

FOOTreak

A floor installation game that helps you to be physically active.



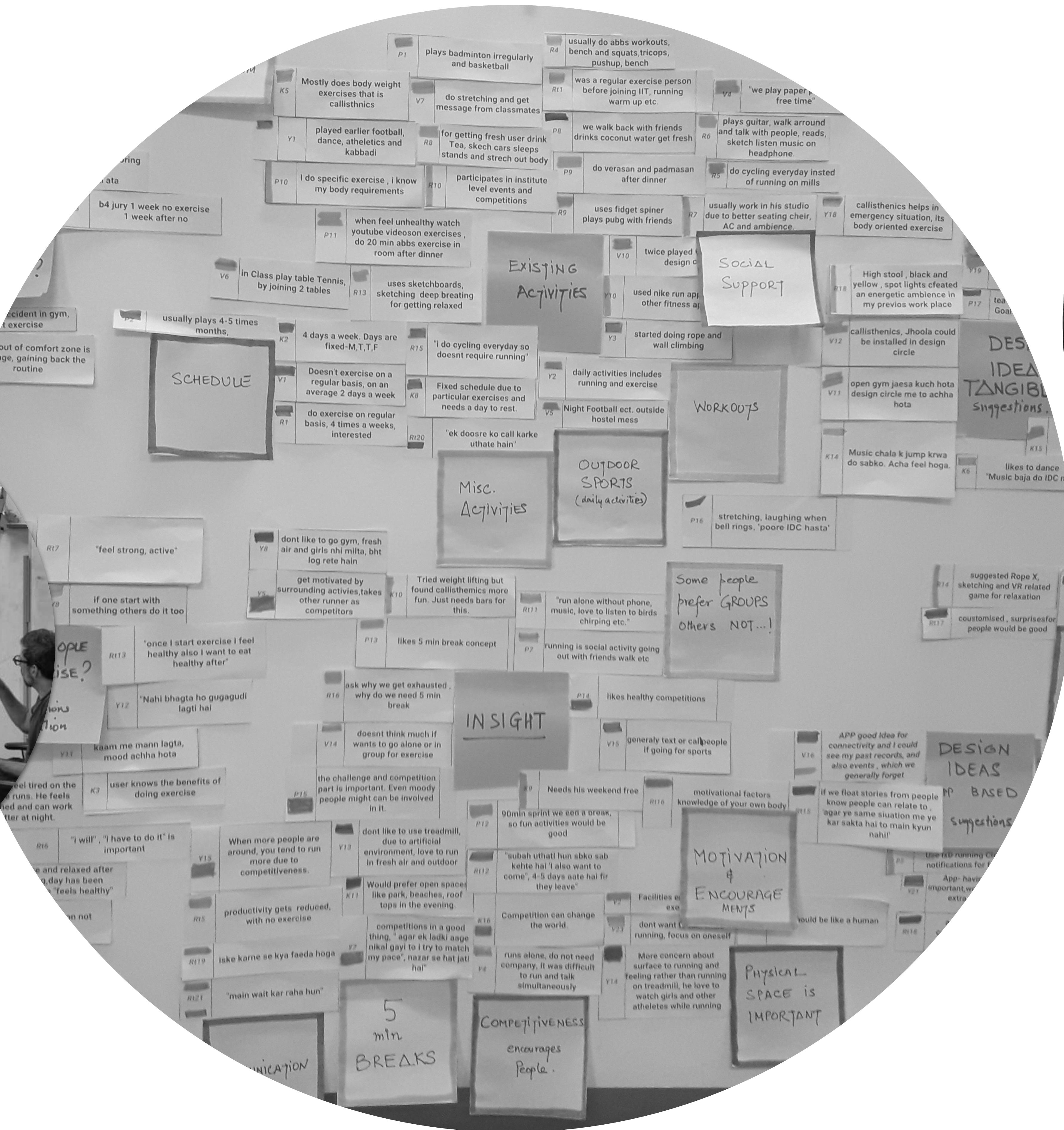
Introduction

Physically active short breaks help prevent mental fatigue, restore motivation for long term goals, increase creativity and improve learning.

This is documentation of the process undertaken in designing a solution that helps the students of Industrial Design Center at IIT Bombay to be more productive by urging them to take such breaks.



Brainstorming

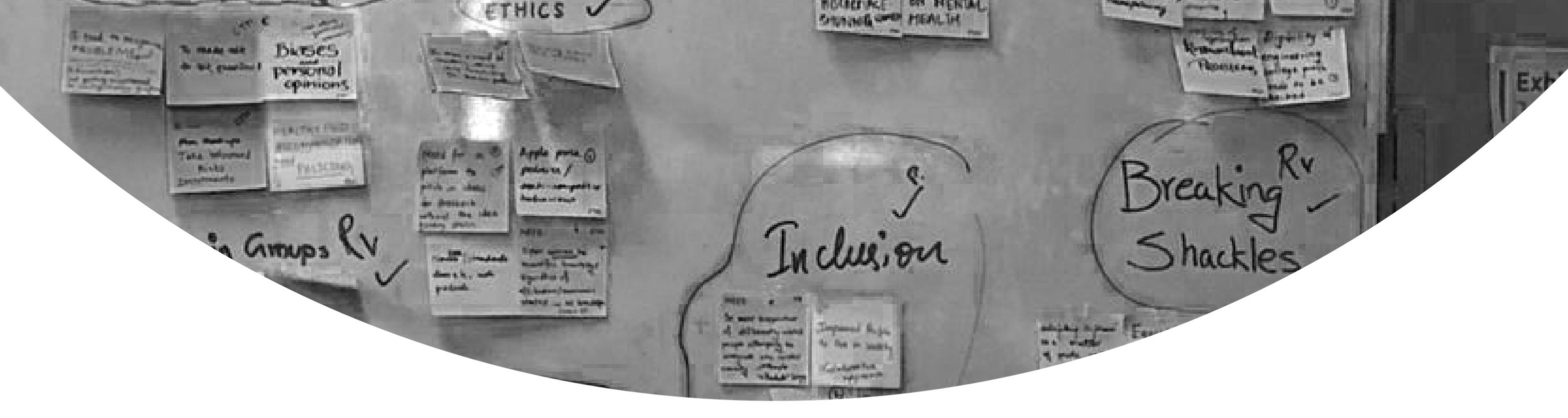


“

If I have a thousand ideas and only one turns out to be good, I am satisfied.

”

- Alfred Nobel

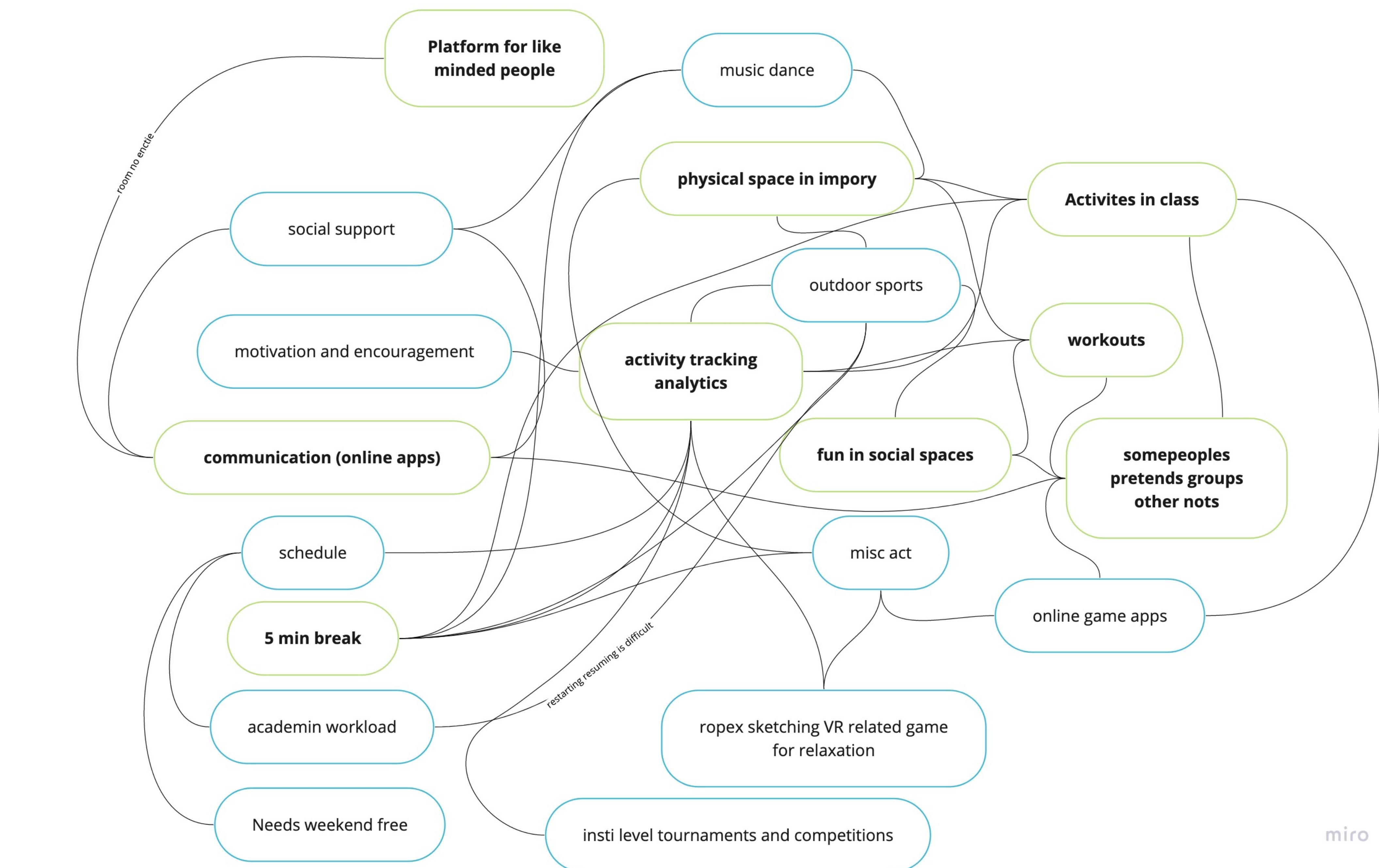


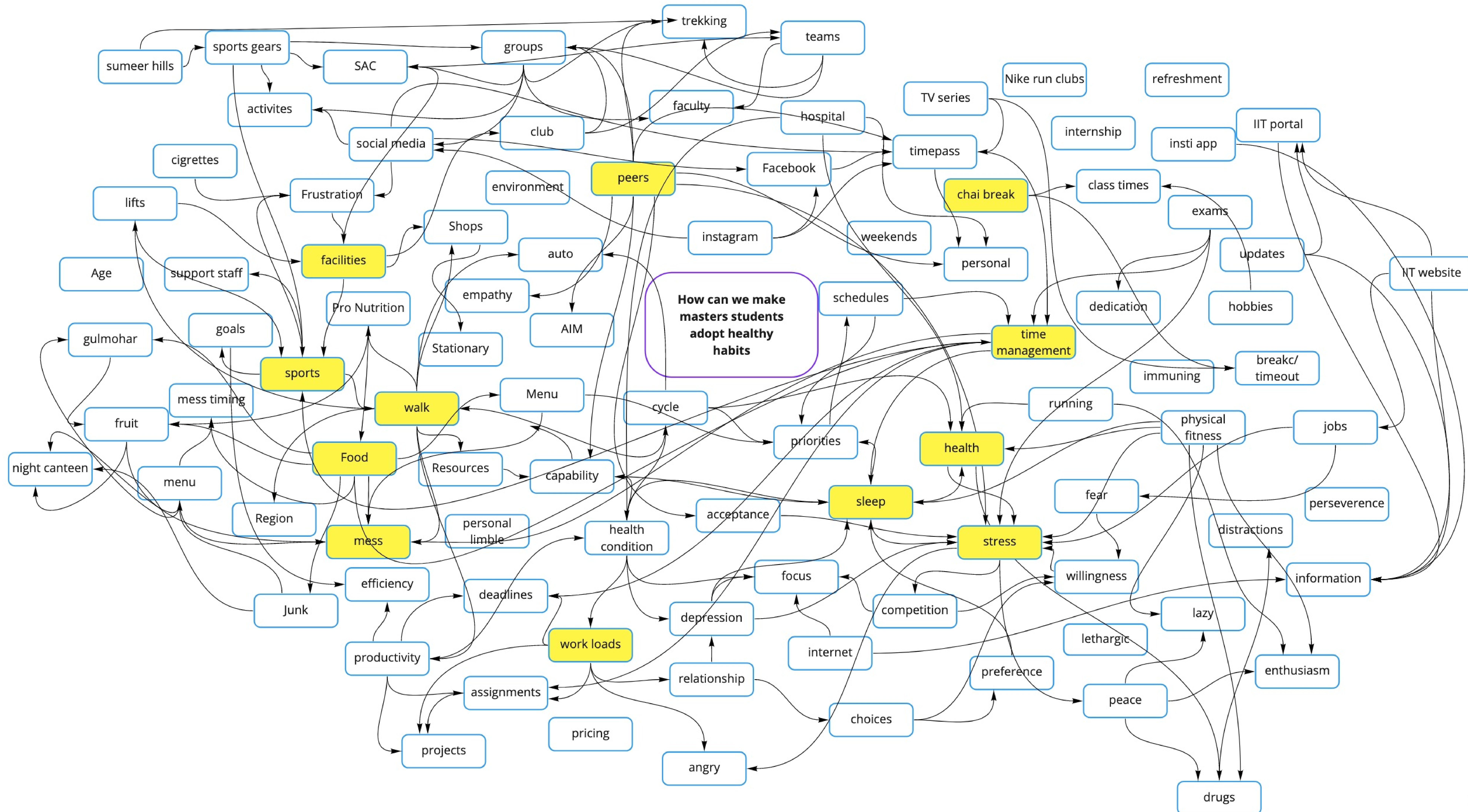
User research

User interviews help explore attitudes, behaviours, opinions and provide key insights into understanding the context behind why trends and patterns arise.

Considerations for Ideas

5 minute break
Activity tracking
Outdoor sport
Fun and social spaces





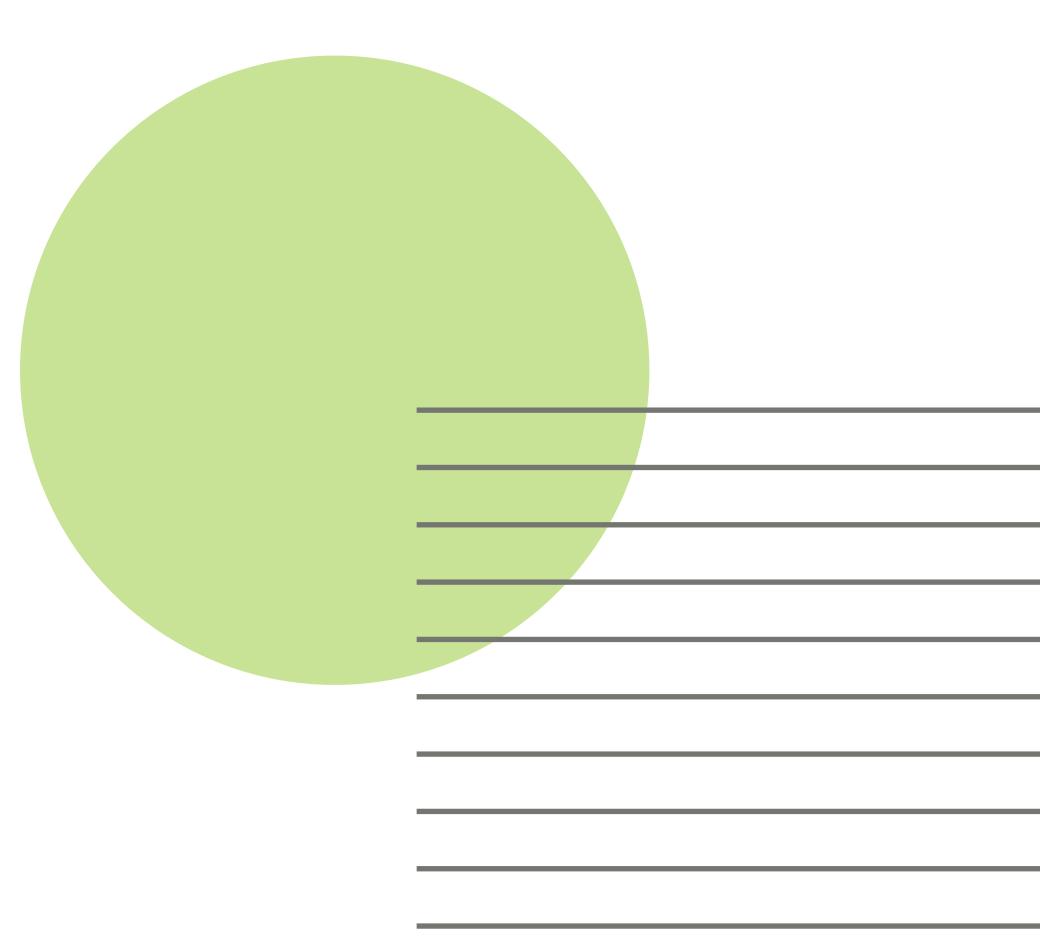
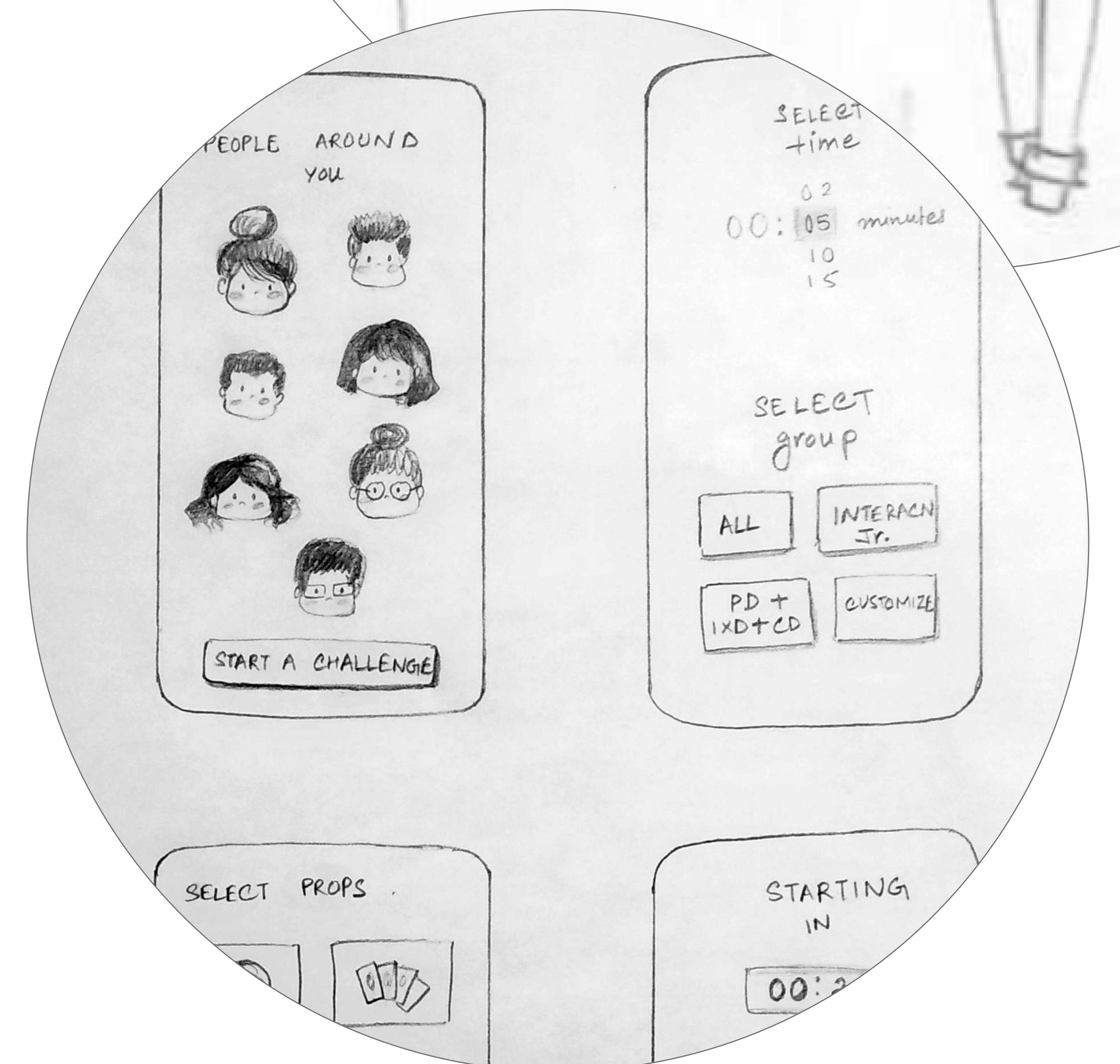
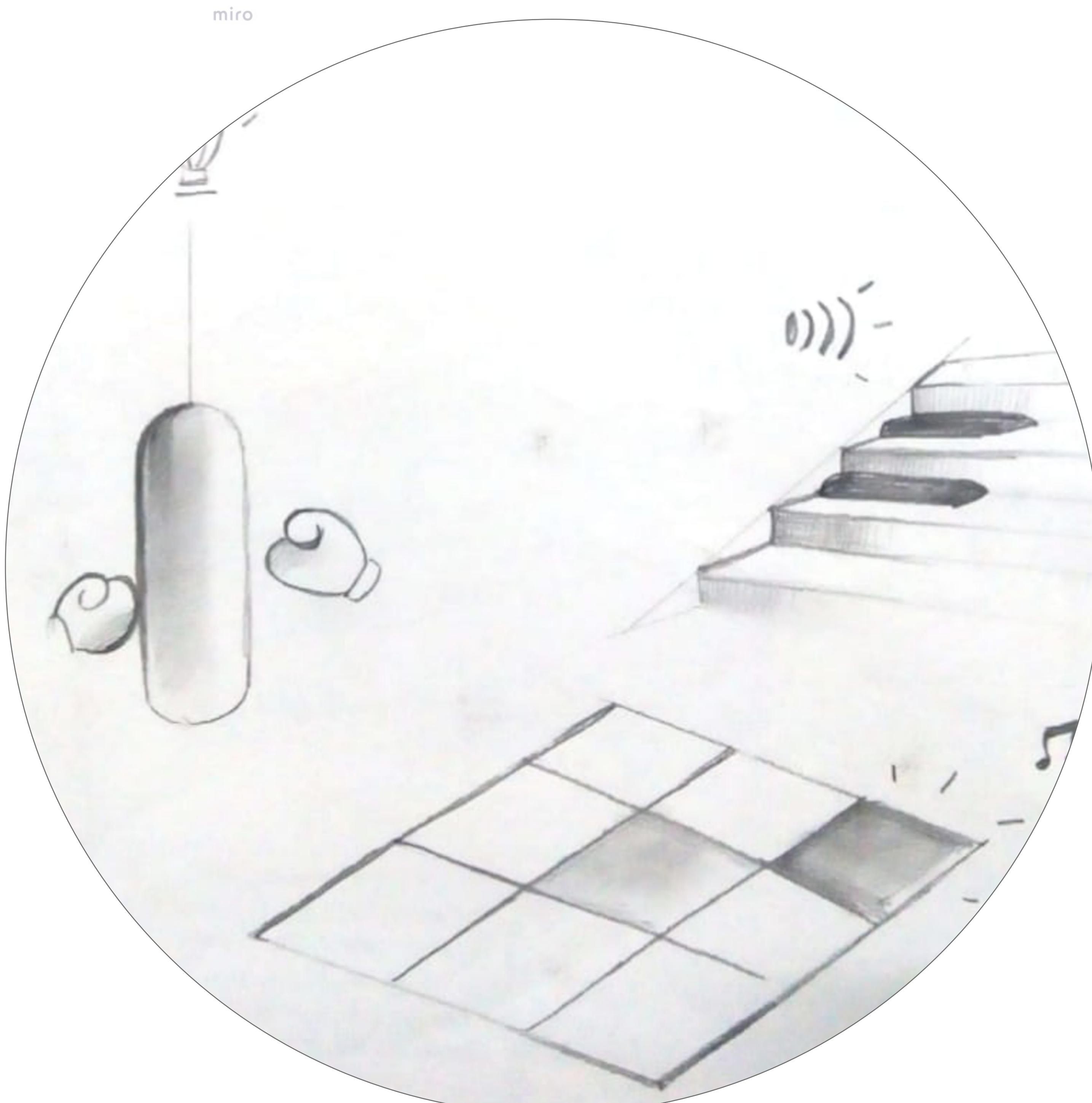
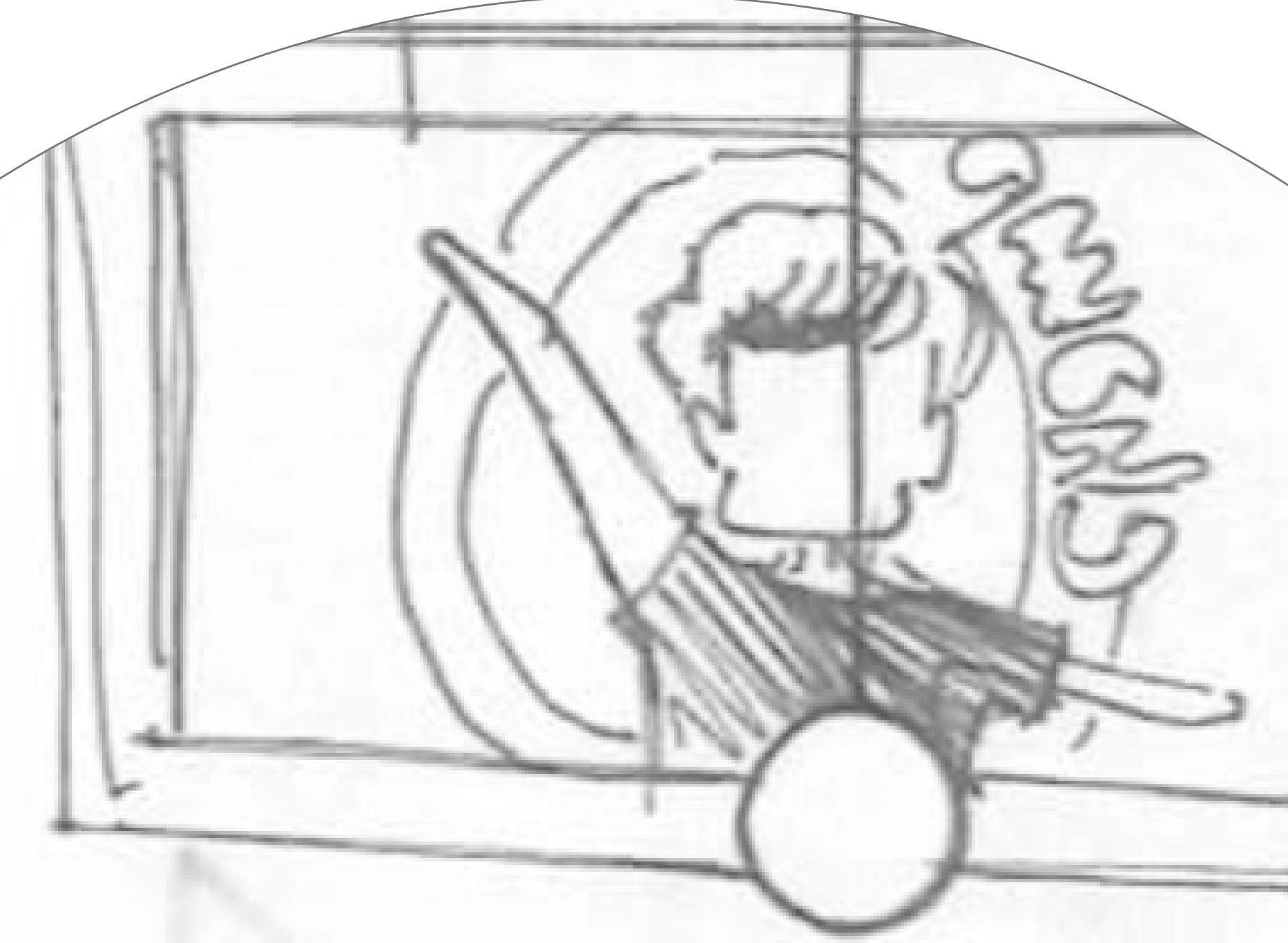
Ideation and Prototyping

The image displays two identical, large, light gray characters, both shaped like the letter 'G'. Each character consists of a thick, rounded top curve and a thick, rectangular base. The two characters are positioned side-by-side, centered horizontally.

What good is an idea if it remains an idea? Try Experiment. Iterate. Fail. Try again. Change the world.

”

- *Simon Sinek*



Prototype Phase 1

Physical Installation - Hanging Ball

A ball was hung at a certain height in the corridor with high foot fall. No instructions were given and user interactions were observed.

Insights:

- Users found the installation quite fun.
- Different ways of hitting the ball was tried by various users.
- According to some users it was a great stress buster for them.
- A few users devised some ways to compete with each other.
- A lot of disturbance was created when people interacted with this installation.





Physical Installation - Hopscotch

Grids for the hopscotch game was taped on the floor of the corridor and no instructions were given. People interacting with it were observed.

Insights:

- Users interacted with this a lot more towards the end of the day or at night than during class hours.
- Size of the grids were also a problem.
- A little less satisfying as there was no "feeling of having done something" or no response from the floor.
- Users who have never played hopscotch before were shy.
- Conveying the rules to a novice user was a concern and some made their own rules.

Physical Installation - Wall

Paper cutouts in shape of hands were stuck at the entry of a classrooms at different heights.

A few quirky messages were along with the four hands. No instructions were given and interactions were observed.

Insights:

- Least number of user interactions were observations with this prototype.
- Users thought it was fun for the first few times. Became boring after that.
- Some users tried to high five all the cutouts in one jump.
- Some users tried to high five the cutout at the most height.
- Safety was a concern as a few users collided with the wall.
- A number of users missed the installation, that is they did not see it.



Prototype Phase 2

Physical Installation - hopscotch

The user reviews were taken into account and the grid was made more dynamic by using an interactive carpet. An interacting jumping game was made where the floor gave reactions based on the pressure of the users jump.

The user is supposed to jump on the LED grids as they appear on the floor and the game is over when the user missteps or steps outside the grid.

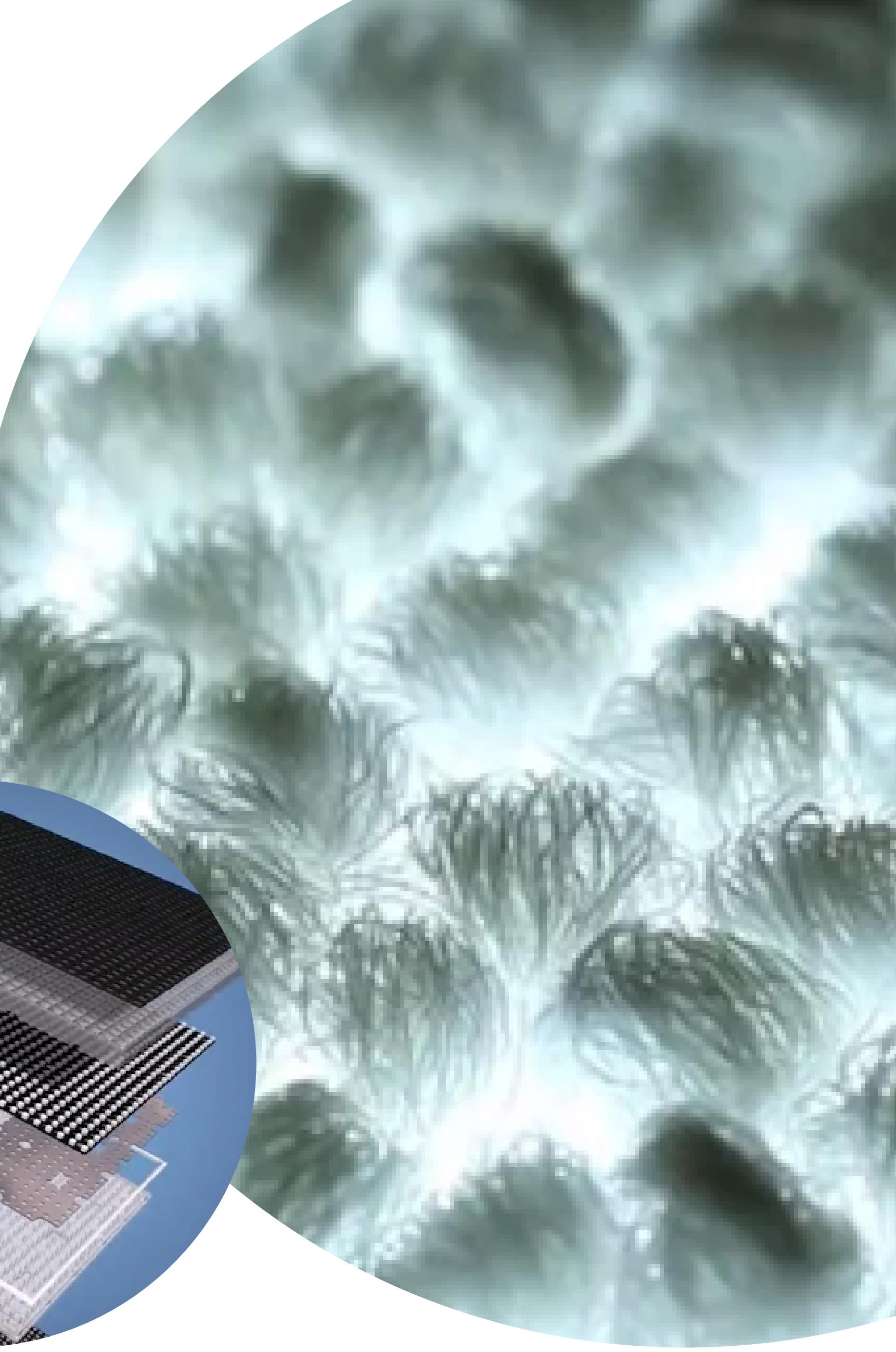
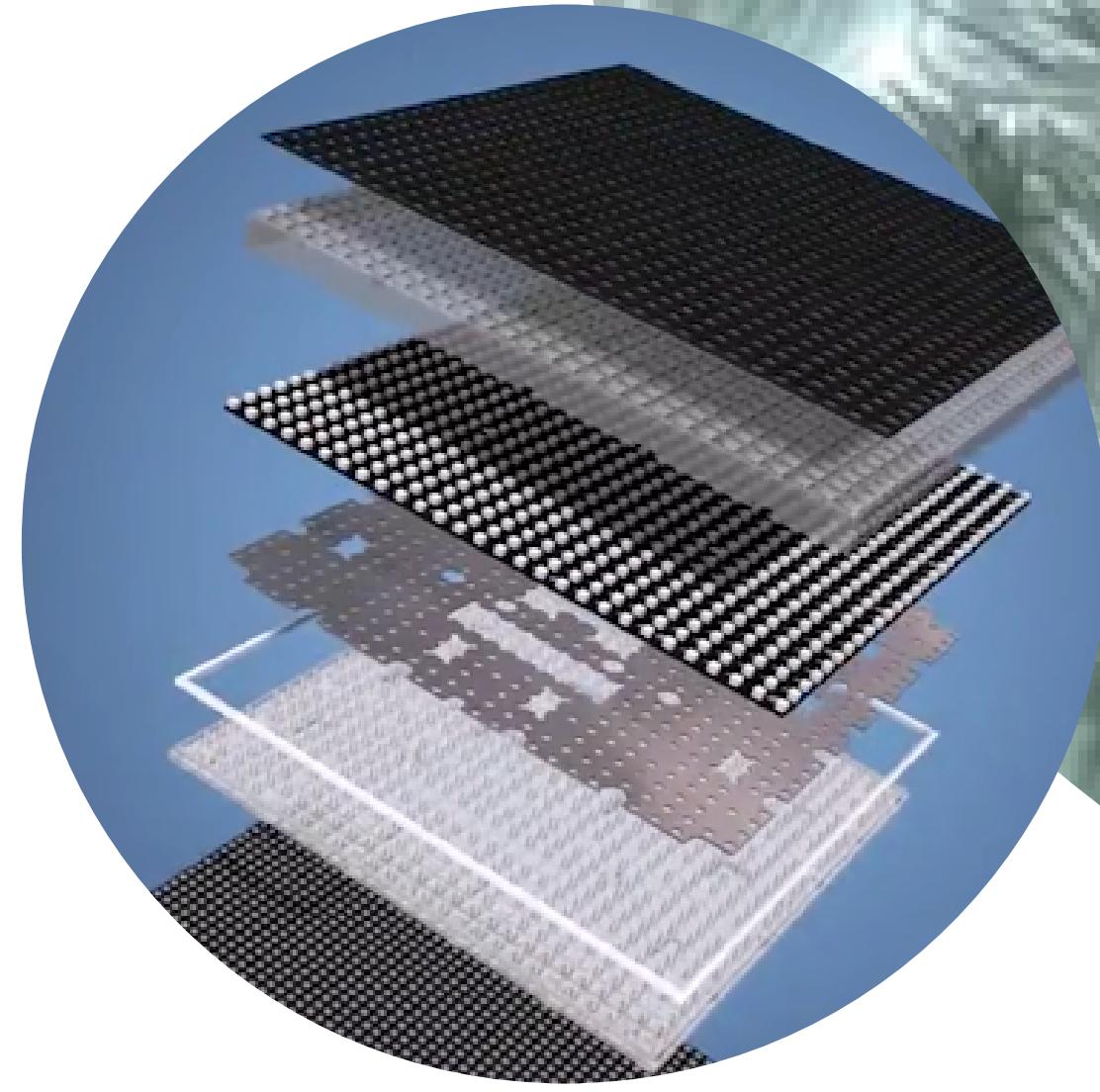
Insights:

- Users found it a bit difficult to understand the game just by looking at the video. An explanation was required.
- Rules were unclear.
- Time and other factors such as difficulty level were considered.
- Number of people the installation could support at a time was something to be thought about.
- It would easily become boring after some time (3-4 weeks).
- What more ? -was a question



Final Prototype Footreak

A fun floor based interactive game installation that makes the **simple activity** of walking through a corridor interesting while helping you be a little bit more **physically active**.



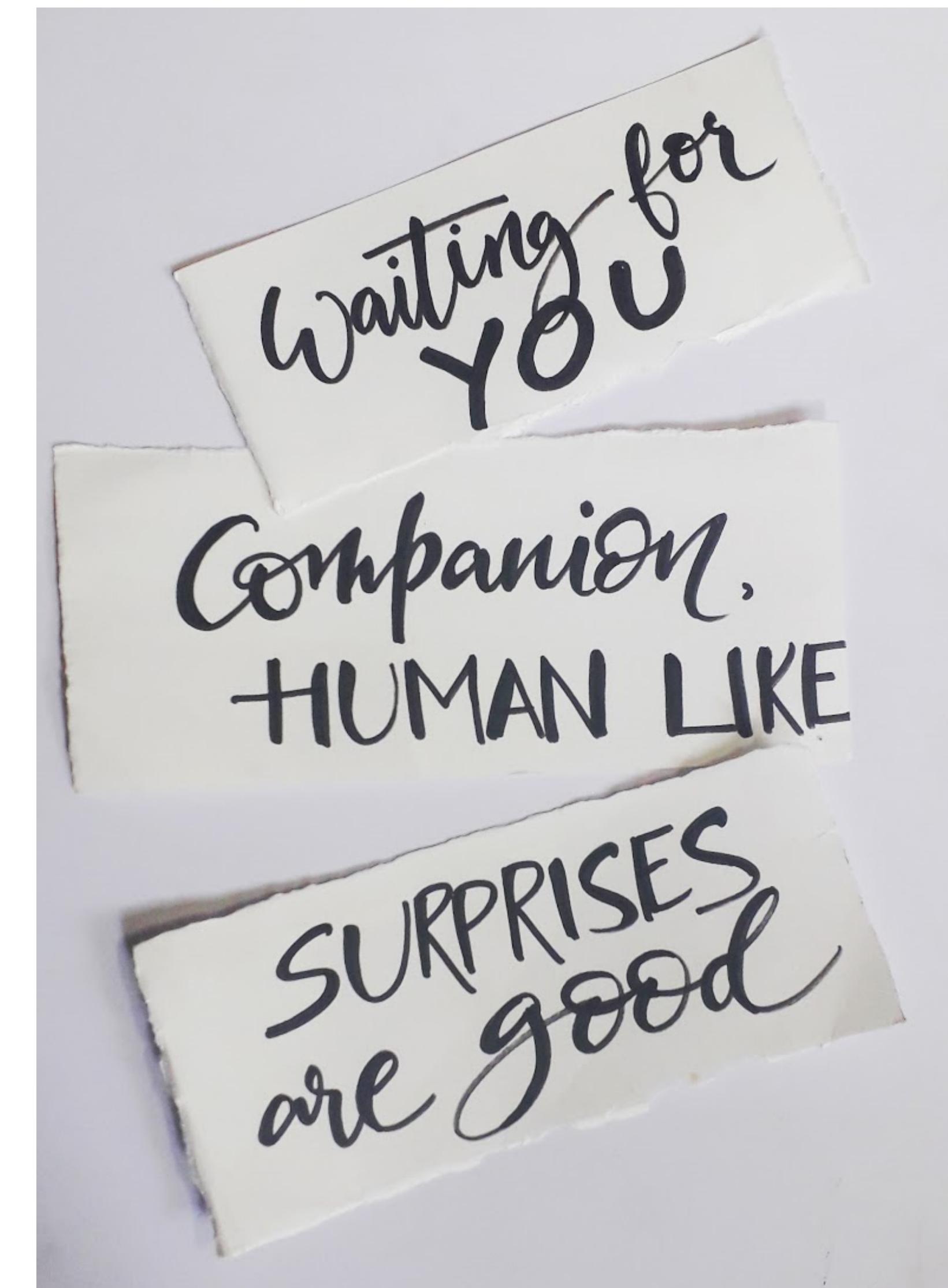
Technology involved : Luminous carpets

Installed underneath the carpet tiles, the LEDs are built into enclosed units that are strong enough to be walked on while still protecting against spillages without overheating.



Features

- Senses your proximity and urges you to spend some time with it.
- Games (currently 3) which can be played individually as well as with other people.
- Game has human like emotions, is sad when someone is around and not interacting with it, is excited when someone decides to play a game.
- Game is full of surprises, you don't know what you might step (or jump) on next.



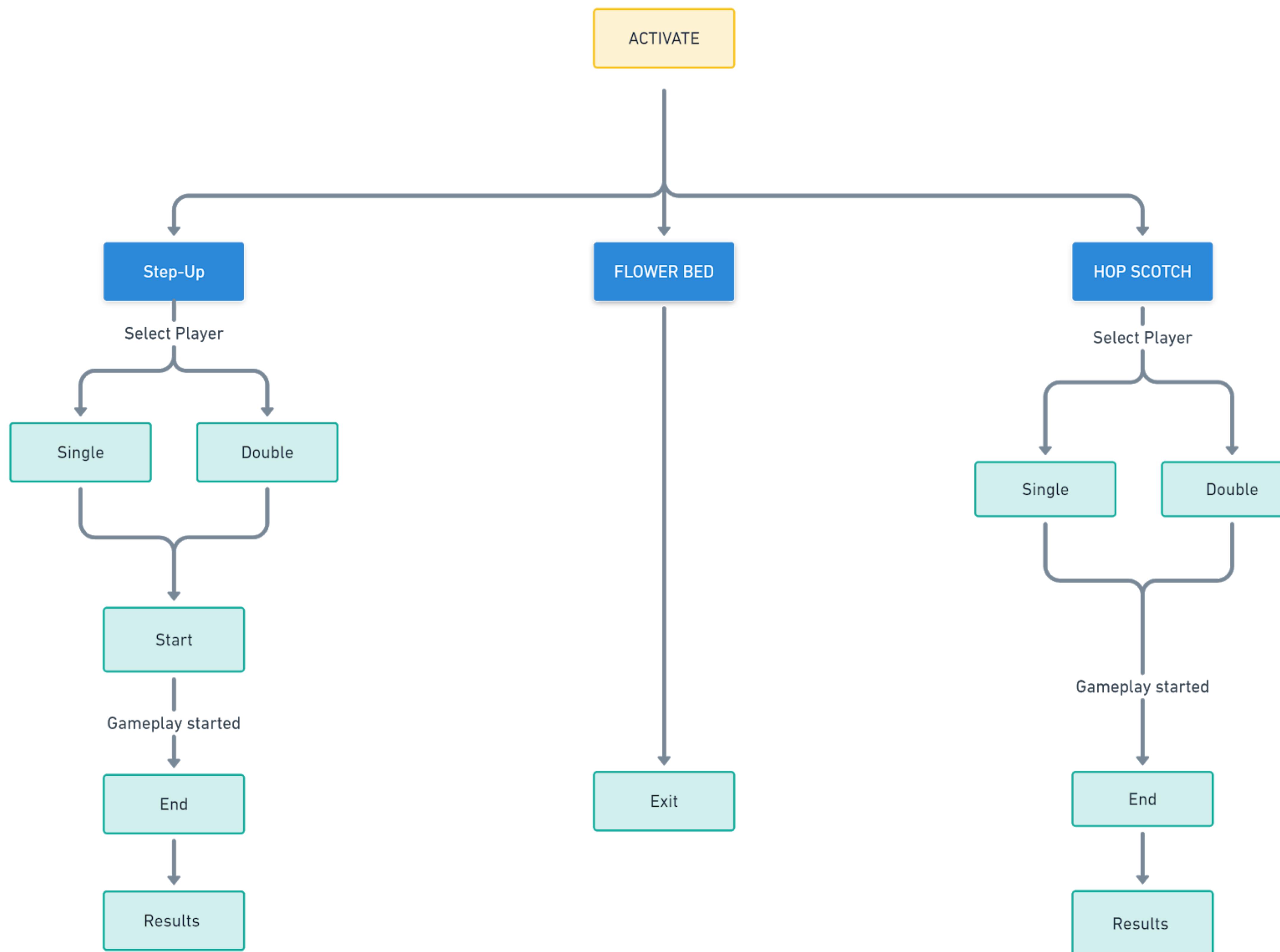
Information Architecture

“

But good information architecture can do more than just help people find objects and information. It can empower people by making it easier for them to learn and make better decisions.

”

- Donna Spencer

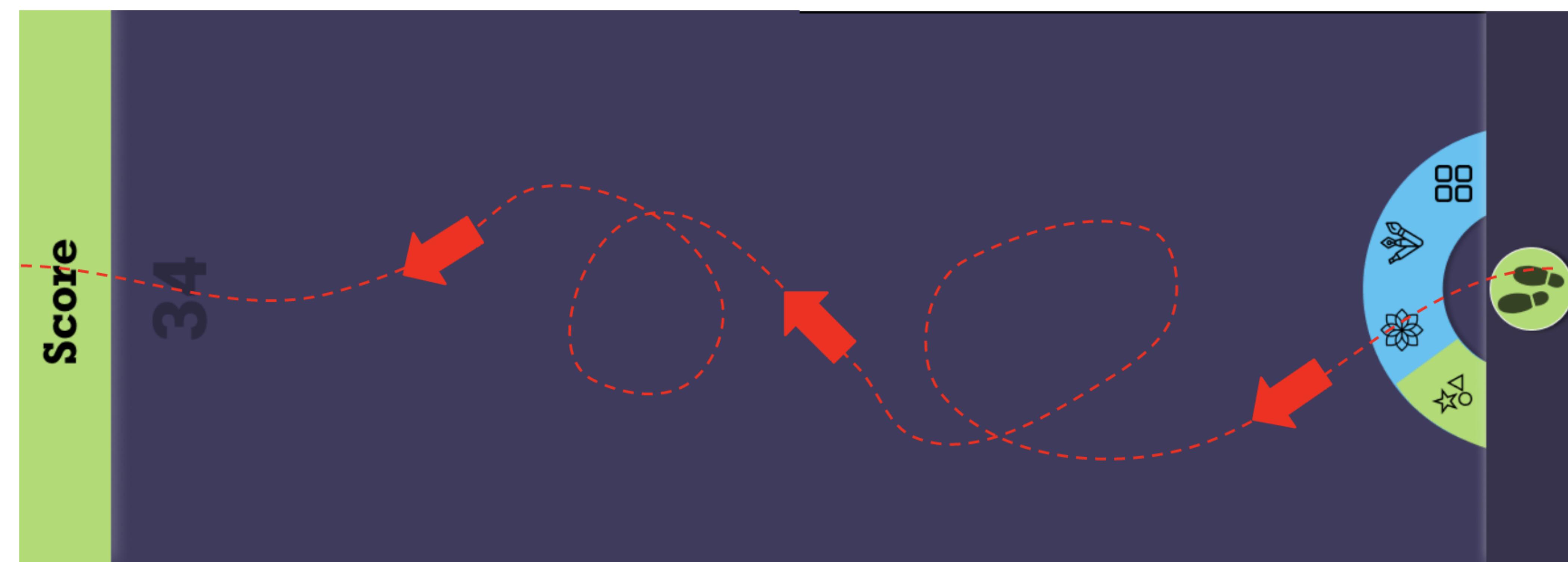


Game Rule

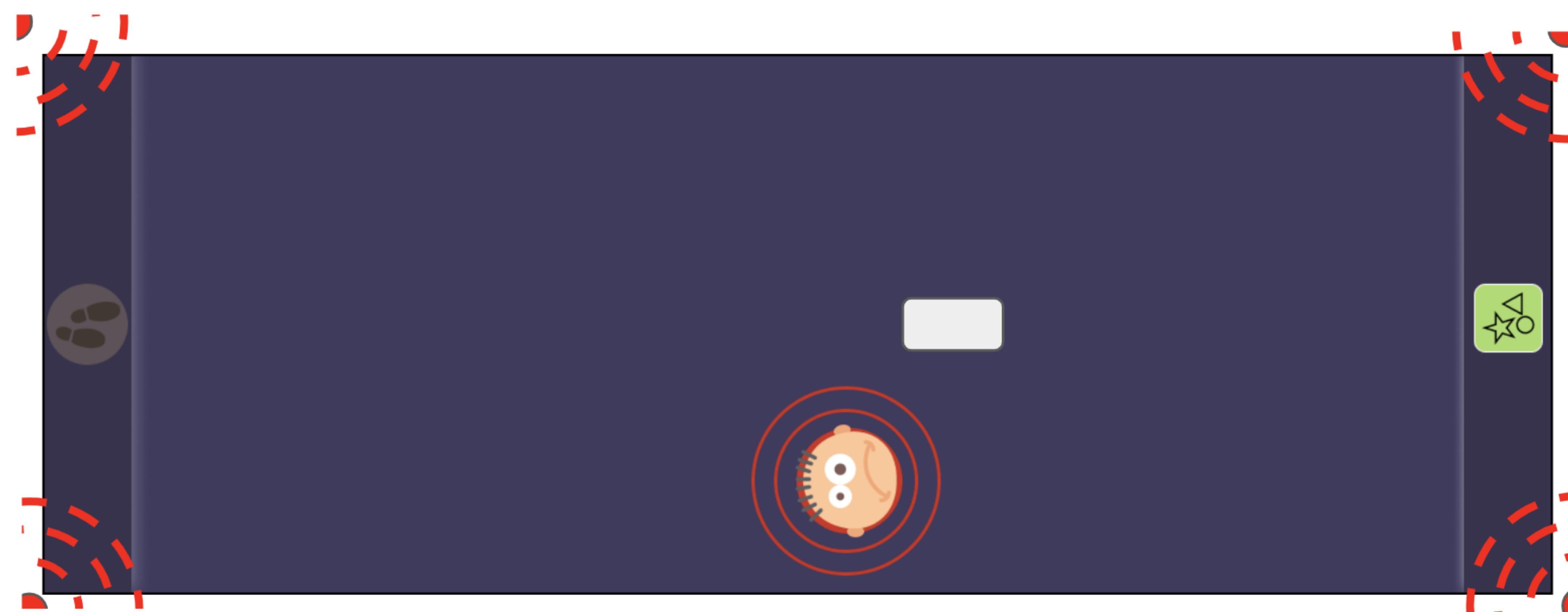
Games can be initiated from both ends but once a game is ON, the game panel and parts of the floor is deactivated for people.



Game can end only on the opposite side. You cannot start and finish on the same side.



Error sound feedback in case of misstep.



The Take Away

- “Getting hands dirty” - **to evolve**.
- “Prototype fast, fail often” - **to get better**.
- “The Art of giving away even the most working prototype” - **to get out of the box, difficult but necessary**.
- “Selecting and deciding the idea to go for” - **hard decision**.
- “Devil and God both lies in the details” - **fighting even to decide the micro interactions**.

