

# *Portfolio*

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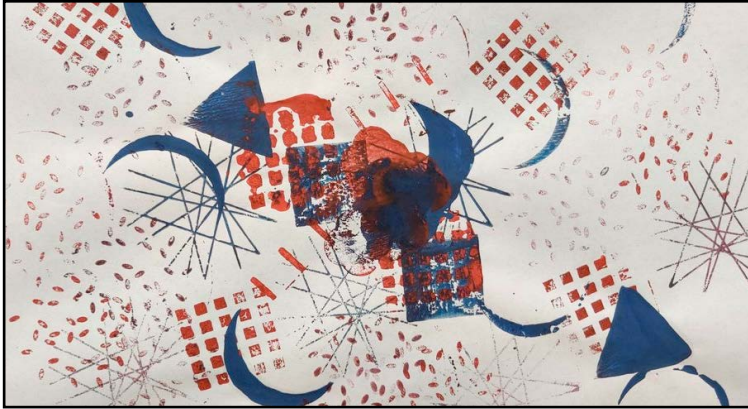
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# Shunya

[View Online](#)



Shunya came about from one fundamental question  
I asked myself at the start of the project

**What does prayer look like today?**

## Research

For the project's research, I had to keep in mind the various beliefs that people hold - the divide of belief between each person was not as simple as religious / atheist

The interviews were going just fine, but there was a certain emptiness to directly arriving at the things I wanted to talk about.

The conversation had to “bubble up” the things I was interested in talking about.

*Controlled chaos of conversation.*

The best way to go about it was to go through the interviewee's work and projects - they were sure to be interesting since I was interviewing authors, researchers, and artists.



# Insights

There was a definite relation in people's minds to meditation and mindfulness as related to prayer and spirituality.

At this stage, I had to suspend judgement on whether I believed it to be so - instead I went deeper into what meditation was about.

Meditation has its major root in eastern philosophy - the concept of emptiness "shunyata"

From this core inference - I had 3 main insights :

1. *Most mainstream meditation education focuses on single modal input - listen and do*
2. *Not-Thinking as an aim is very counter-intuitive*
3. *Technology is a numbing agent as well as an activating agent*

Something more to center me through the process of building the prototype was writing an essay first. The prototype would be the essay

of life is going through a maze. Of mazes, you know, the maze of putting in the work as well required. You still have to find your way for yourself, but it is the case that when you know your head is at the center, you're put to ease about finding your way.

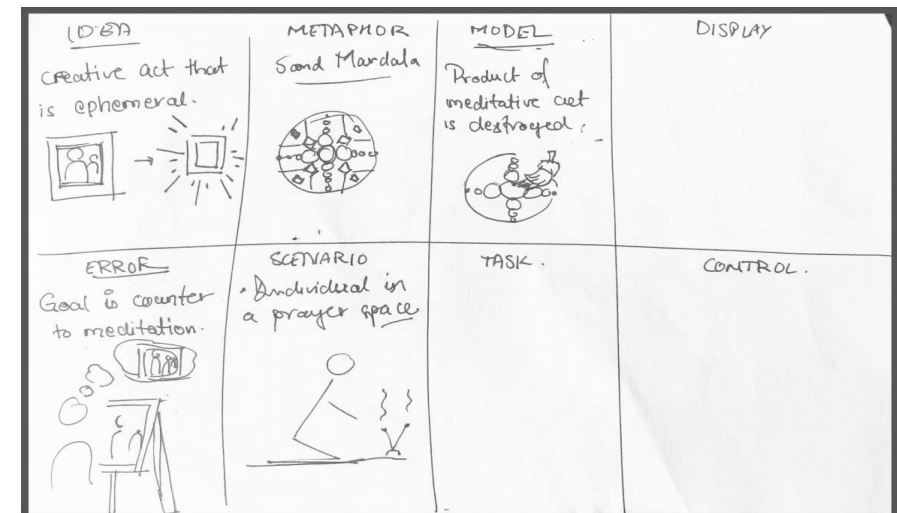
# The Idea

With such a high-concept domain, I needed to take a framework for ideas that could distill concepts to actionable interactions - the Verplank Framework

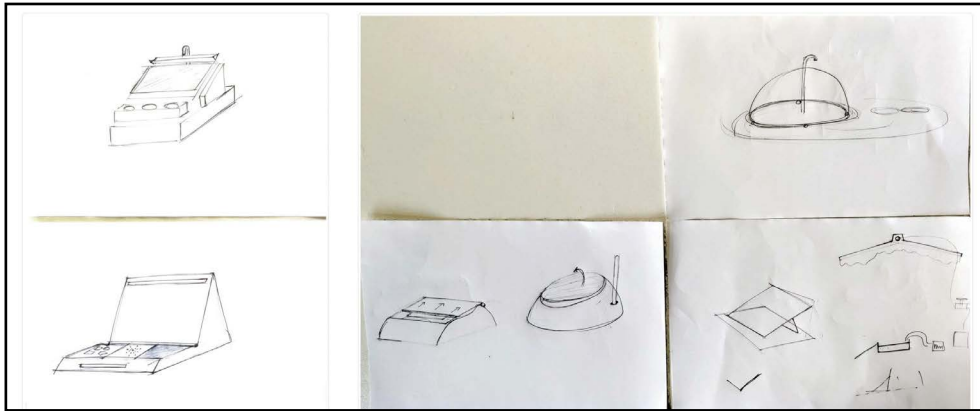
For the metaphor, I chose something that has roots in the meditation and the eastern tradition - the practice of the sand mandala

The sand mandala is unique in that the design of the practice incorporates ephemerality into itself.

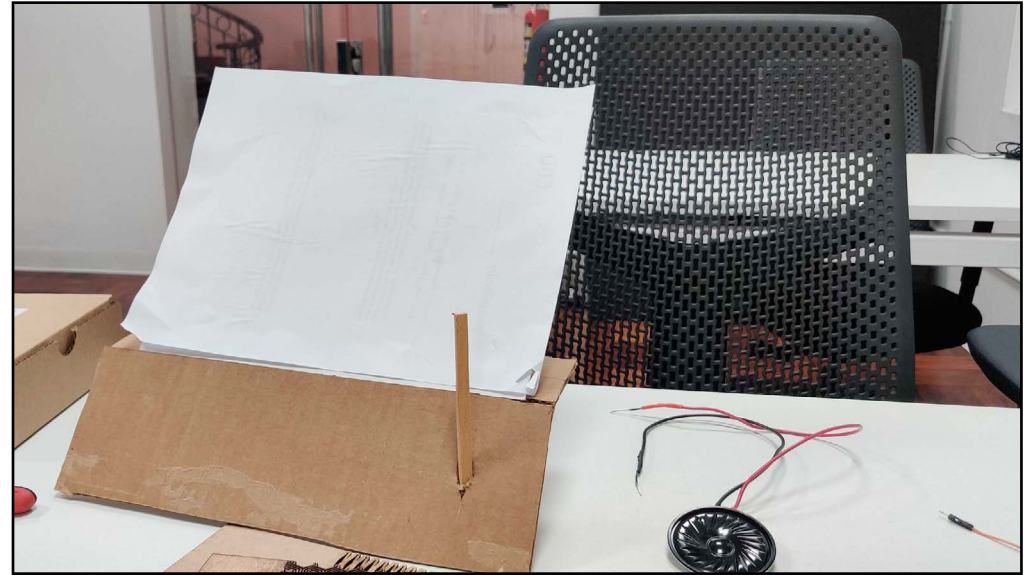
I also took inspiration from the phasic nature of the practice - and drove the ideation sessions in the same line



# Prototype Sketches & Process



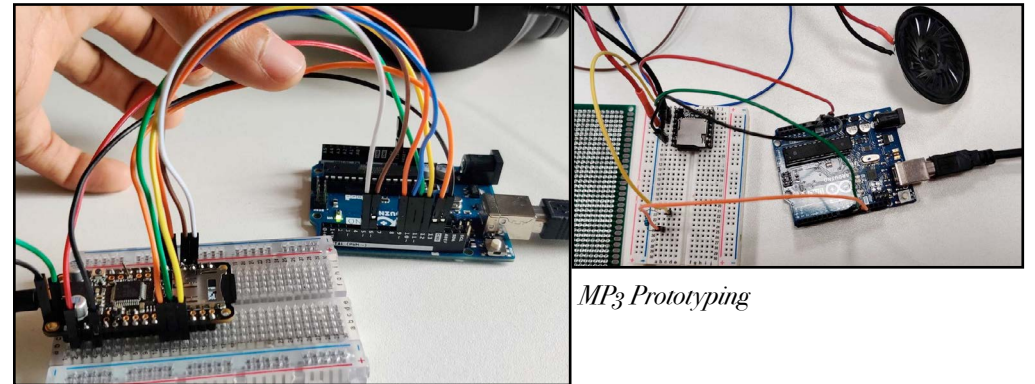
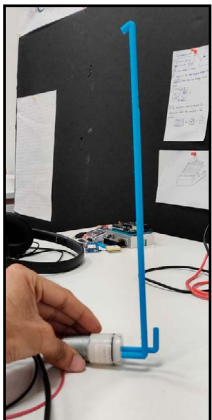
*Initial Product Sketches*



*Cardboard Prototyping*



*Materials, Cut Method and  
Internal Structure Testing*



*MP3 Prototyping*



# Introducing Shunya

*Video Link*

## Phase One – Commencement

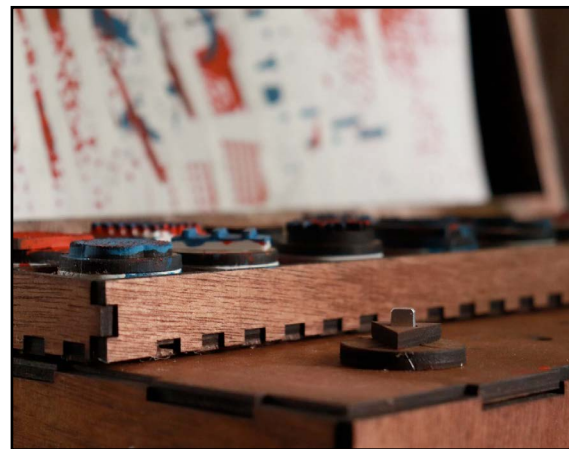
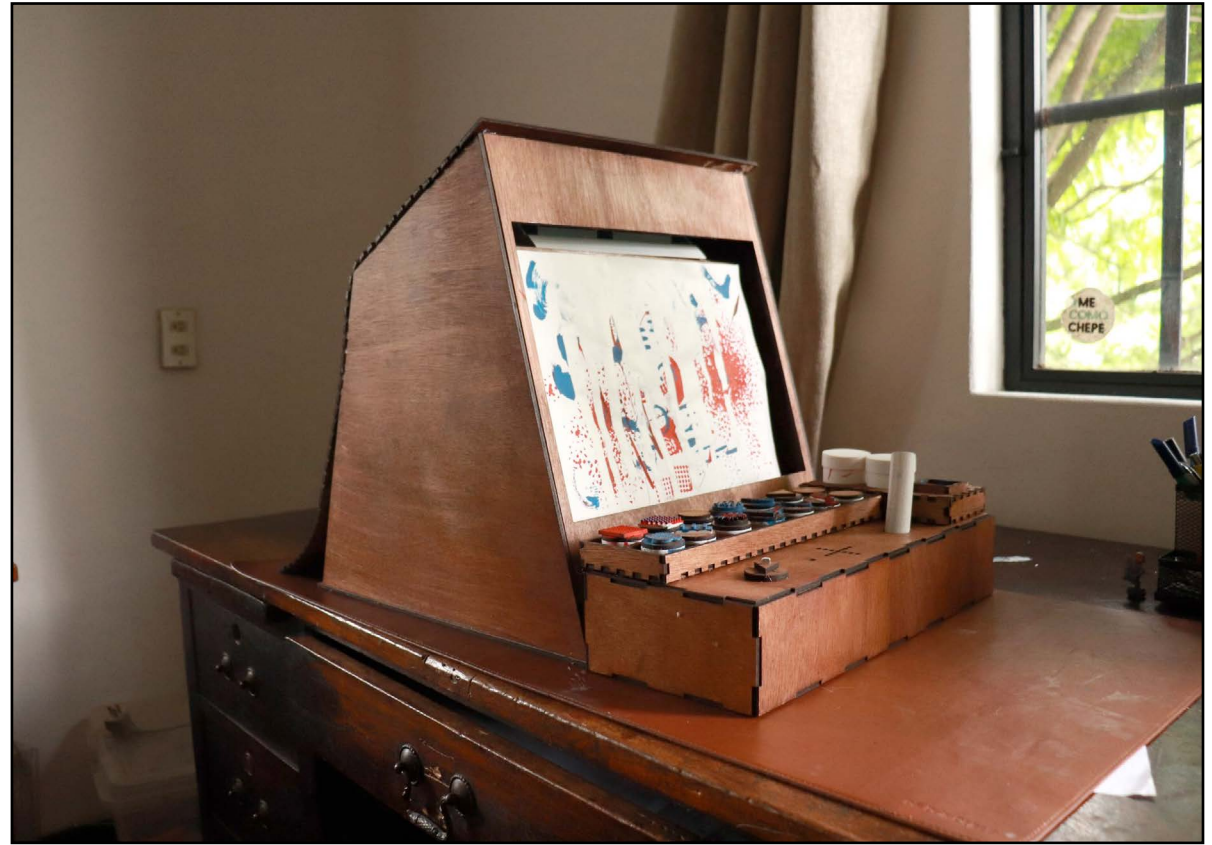
The prayer begins by aligning the compass in the direction of someone who last used their Shunya prior to the present. It is followed by a prompt written by the creator of Shunya.

## Phase Two – Prayer

The prayer phase is a creative act. The person is prompted to pause, reflect and put onto a canvas what they believe is happening inside. Something to drive this synaesthesia is music - music is played so that the friction between intent and action is taken away

## Phase Three – Destruction

This phase destroys the creative act – a fractal reflection of what happens in one's own life. White paint is automatically poured over the canvas covering the piece they have just created. It is encouraged that the same “destroyed” canvas is used to paint over the earlier cycle after a month - Shunya can only be used once a month





# Interlink

[View Online](#)

## An app/essay about the future seen through Interaction Design

The idea for interlink sparked halfway into my year at CIID. Interaction Design can be intuitive to work in but hard to explain. This dilemma turned me to read some foundational theory of interaction design - works of McLuhan, Nicholas Negroponte and Bill Verplank.

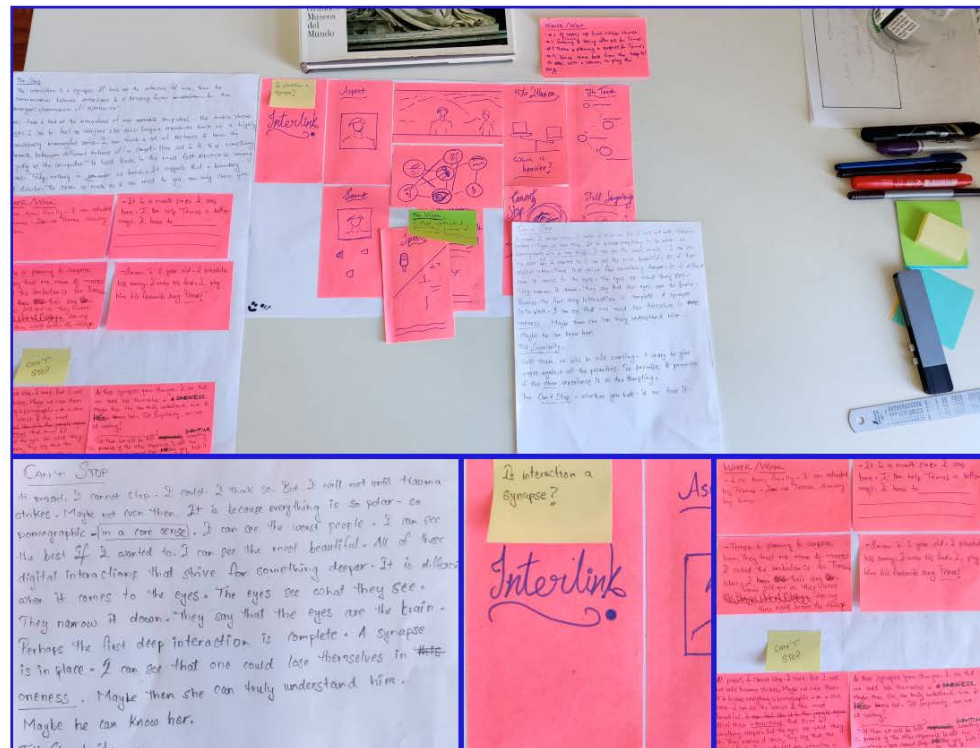
While researching into these works, I was struck by the fact that the lines between our internal nerve synapses and the technology's interfaces was blurring rapidly. At once, this was both a frightening and exciting future.



To grapple with the ideas that were surfacing, I wrote an essay. Reading McLuhan and Negroponte, I believed that while text still survives, transmitting ideas had to take on another form than what we currently have. This led to the idea that what if an app was made solely to transmit an idea. An app where the content and the interactions both convey the idea.

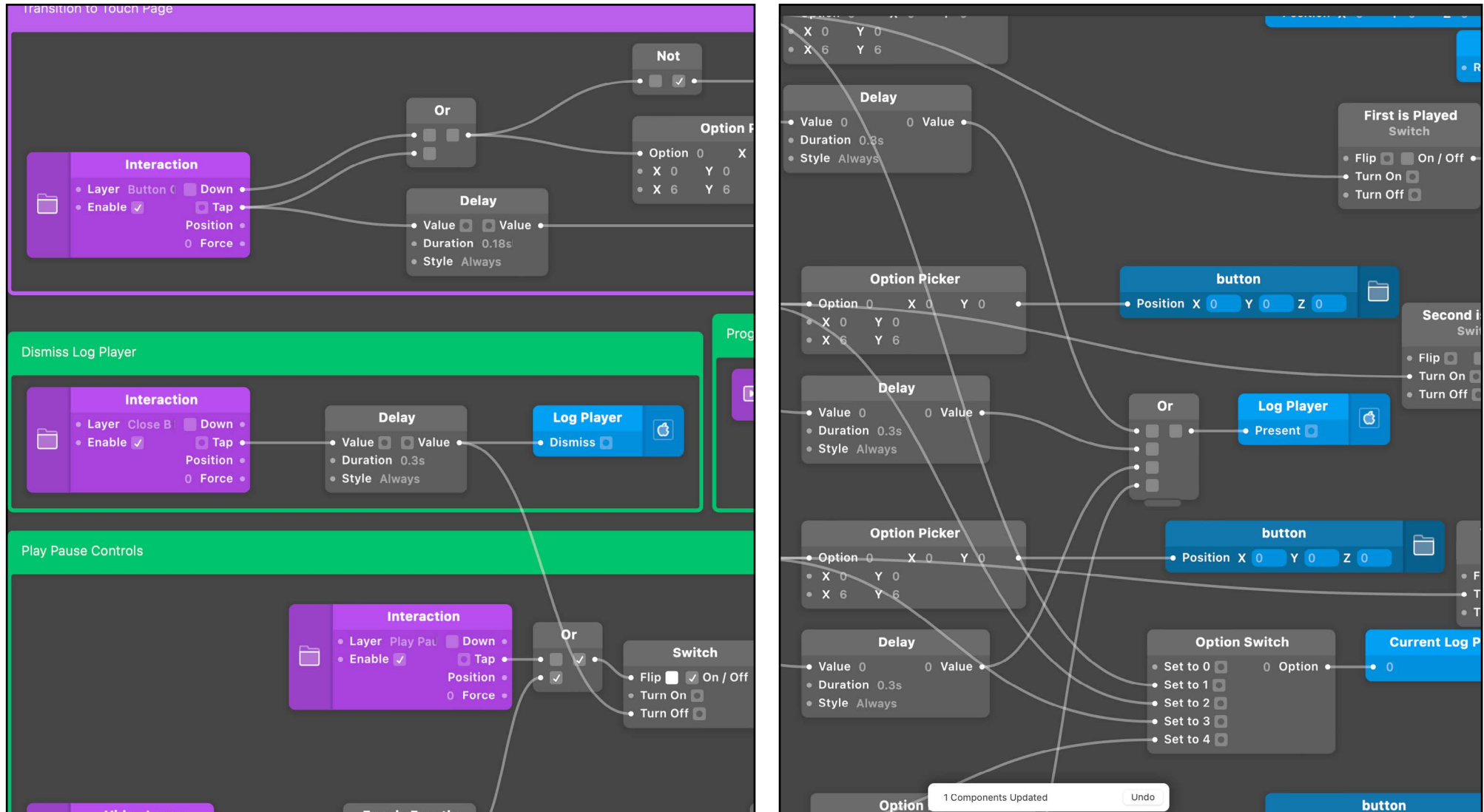
So the essay was broken into smaller sections - each exploring the fundamental ways we interact with humans

# Process





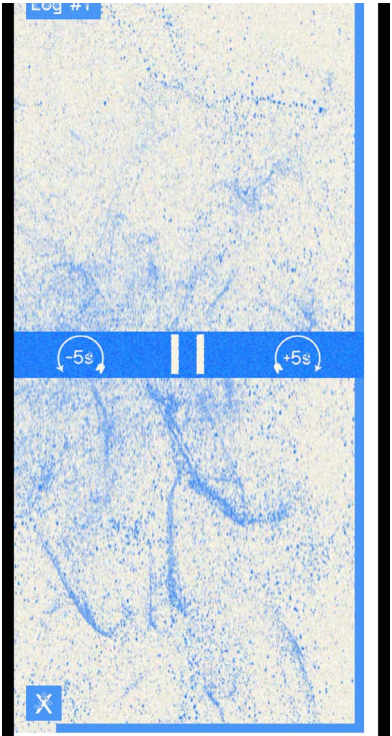
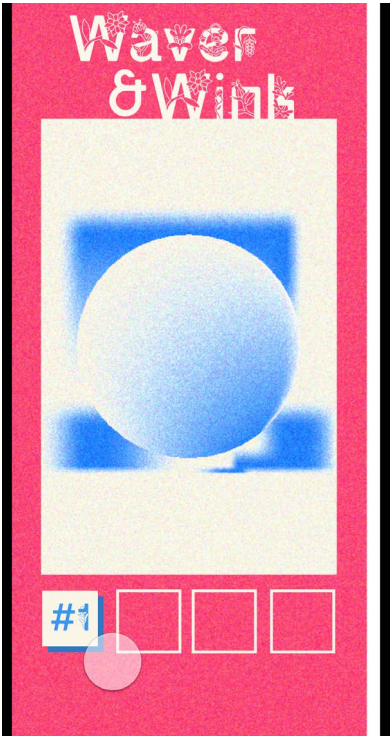
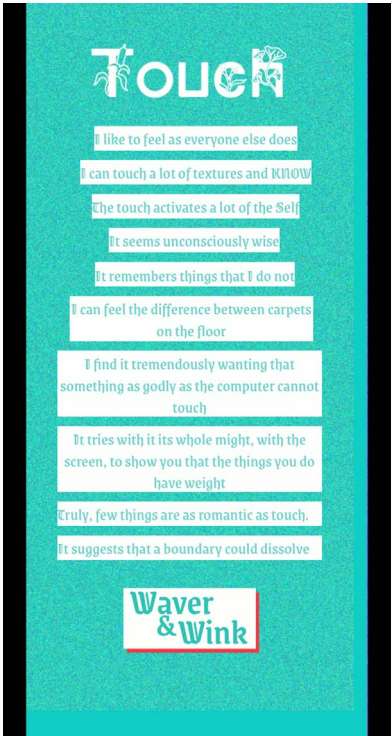
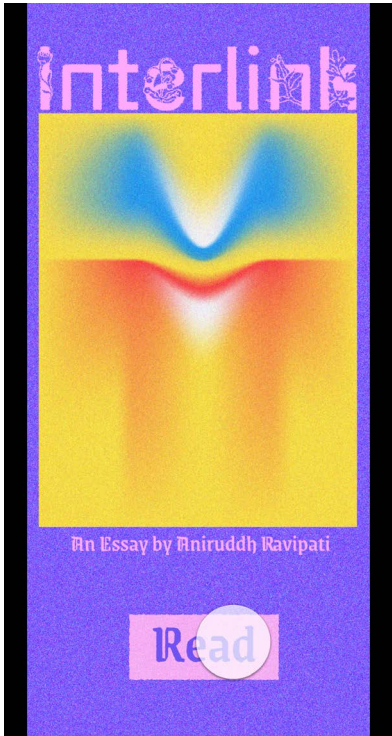
The next step of the process was to prototype the experience. For this stage it was important that each chapter change radically with its core interaction but retaining the same character. For this stage, I used Origami, a digital prototyping tool that offers more interactivity and behaviour coding



*Prototyping using Origami*

# App Screen Captures

*app video link*

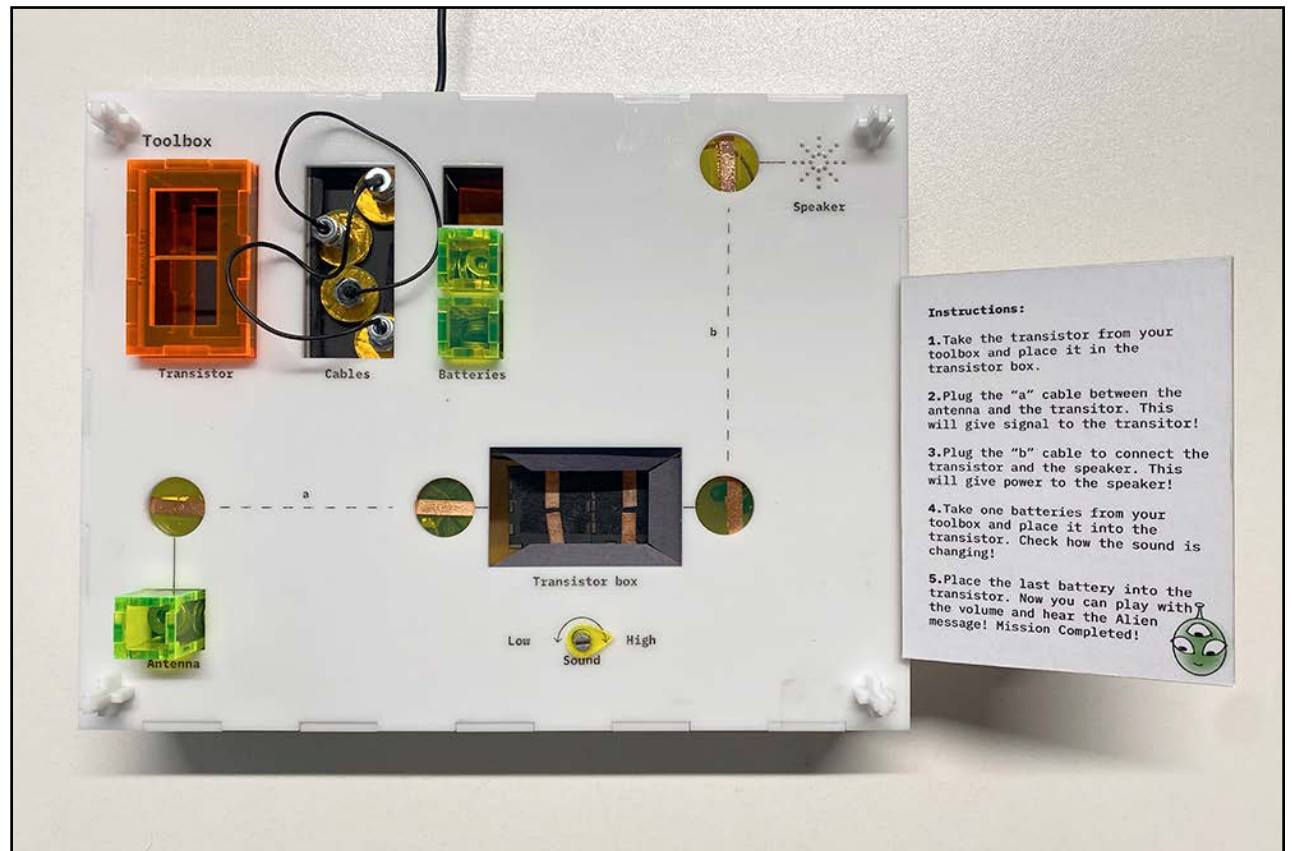


# Alien Radio

[View Online](#)

## A fun kind of education

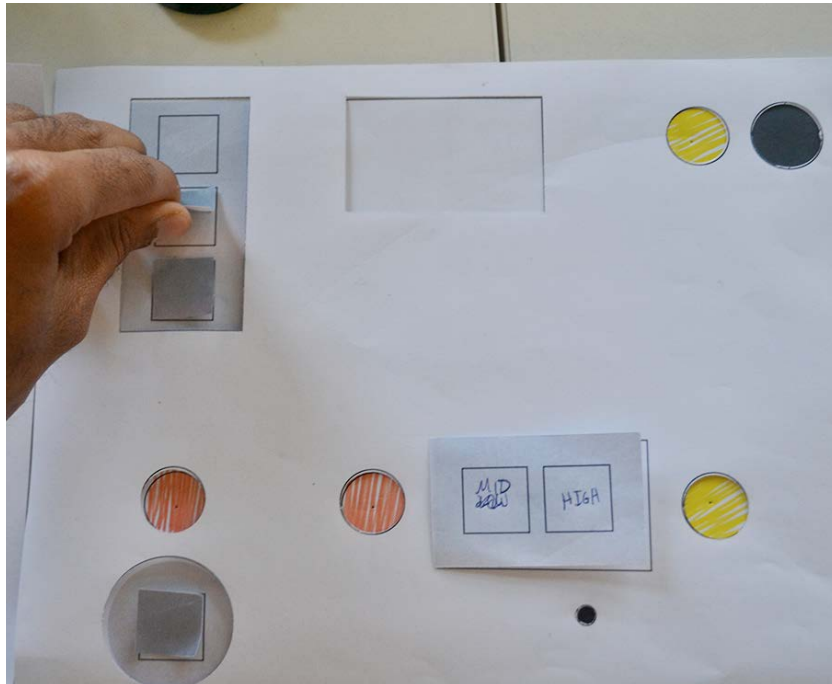
For the Physical Computing brief, we were asked to design an interactive object that helps kids understand a building block of digital computing. We chose to go with the Transistor. The term “building block” seemed apt for a transistor and sparked off a processing revolution.



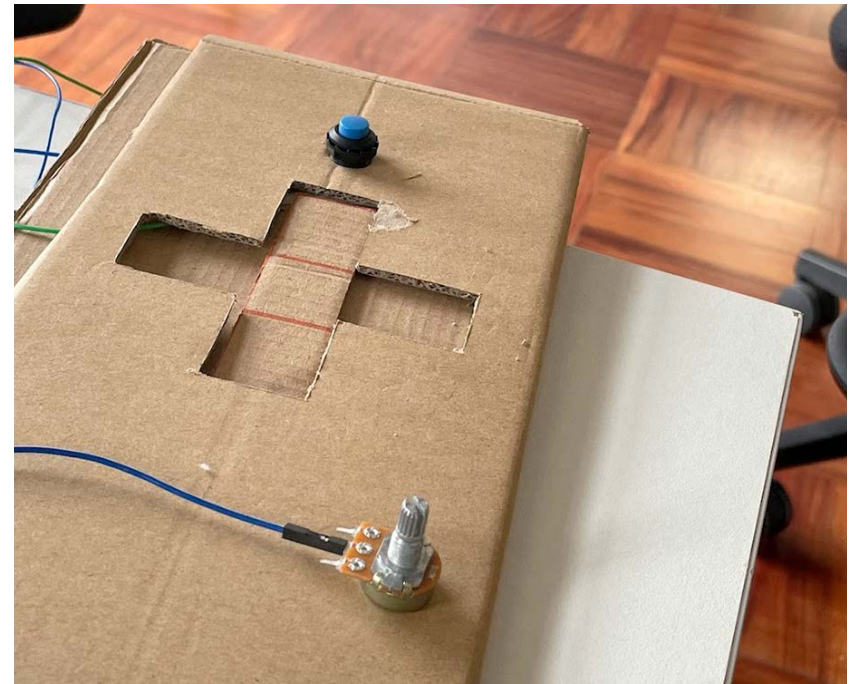


Alien Radio is our way of explaining, in the simplest terms, what a transistor does. It is an interactive book aimed at kids getting into the core concepts of electronics.

We were inspired by the philosophy of the Lectron System by the Braun brothers. The fun part of electronics is building a circuit and we wanted to bring the same experience to kids. Under the hood, we used an Arduino Nano in conjunction with several speakers, and custom buttons to achieve the task.



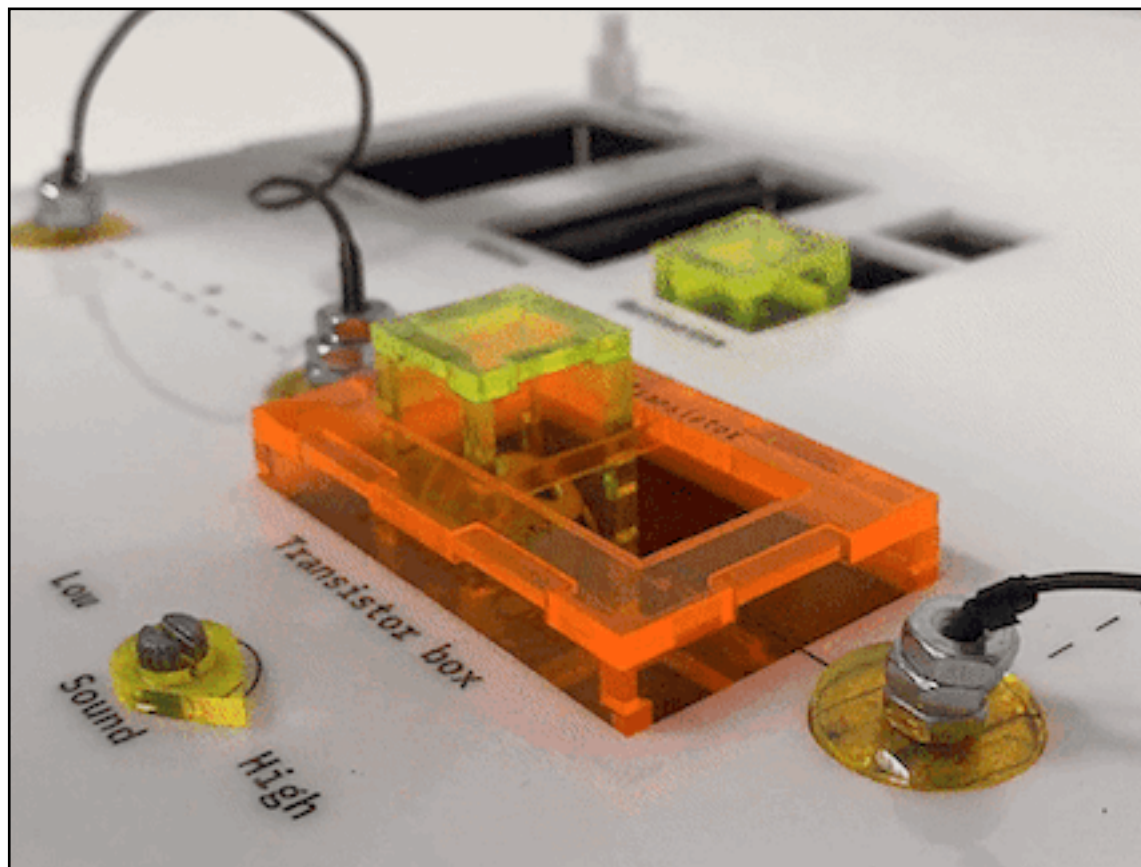
*Paper Prototype*



*Cardboard Prototype*

The story was inspired by the humble beginnings of the transistor itself. Transistors were widely used to amplify signals in AM/FM radios. The circuit itself is simple to understand and is a great demonstration of the fundamental mechanism of a transistor.

We position the reader as an alien scientist who is out to understand the vague low radio signals that they are receiving from somewhere out there in space. The reader progresses through the story at the end of which is the task of building an amplifier circuit.



*demonstration video link*

# Stretch!

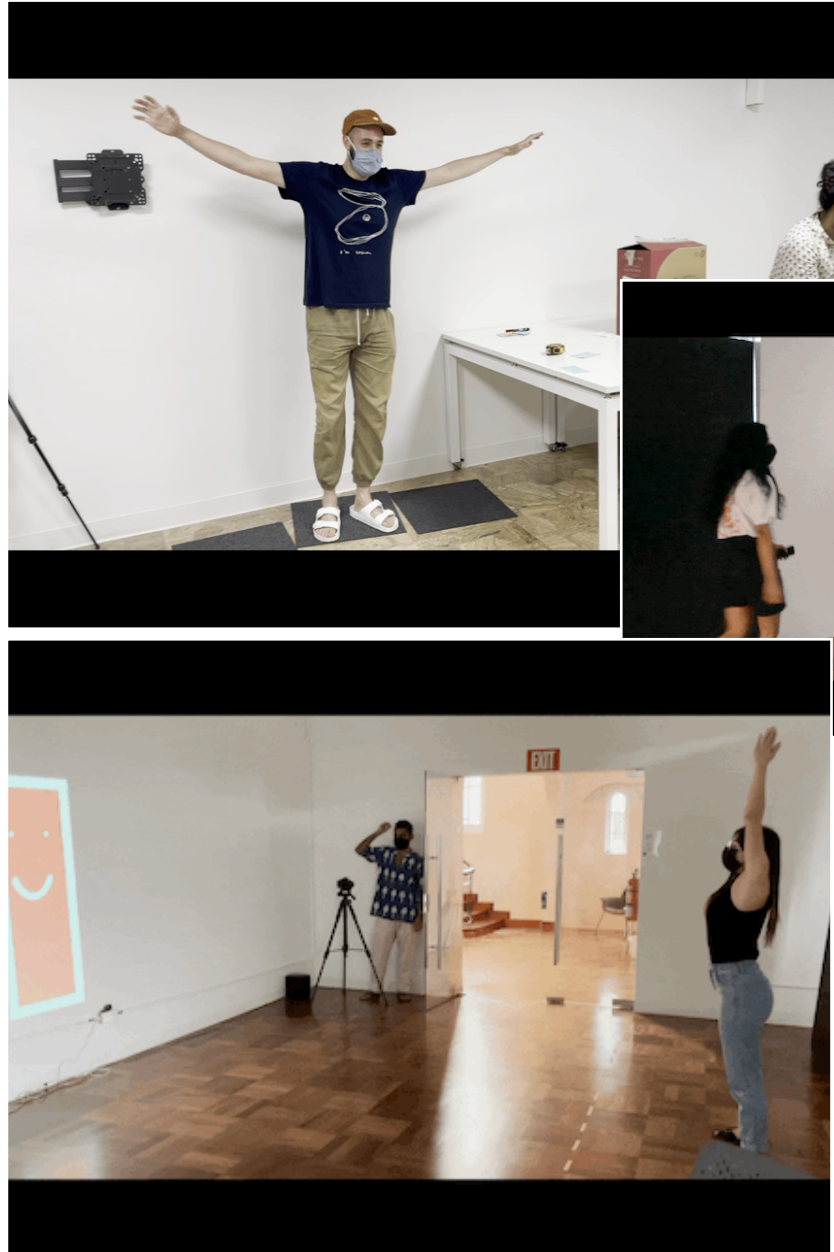
Stretch was borne out a brief - “Create a moment of COVID-aware interaction using a machine learning system”. To that end, we wanted to move beyond integrating a COVID safety protocol into the interactions. Rather, we wanted to provide a moment of relief and joy to people.

Having been through isolation in each of our own homes, we brainstormed ideas that somehow provided the type of interactions that isolation takes away. At the end we finalized on - play.

Play in a COVID world seemed to be online only. But with Stretch! we wanted to have the best of both worlds, have fun and remain safe. To fulfill that criteria, the focus of the play had to be external i.e. Stretch is not a game where players play against one another. With Stretch!, the interaction between people is a by product of play - not a necessity.

Stretch is something we envision to deploy in any area with a wall : along a street, a corridor, a public square. The intent is for Stretch! to bring a moment of joy to those that walk by!

[View Online](#)



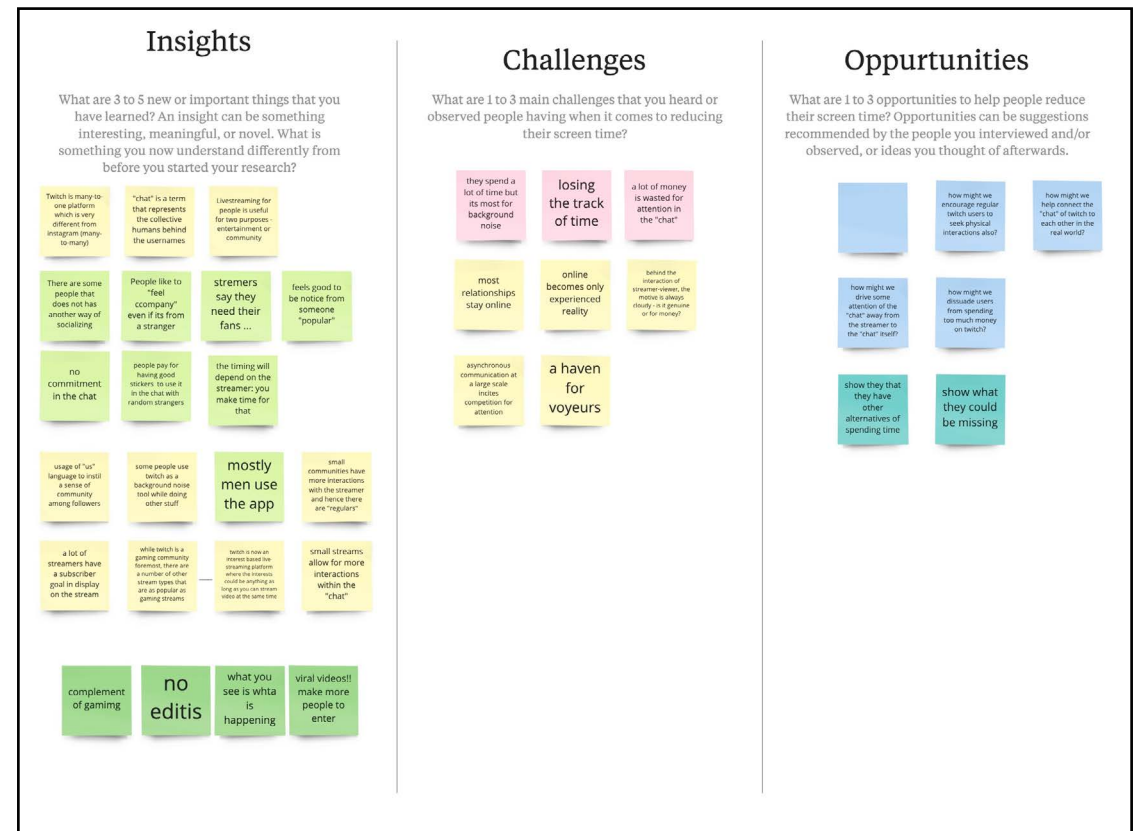


# Switch Twitch

[View Online](#)

## A web intervention for those addicted to streaming

Screens and electronic devices are a great distraction in our daily lives, which is very difficult to deal with since we use these devices for practically everything. One of the most widely used digital platforms currently is Twitch. Twitch users can watch what they love, connect with streamers and engage with tons of communities.



Through an investigation on the use of Twitch in users aged 16 to 28 (most of them men) two user types were identified: the first is the person who interacts with Twitch for social interaction; the other type uses Twitch for “background noise” to be able to do their homework.

## Hypotheses

Considering the average twitch user's environment (alone in a room), the chat is a hyper-social stimulus for the user to engage in synchronised social cues triggered by the chat itself or the streamer

Twitch users start out by using the application as a "background noise" tool (which gives instant rewards like entertainment) against a main task like homework (which gives long term useful but vague rewards like increased knowledge) which in most cases leads to distraction

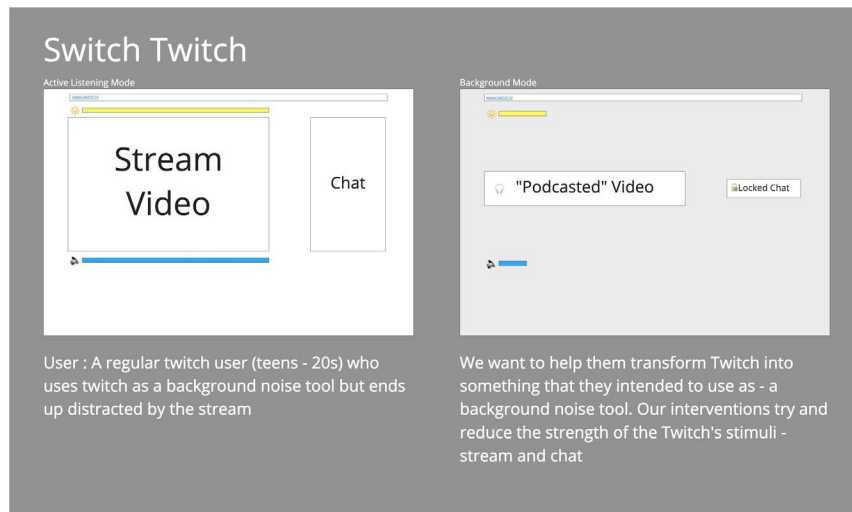
The average teenager-early 20s person (twitch user) does not have a fixed schedule which makes it easy to follow the inertia of watching streams

Switching Twitch is for the second type. This user normally has a second screen to view the stream while they perform their task. But, even if they intended to use Twitch as “background noise”, they end up being distracted.

More often than not, what they have to do against the backdrop of a highly entertaining stream is a focused task with a vague reward, like homework. This ends up with the user being unable to clearly focus with intent on the task that they set for themselves.

HOW MIGHT WE TONE DOWN THE DISTRACTING ASPECTS OF THE VIDEO STREAM IN THE BACKGROUND WHILE STILL GIVING THE USER A SENSE THAT THEIR BACKDROP IN THEIR ENVIRONMENT HAS A BUSY-NESS?



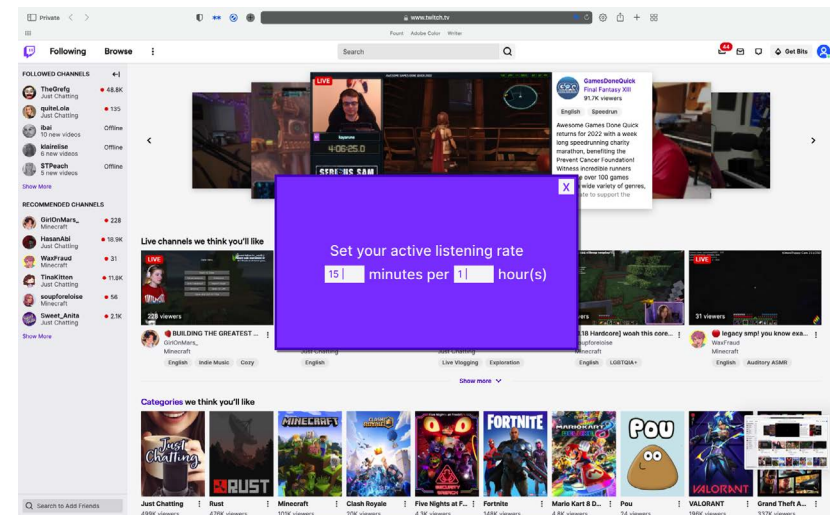


*Wireframe Prototype*

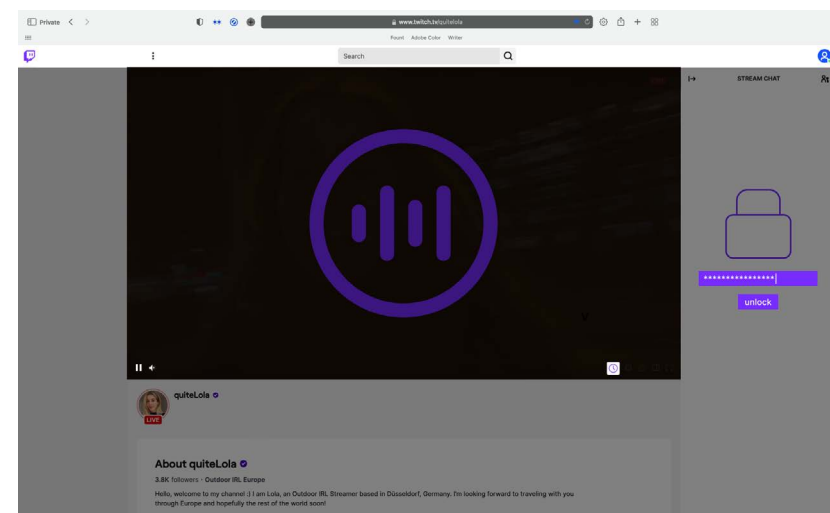
Switch-Twitch is a browser extension that helps twitch users to reduce the distractions in the screen and help them use Twitch only as a background noise tool. This extension transforms Twitch into a low-stimulus zone by reducing the tab brightness, dimming the audio levels, and hiding both the chat and video. This turns twitch into a more ambient podcast experience than an active viewing experience.

The settings resulted in greater concentration on the part of the user and reduced the time it would normally have taken them to perform the task they were doing.

*Figma Link*



*Setting the break time*



*Setting the break time*



# Pendulum

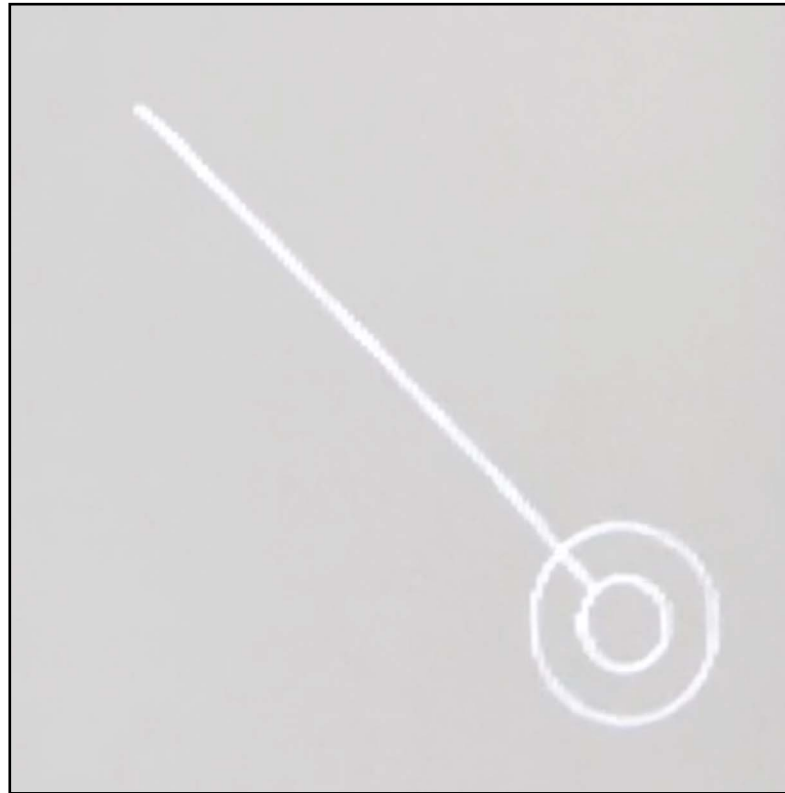
[View Online](#)

## Peace and Synchronicity

Pendulum is an interactive art installation that uses sound and synchronization to alter people's perception of time.

The installation consists of a moveable screen, footpads and a pendulum. The pendulum is projected on both sides of the dividing screen and is designed for two people to participate on either side.

The user stands in front of the projected pendulum, they place their feet on the connected footpads. When they match their foot movements with the height of the pendulum's swing, the system produces sonic and visual feedback, letting the user know that they have successfully synced with the pendulum.



As both users synchronize their movements with the pendulum, they hear different musical feedback and become aware of their hidden collaborator.

The screen slowly moves away after the two users have successfully synced their movement for a set amount of time. When the screen is completely removed, the users are able to see each other, moving in sync.



## Prototyping Insights



Bodystorming is a powerful way to explore and solve problems



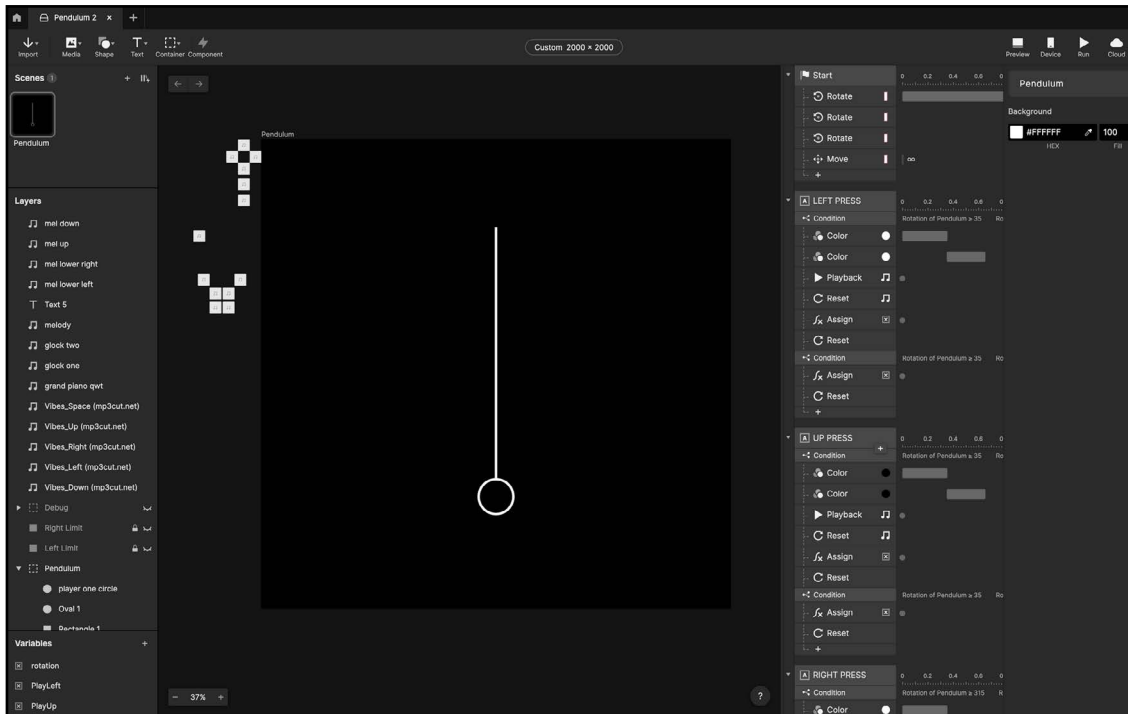
It's all about designing the *right* kind of test



Knowing when to be real (and when you can pretend)

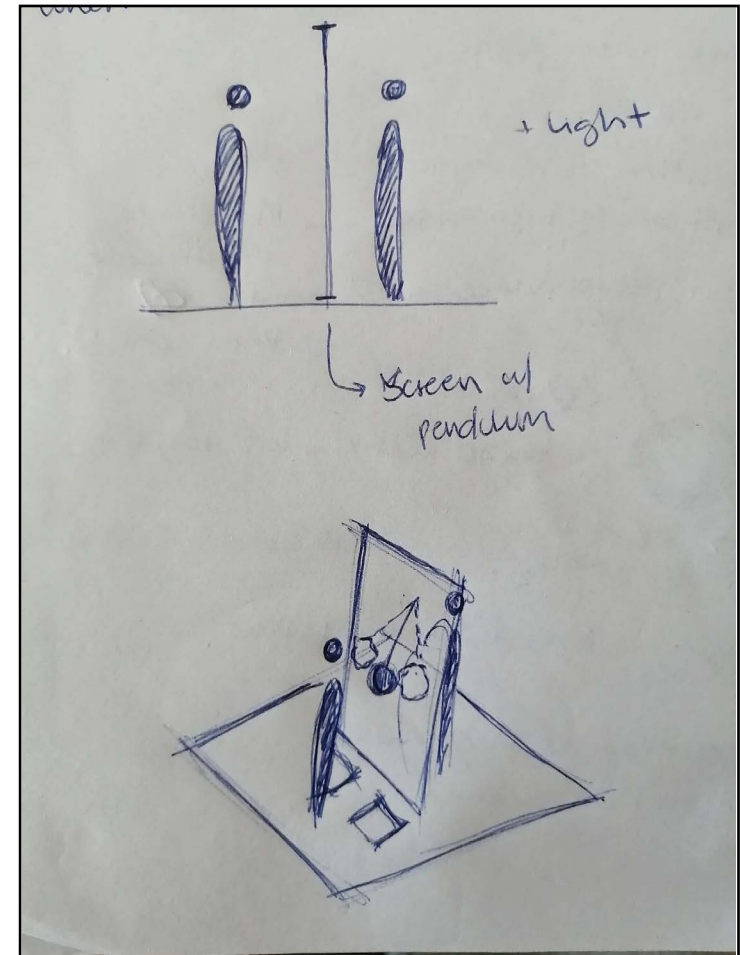


The user experience a rhythm that is unique to the pendulum and each other. This project was created as part of the Prototyping as a Process course. The team used low-, mid-, and high-fidelity prototyping and learned about the role of prototyping within the design process.



*Prototyping using ProtoPie*

## Demo Video



*Initial Sketches*



# Lindenmayer's Piano

[View Online](#)

## Fractals, L-Systems & Music

For the Intro to Programming course, we were challenged to represent nature, at whatever scale and scope, through code output. We were given a host of topics to be inspired from. We felt that the intersection of the essences of code and nature could be best represented through L-Systems (Lindenmayer Systems).

L-Systems are self repeating sets of code. People have discovered several L-System codes that translate into surprisingly accurate representations of natural objects like leaves, and snowflakes. The shape and representation of these L-Systems also change depending on the number of iterations that the L-System is allowed to grow.

The next challenge was to somehow add an interaction through which the user “traverses” the L-System. To that, we came up with the idea of using a musical scale to explore the drawn L-System. So we connected the L-System code to reveal itself in bursts and after-images in response to different notes that are played on a MIDI device (shown using a computer keyboard here). In effect, it is a highly plug-and-play software on both ends of its interactions – visual and audio.

We call it Lindenmayer's Piano

