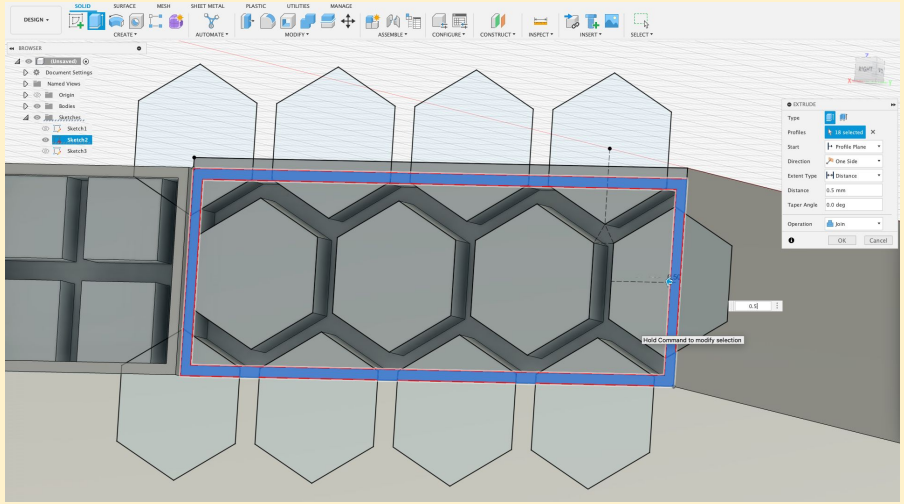
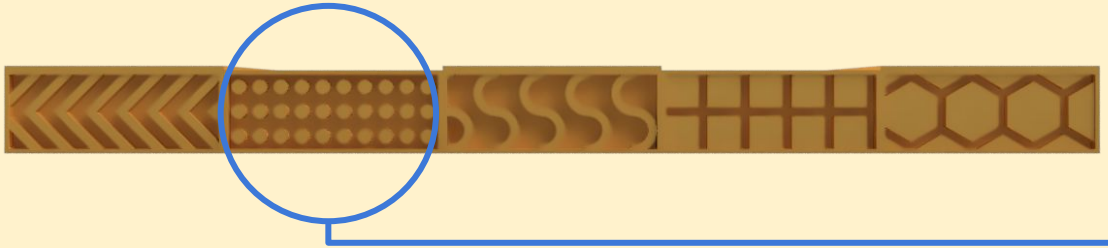
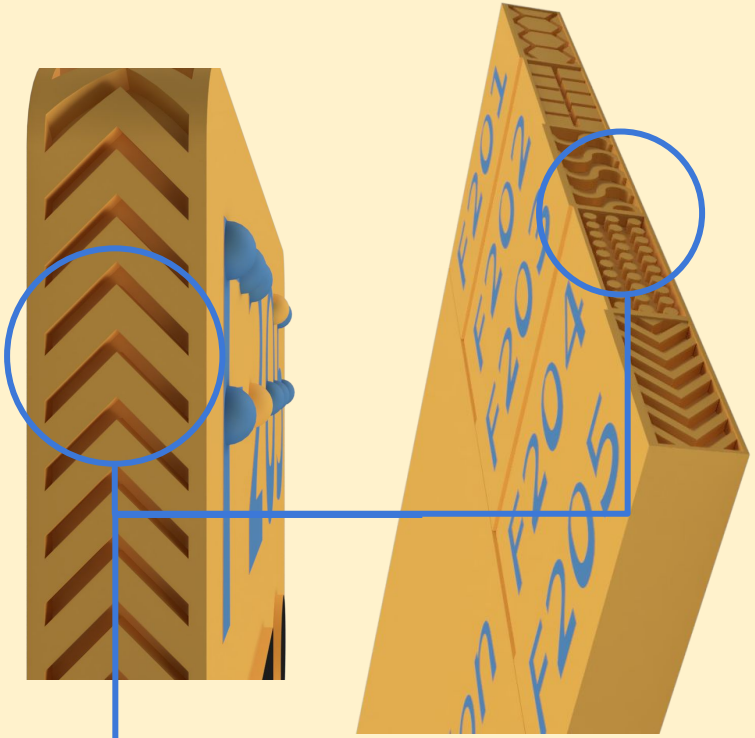
# Methods of Contextualising

Théa, Yanru, Virgil

# Context



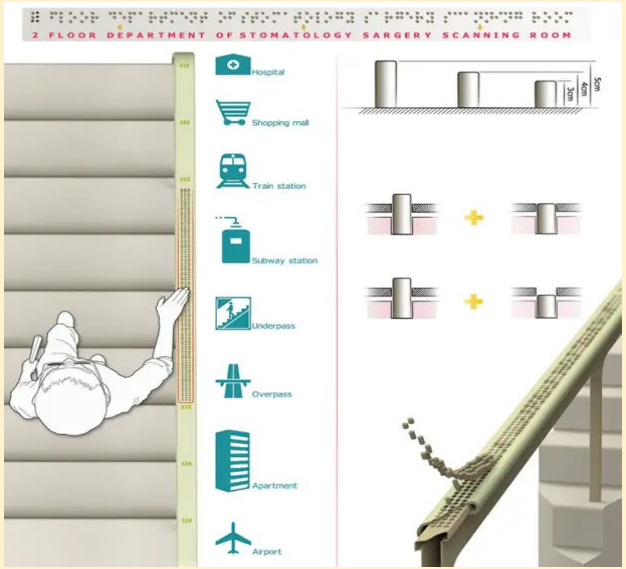


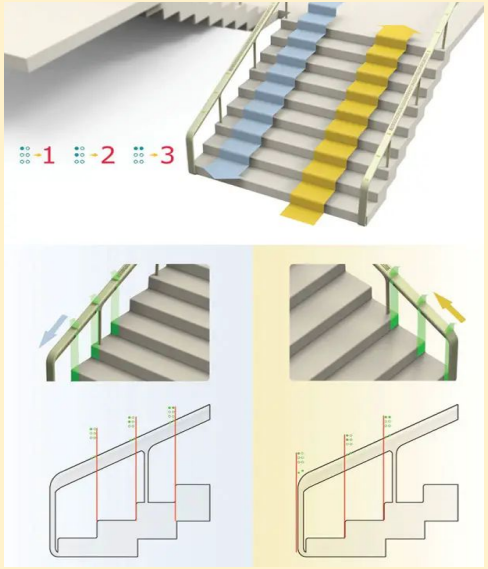


- Tactile element
- Classification system
- Purely for Visually Impaired

# Braille Staircase Handrail

- The system can be integrated easily with common staircase handrail, thus providing great navigation information to assist visually impaired without changing their experience of those with other people.
- This Braille communication system provides information about different floors, it also informs about how many stairs left.



# Tacticons

- Developed 3D printed tactile icons for blind and low vision individuals
- Focused on symbols that are easy to recognise through touch
- Each icon tested with blind and sighted users
- Provided guidelines for designing tactile maps, emphasising clear shapes

# Wayfinding for Blind Individuals

Traditional methods like tactile paving and Braille signage, while beneficial in certain contexts, have limitations when applied indoors.

**Tactile Paving**

- Textured ground surfaces
- Open-air, public spaces
- Acts as guides and hazard warnings

Limitations of Indoor use

- Space limitations
- Interference with existing flooring
- Maintenance
- Costs
- Hazards

**Braille Signage**

- Provide information as raised dots
- Effective for those who can read it

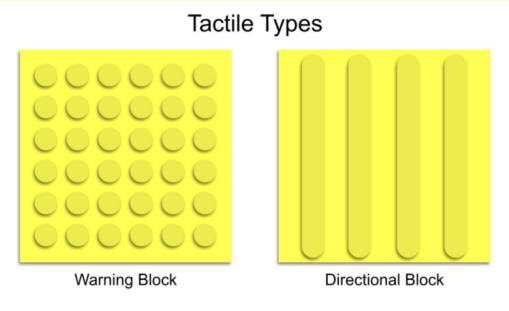
Limitations of Indoor use

- Requires user to locate sign
- Literacy rates vary

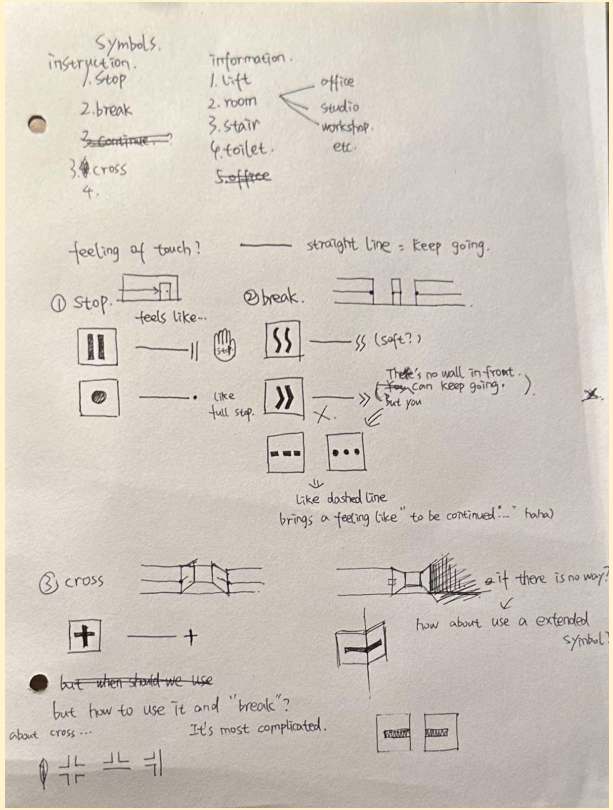
Mahadevaswamy et al., 2021 Tjan et al., n.d. Blindglobetrotters, 2024

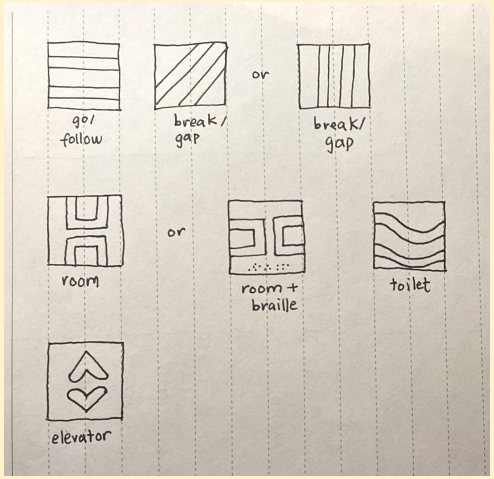
# Inspiration & Idea

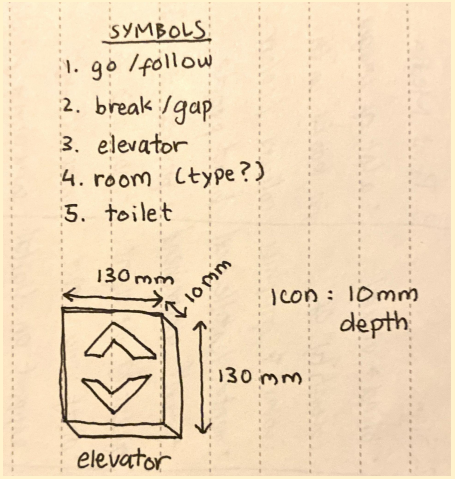
- Blind paths use raised textures to convey information—dots for warnings and strips for directions. Based on this, we use linear textures for guidance and special textures for turns, intersections, and locations.
- Our design is low-cost, does not rely on software or electronics, and provides a more accessible tactile navigation system.Users can navigate by touch, making it more accessible and inclusive.

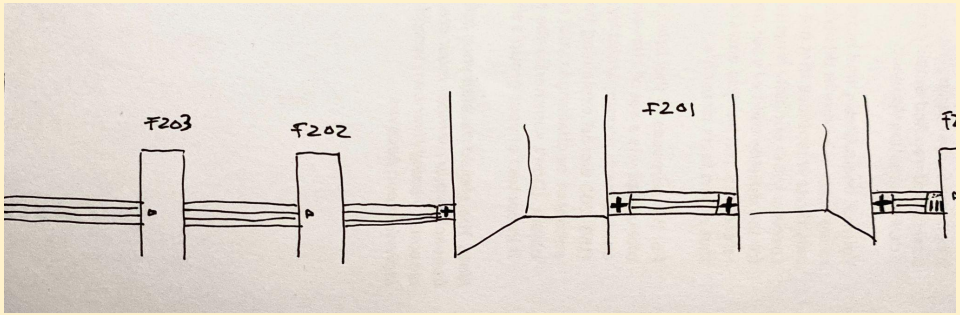


# Sketches

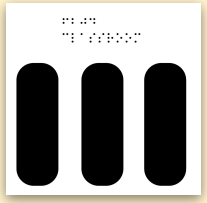

Symbols.
instruction.
1. Stop
2. break
3. ~~continue~~
3. cross
4.
information.
1. lift
2. room
3. stair
4. toilet.
5. office
office
studio
workshop.
etc.
feeling of touch?
straight line = keep going.
① Stop.
feels like...
② break.
(safe?)
like full stop.
There's no wall in front. (~~for~~ can keep going. but you)
Like dashed line
brings a feeling like "to be continued..." haha)
③ cross
if there is no way?
how about use a extended symbol?
~~but when should we use~~
but how to use it and "break"?
about cross...
It's most complicated.


go/ follow
break/ gap
or
break/ gap
room
or
room + braille
toilet
elevator

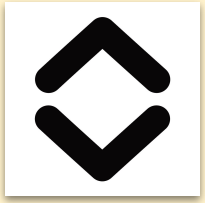

SYMBOLS
1. go /follow
2. break /gap
3. elevator
4. room (type?)
5. toilet
130mm
10mm
130mm
1con : 10mm depth
elevator


F203
F202
F201

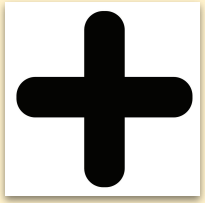
# Symbols



STOP

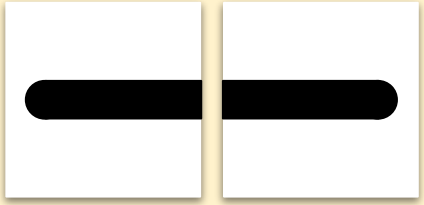


LIFT



CROSS

FOLLOW

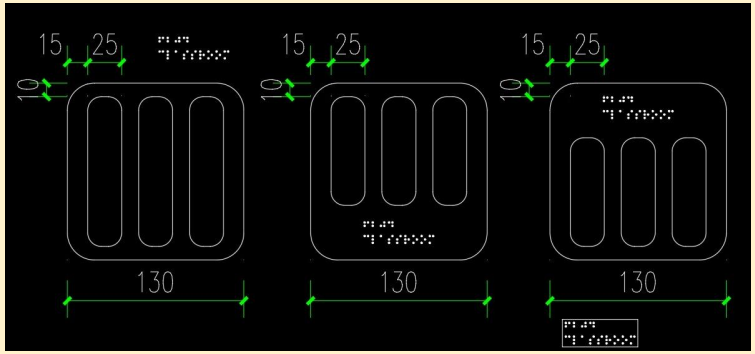


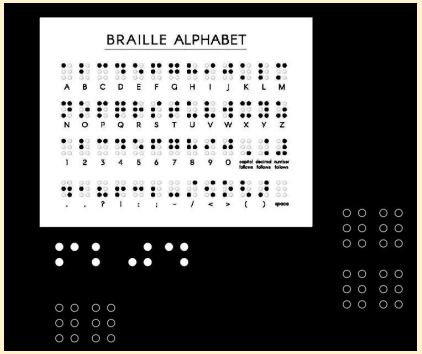
CORNER

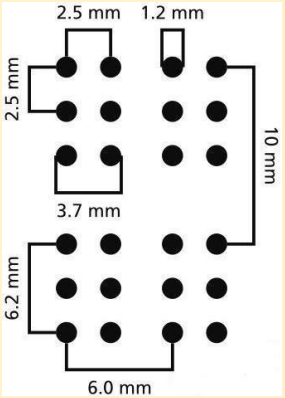
**Design System**

- Simple graphics
- Tactiles easy to distinguish through feel
- For "stop," use braille for room's name and purpose
- Rounded edges to reduce hazards

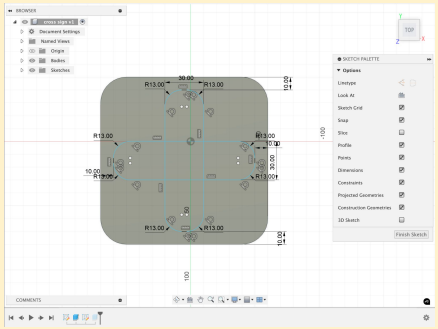
# Prototyping Process

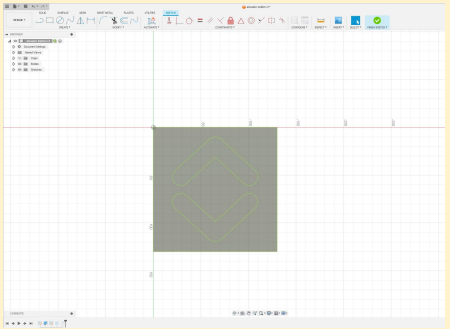


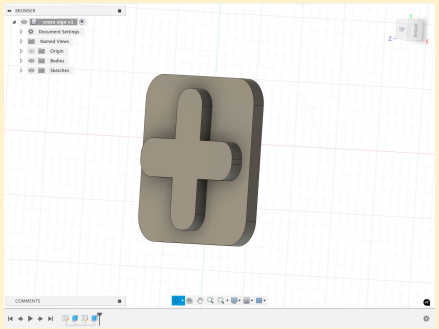



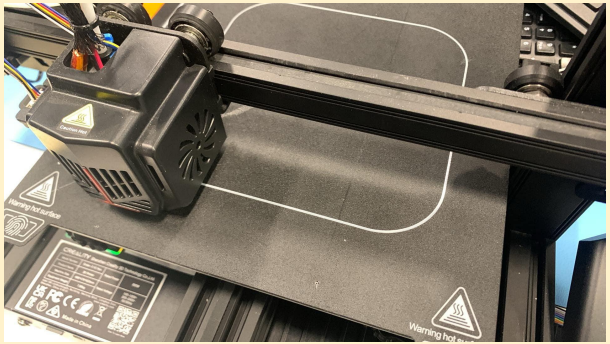

Used CAD to draw and model.

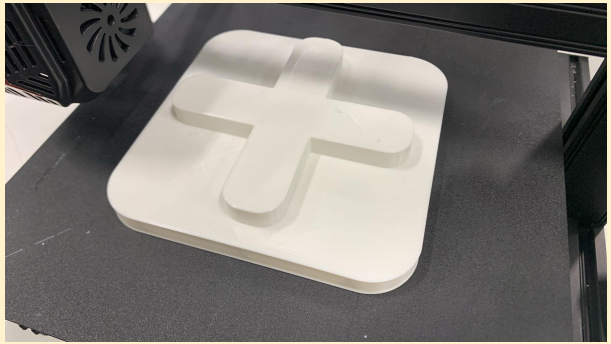


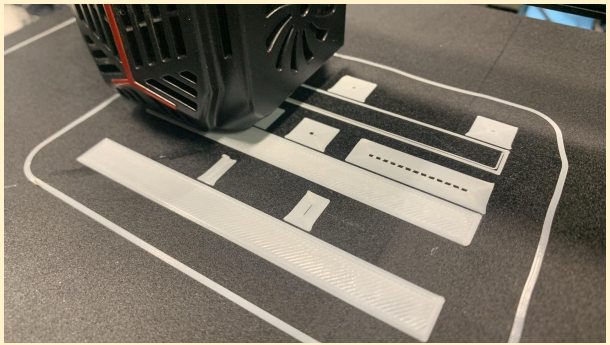




# 3D Printing & Prototyping process

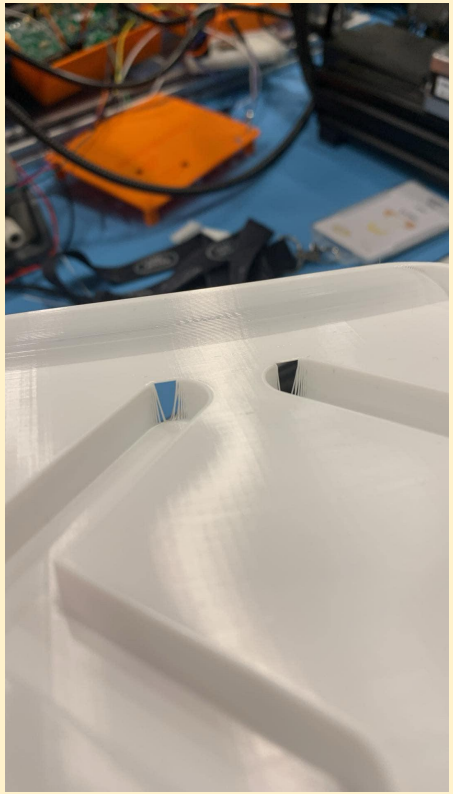






# 3D Printing Process

1st 3D prints were too brittle

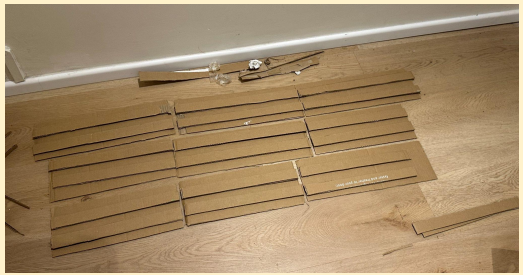


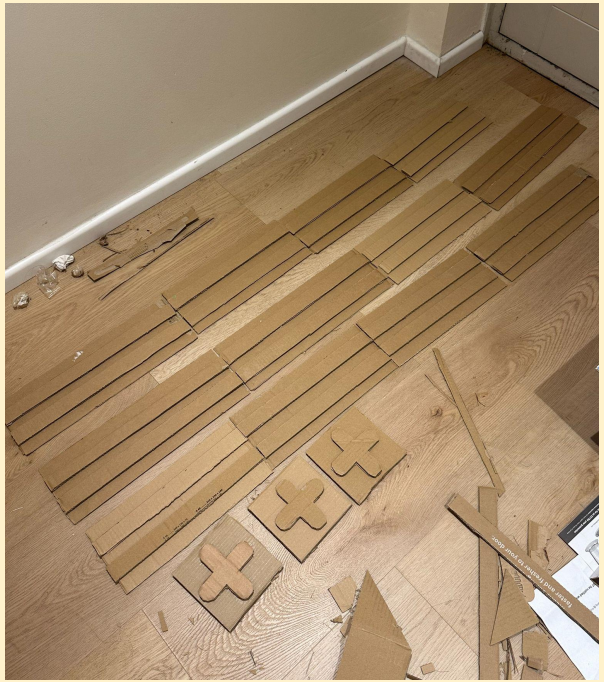
# 3D Printing Process

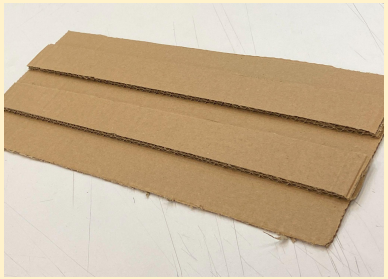
2nd version with solid walls and enclosed back, more rigid.

# Hand making process

We needed a lot of "follow" symbols, so we used cardboard instead of 3D printing.

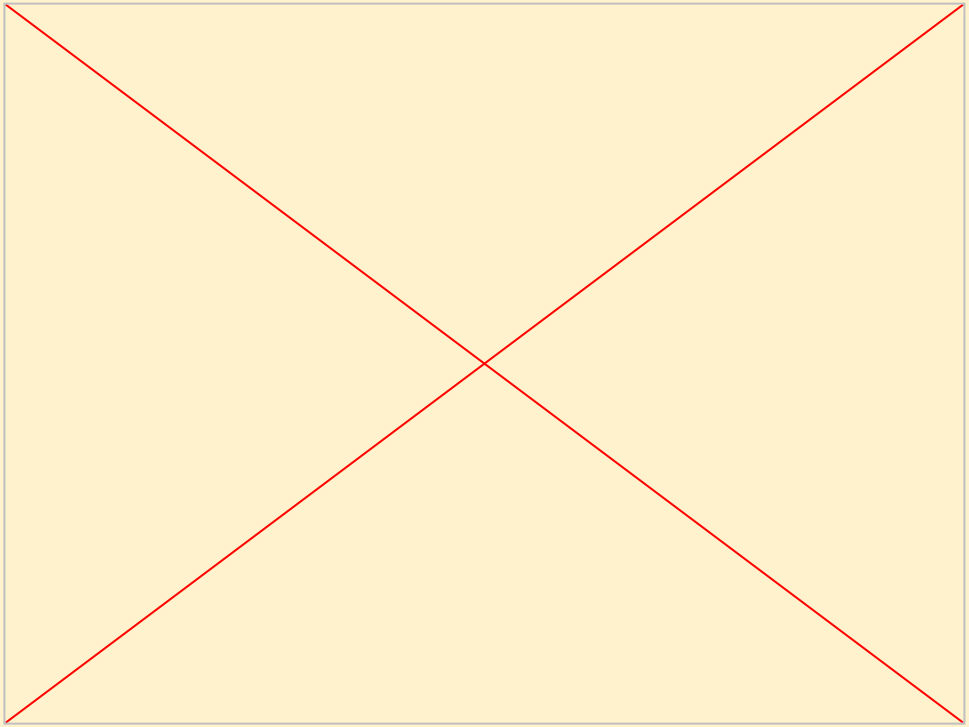






# Installation Process

# User Testing on Prototype



# References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