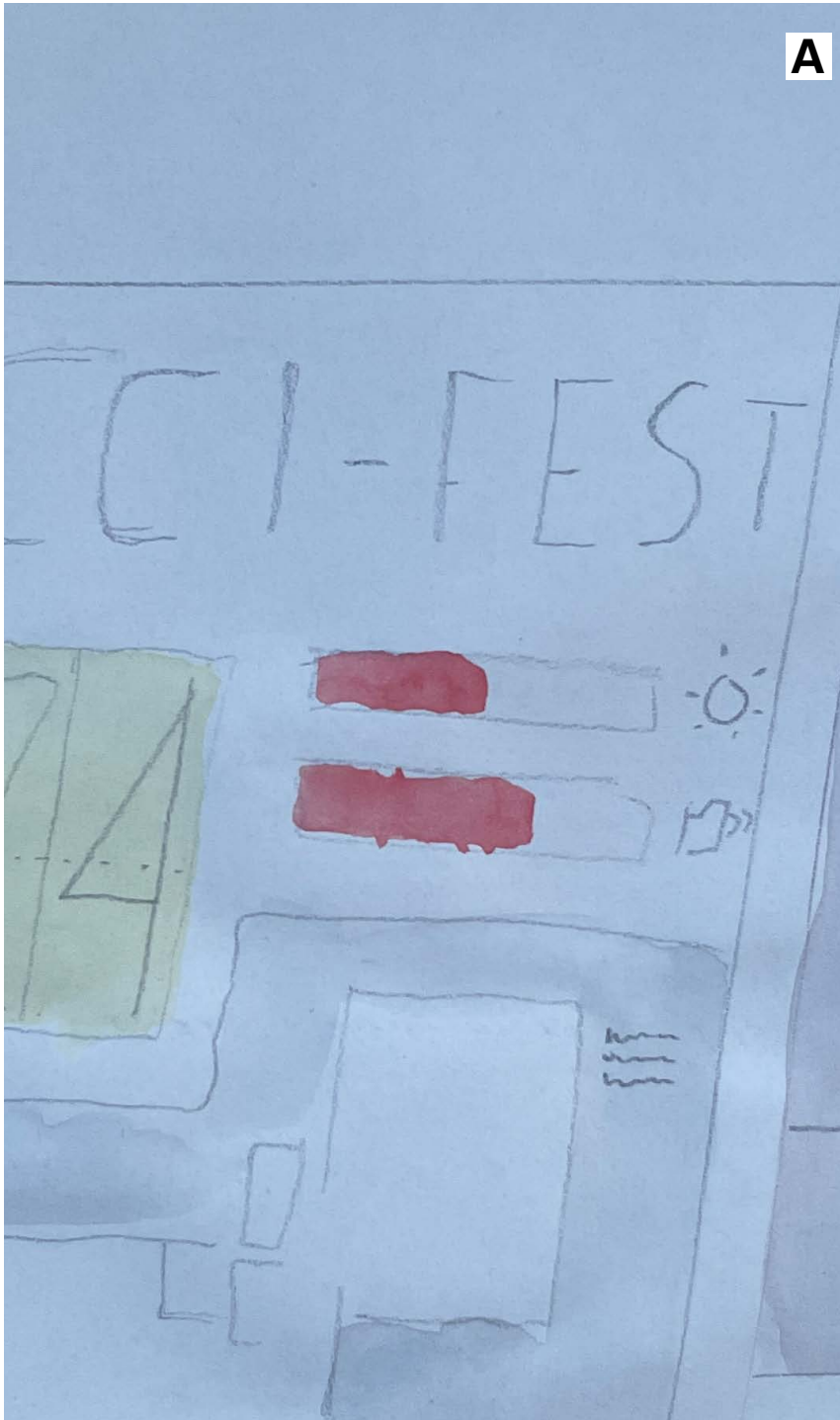
Last years visual identity found from instagram. I'm pretty sure this was designed by sebkoseda, possibly in collaboration with CCI students.

B

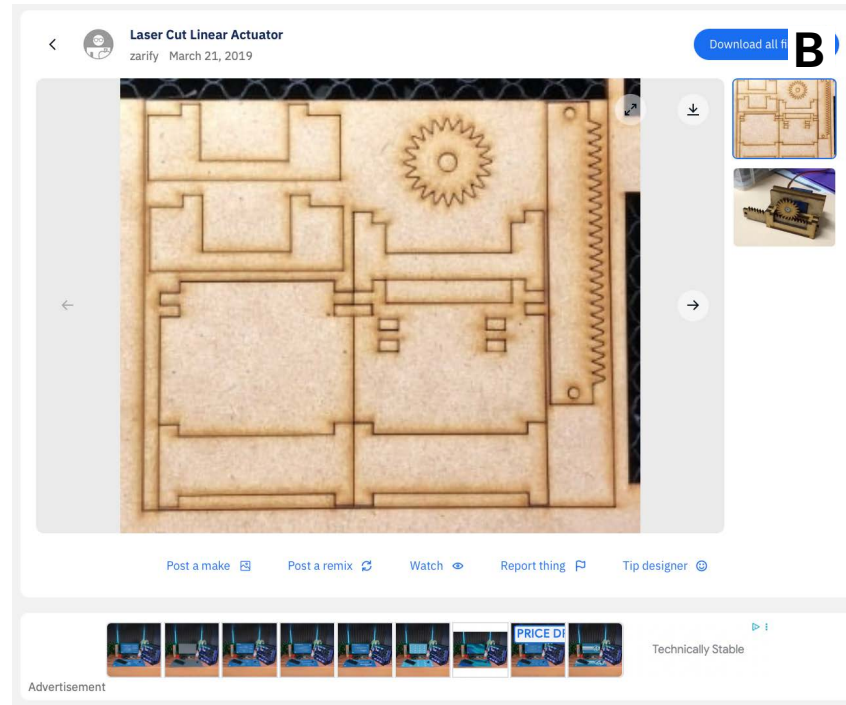


14

Moving parts



As I endeavoured to make the sliders to indicate light and sound levels I started by first making a simple linear actuator. I started with a sample resource online which I adjusted to my own needs through 5 iterations.

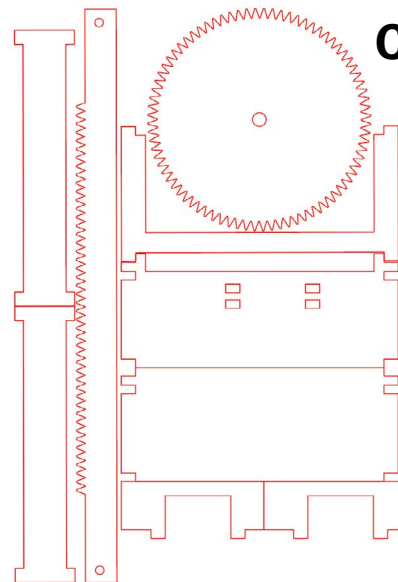


A Sketch of slider on A-board (sliders shown in red).

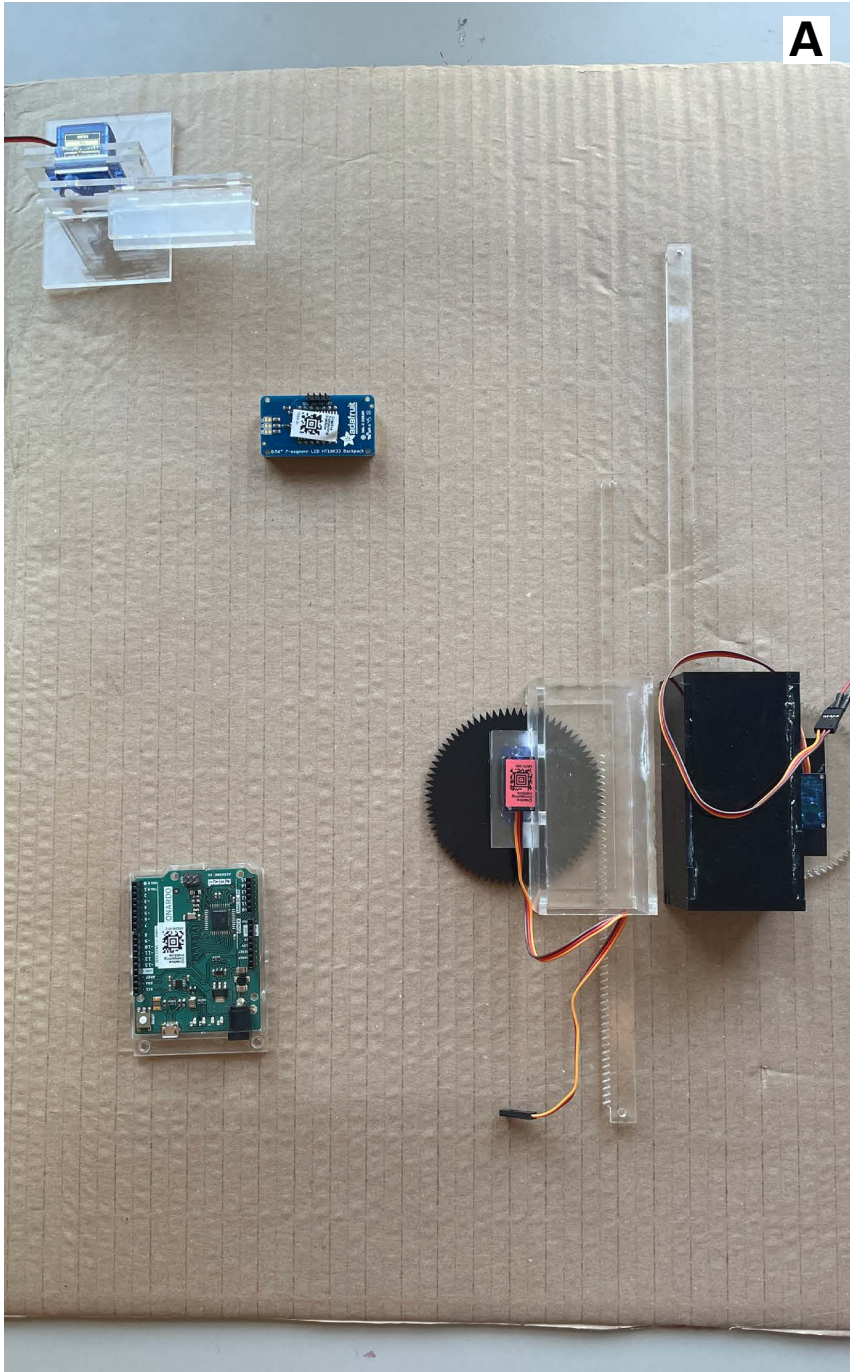
B Linear actuator 3D model from Zarify online (not my work).

C My adjusted file to work with plexi glass and increased movement.

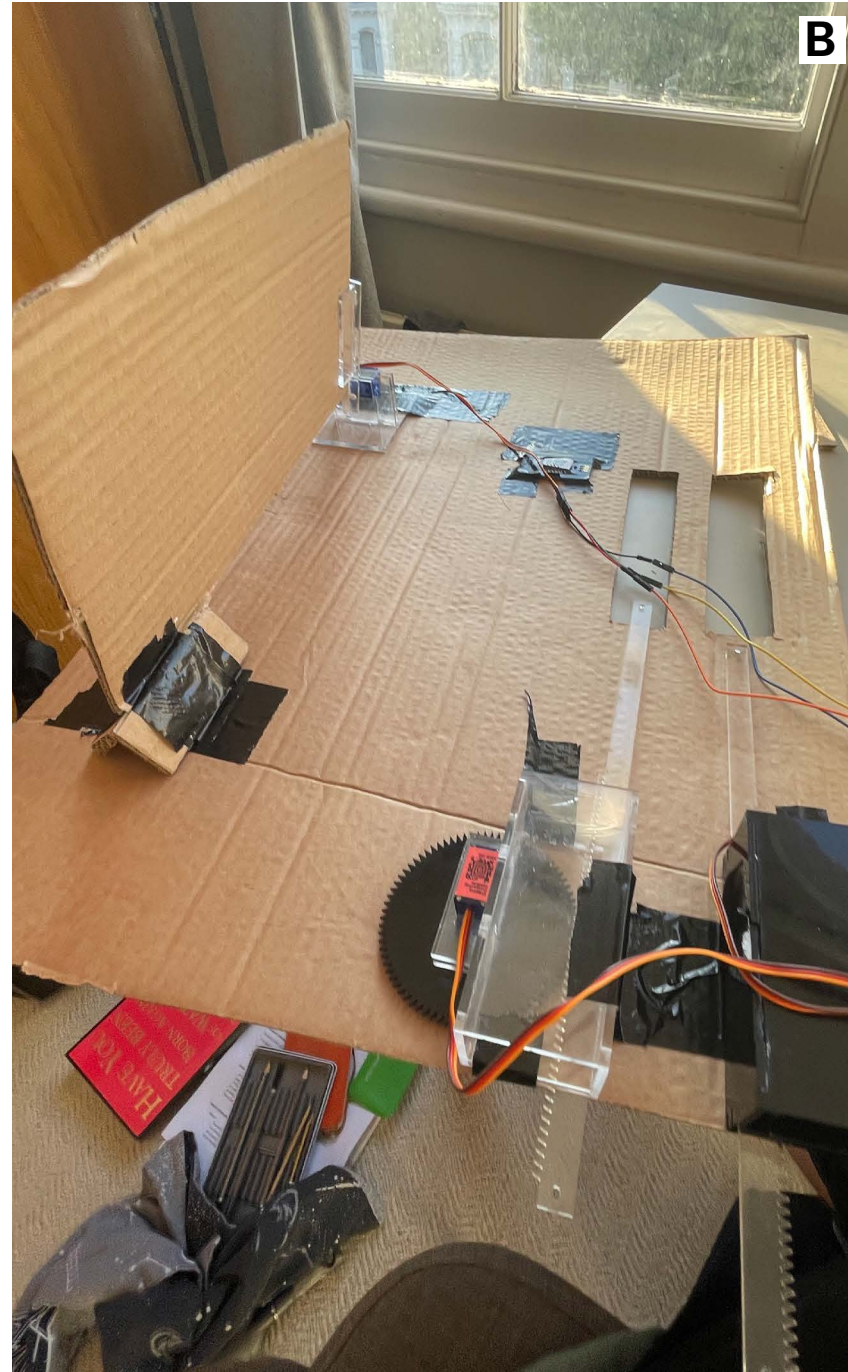
D 3D model working (video 1).



Cardboard prototype



A



B

A
Arduino component placement (servo motors, LED counter, Arduino).

B
Servo motors moving and as intended (video 2).

Flipping counter



I wanted to make an analogue flipping counter to count the amount of visitors in the exhibition instead of using a simple LED counter. I found some files from The Wrench on youtube. After redesigning the clock into a simple counter I actually never got round to printing it despite preparing all the files.

A
The wrench youtube video where I got the 3D files.

B
Utimaker Cura file prep. This was after making some adjustments to the file to make it work as a simple counter.

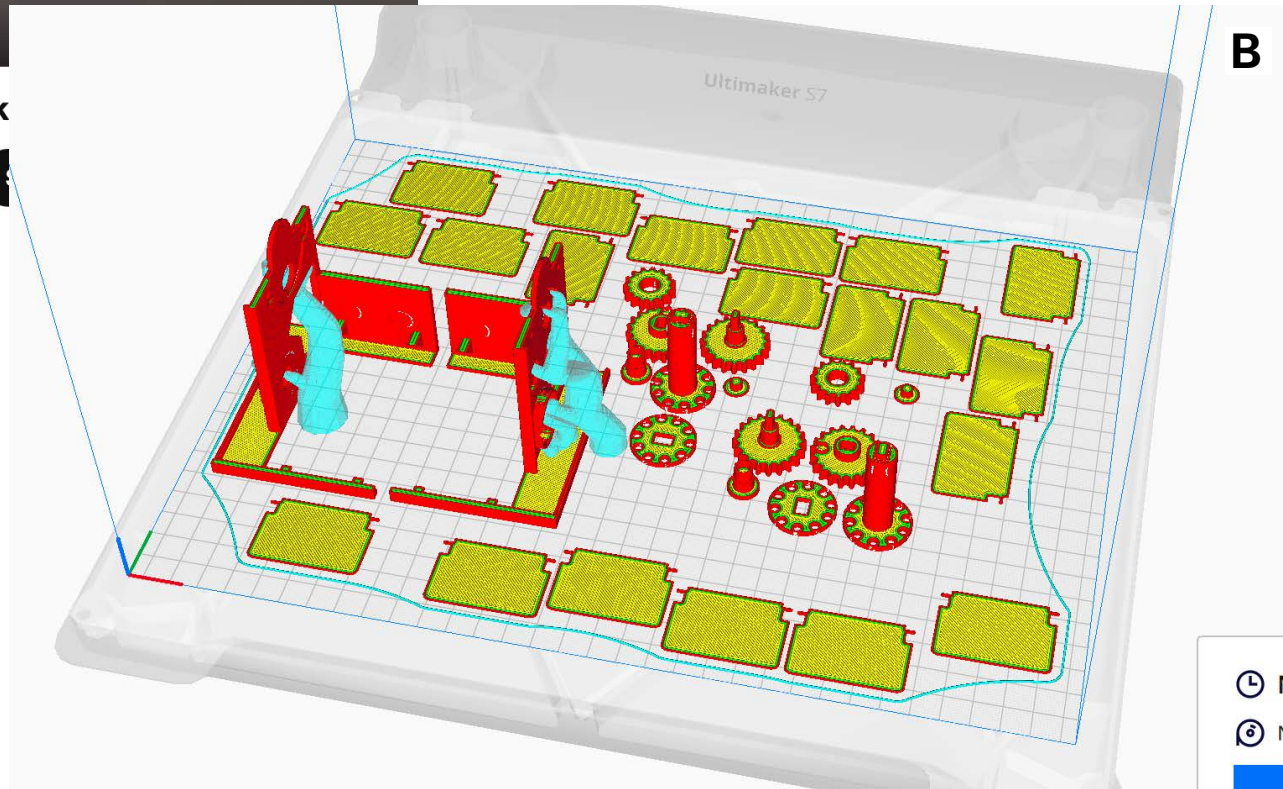


Build Coolest Split Flap Clock



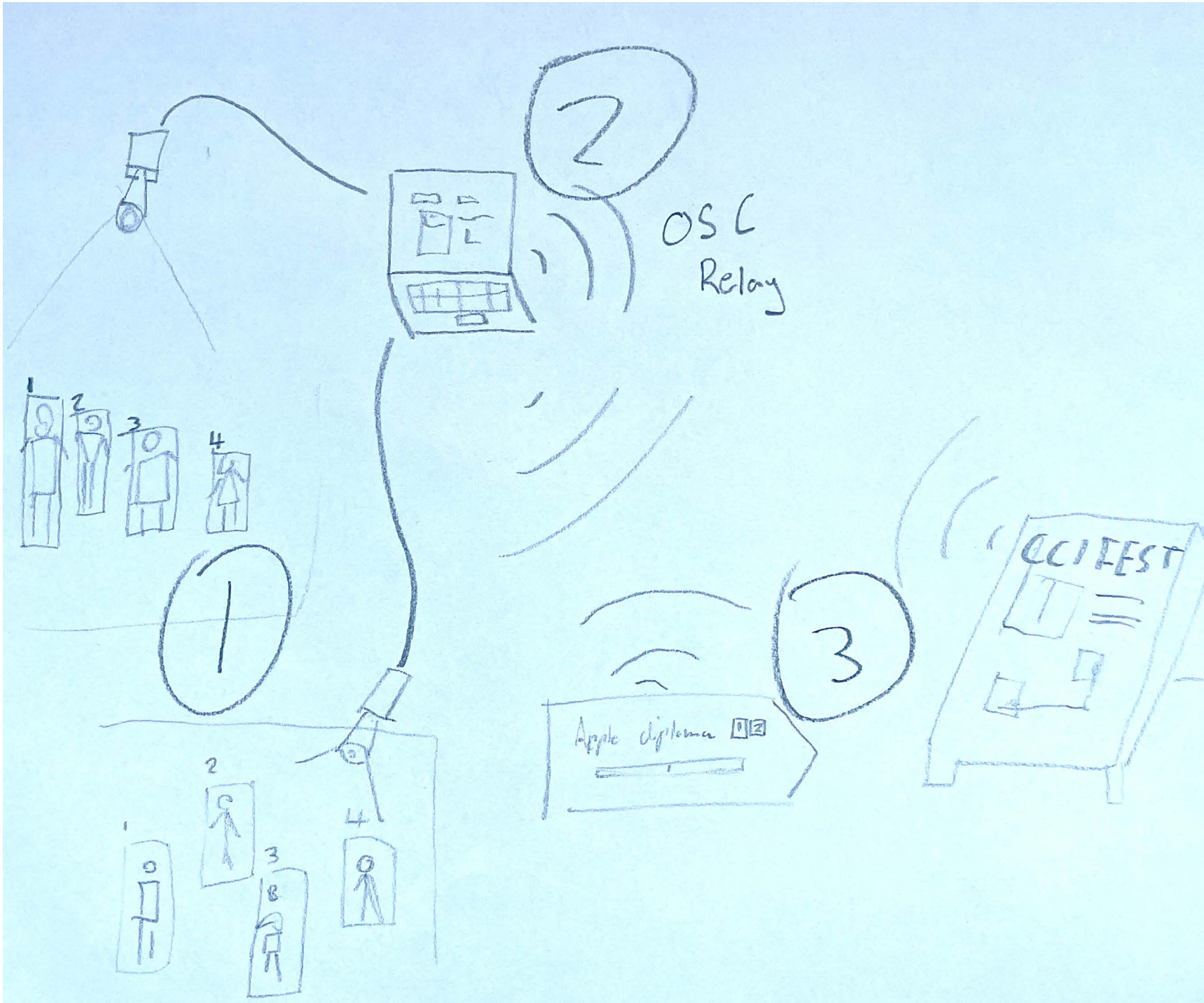
The Wrench ✓
2.04M subscribers

Join



17

Installation plan



1
ML5.js person recognition with a multicam system. There would also be light and sound level recognition.

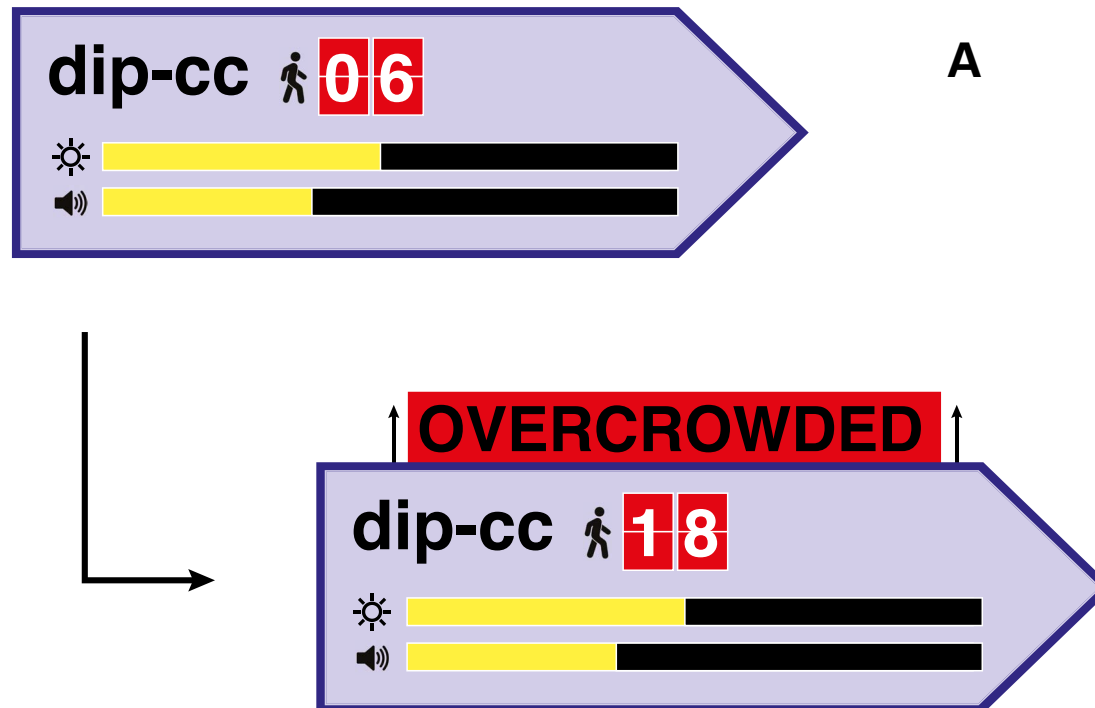
2
OCS relay that sends these data points cloud.

3
Arduinos that can relieve OCS relay and control movement on the signs.

Exhibition signs abandoned

Unfortunately this is only as far as I went down this line of fabrication so I don't have any real life feedback of how it altered the mental image of the exhibition for visitors, but I can make of a few informed takeaways. One factor that lead to this abandonment was the fact that this was for the CCI festival which wasn't approved so the wind was taken out of my sales a bit to actually go on to real fabrication.

- 1) Speaking through the project with classmates, many of them said that it could reduce anxiety around going into a new space if you knew some information about it before going in.
- 2) Some also pointed out it could be a potentially a spoiler for what's to come inside.
- 3) Fabrication is hard! It takes a long time and demands careful planning and buffer time especially when working with moving parts.



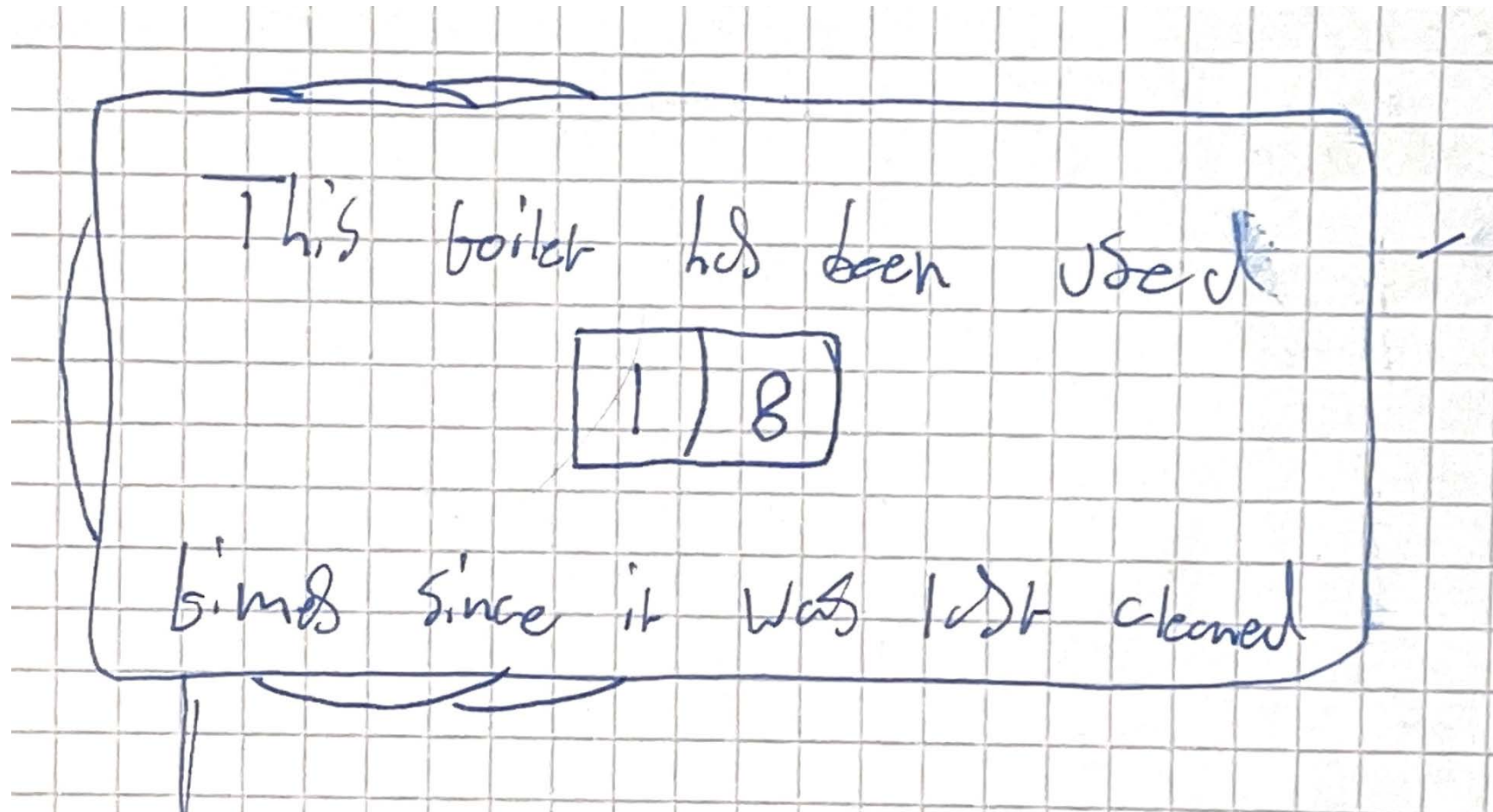
Toilet use counter.

This next mini project thinks more about how infrastructure can play a part in signage design. The plan was to make a sign that counts how many times a toilet has been used since it was last cleaned. As well as thinking through my three main points (Live data, wayfinding, and conceptualisation from p11), I wanted make something that is memorable and funny. Something to be proud of.

A

A quick sketch from the ideation stage.

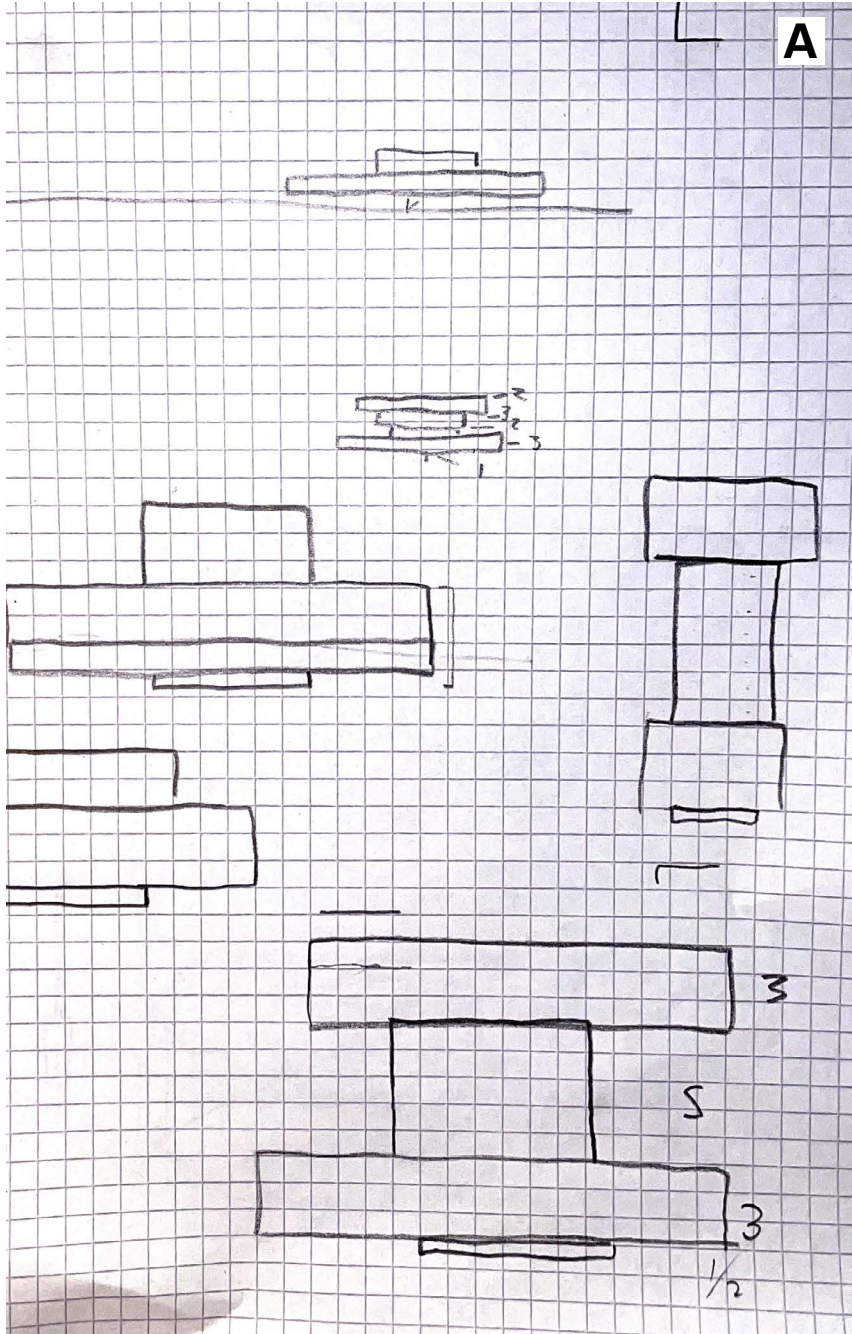
A



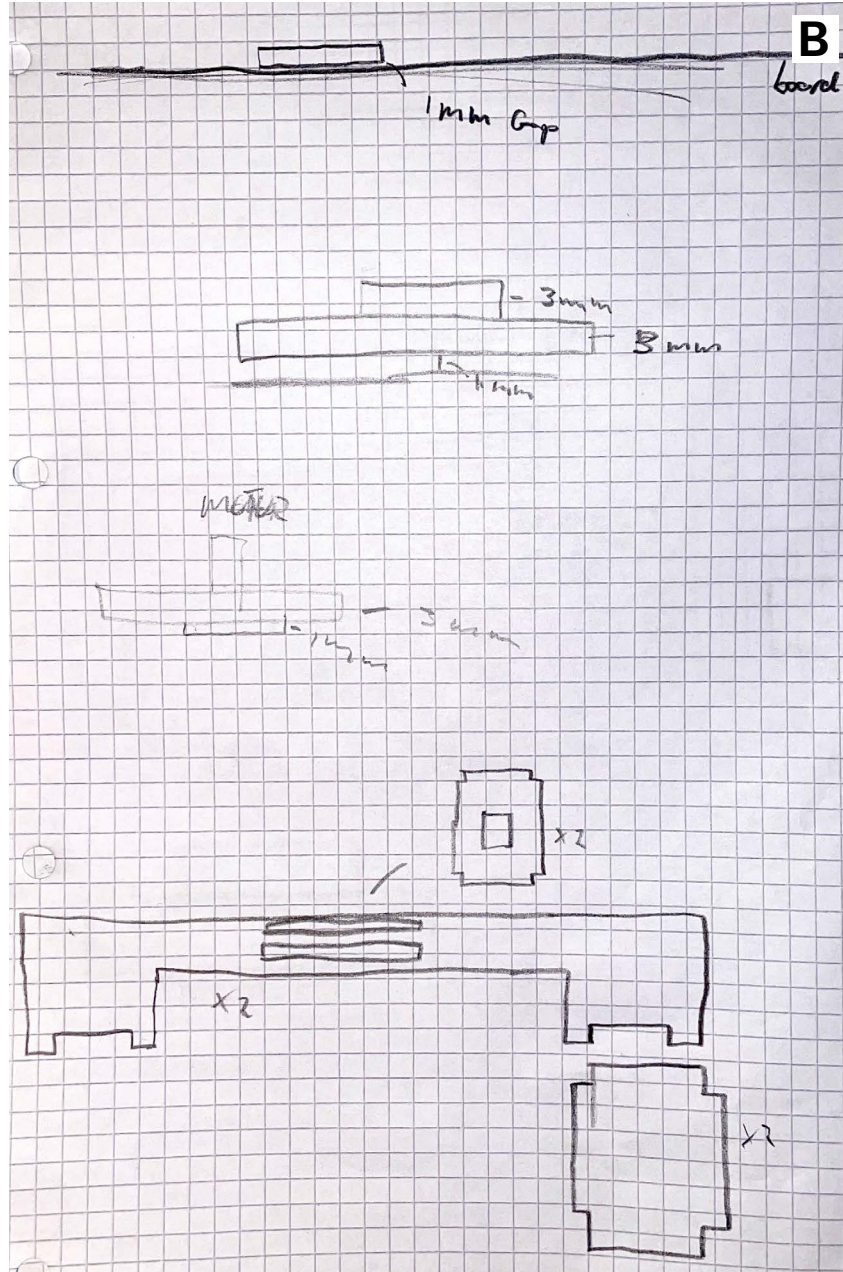
20

Wood thickness

The hardest part of this project was actually figuring out how thick and thin the wood needs to be to get everything to move freely.



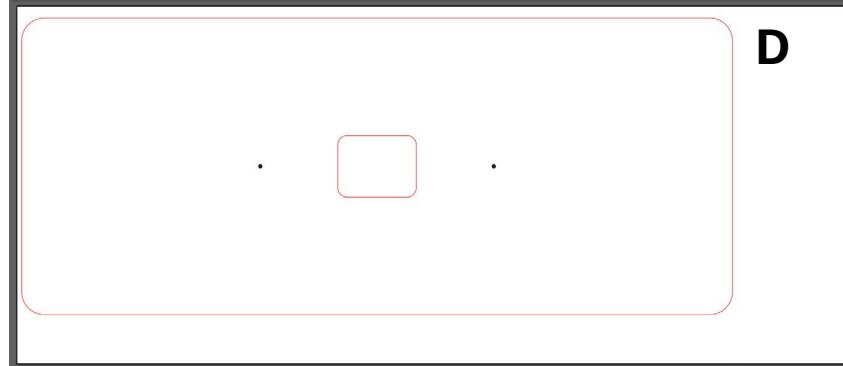
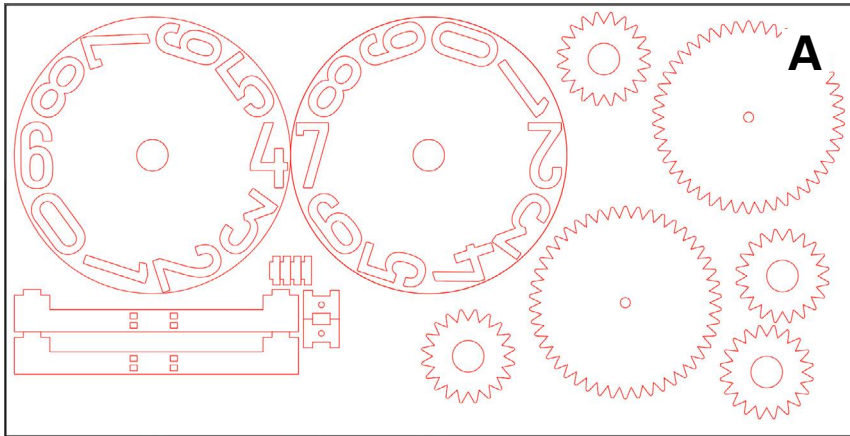
Here are some selected sketches from this stage of design, making the linear actuator gave me confidence to use the laser cutter again but this time I was making my design from scratch. I also figured out at this stage how I could use servo motors to control what number is displayed.



A A few sketches trying to figure out how I might get the number wheels to roll smoothly with ball bearings.

B Some more sketches on how to properly secure the servo motor in its desired position.

Laser cutter files



A
4th iteration of the mechanical design. Gears are in a 1:2 ratio so that a full rotation can be achieved with the 180° servo motors.

B
Letter cutout from acrylic (video 3). Font is Barlow condensed.

C
Face board.

D
Back board.

E
Bearing that I took out of my old roller skates.

Assembly and install



A
After cutting all the pieces I used gorilla glue to assemble everything together

B
I used ball bearings and some nuts and bolts to get everything working. I also powered the whole board with batteries.

Final installation

The final sign uses an ultrasonic distance sensor to count how many times the door opens and closes.*

Wall text for Faeces unseen.

In his work Faeces Unseen, Scott invites us to reconsider one of humanity's great levellers: the act of using the toilet. Blurring the boundaries between artwork and infrastructure, data and defecation, he transforms a functional toilet into a living counter of collective presence. The piece prompts viewers to confront the systems—bodily, technological, and institutional—that quietly shape our daily existence.

*sketch_may26a.ino for code in repo. I have used chatGPT as a tool to write this code.

A
Final installation photographed by a friend Jim Mangles. (video 4).

Is this data? Is it sculpture? Is it absurd? The work doesn't insist on a singular answer. Instead, it sits quietly, counting.

A



24

Evaluation

I was extremely happy with the end result of this project. Lets quickly remind ourselves of what it was I set out to do- to make some signage exploring the interplay between; Live data, wayfinding, and conceptualisation.

- 1) Live data. The sign totally displays live data!
- 2) The sign affects how visitors use the space. Throughout the night as the sign crept closer and closer to 100 the rate at which people were going into the toilet declined. Linking it back to Passini's wayfinding model, this sign alters and plays around with the first two steps of the model (1 Decision-making and the development of a plan of action; 2 decision execution transforming decisions and the decision plan into physical behaviour;). If someone needed the loo they would first look at the sign and decide if they want to use the toilet or use one of the ones upstairs (step 1). After seeing my sign and opting for the toilet upstairs the visitor would put their plan into action and not use the toilet downstairs. This phenomenon would be more clear with a counter that goes much higher. Maybe to 1000.
- 3) Conceptualisation. Lynch* would be pleased to know that a few people came up to me and said that they thought the sign was actually part of the building infrastructure! This means that I have successfully made a sign that doesn't alter the feeling (or mental conceptualisation) that the building already has.
- 4) I would have liked to install the sign without visible duct tape- That would've been easily done but the landlord didn't allow it.
- 5) The batteries worked fine for the opening evening, but the next day I had to switch them out for some new ones as the sign was displaying quite saggy numbers.



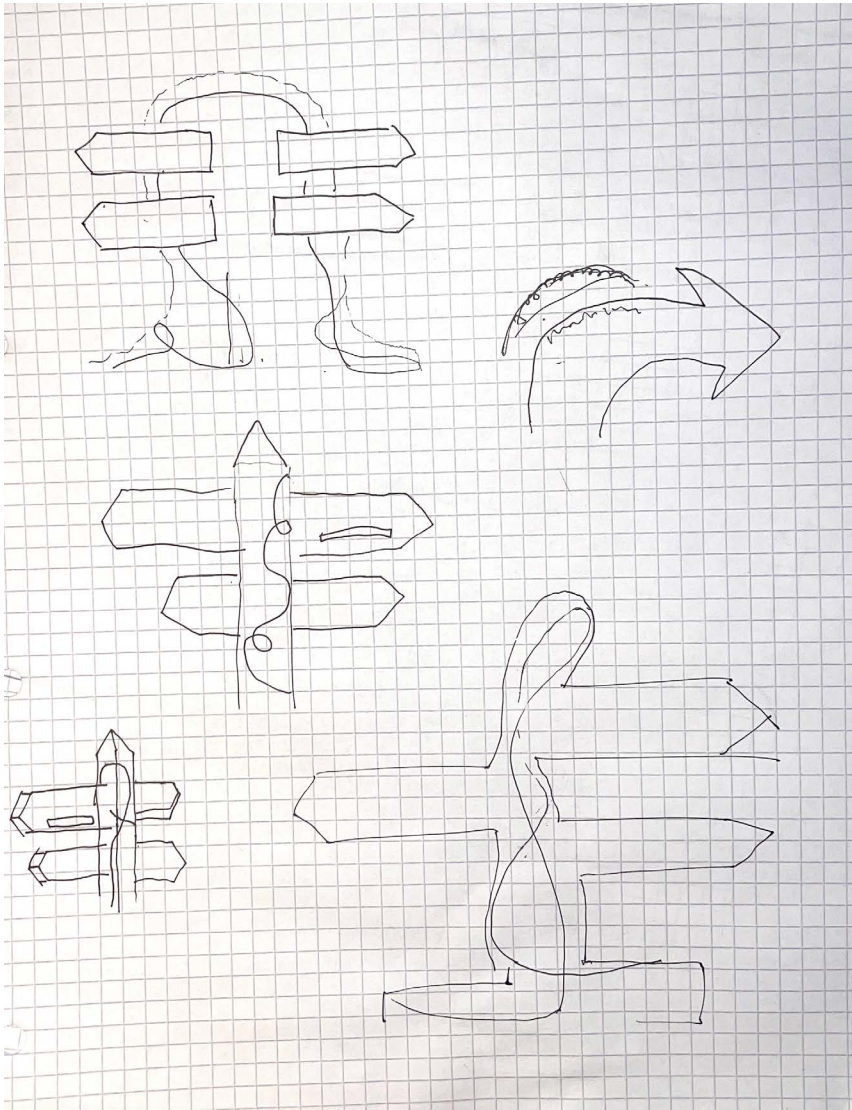
*Kevin Lynch see page 7.

A
Final installation
photographed by my
friend Jim Mangles.

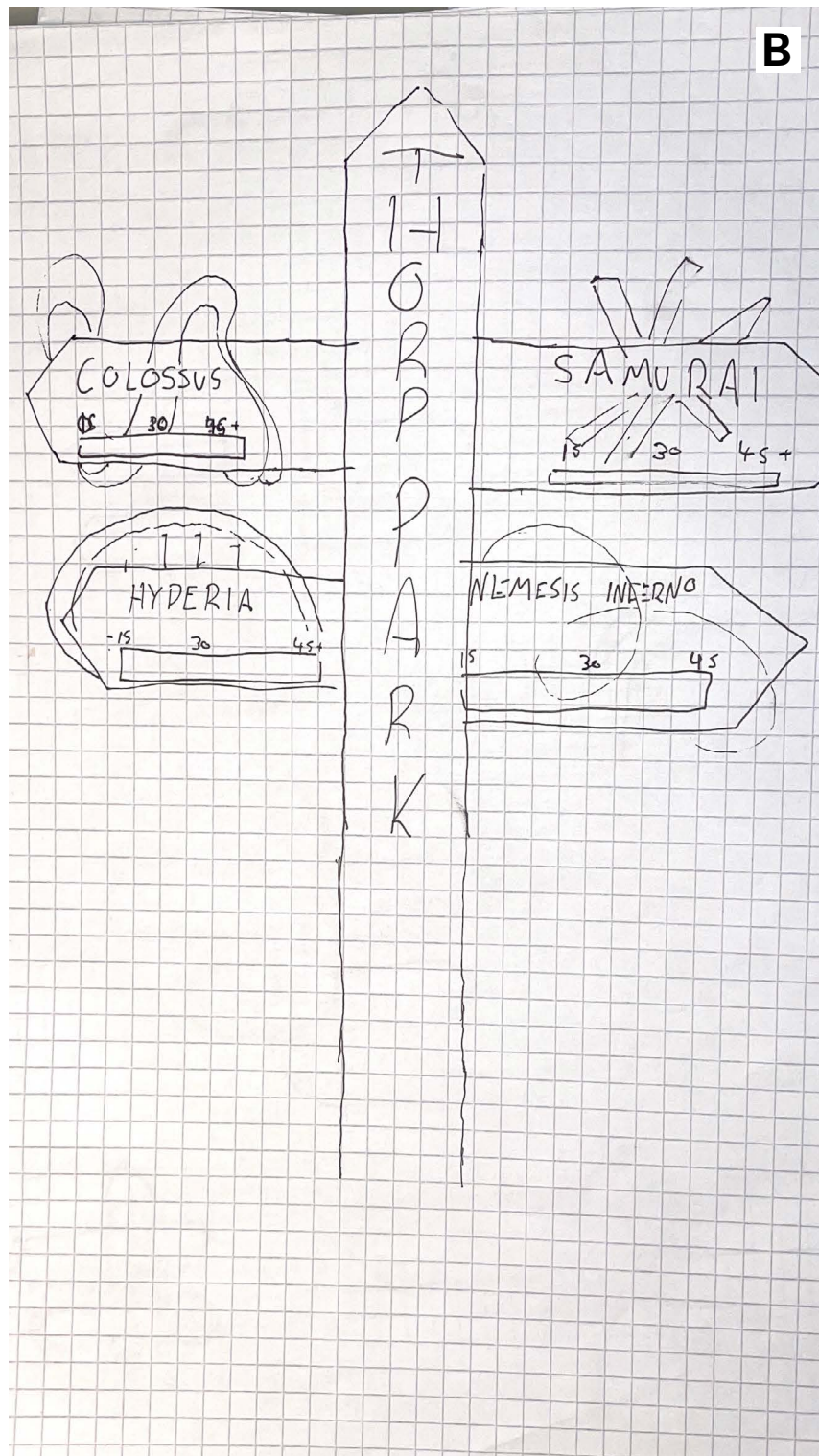
Theme park signage

On to the last stint now! My next exploration was into experience and internal conceptualisation. At Thorpe park there is an app that shows how long the wait times for the queues are, the basis of this project is to find a way of putting that data from the app onto a real world physical sign so that visitors would have a more cohesive experience at the park not having to look at their phones every time they want to go on a new one ride.

A



B



A
Quick sketches of how I might incorporate a rollercoaster theme into the signage.

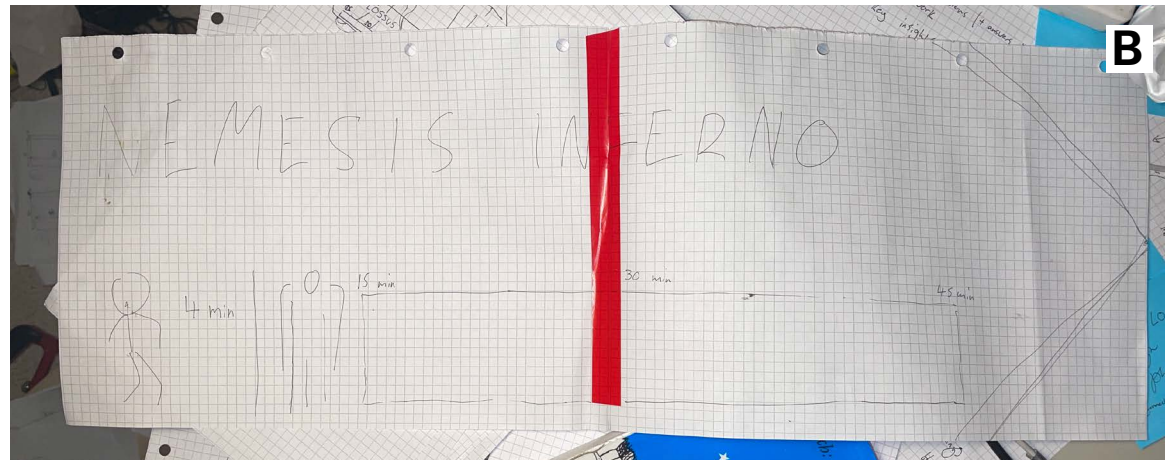
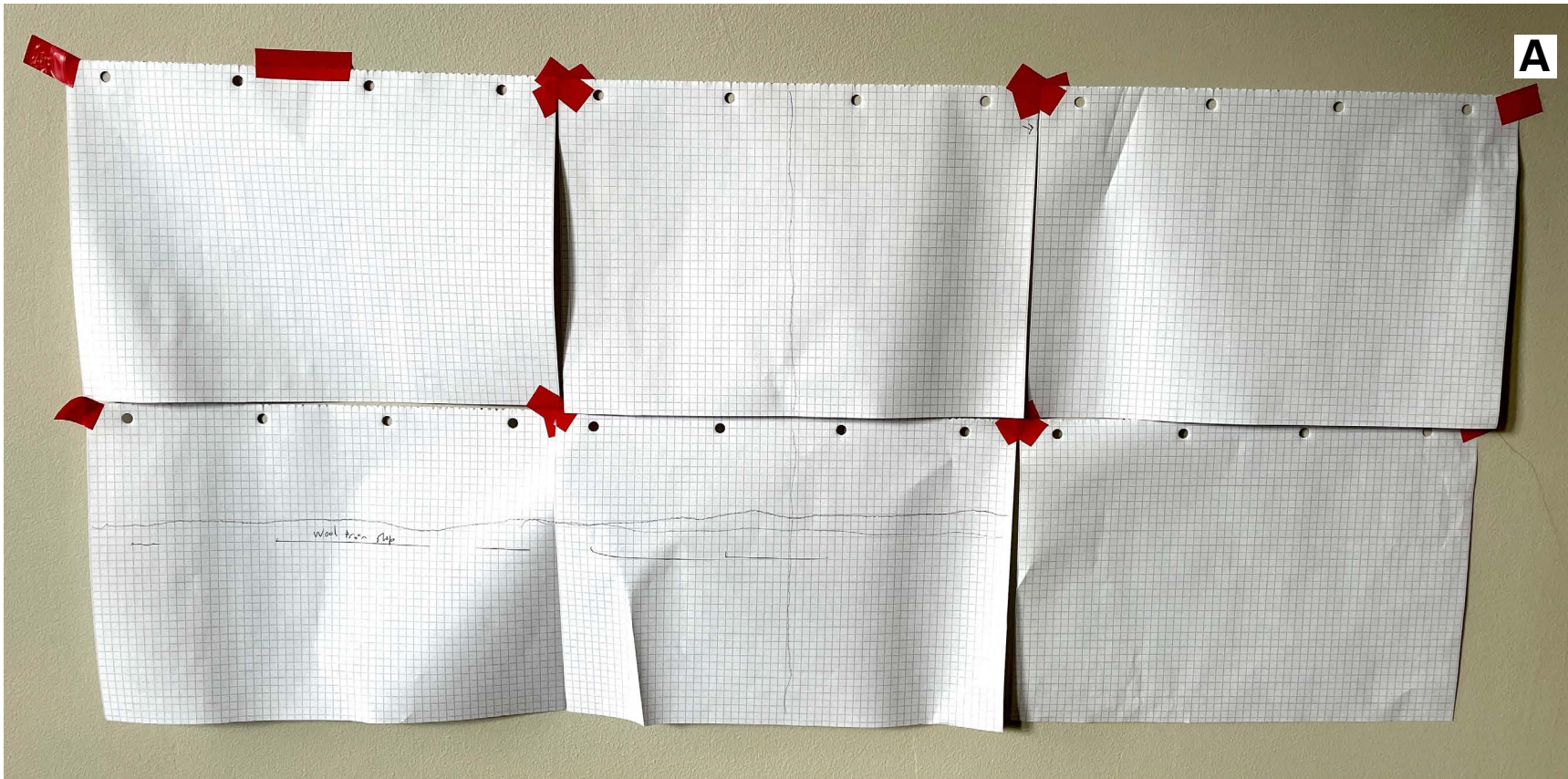
B
A more solid sketch of what the final sign might look like, with the variable wait time levels.

Life size Signs!

I found a very useful time was to make mockups out of paper that are actually to size. This gave me the opportunity to stand back and check if I was working at the right scale.

A
Working out what I would be able to make out of one 300/600mm piece of ply from the art shop.

B
A life size mockup of the NEMESIS INFERNO sign.



Sign design

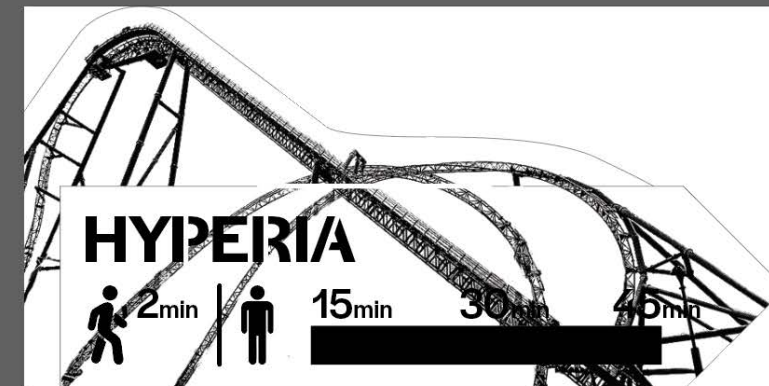
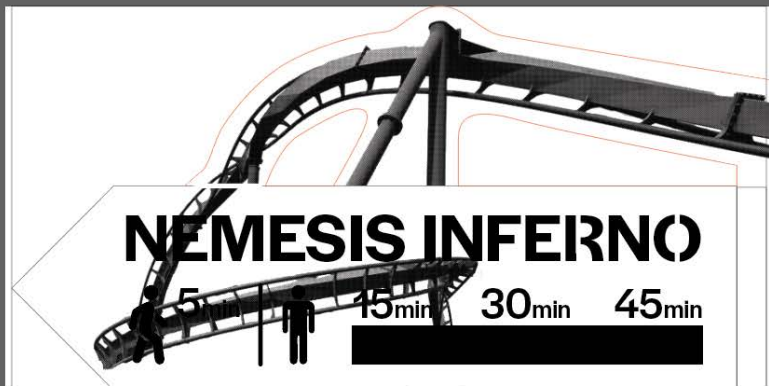
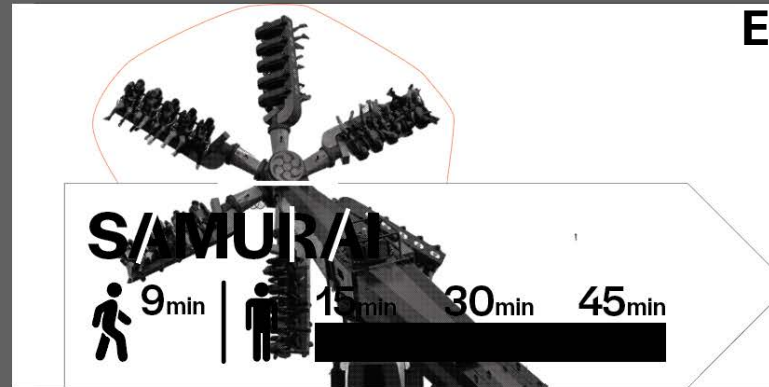
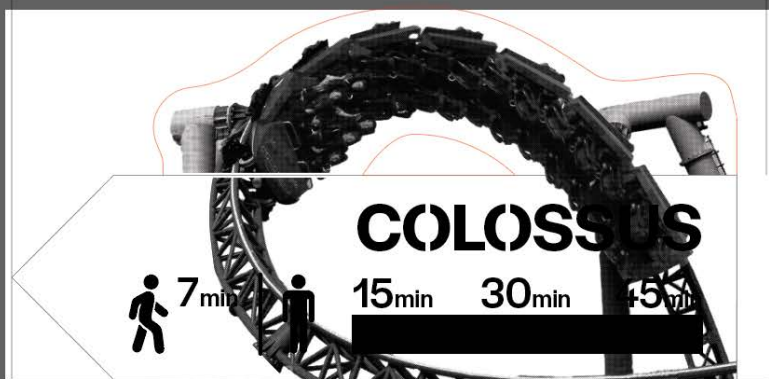
I decided that I wanted to depict in some way the rides themselves that the sign points to. I opted to go for a simple halftone laser cutting method. Here are some of the Illustrator artboards. I also put in some holes into the signs so that the queue indicator that will be fixed behind the sign will be shown.

A
Nemesi Inferno, image found on google.com

B
Colossus, image found on google.com

C
Samurai, image found on facebook.com

D
Hyperia, image found on google.com



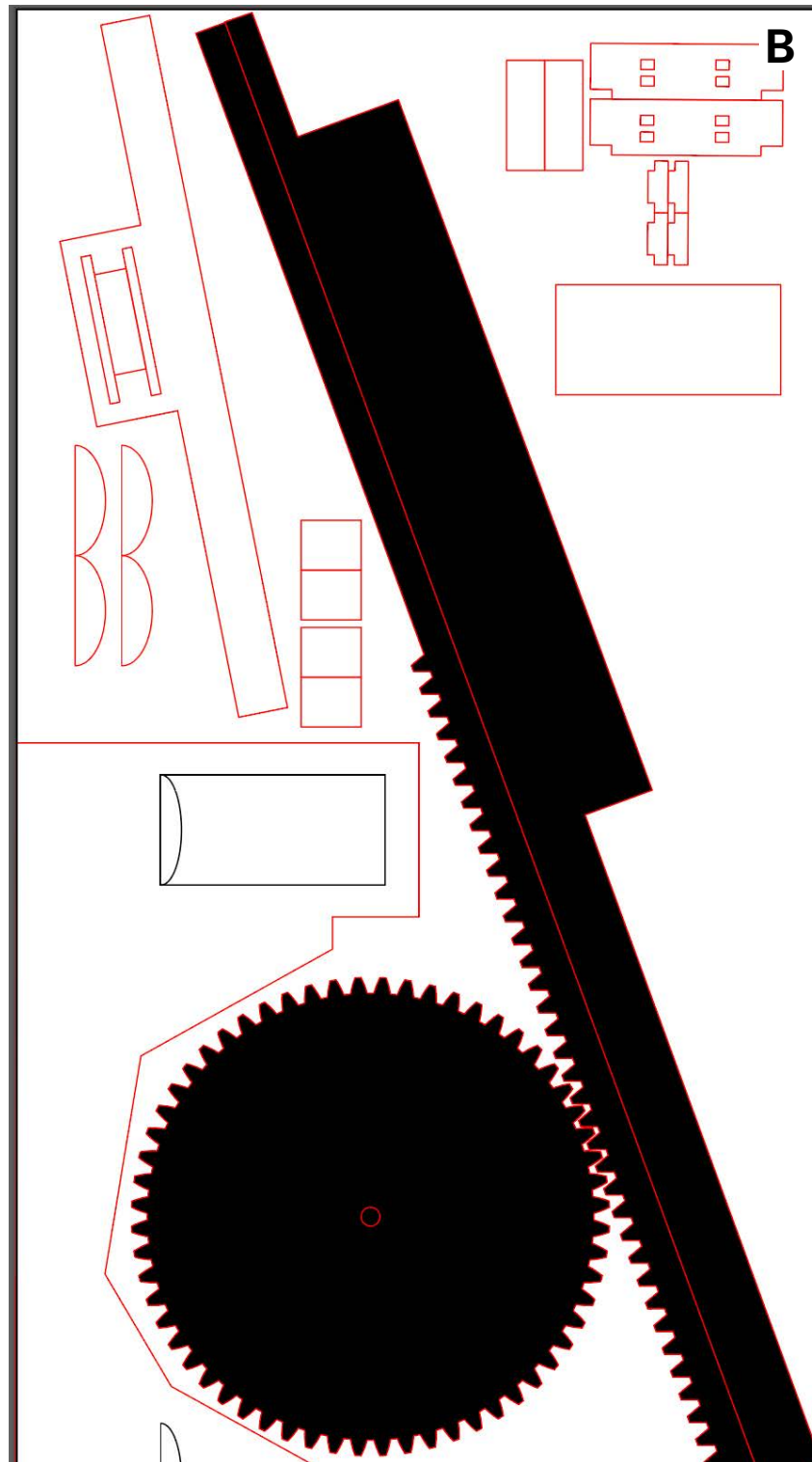
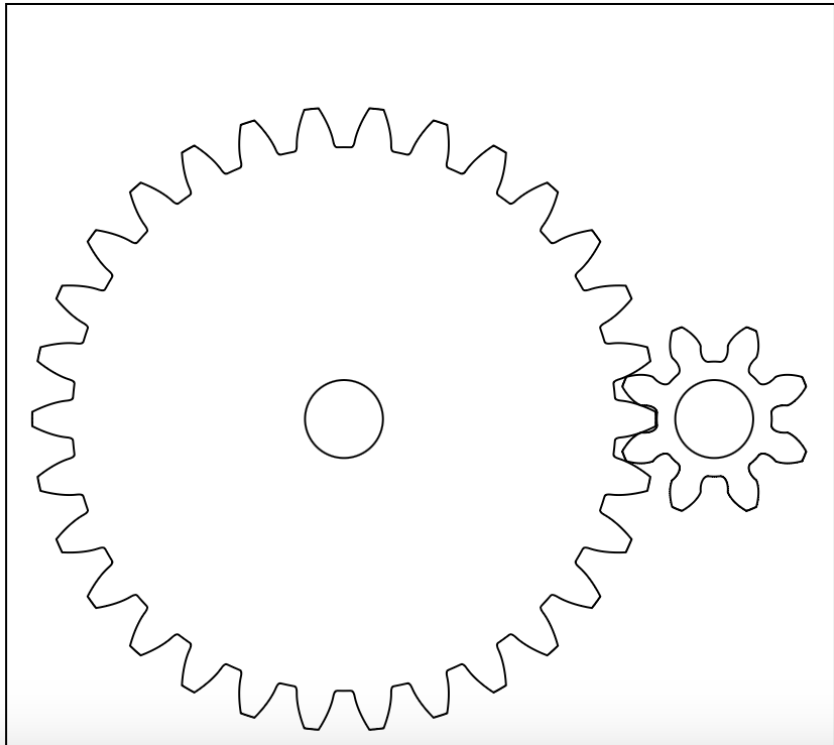
D
Illustrator artboards being prepared for the laser cutter.

Mechanisms

I went back to the linear actuator design from page 15 and made 4 more iterations experimenting with various designs and materials. I also found a great website for generating working cog ratios which worked a treat for this.

Pressure Angle (common values are 14.5, 20 and 25 degrees):	20
Clearance (minimal distance between the apex of a tooth and the trough of the other gear; mm):	0.05
Gear 1 Center Hole Diameter (mm), 0 for no hole:	4
Gear 2 Center Hole Diameter (mm), 0 for no hole:	4
Gear Center Distance (distance between shaft centers; mm)	19.000
Gear 1 Pitch Circle Diameter	30.000
Gear 1 Outer Circle Diameter	32.000
Gear 2 Pitch Circle Diameter	8.000
Gear 2 Outer Circle Diameter	10.000
Show Crosshairs:	No
Show Reference Geometry:	No
Show Gears:	Gear 1 and 2
update	

A



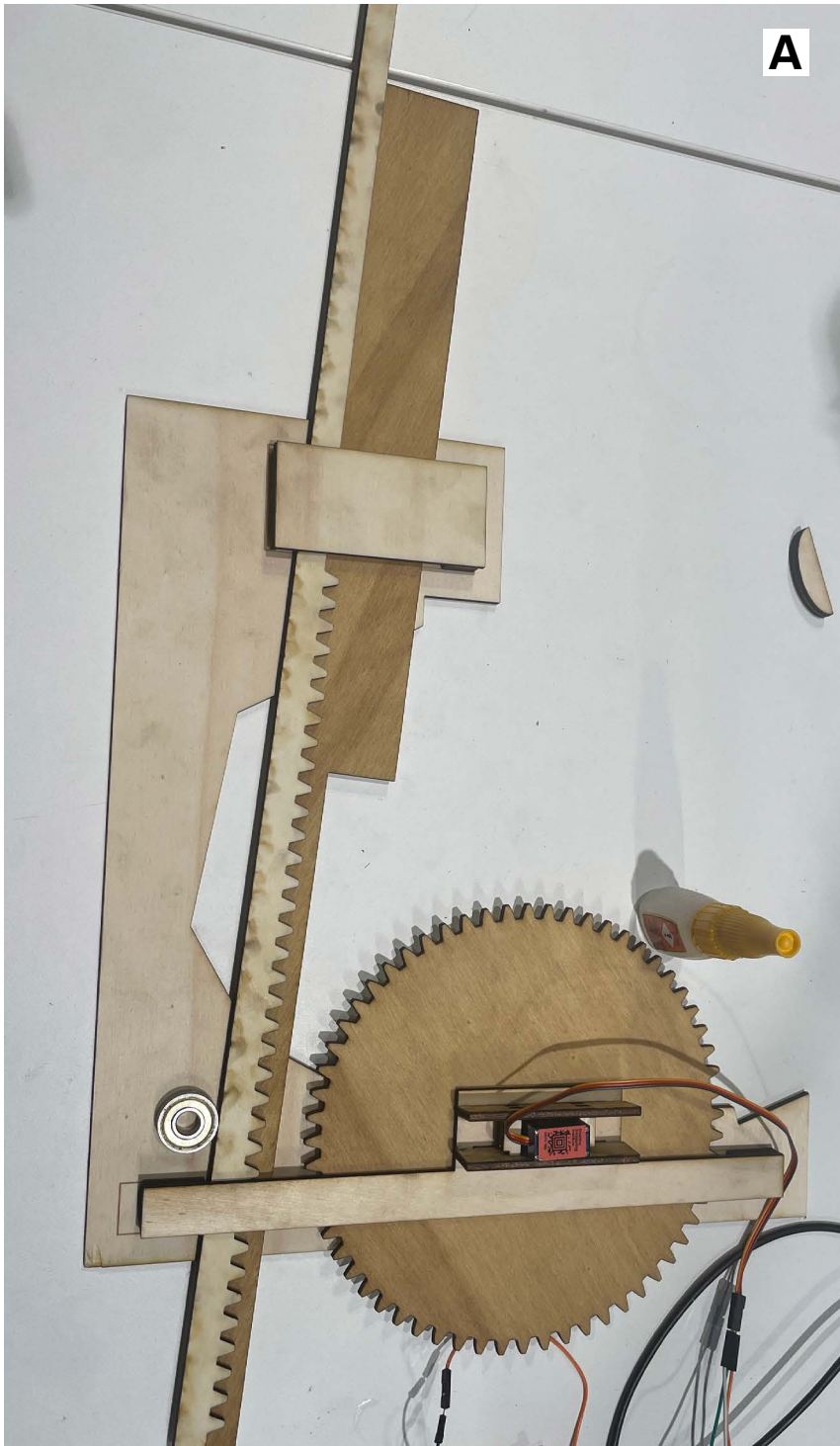
A

Evoltentdesign.com

B

9th (in total) iteration of the linear actuator. Laser cutter file.

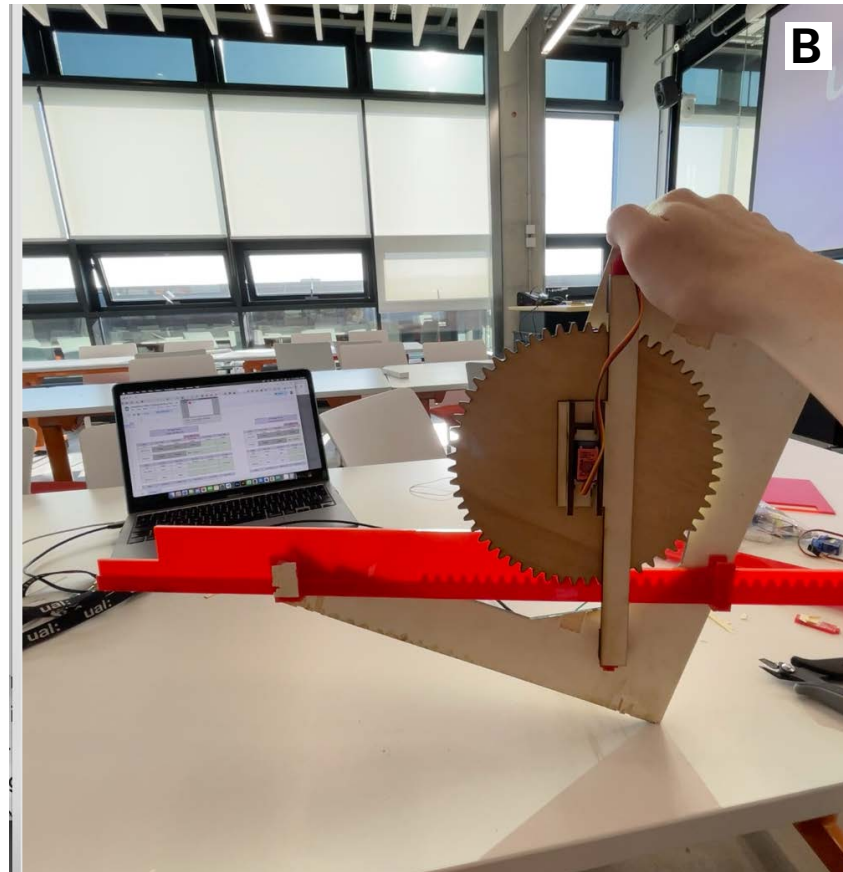
Mechanisms!!



After trying this design with wood and plexi glass I was very nearly there but it was still a bit stiff.

A
Wood actuator with too much friction. Trying to debate if I can use ball bearings to help with the friction issue.

B
Using a plexi glass mechanism to try and fight friction but the servo was still too weak. (Video 5).

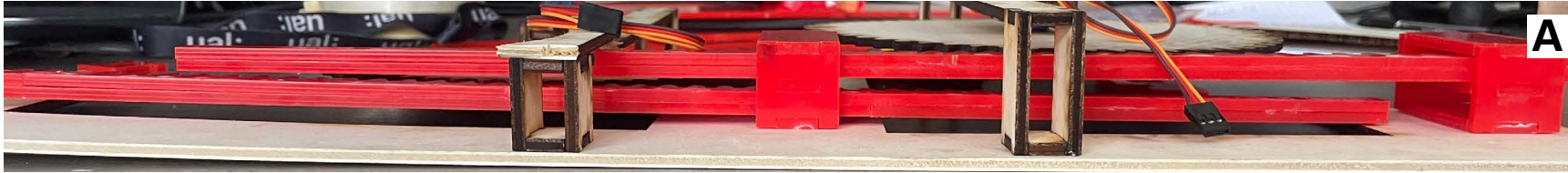


30

Cool. Do it again.

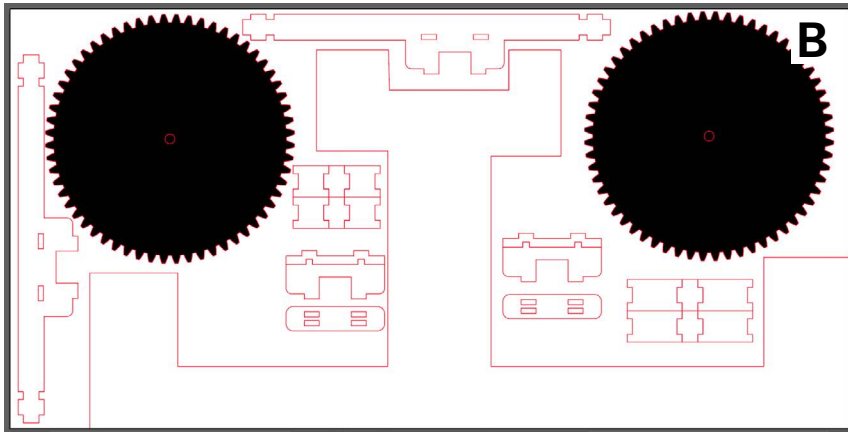
Putting the friction issue on hold for a second, I still had another issue I would need to resolve. For both the left and right to indicators to work on this sign, they need to be slightly off centre so that they don't knock into each other. I opted to have one slightly in front of the other.

This meant that I would have to make the servo holders different distances from the main sign so that each cog would rest on the correct slider.



A

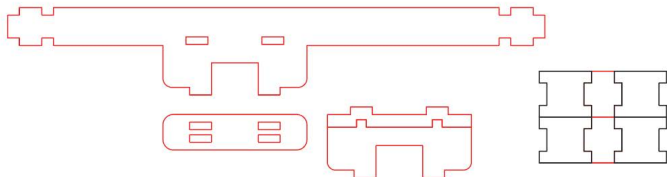
A Double slider side profile.



B

B Laser cutter file for the wood.

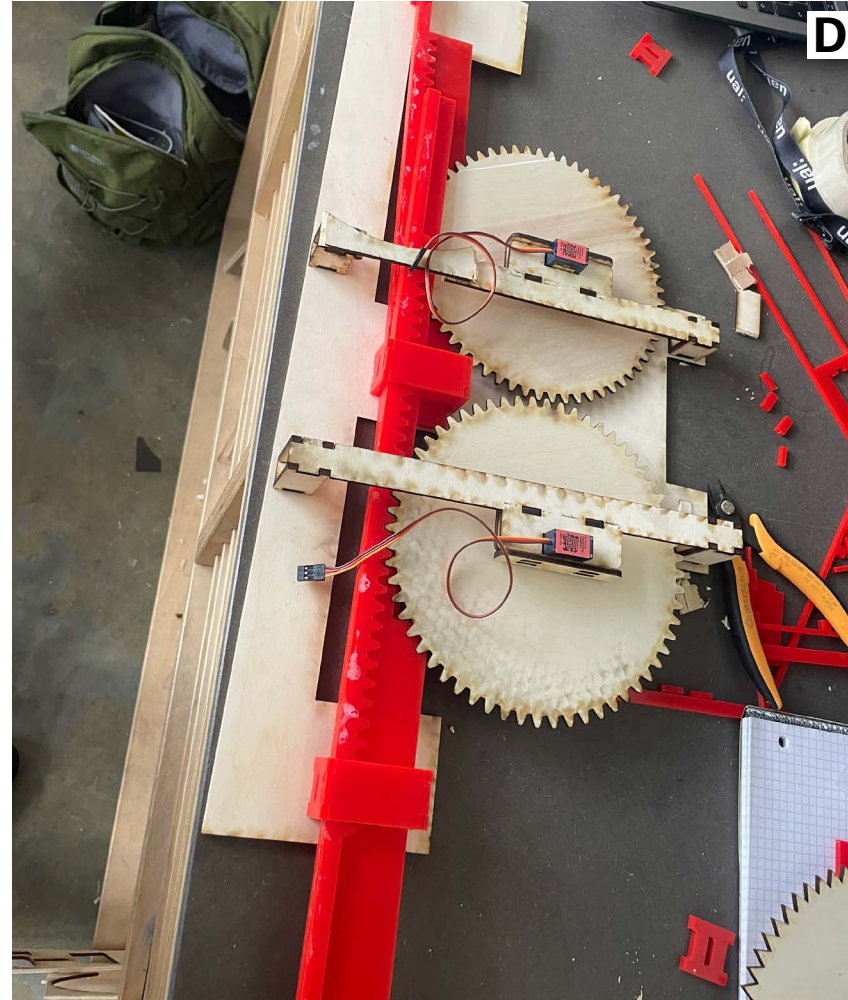
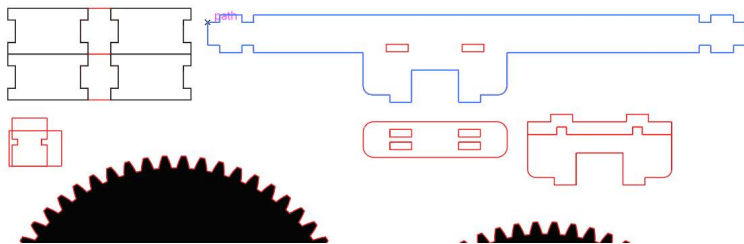
shorter one



C

C Different length servo holders.

longer one



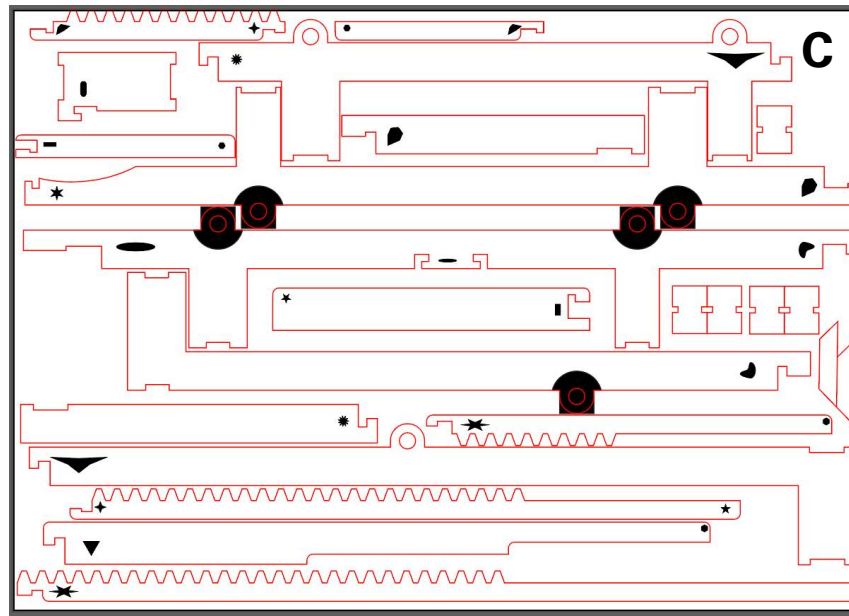
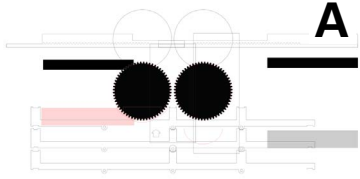
D

D Double slider birds eye view.

31

Frictionless movement.

I ended up using some more bearings from my old roller skates as I had some spare, to put in the slots where the sliders go to reduce friction. This worked really well and meant that I could still use the little servo motors without connecting them to the mains. This was my very last iteration after 14 tries. I finally came up with this design where the red and black acrylic move in front of each other giving the desired effect.

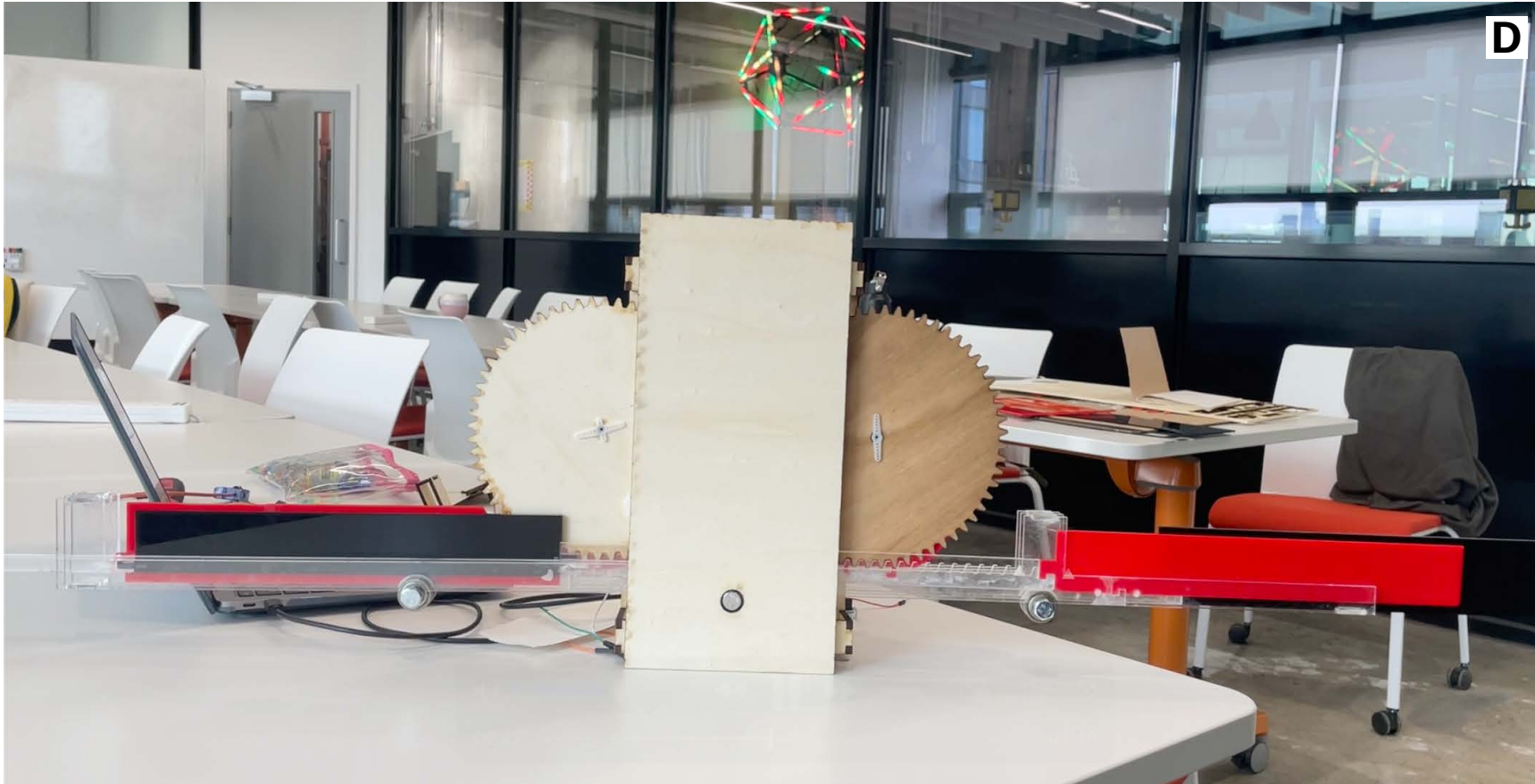


A Illustrator file on which parts need to be which colour.

B Old ball bearings.

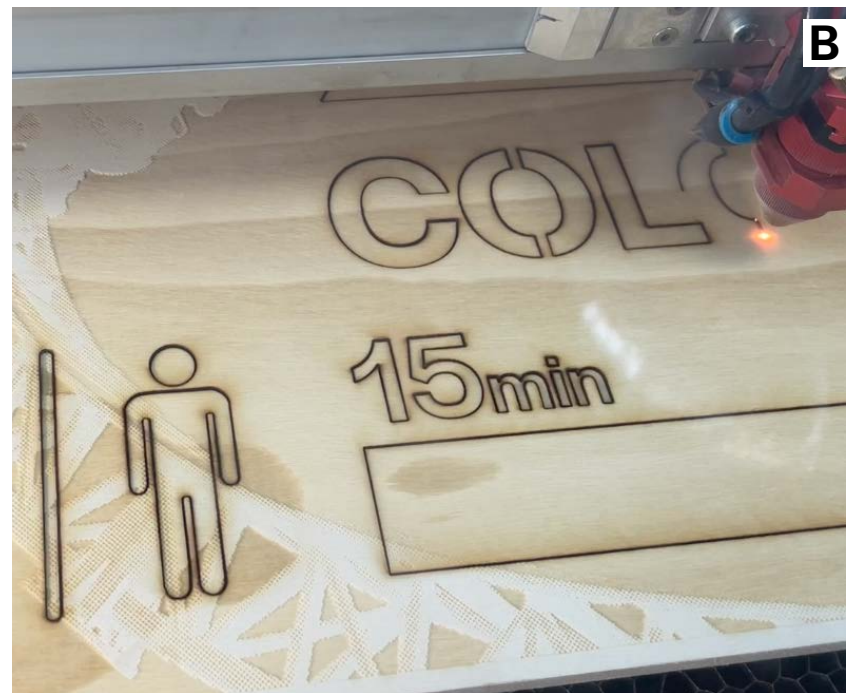
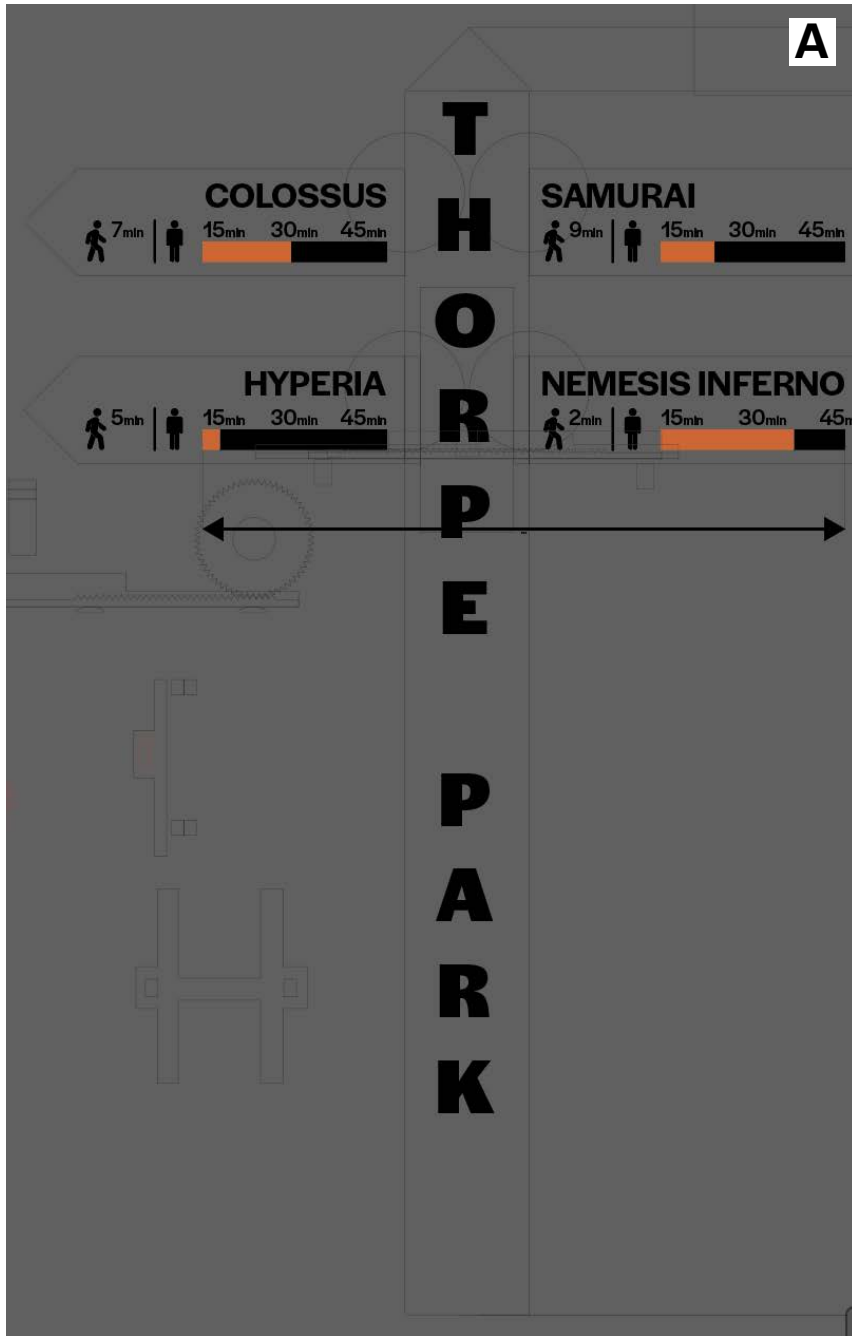
C Laser cutter file for an acrylic sheet. Each symbol means there has been a cut in the material due to space constraints. These symbols should be glued together once the cutting is finished.

D Working queue indicator (video 6)



Fabrication

Now that all my design issues were solved, all I had to do was fabricate everything, put it together and install.



A Illustrator design of the whole sign. I used this mainly for finding the right spaces for the mechanisms.

B Laser cutting the visual rollercoaster signs.

C Fabricating the sign in woodwork with Alex.

Installed at the C cubed Exhibition. final.ino on the repo. (video 7).

A



Wall text for 'how long's the wait?'

Thorpe Park has recently introduced an app that displays live queue times for its rides. In his work *How Long's the Wait*, Scott reimagines this digital data as a physical experience by integrating real-time queue information into an animated sign. By translating screen-based updates into a tangible, ambient display, the work allows visitors to stay immersed in the park's environment—free from the constant need to check their phones when deciding which rollercoaster to ride next.

Evaluation

I wanted to make some signage exploring the interplay between; Live data, wayfinding, and conceptualisation.

What went well:

1) The sign displays live data, and communicates it well! Most people had to take a few seconds to understand actually what was going on with the sign, but this is not a common concept for a sign, nor is the sign in its proper context.

2) Of course the sign isn't at Thorpe park so I cannot comment on how it works within the parks existing infrastructure (I'll be emailing Thorpe park for their thoughts). Many did say to me that there was a great visual appeal to the sign.

3) I think this sign has legs to stand on in terms of creating a coherent mental image of the park. Using the sign instead of an app allows visitors to be fully immersed in the Thorpe park experience, and not be distracted by their phones queuing app.

What didn't go well:

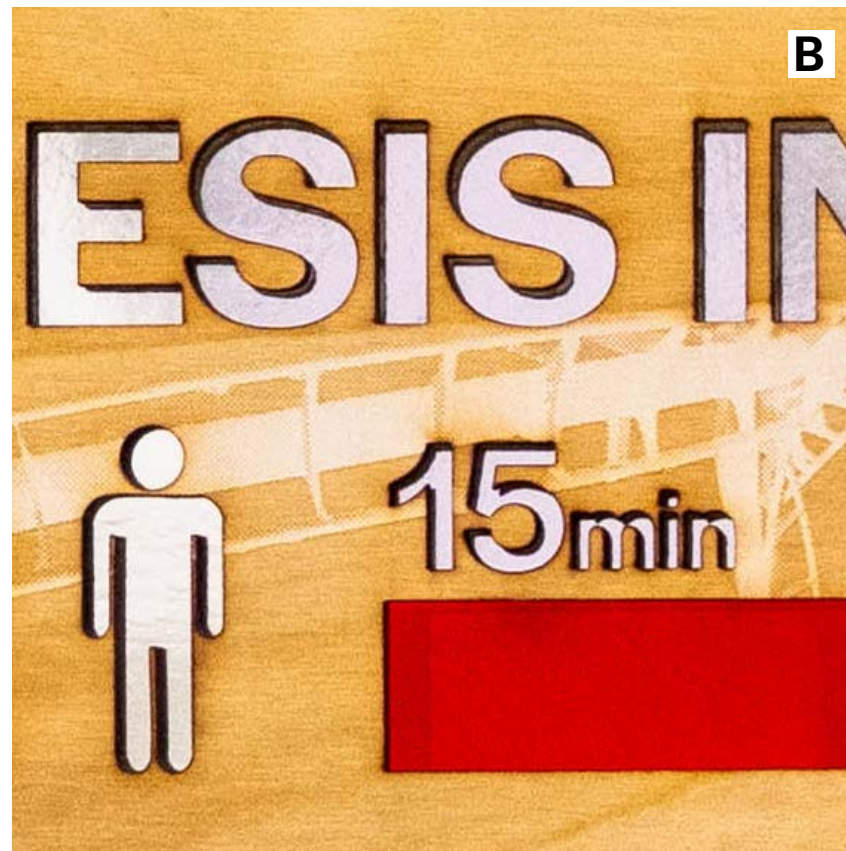
1) I haven't yet had the time to hook the data to the actual app but I am working on that!

2) On the night after hooking all of the servo motors to the battery I quickly realised that there wouldn't be enough strength (as I had only checked if the servo motors worked two at a time). This meant that I had to have the bottom indicators not move for the night. This wasn't catastrophic as the sign moved very slowly anyway so not many people noticed.



A

Thorpe park sign installed. Notice the mirrored letters down the middle. Photo taken by my friend Jim Mangles.



B

Closup of the sign. Notice the silver paper backing behind the holes of the sign. Photo taken by my friend Jim Mangles.

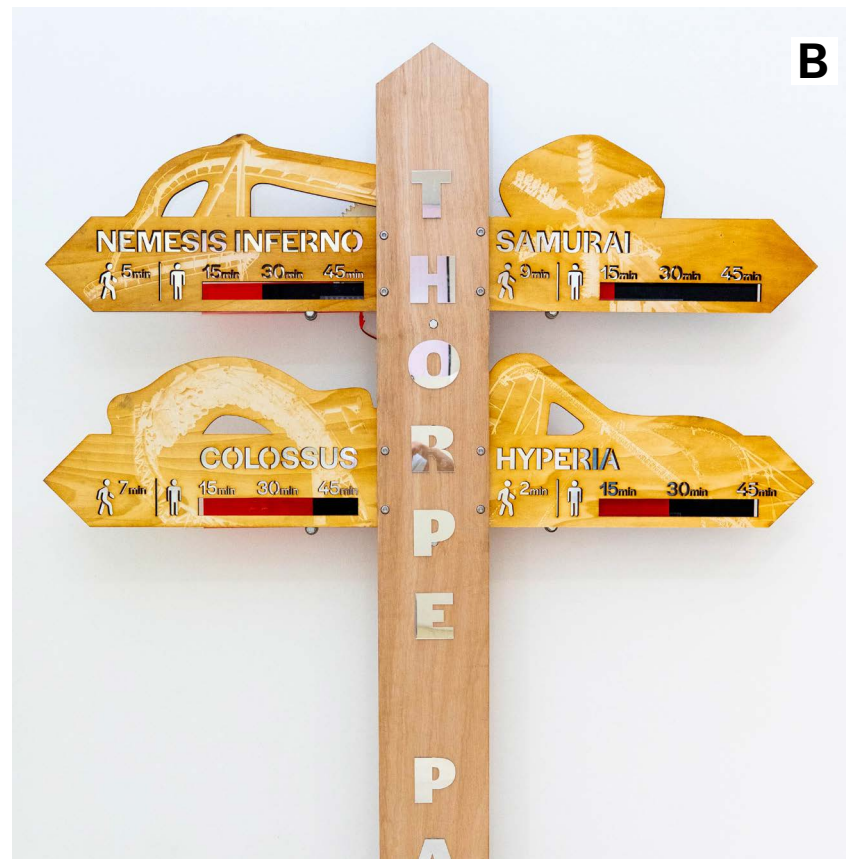
35

Overall evaluation

Overall I think this project went quite well. I really enjoyed thinking through what displaying live data within signage can look like. I think there are loads of potential applications that we will see come to light in the next few years. I think the Thorpe park sign makes a great case for why we might need something like this- who wants to be stuck looking at their phone when they're at Thorpe park? I was also especially pleased with the toilet sign that some visitors to the exhibition assumed it wasn't part of the show.

I'd love to keep exploring and finding out what other contexts. What would it be like to have a completely personalised signage system for yourself everywhere you go? Maybe there will be in the future some kind of apple vision UI that integrates itself perfectly on top of existing signage... What an idea!

I was very pleased with the general feel of fabrication for this project, I think that thorough prototyping paid off, leading to coherent functional work.



B

A This toilet has been used x times since its last clean final.

B Thorpe park queue indicator final.



A

36