Future of Drawing
Designing Playful Creative Assistants

Brief

In this semester project, we collaborated with Caran d'Ache, a renowned Swiss company specializing in a wide range of writing and drawing instruments. Caran d'Ache instruments provide invaluable support to designers, illustrators, artists, and novices, facilitating the realization of their creative endeavors. Although the world of Caran d'Ache may initially appear distinct from digital design practices, a closer examination reveals a significant connection. Writing and storytelling serve as foundational elements in digital practices, whether it involves composing algorithms to generating poetry or experimenting with drawing machines.

More recently, AI algorithms have been employed to generate drawings and visuals by utilizing prompts with generative models. These models hold the potential for a future where AI serves as a co-creator, assisting artists in their creative process. While these prospects are promising, they may eliminate the tactile experience associated with drawing activities (such as tracing, coloring, exploring various hues, blending, etc.). Additionally, they present a future in which these collaborators may adopt conventional forms, resembling simple chatbots that engage through text-based dialogue.

Throughout this project, we asked ourselves the following questions:

1. *In what forms and with what characteristics could an AI serve as an artist's assistant?*

2. *What novel combinations and engaging interactions could we envision in this context?*

3. *How might we transcend the conventional metaphor of AI as a collaborator?*

Novel Combinations

By novel combinations we mean juxtaposing simple materials in unexpected ways. This can be achieved by taking complex «new» technologies and integrating them with familiar technologies or gestures, and thereby simplify their complexity through the poetics of well-understood mechanisms or materials.

What we created

In this workshop, our aim was to craft playful AI creative assistants. The element of playfulness served as a catalyst for inspiration, encouraging individuals to broaden their artistic horizons. Leveraging the rich offerings of Caran d'Ache tools, we conceived a new breed of interactive objects. Our primary focus was on designing interactive objects tailored for beginners — those who may not consider themselves artists or professionals and may benefit from additional guidance in their creative journey. Such individuals often require a lighthearted approach to ease into creative activities.

Core competencies

- User research
- Interaction design methodologies
- Prototyping and user-testing methodologies
- Creating coherent, narrative, playful interactions
- Product design and 3D modeling
- Electronics

Planning overview

Phase 1: October 16 to October 30
Observation, field research and experimentations
During this phase, we focused on understanding the Caran d'Ache world, its audience and started mapping possible areas of research. Students applied various methodologies taught in class. Students started prototyping and pitching ideas.

Phase 2: October 30 - November 4
First intentions
In this phase, we defined some first intentions, user scenarios and possible interactions. We mainly created paper mock-ups to test and pitch the first ideas. Technical classes would come later.

Phase 3: November 13 - November 16
Concept
This phase focused on visualizing the project intention (mock-up, scenario, drawing) and creating a presentation for the mid-crit with Sophie Murbach of Caran d'Ache.

Phase 4: November 27 - December 15
Prototyping
During this phase, students focused on prototyping their ideas (3D, electronics…). Students continued iterating and thinking about the final details of the interactive object. Finally, students tested their prototype during the department organized "Test Day".

Phase 5: December 20 - January 17
Final development and presentation
In this phase, students focused on finishing their project and final production. Students created all the final assets needed for their presentation and final jury with Caran d'Ache.

Team

Collaborator Caran d'Ache
Sophie Murbach

Professors
Alexia Mathieu, Douglas Edric Stanley, Félicien Goguey, Laure Krayenbuhl, Pierre Rossel

Assistant
Pablo Bellon

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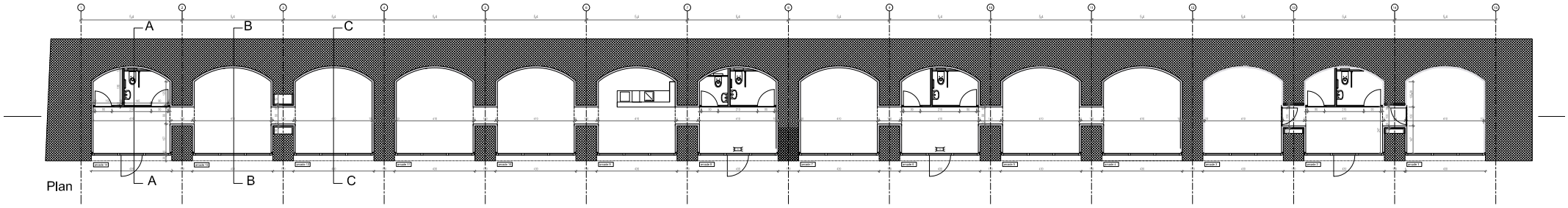
Students
Andres Acosta Blaschitz, Ares Pedroli, Naomi Blidariu, Basile Brun, Adam Chatir, Daria Kotova, Debjyoti Dhowmick, Ekaterina Bliznyuk, Jonas Wolter, Lauren Thiel, Leyla Benkais, Mathis Baltisberger, Sarah Meylan, Jasmine Molano, Océane Serrat, Mathilde Schibler, Enzo Seurre

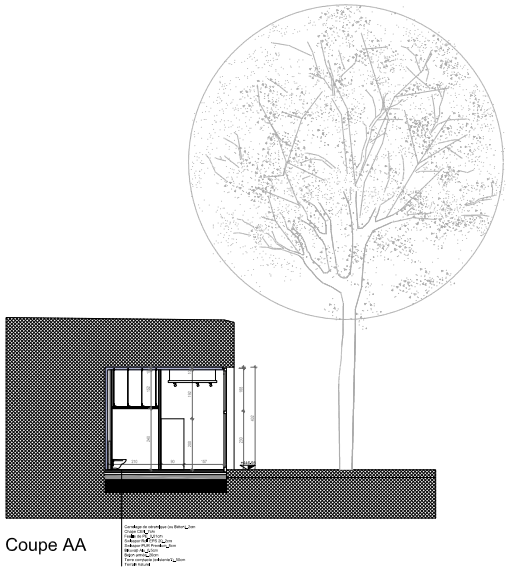
Special thanks
Aurélie Gfeller, Christian Gonzenbach

Exhibition

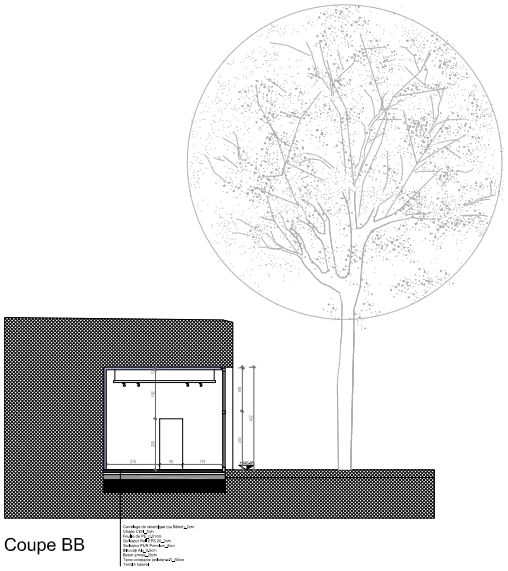
Selected projects will be exhibited at the Caran d'Ache gallery at Plateforme 10 in Lausanne in May 2024. The selected projects will be decided by the Caran d'Ache team during the final jury in January 2024.



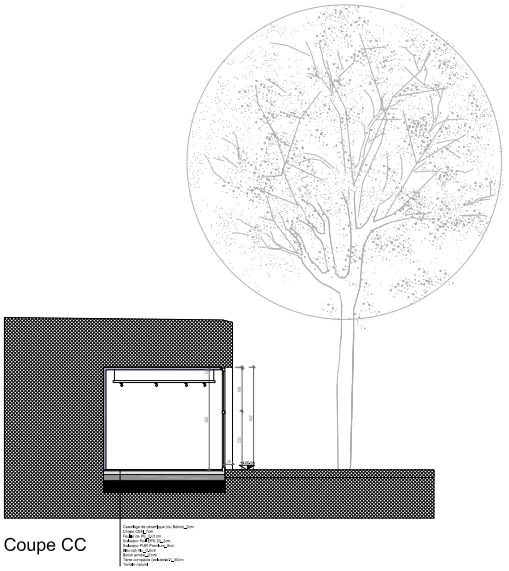
Plan



Coupe AA



Coupe BB



Coupe CC

Chère Nïla

/tʃɛrˈniːlə/

Project Description

Chère Nïla
/tʃɛrˈniːlə/
Russian: Чернила, meaning: ink

«What if we could draw with our breath?»

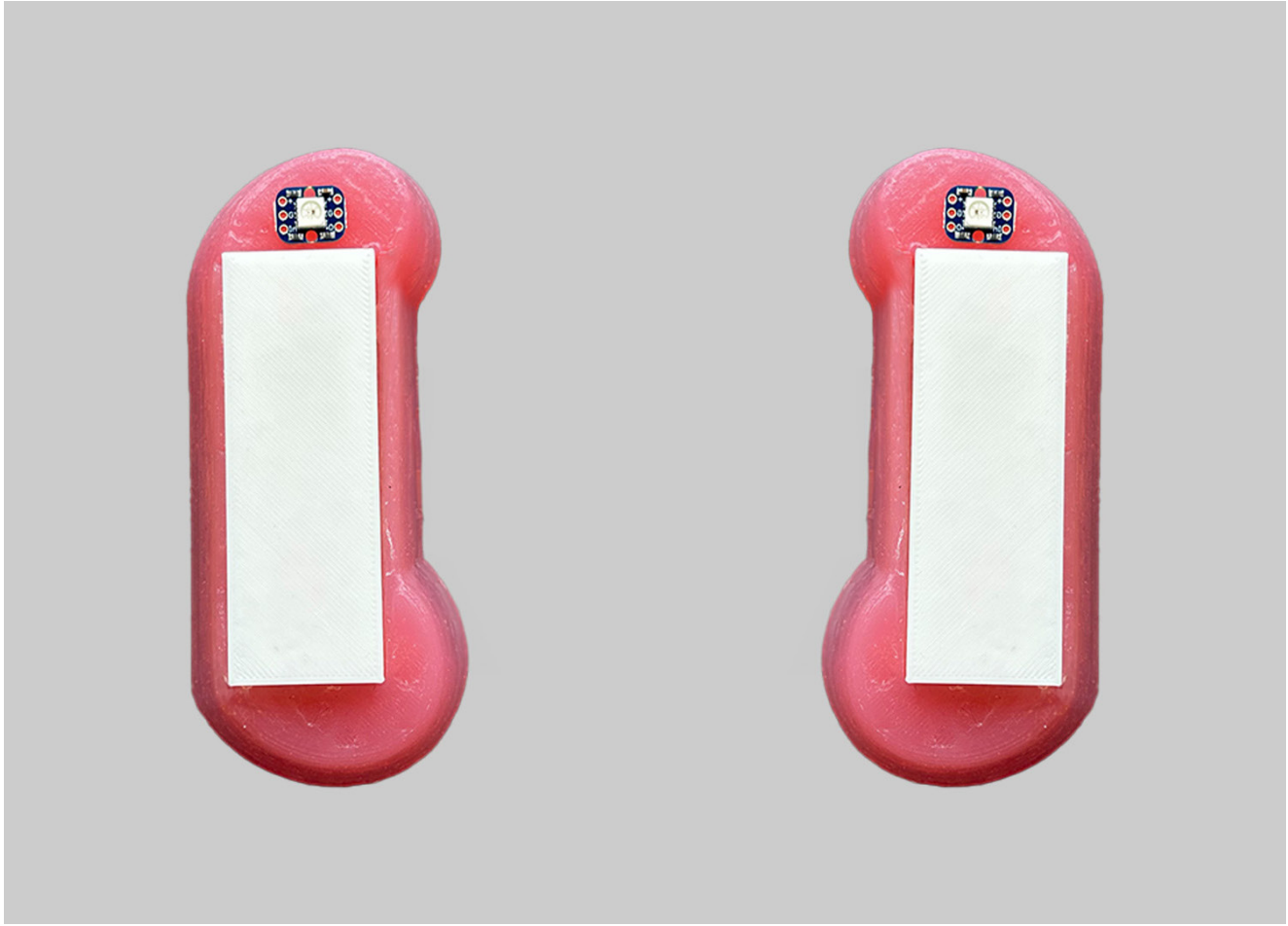
Chère Nïla is a two-player drawing game designed to foster relaxation and co-creation through coherent breathing.

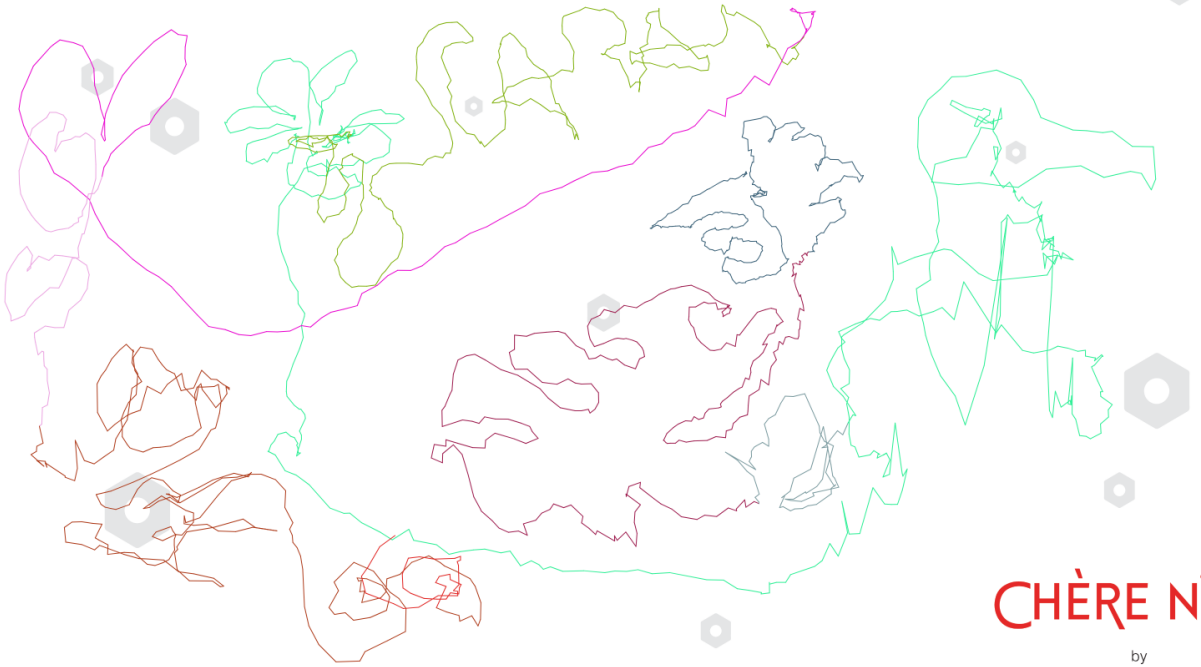
We are convinced that drawing should encourage relaxation and amusement, but most importantly: drawing experiences should be shared.

Chère Nïla envisions a future of drawing that is not just innovative but also sustainable.

By reading biometric data obtained from eco-friendly bioplastic wearables, Chère Nïla turns you, the user, into the input of this experience.

The Chère Nïla experience is accessible from any location simply by utilising the web-based Chère Nïla application.





CHÈRE NÏLA

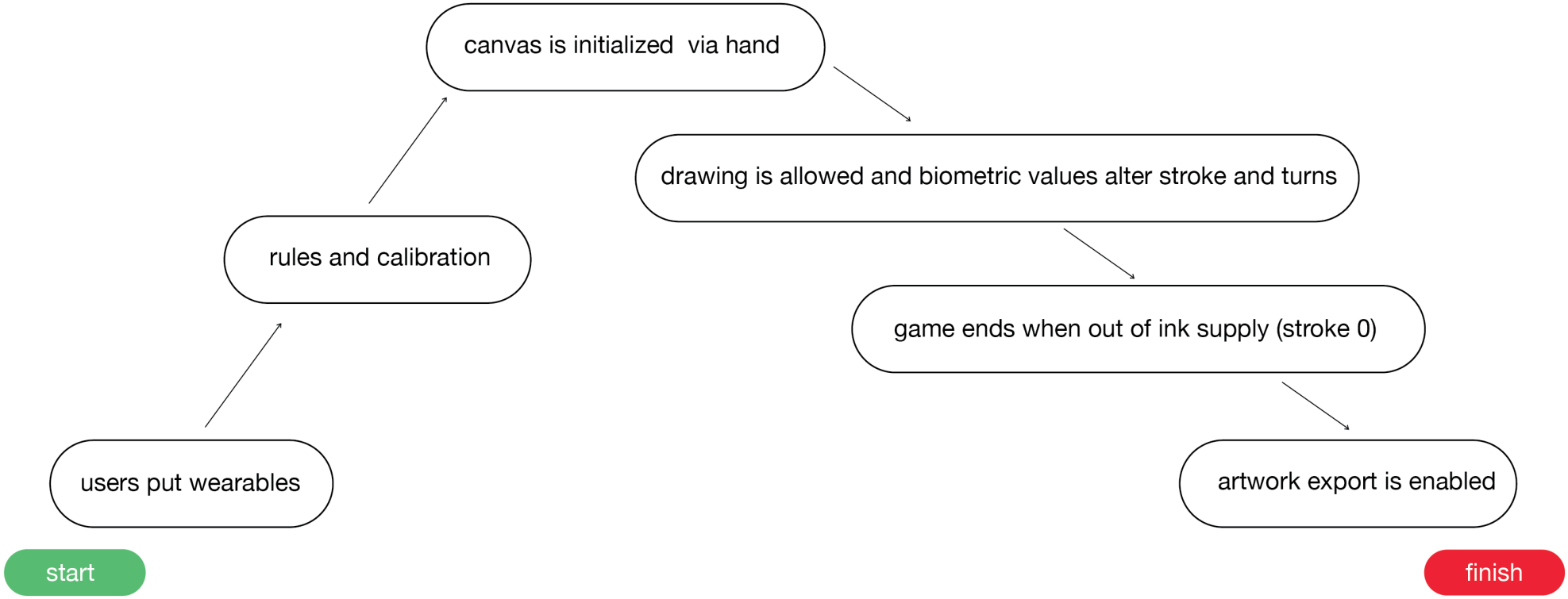
by

CARAN D'ACHE
Genève

User Journey

How does it work?

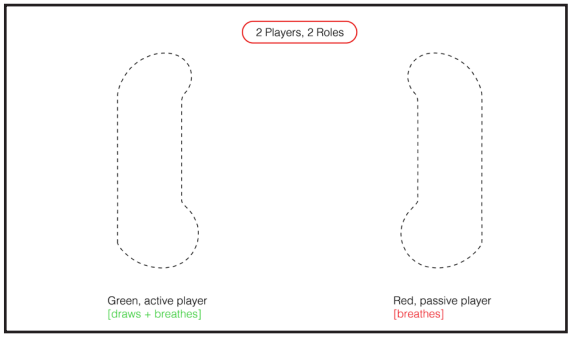
In this game, two players have to calmly coordinate themselves to create a novel artwork via hand detection. Players have roles. There is an active player and a passive player. The active player has to coherently control his breathing while drawing at the same time, the passive player has to just breath coherently. If chaotic breathing patterns are detected, the ink supply will decrease and roles will be switched. The game ends when the players run out ink, which enables the export of the experiences's souvenir: the co-created artwork.

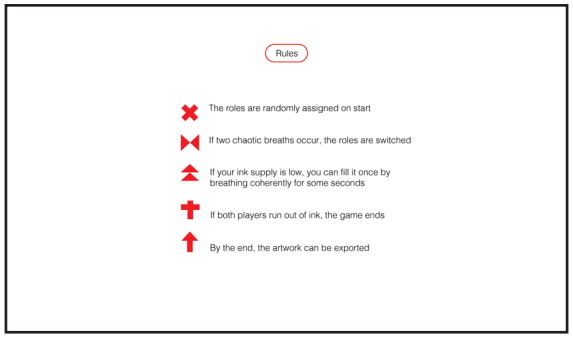


User Journey

The Chère Nïla experience: how everything begins.

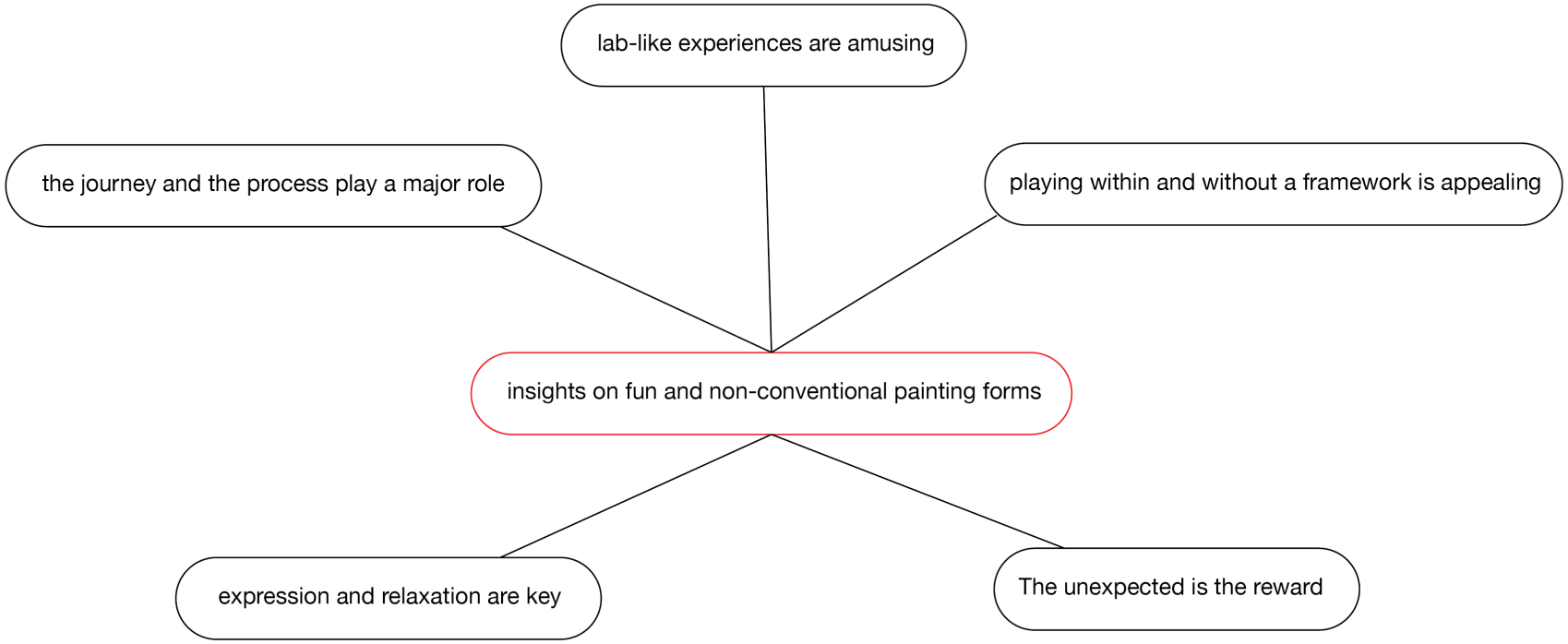
The user journey starts by putting on the eco-friendly wearables and learning about the rules of the game. Afterwards, the wearables can be calibrated and the experience can be started via hand pinch.





Field observations

Key Insights on fun/non-conventional ways of painting: surveys on the importance of fun, experimentation, enjoying the process despite the final outcome and non-conventional ways of painting.



Field observations

Key insights on the topic of fun and non-conevntional ways of painting as a result of research and testing. The data was collected during the prototyping process and during the test day.

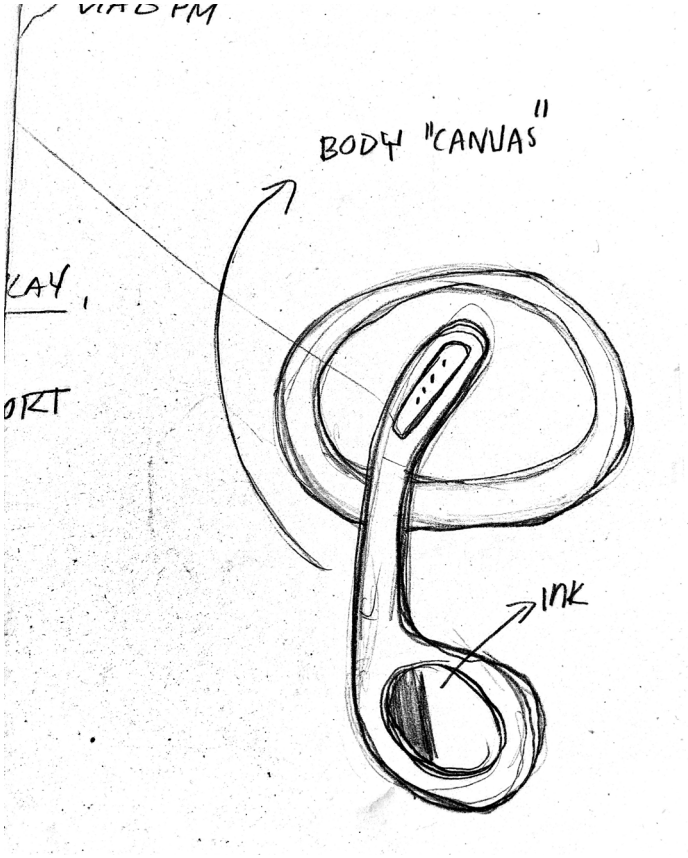
Test day Insights	Users 1 + 2	User 2 + 3
Insight 1	Focus on collaboration rather than on competition	Focus on the collaborative aspect of the project
Insight 2	Assign colors to players	Eventually save data for a database of created artworks
Insight 3	Don’t make the ink supply visible, use the stroke as ink supply	Keep the export function idea
Insight 4	Depict game instructions digitally	

Visual and Material Moodboard

Research on bioplastic and the use of seaweed and bioprinting in the product design industry. Some references were Willem de Koonig Academy in the Netherlands as well as dutch designers Eric Klarenbeek and Maartje Dros.

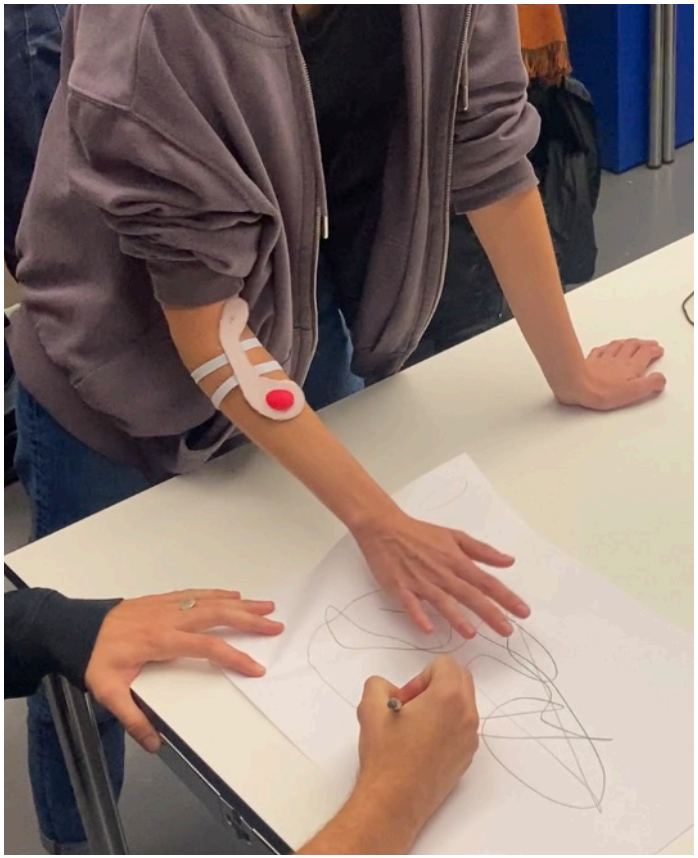
Shape research

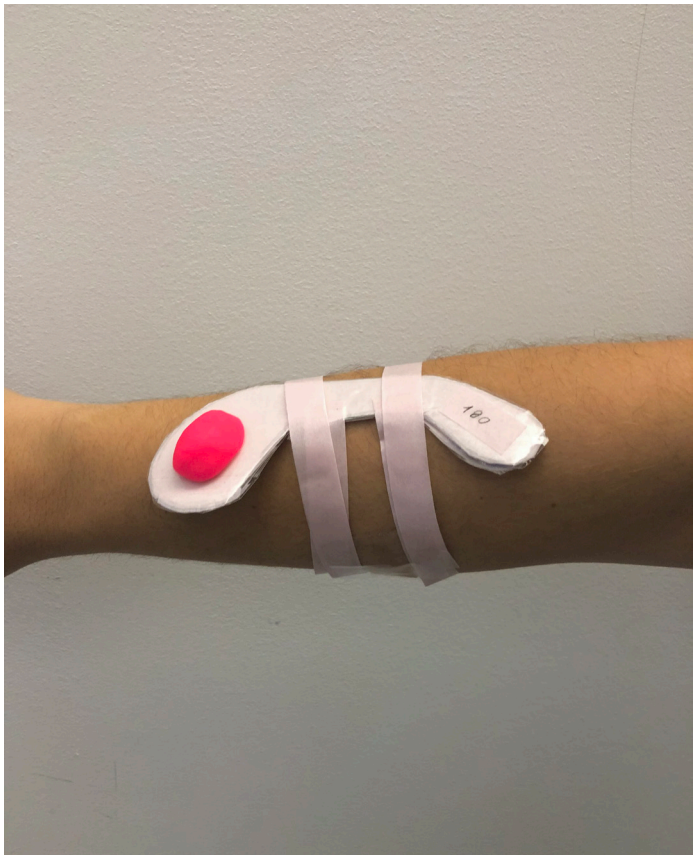
Shape Research and Material Explorations. Variants of shapes inspired by the Caran D'Ache old logotype and diverse bioplastic explorations to test material flexibility, reduction of size, texture annd also modularity of the shape.



Paper Prototypes

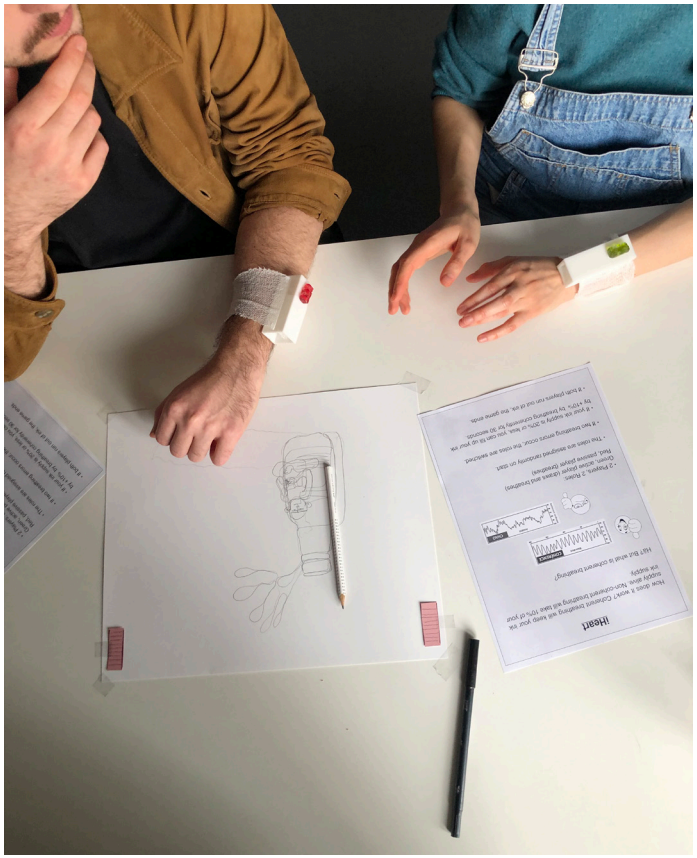
The shape of the wearabale resemble the letter C of the old Caran D'Ache Logo. The wearable iterated through time while adapting to the electronics and ergonomy but still staying true to its characteristic shape.

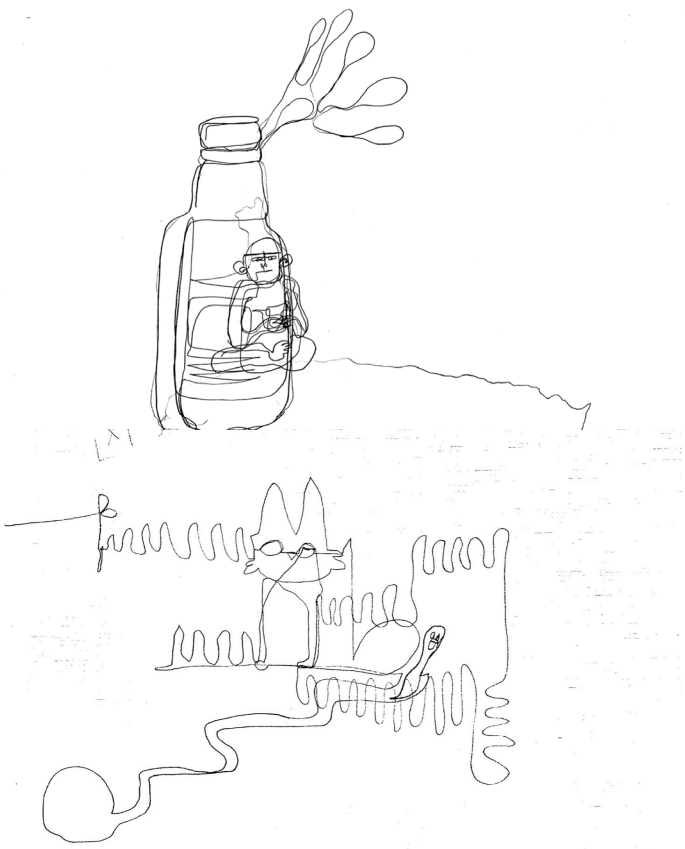


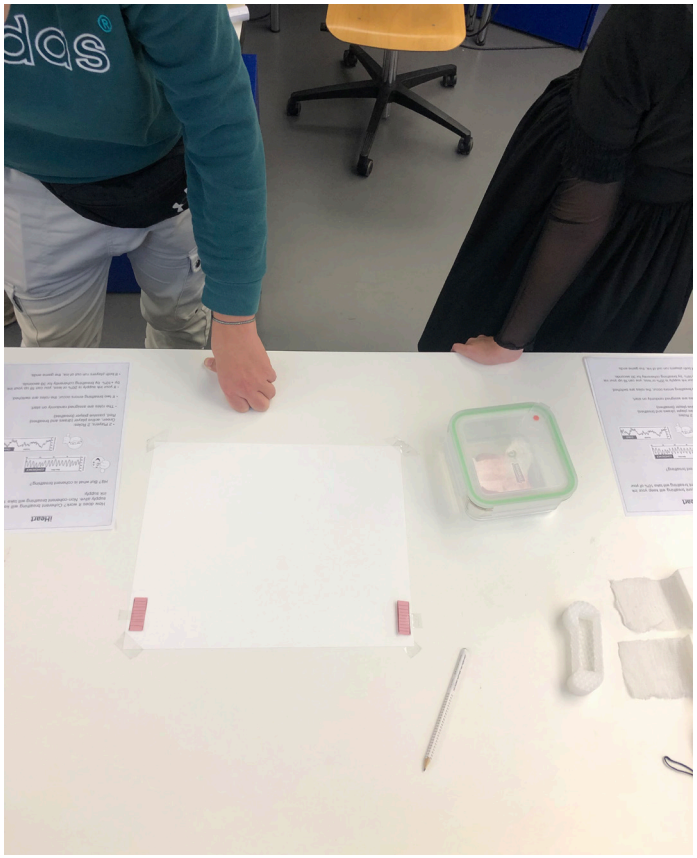


User Tests

User tests conducted during the test day with the students of MD2. These tests led to several insights regarding the logic, visuals and overall experience of the project. The created artworks during test day depict astonishing creations that arose from the breathing coordinations.







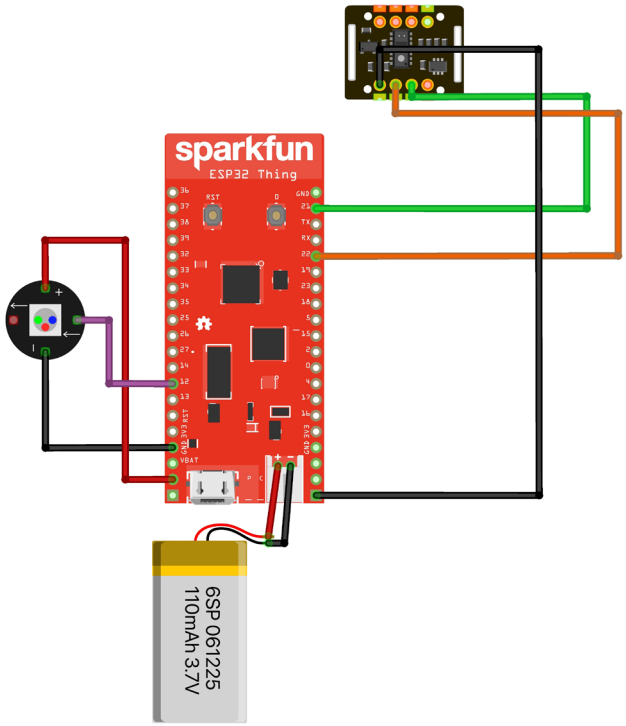
Electronics

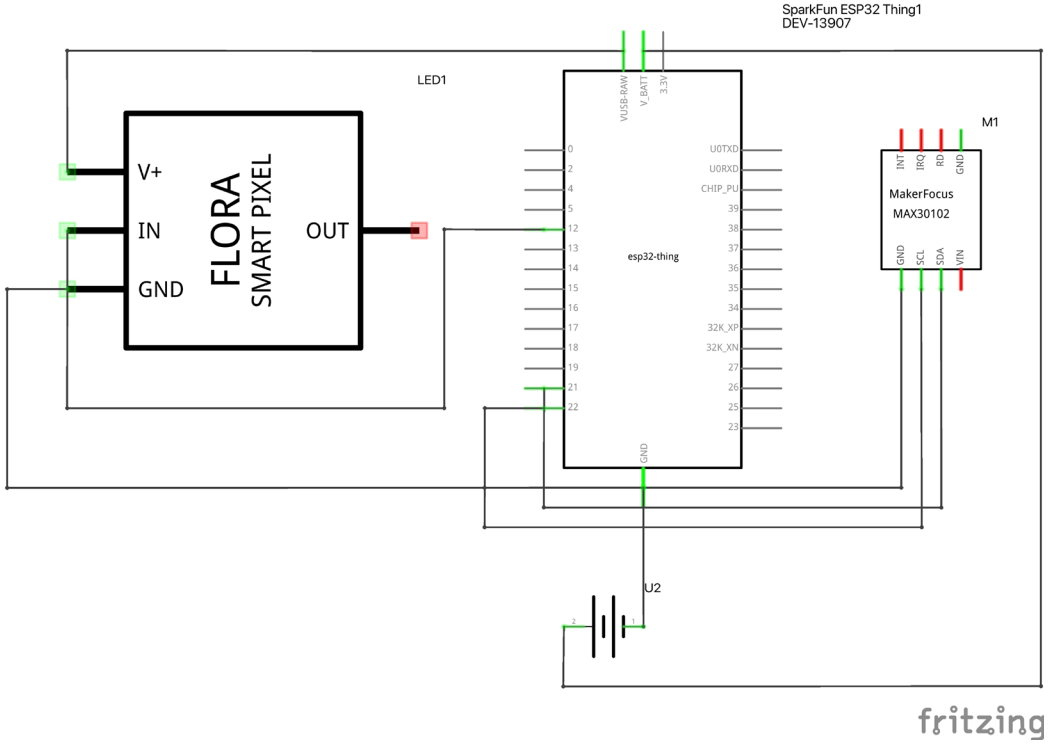
Table of tech parts and their respective maximum and minimum voltages as well as currents in order to diagram the electronic schematic and for battery and powering considerations.

Techpart	Min V	Max V	Current
BPM Sensor	1.8	2.0	>1mAmp
ESP 32 Thing Plus	2.2	3.6	80mAmp
Neo Pixel LED	3.7	5.5	~60mAmp
Total:			141mAmp

Electronics

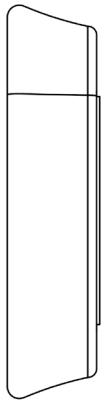
The ESP32 Thing Plus provides Bluetooth, which enables a wireless connnection with the Web-based Application to which the device will be sennding biometric data in real time.

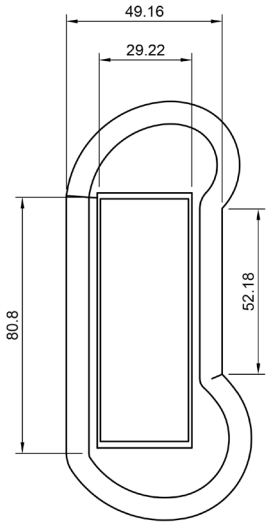


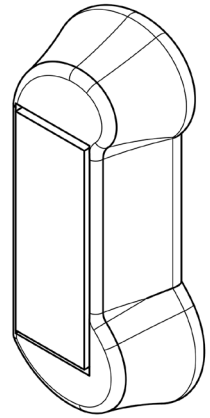


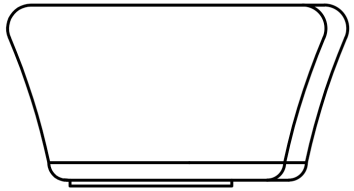
Plan Drawings

Materials:
Outer shell: Bioplastic out of Agar-Agar, Glycerine, Water and Linseed Oil.
Inner shell: PLA 3D Print
Scale: 1:1 in mm









Dye—Radio

Jamming with colors

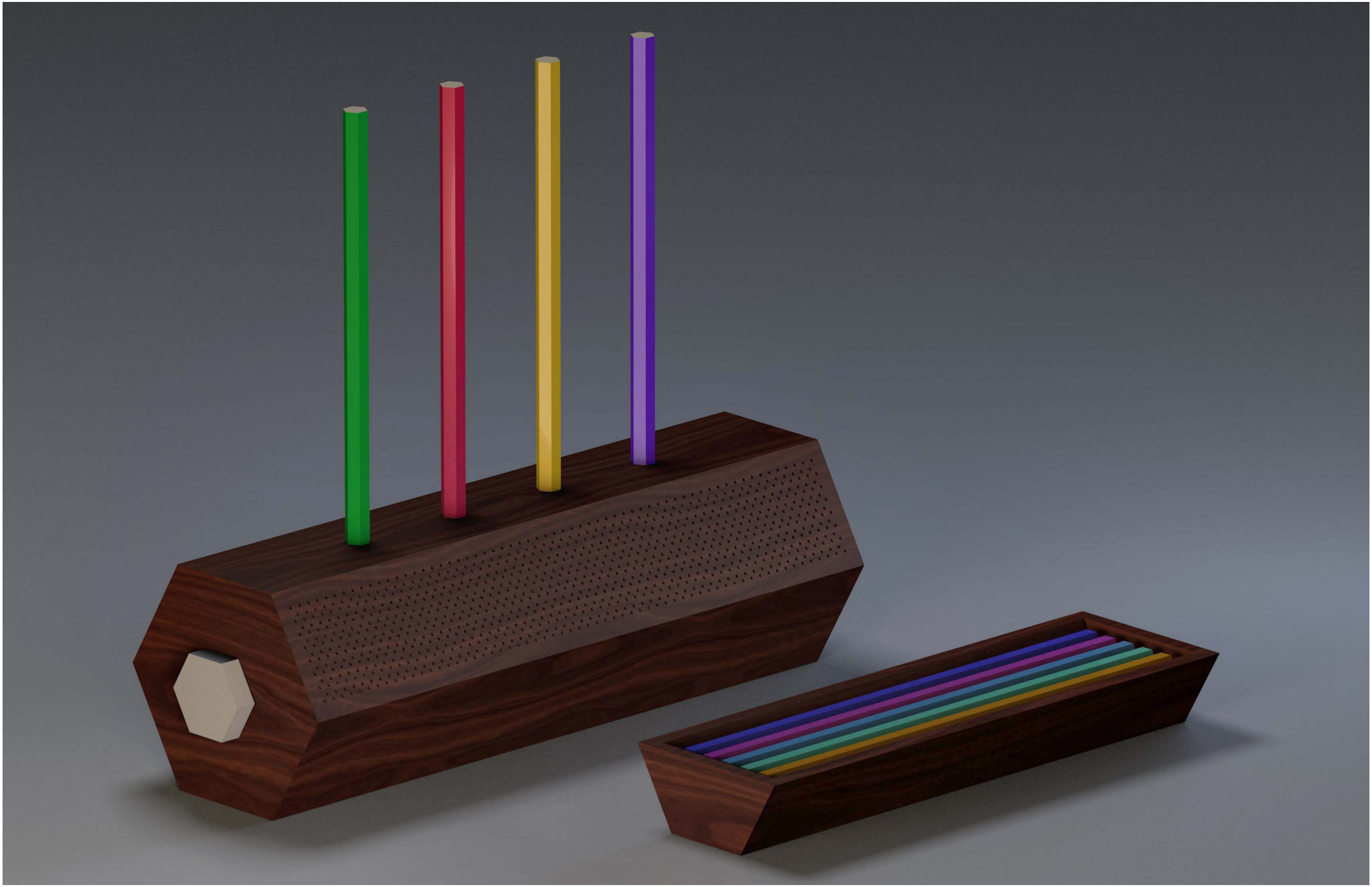
Project Description

‘Dye—Radio’ is a ‘sound pencil holder’ able to generate musical themes based on color compositions.

More specifically, ‘Dye—Radio’ has the capability to produce a continually evolving piano melody by analyzing the colored pencils with which the user interacts.

The melody created aims to enhance the drawing experience by proposing fresh variations inspired by the colors of the chosen pencils.

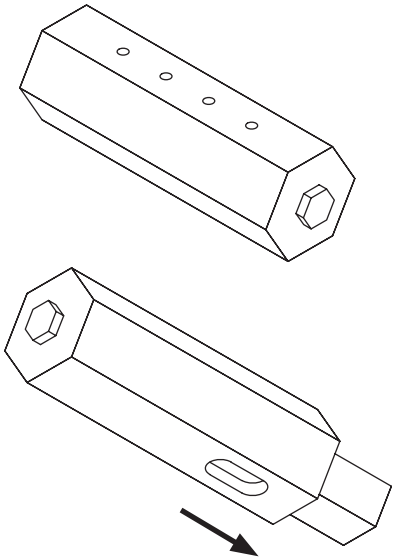
Ideally, the system takes on the role of a jazz pianist, interpreting the user’s selected colors through improvisation, promoting a unique and creative interaction.



User Journey

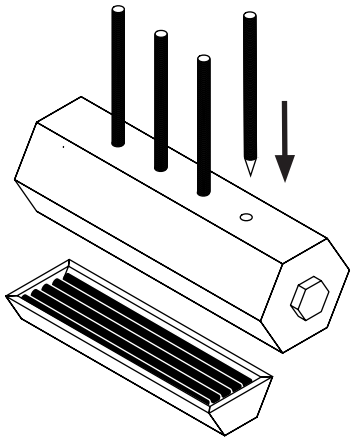
1

Place ‘Dye—Radio’ close to your drawing area and pull out the inner drawer from its bottom hole, which is designed to hold colored pencils.



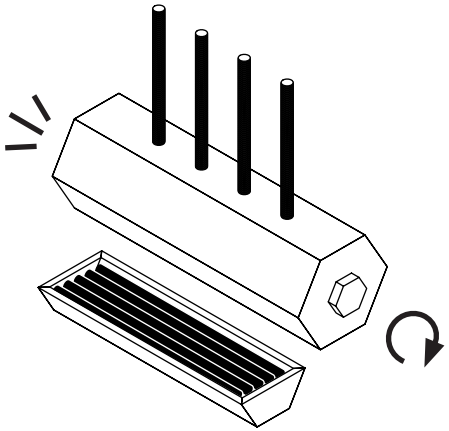
2

Insert colored pencils into at least one of the upper holes of the ‘Dye—Radio’ to transmit color information and create a melody.



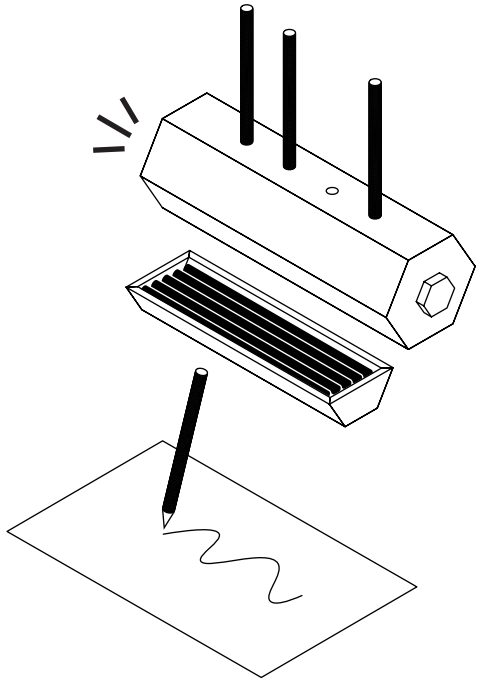
3

Turn the crank on the right side of the ‘Dye—Radio’ to initiate the generation of a piano melody.



4

The substitution or omission of specific coloured pencils in the upper holes will affect the piano melody created by ‘Dye—Radio’.

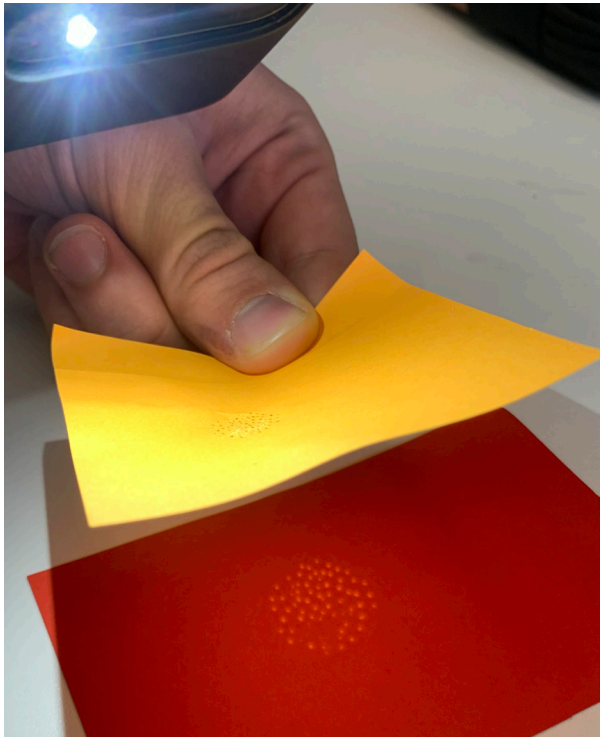


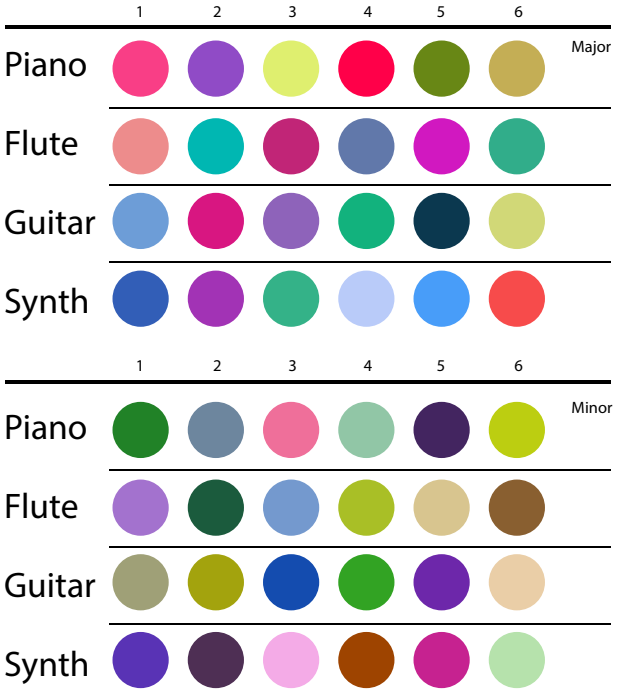
Field observations

Color significantly shapes human perception of the surrounding environment, both visually and physically. However, choices concerning color are often influenced by multiple factors, frequently without conscious recognition or attention.

There are remarkable parallels between musical composition and color combinations. Despite their clear physical and mathematical underpinnings, their impact on human emotions and feelings remains enigmatic, both possessing strong synesthetic implications.

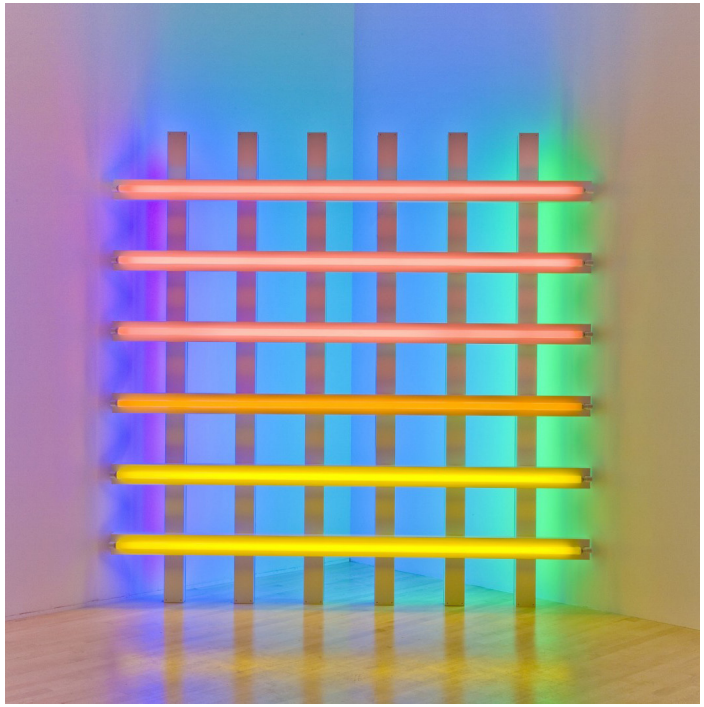
Animating color by attributing to it a ‘voice’ in the form of sound aids in defining its personality, fostering original interaction. Through this approach, users can better comprehend the profound influence of color.





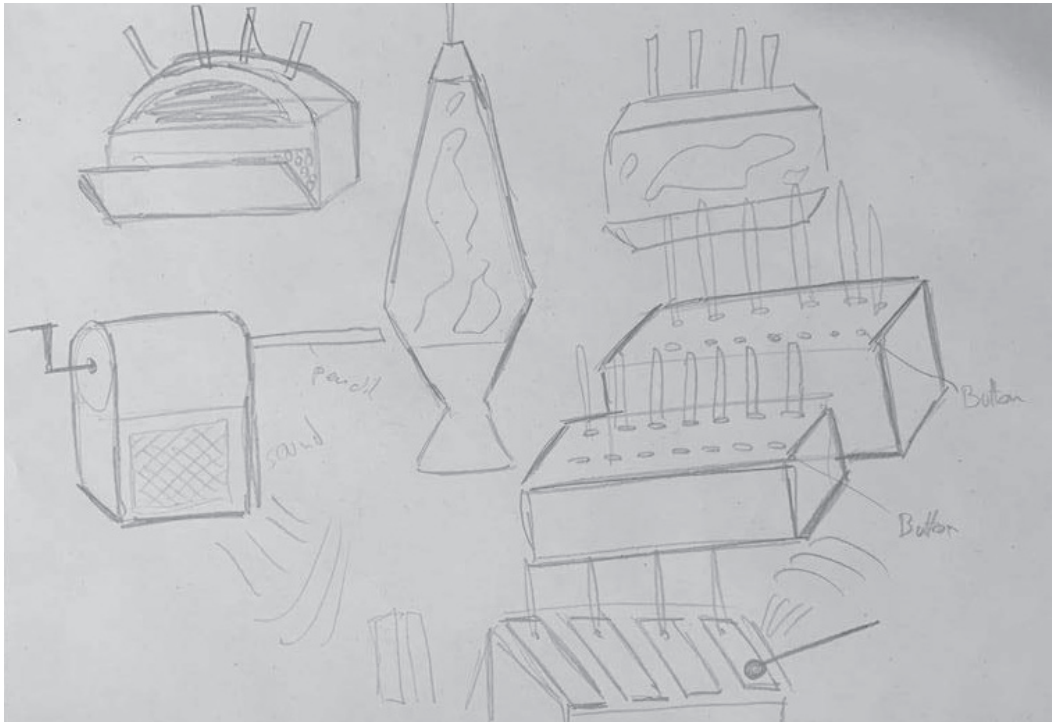
Visual and Material Moodboard

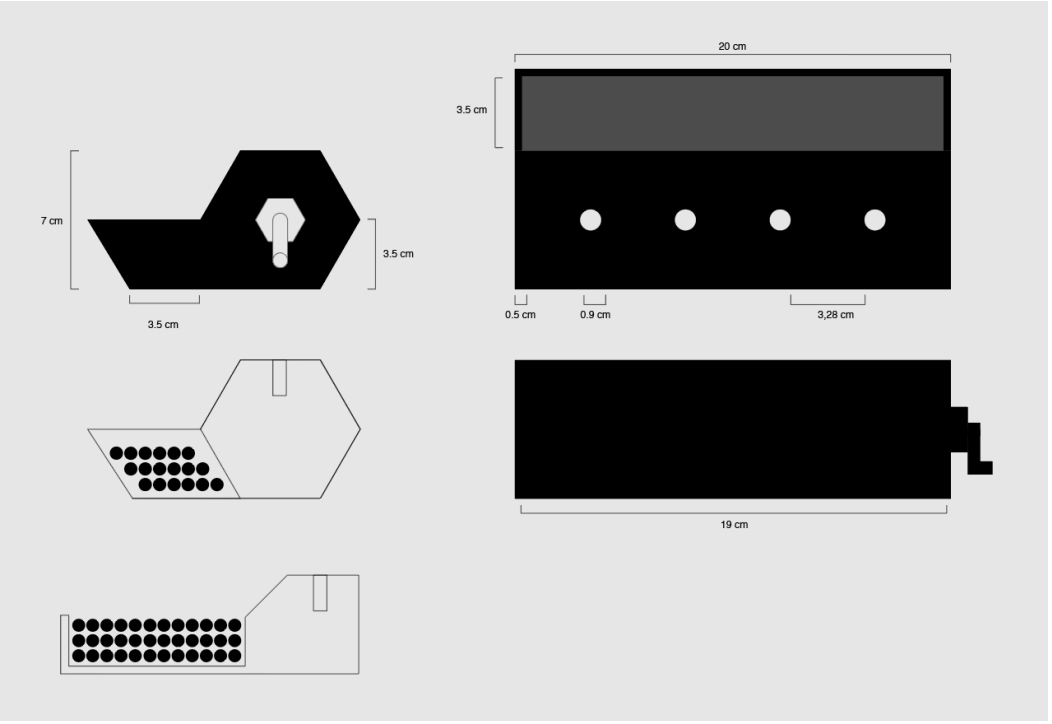
The external structure of ‘Dye—Radio’ is made of red spruce wood, a material commonly employed in diverse classical musical instruments.



Shape research

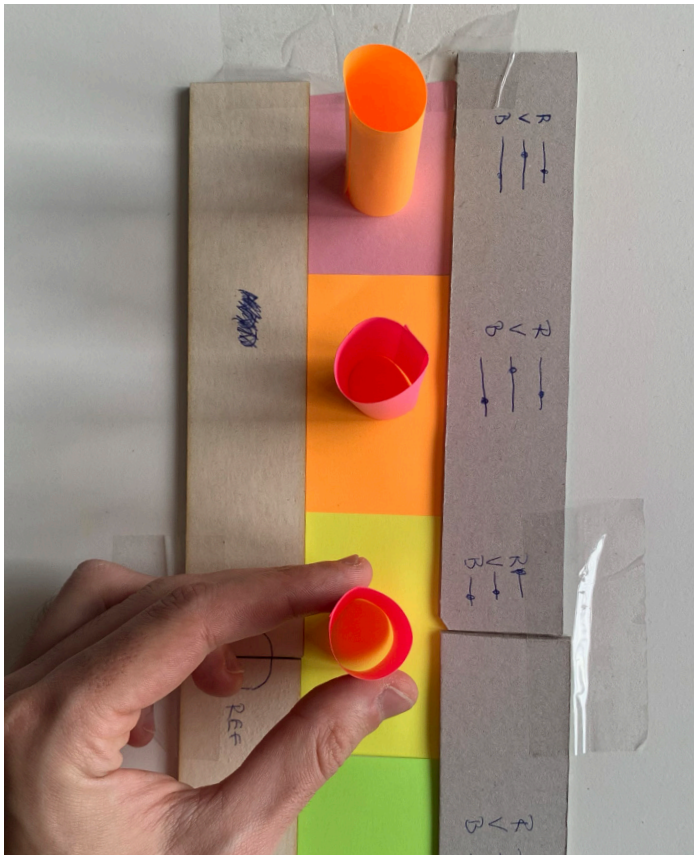
The hexagonal structure of ‘Dye—Radio’ is inspired by the classic shape of Caran d’Ache pencils.

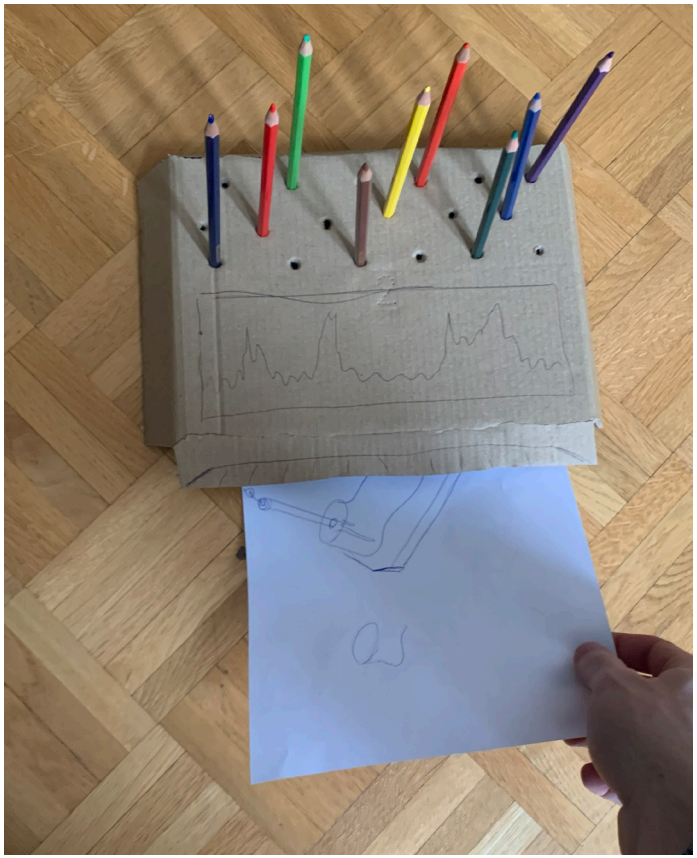




Paper Prototypes

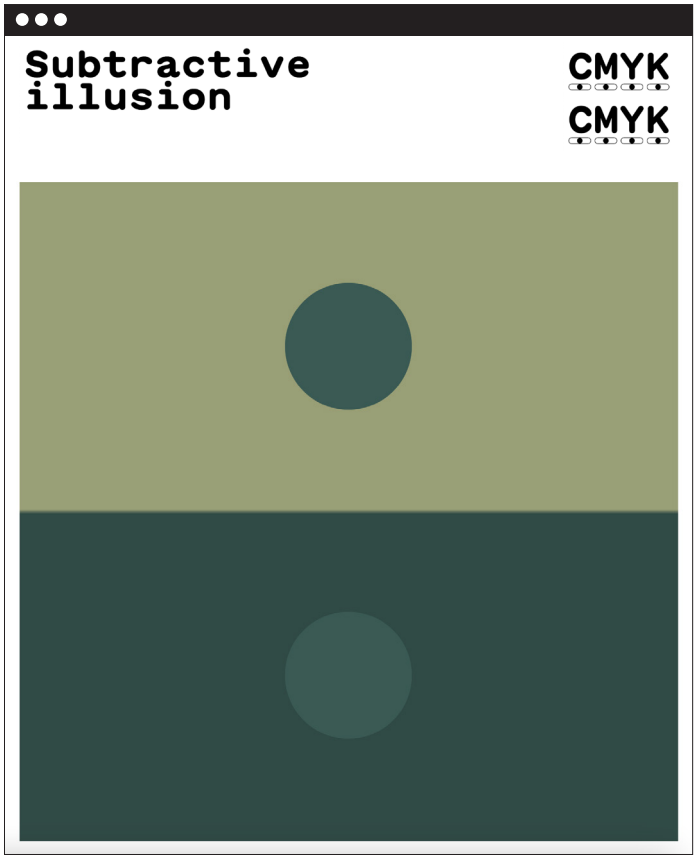
The developed prototypes have enabled experimentation in color research, exploring alternative methods of expression and unconventional ways of perception.

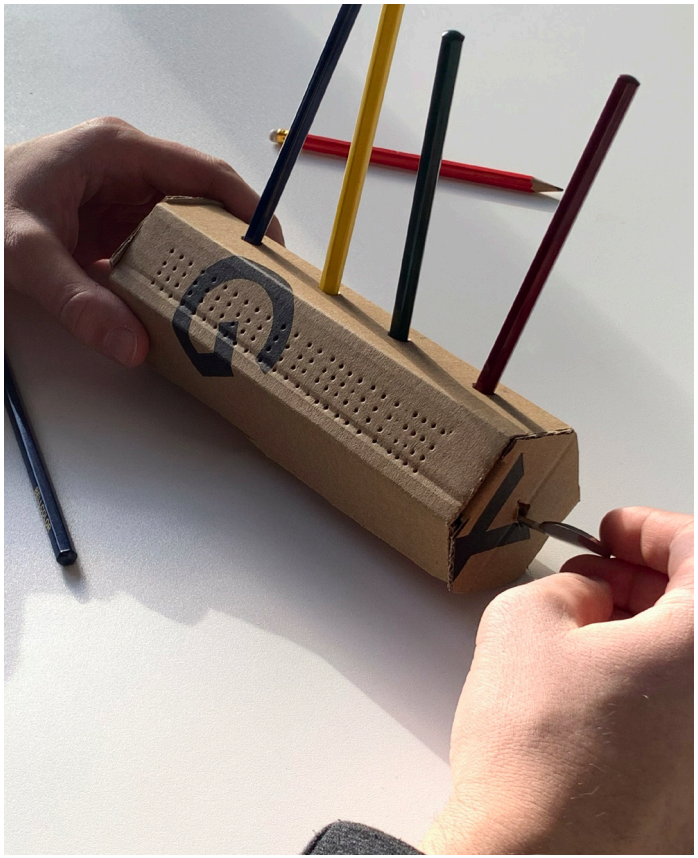


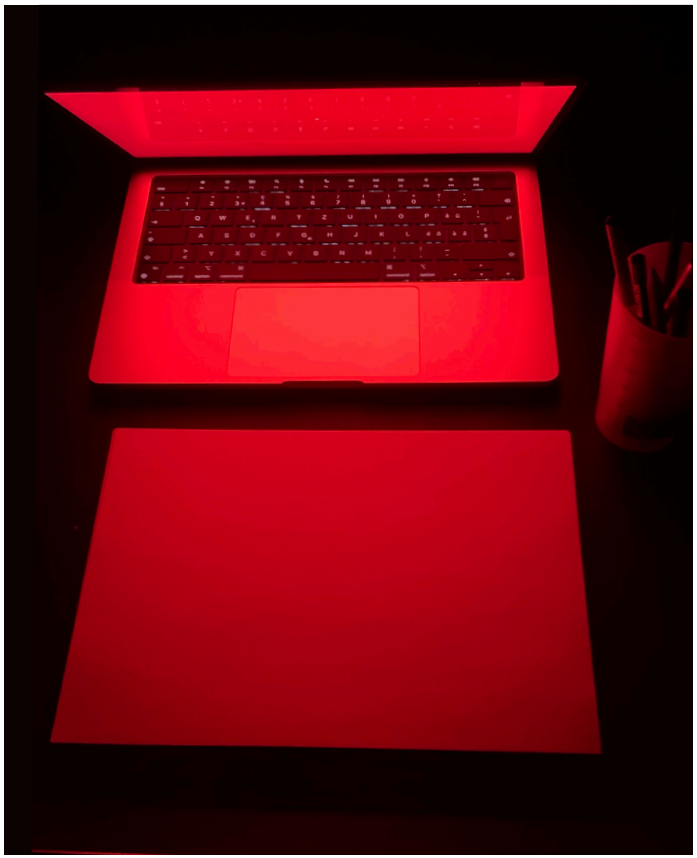


User Tests

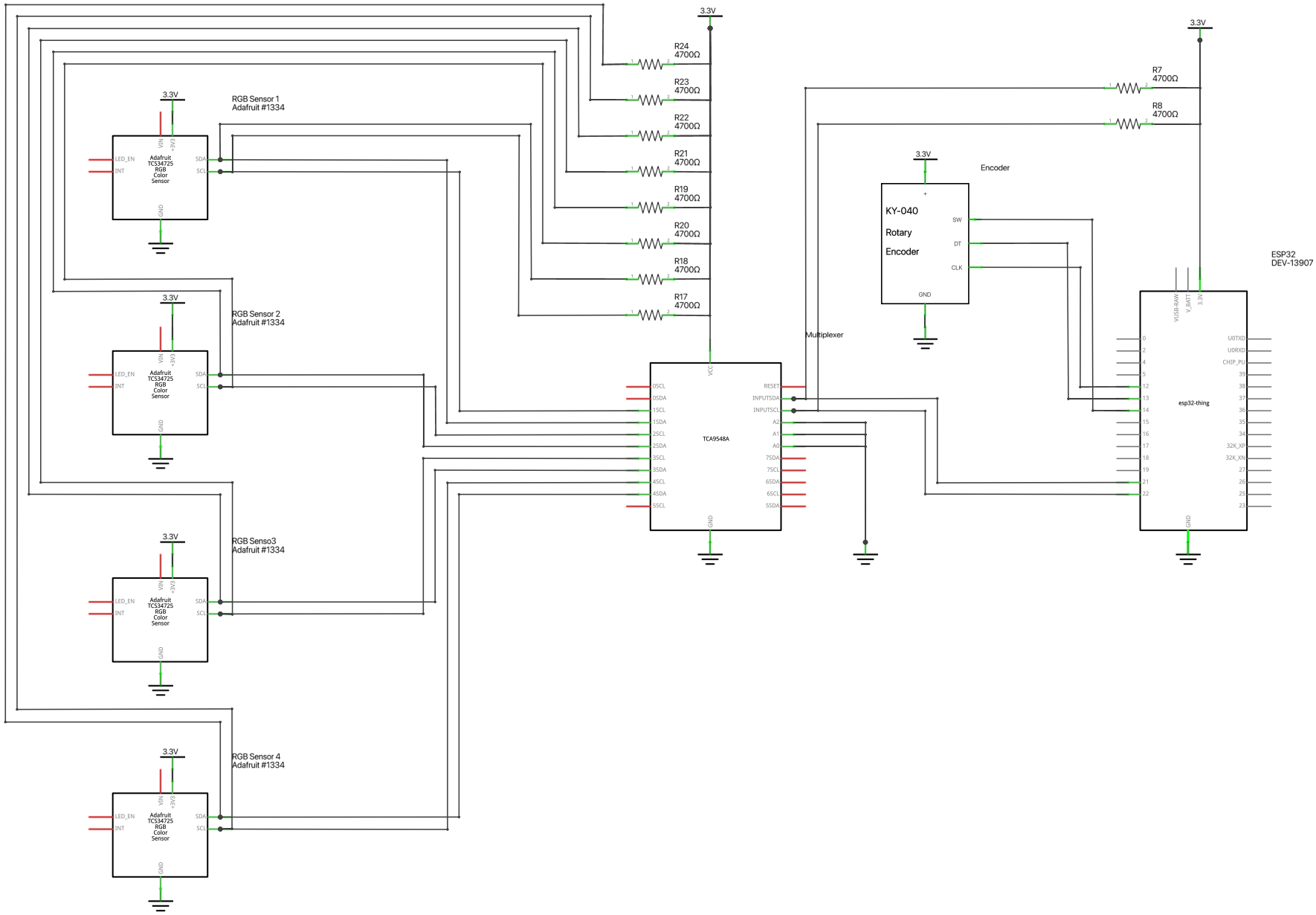
The user tests have facilitated an understanding of how colors and music can both significantly impact the creative process, unveiling their supportive roles in shaping the user's creative experience.





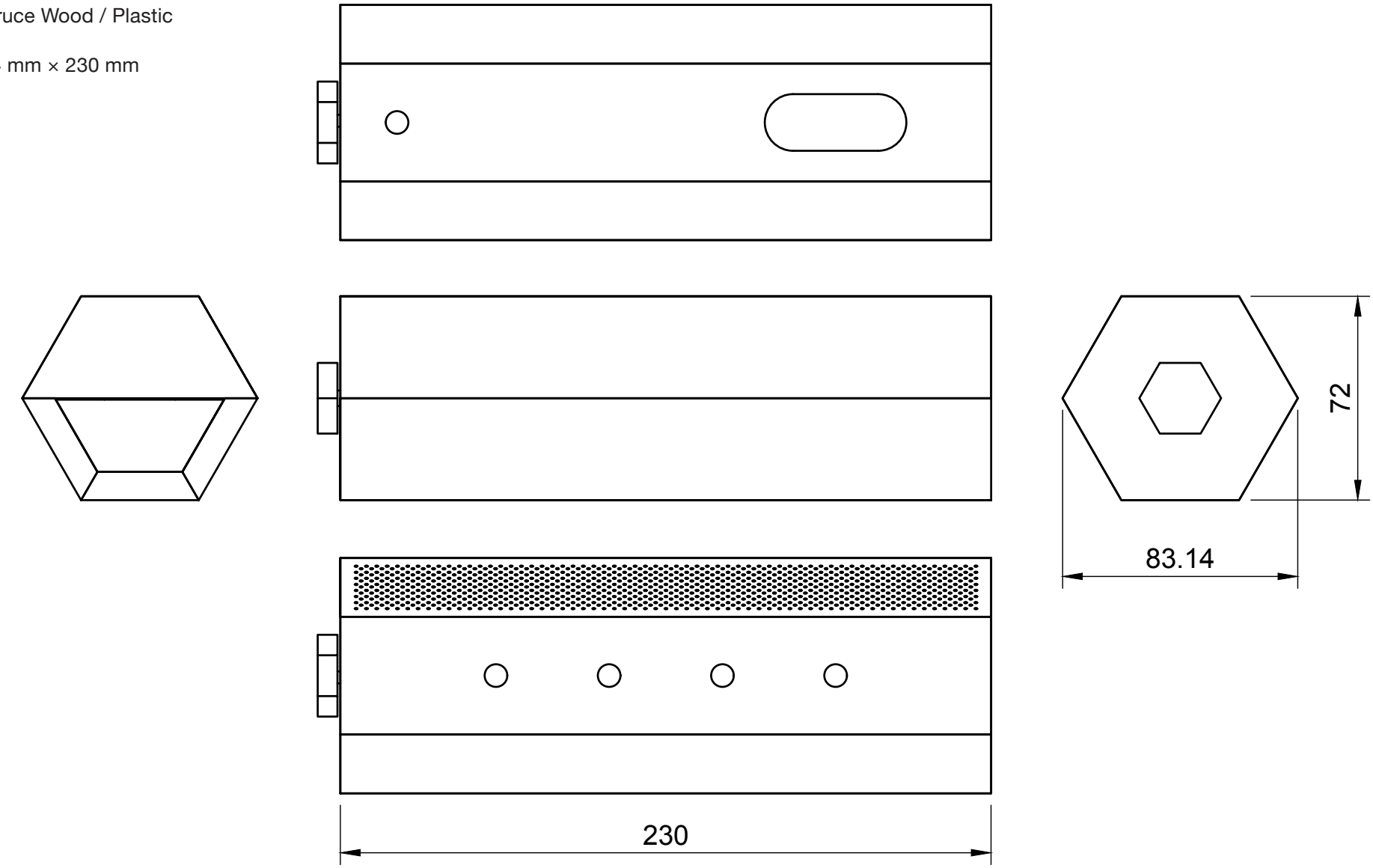


Electronics



Plan Drawings

Materials: Red Spruce Wood / Plastic
Scale: 1: 2
Dimensions: 83.14 mm × 230 mm

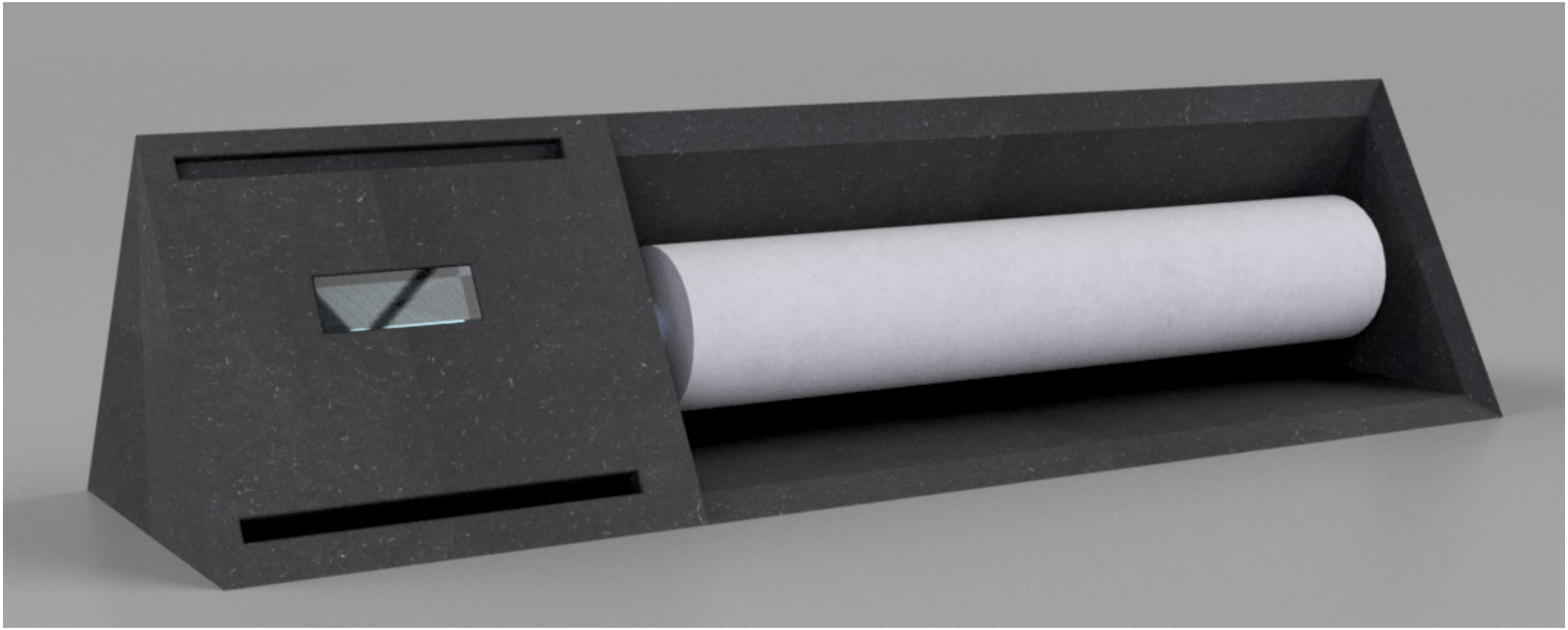


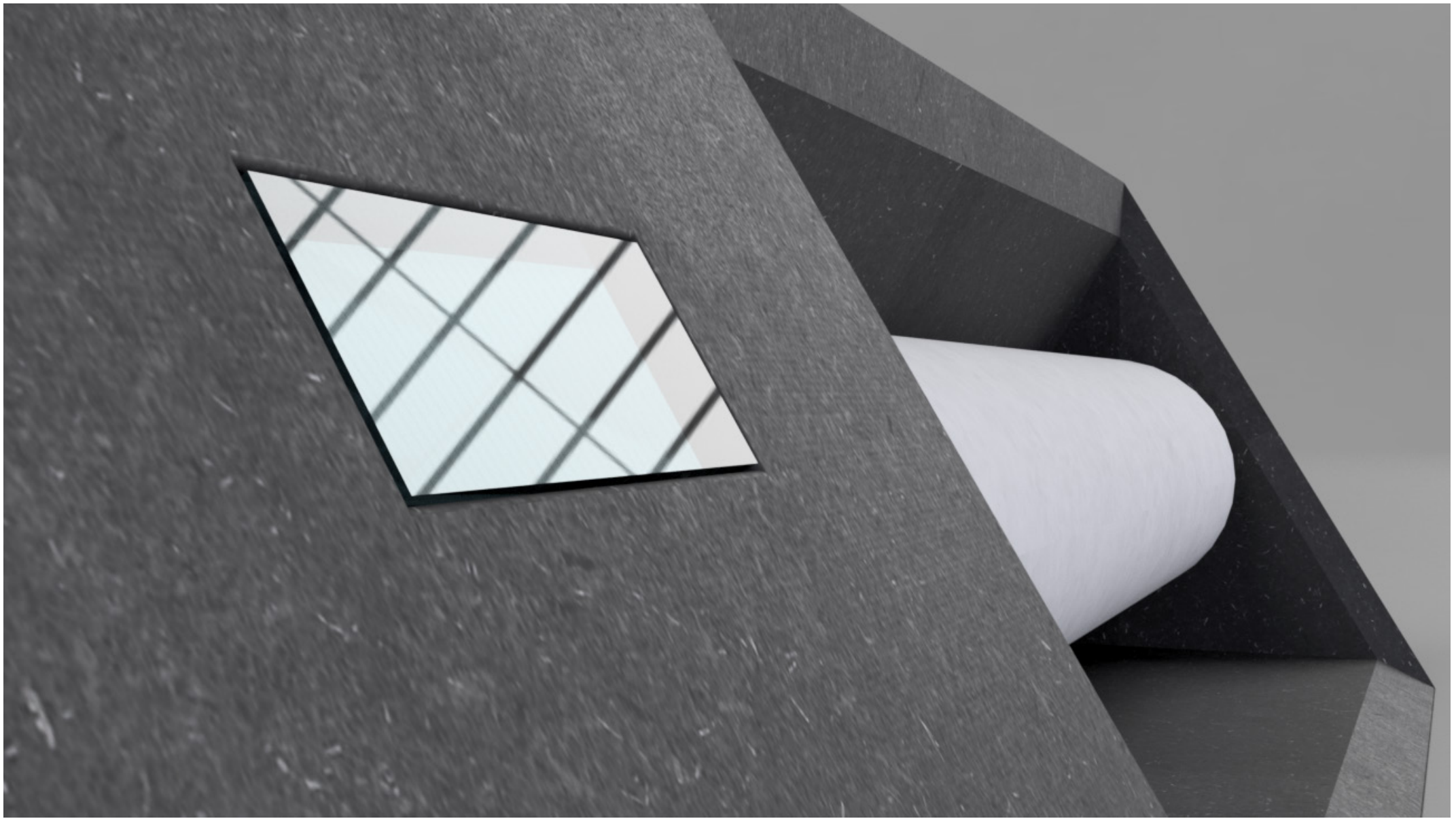
Confluence

The connected Canvas

Project Description

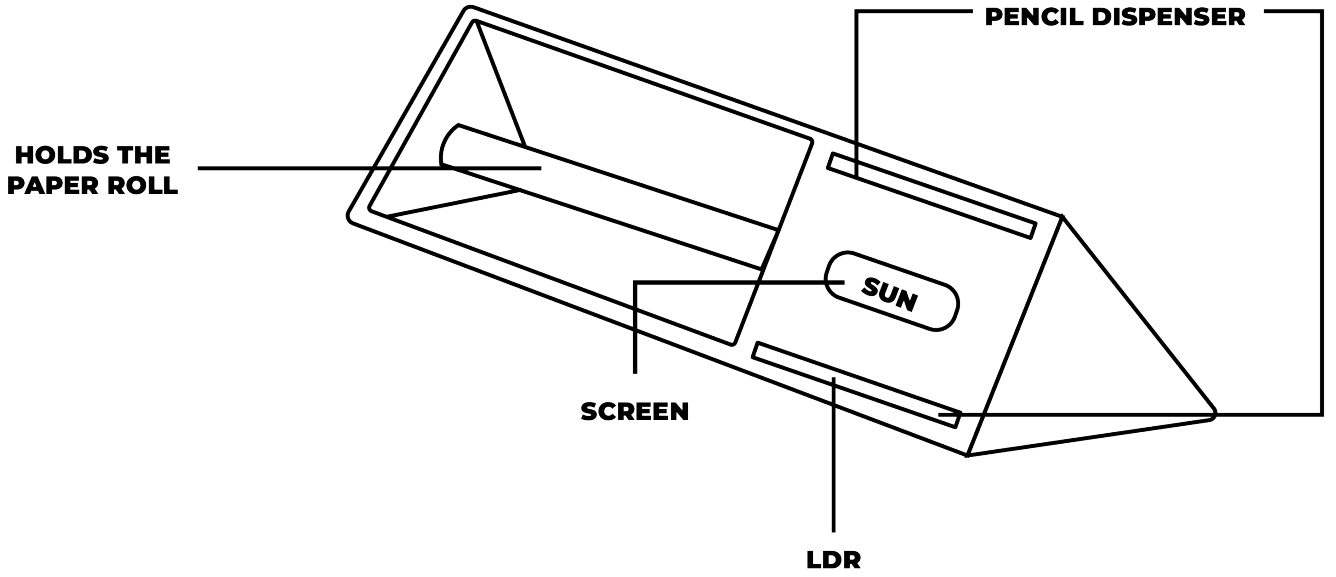
Confluence is a collective canvas designed for all audiences.
By picking up a marker with a randomly assigned color, you receive a word generated by an IA. With these constraints, you draw on a roll that can be rewound or unfurled at will. Prior to user input, graphical instructions are printed on the roll by an AI. Participants have the freedom to intervene wherever they choose.
The project aims to counteract the blank page syndrome, encouraging people to occupy space.

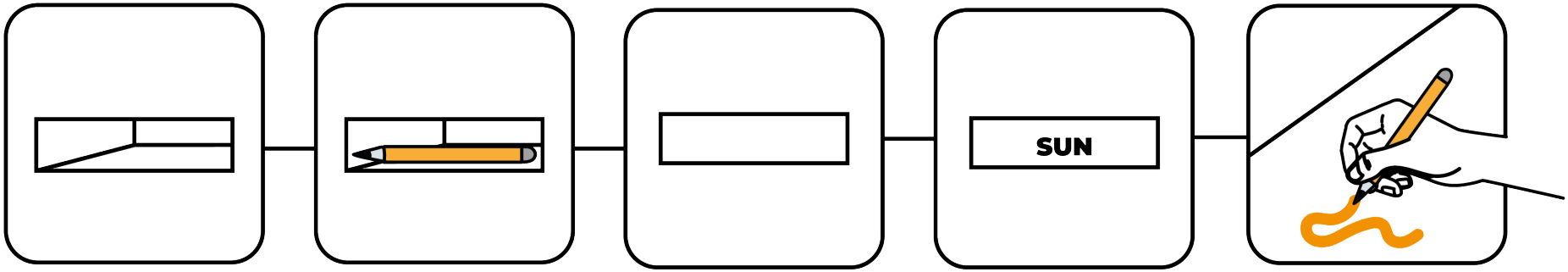




User Journey

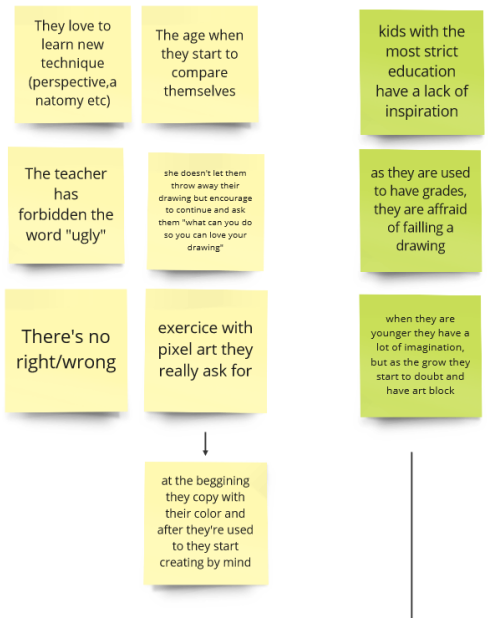
Initiate the setup by taking a marker; this triggers an LDR (Light-Dependent Resistor) that sets a randomly generated word selected by the AI. Unroll the paper roll to decide the surface on which you want to intervene and start drawing something inspired by the word. The experience ends when you have finished drawing

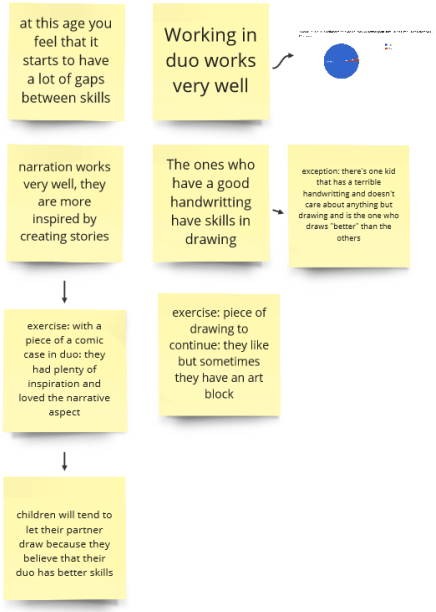




Field observations

The research is based on the blank page syndrome. I conducted a questionnaire, asking artists and designers how they stimulate their creativity when it wanes, given that their professions require continually finding methods to remain productive.
I also interviewed elementary school teachers to understand at what age they feel students start to «lose» their imagination, what causes this phenomenon, and what activities they undertake to help them overcome this situation.
It emerged that storytelling and collaborative projects contribute to maintaining productivity

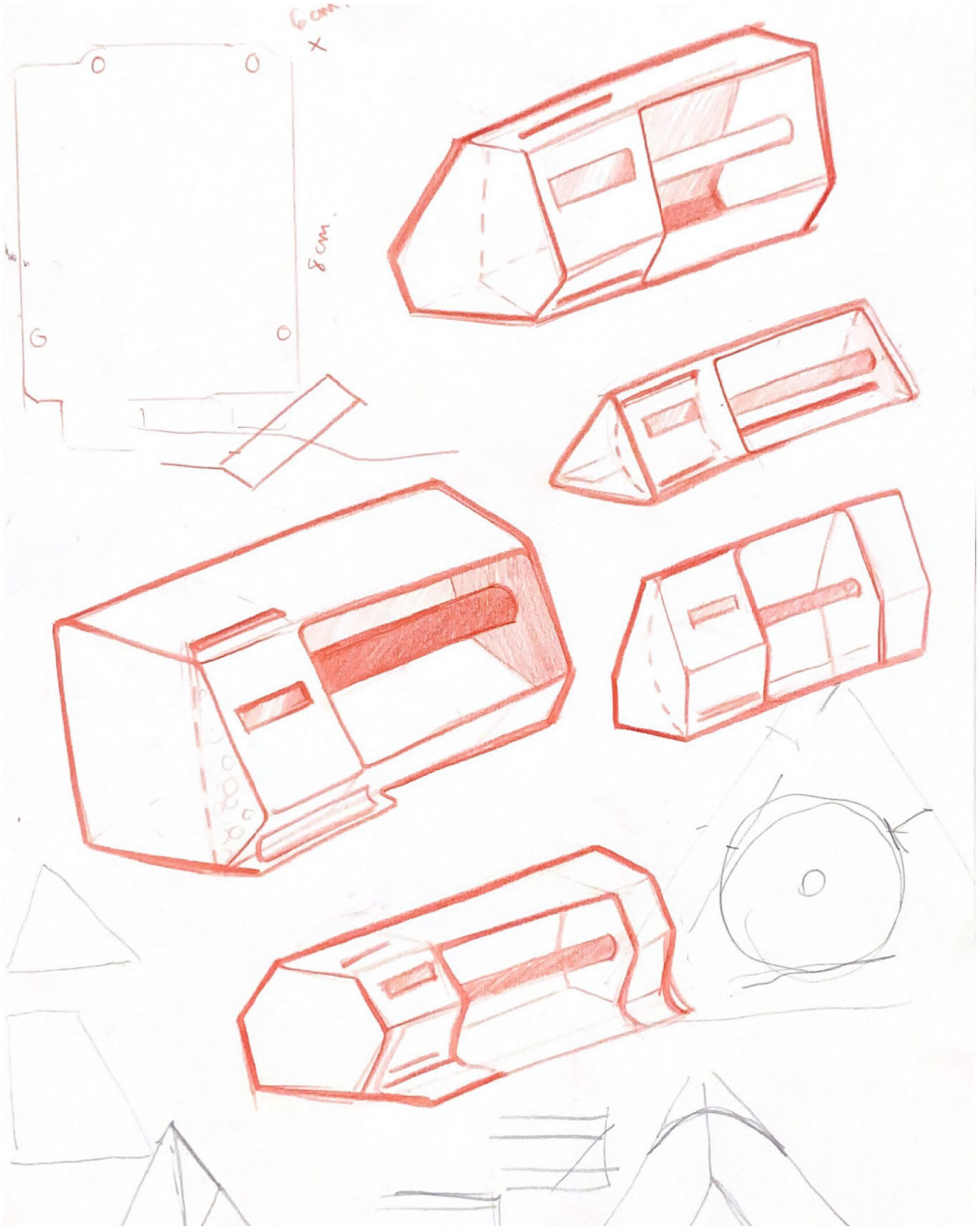


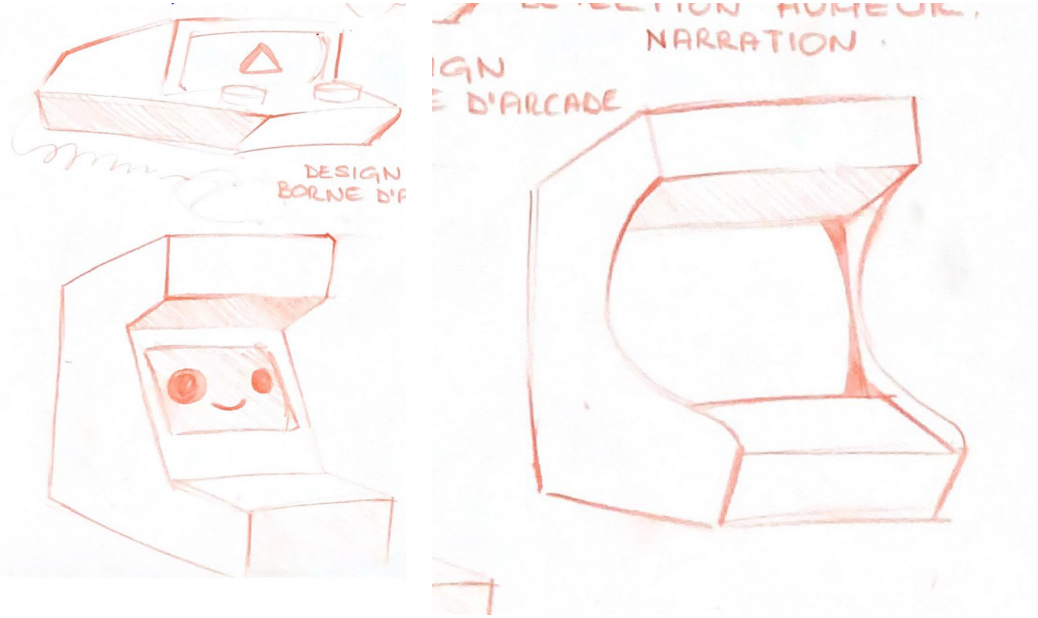


Visual and Material Moodboard

Visual and Material Moodboard

Shape research

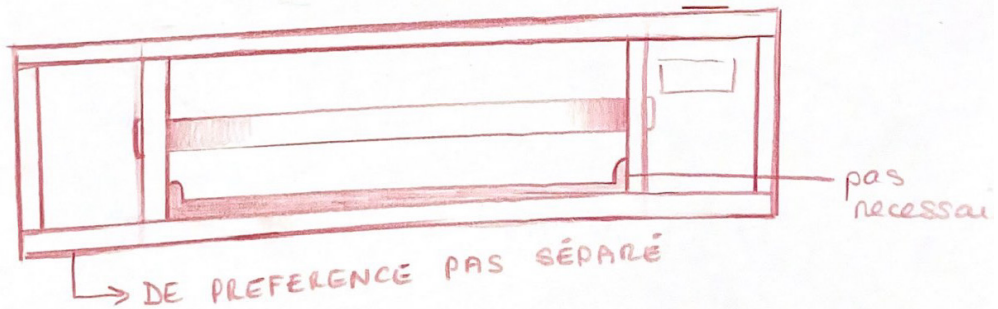




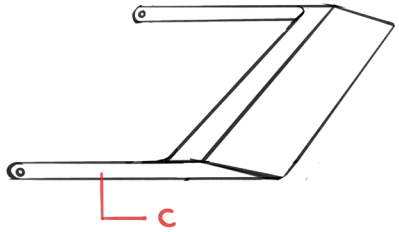
Condensation de la table et tout les éléments dans le déroulleur de papier.

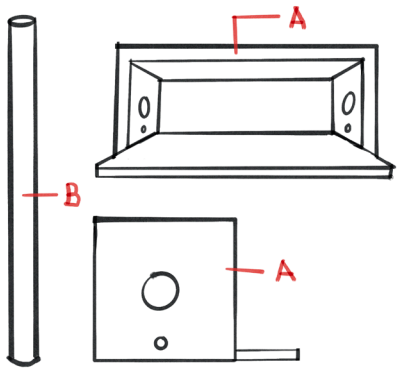
-Potensiometre → remplacer par un cabl 5V.

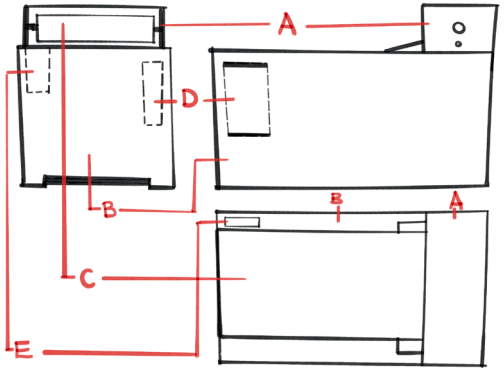
MDF 16 mm teinté noir

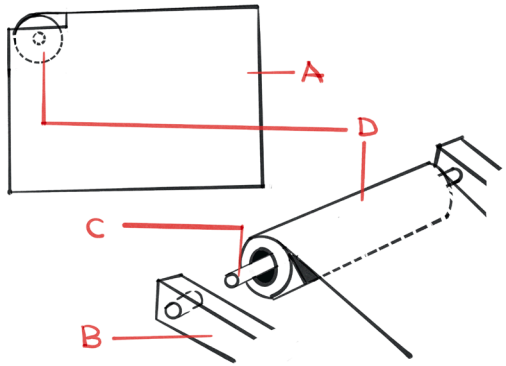


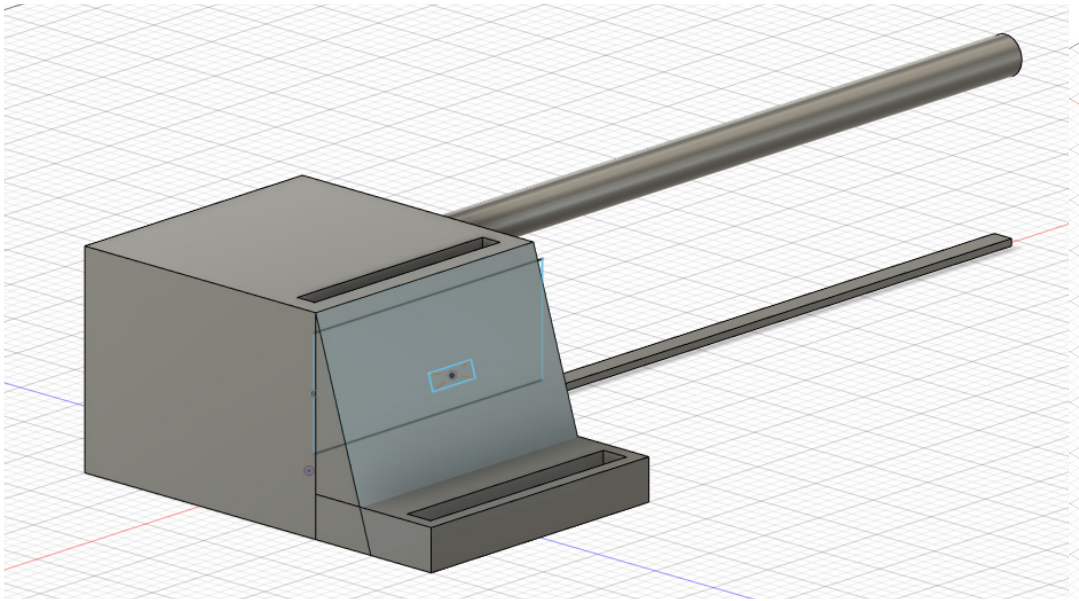
Shape research

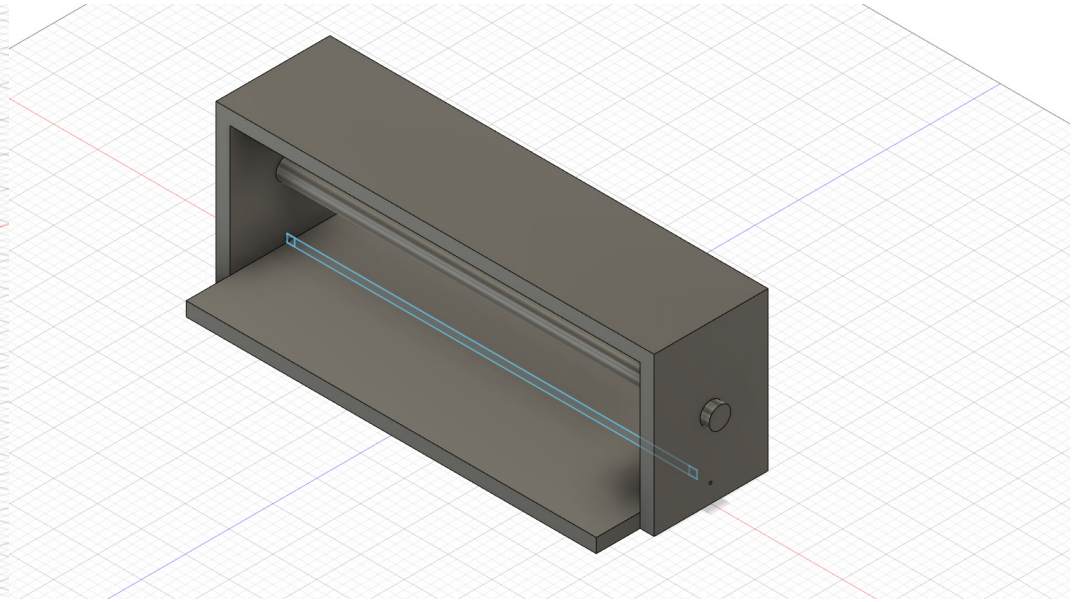










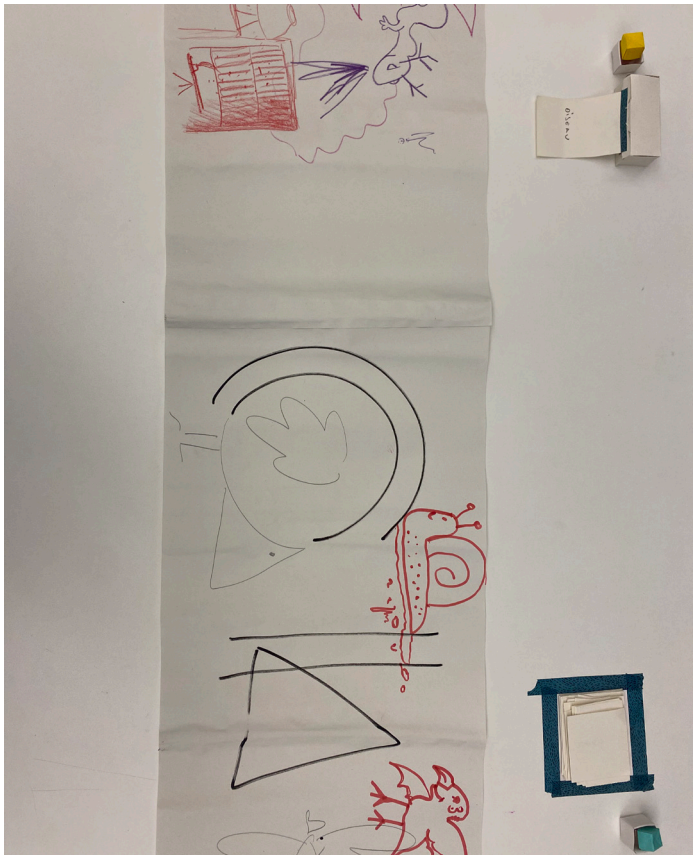


Paper Prototypes

- Giant die to roll, generating a prompt based on different constraint.

- Arcade console that, through buttons, issues constraints based on various themes; an envelope is then
distributed. Drawing takes place on a screen.

- Roll of paper on which one draws progressively. A button is activated to receive a theme narrated by an AI,
and one draws according to what it recounts.

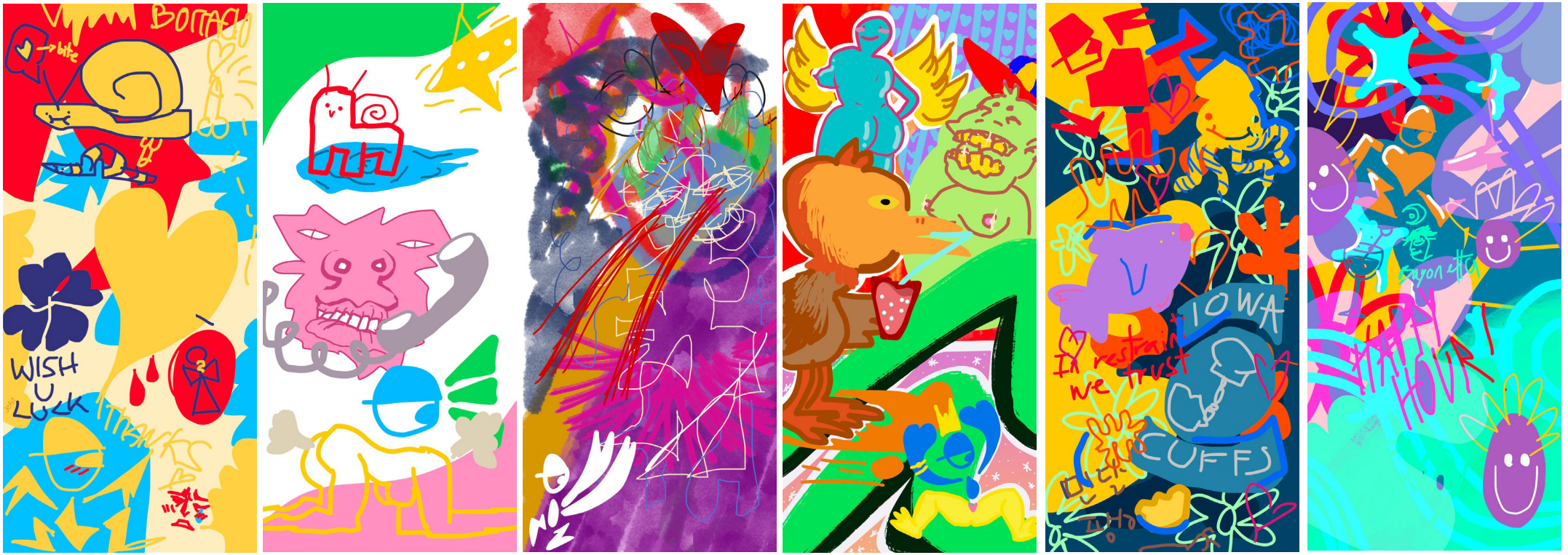


User Tests

Experimentation with multiple prototypes and proposals across various mediums. Collective drawing in different contexts with diverse constraints.

User Tests

The concept of *Happy Hour Drawing Time* with friends.



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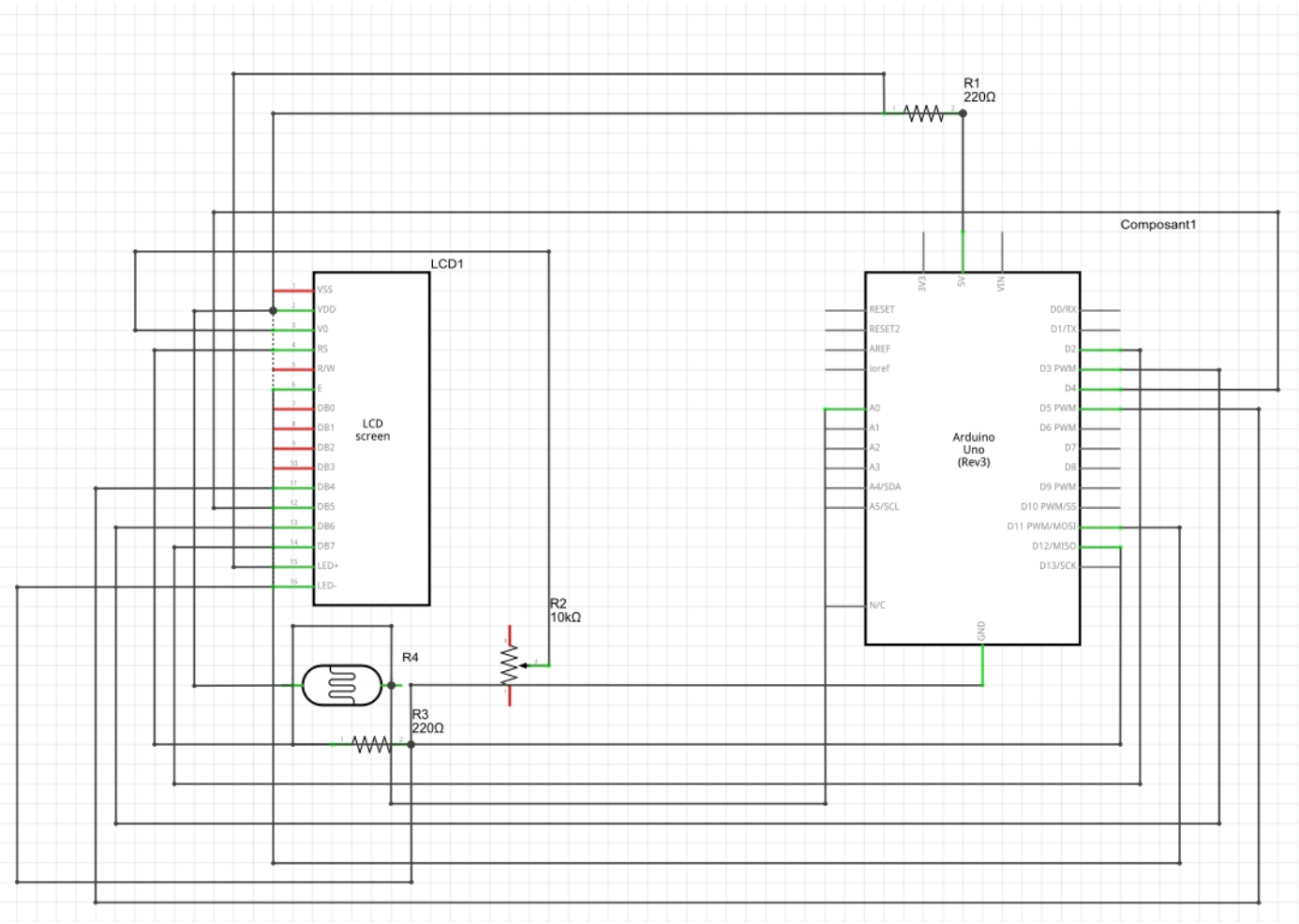

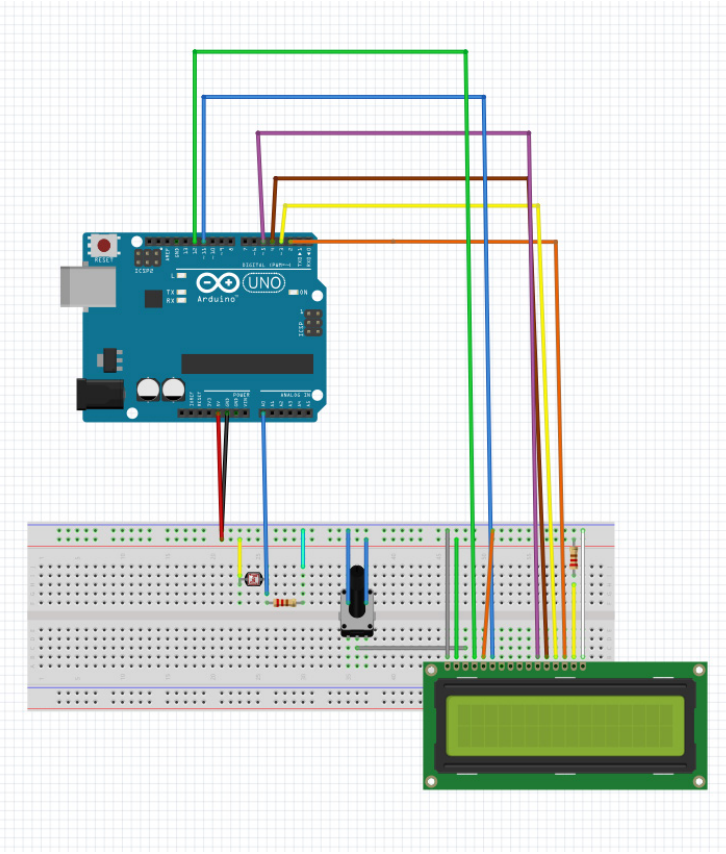

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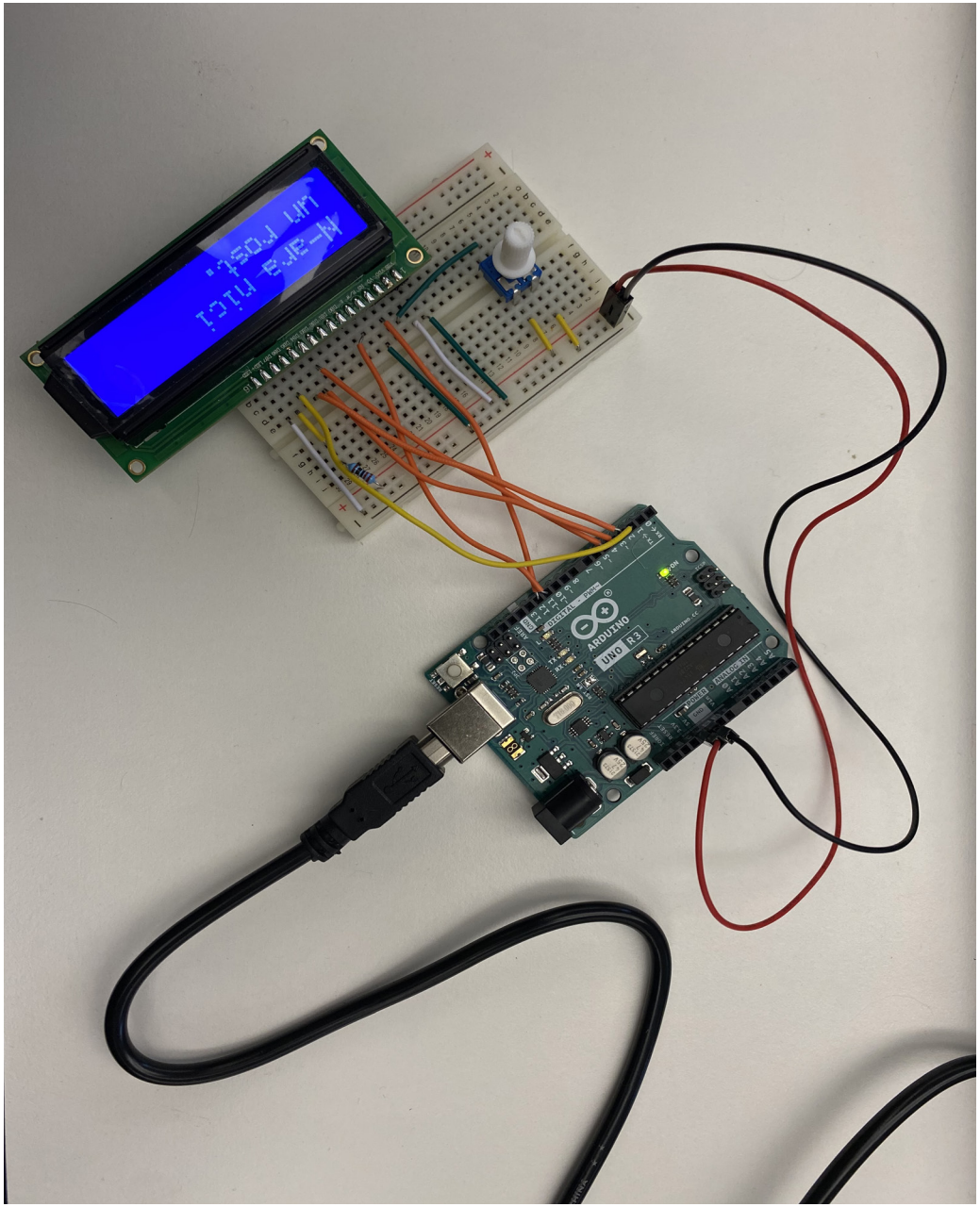
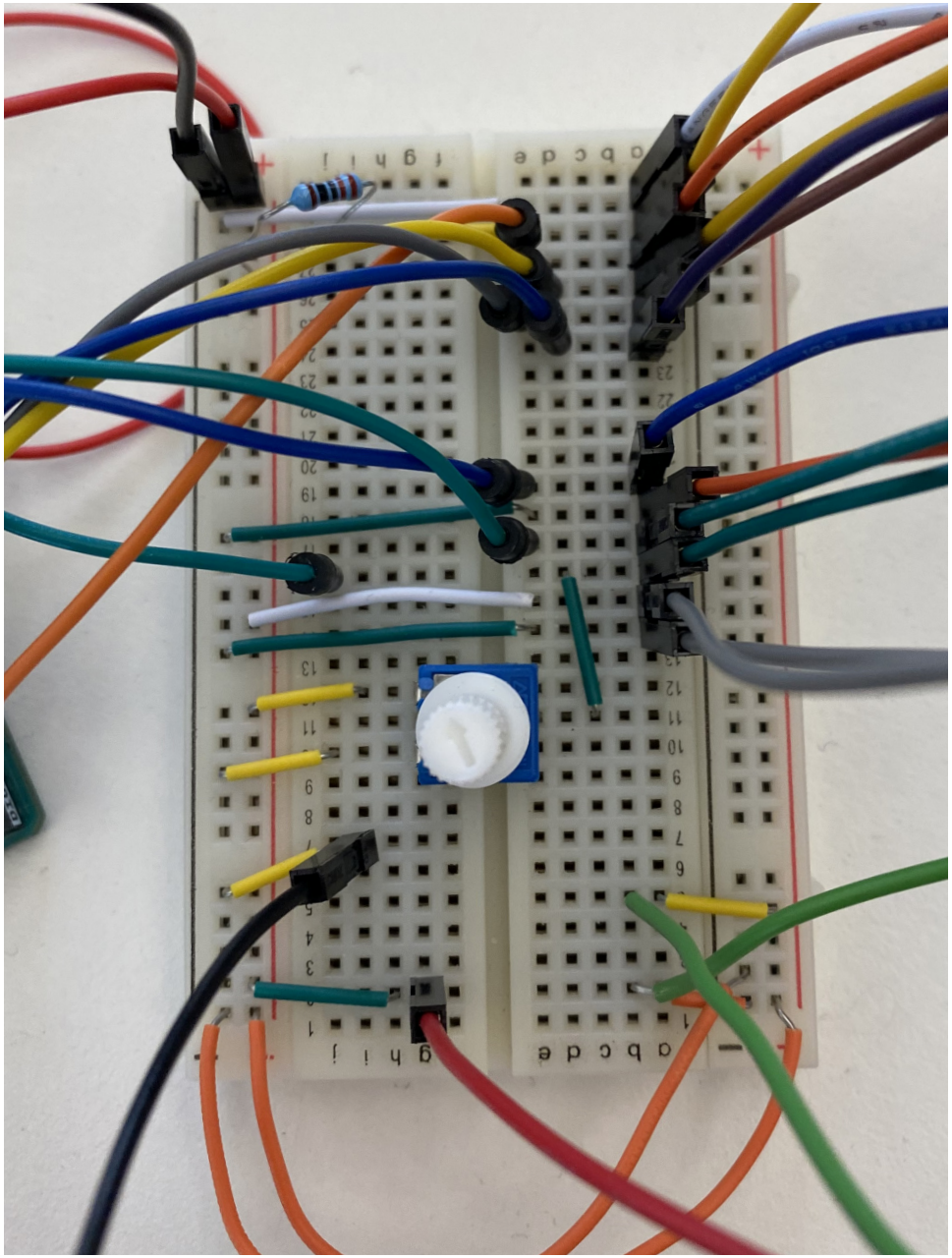
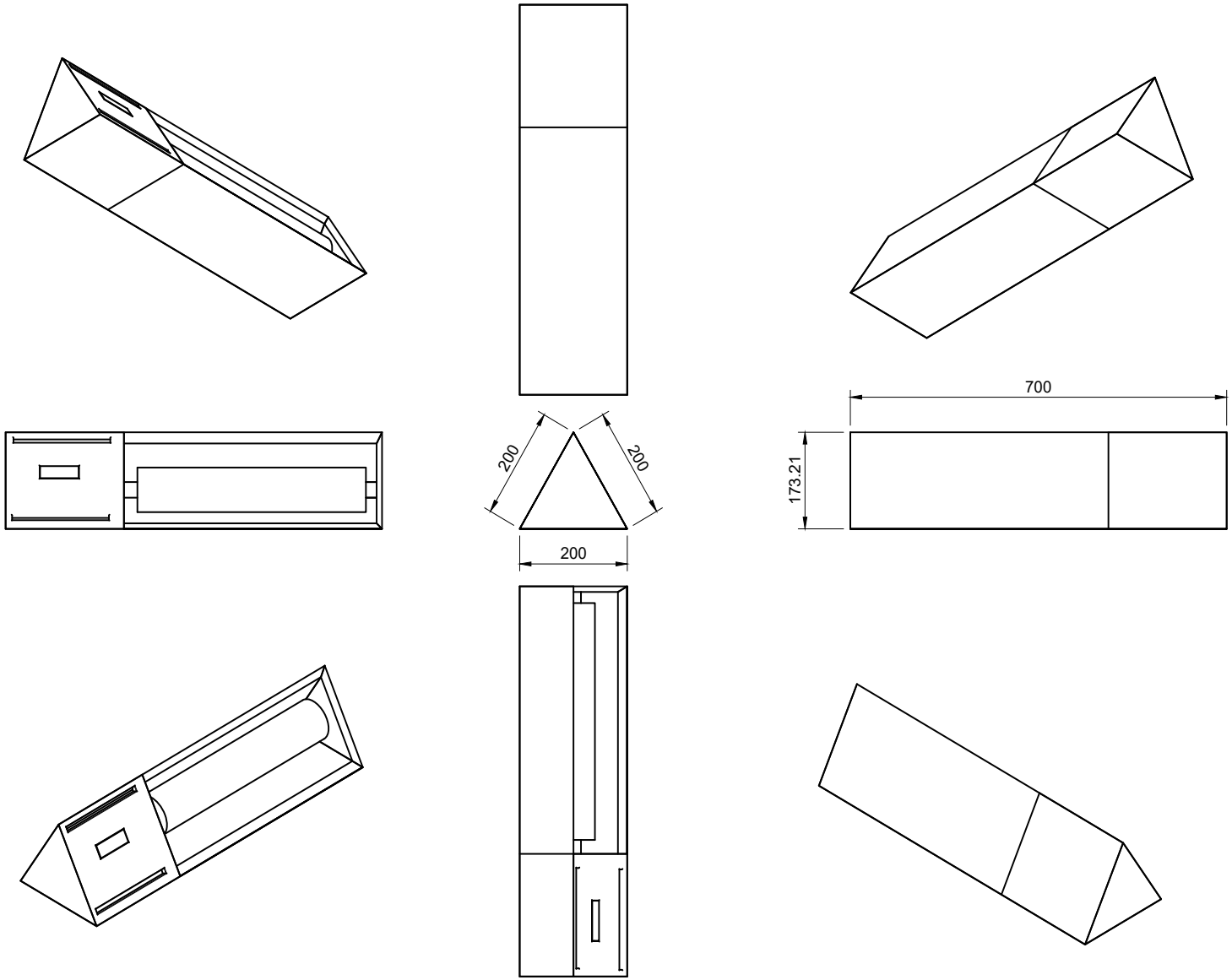




Plan Drawings

Materials: Black Wood MDF 10mm
Scale: 1:6 in mm



Suètone

Drawing generative music

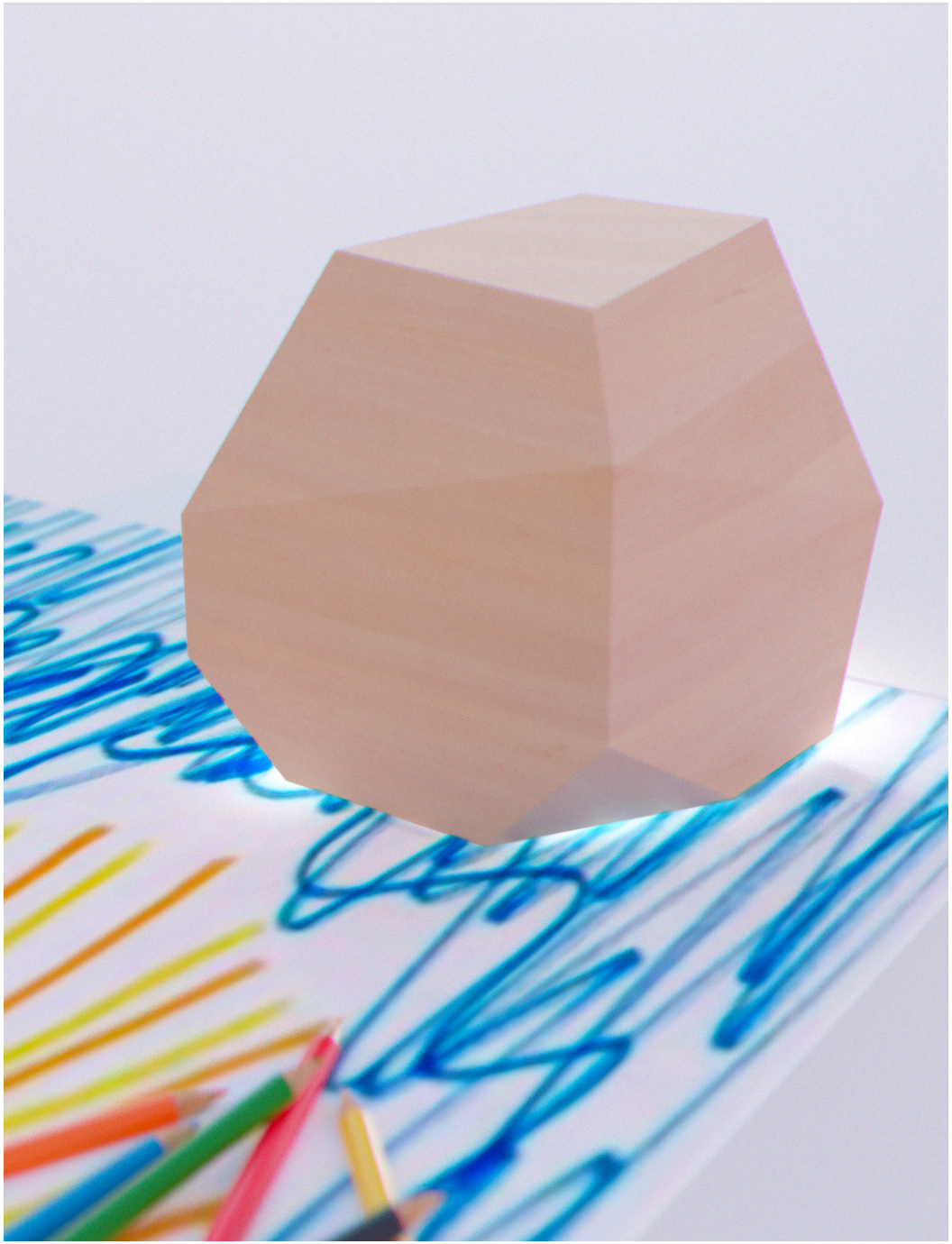
Project Description

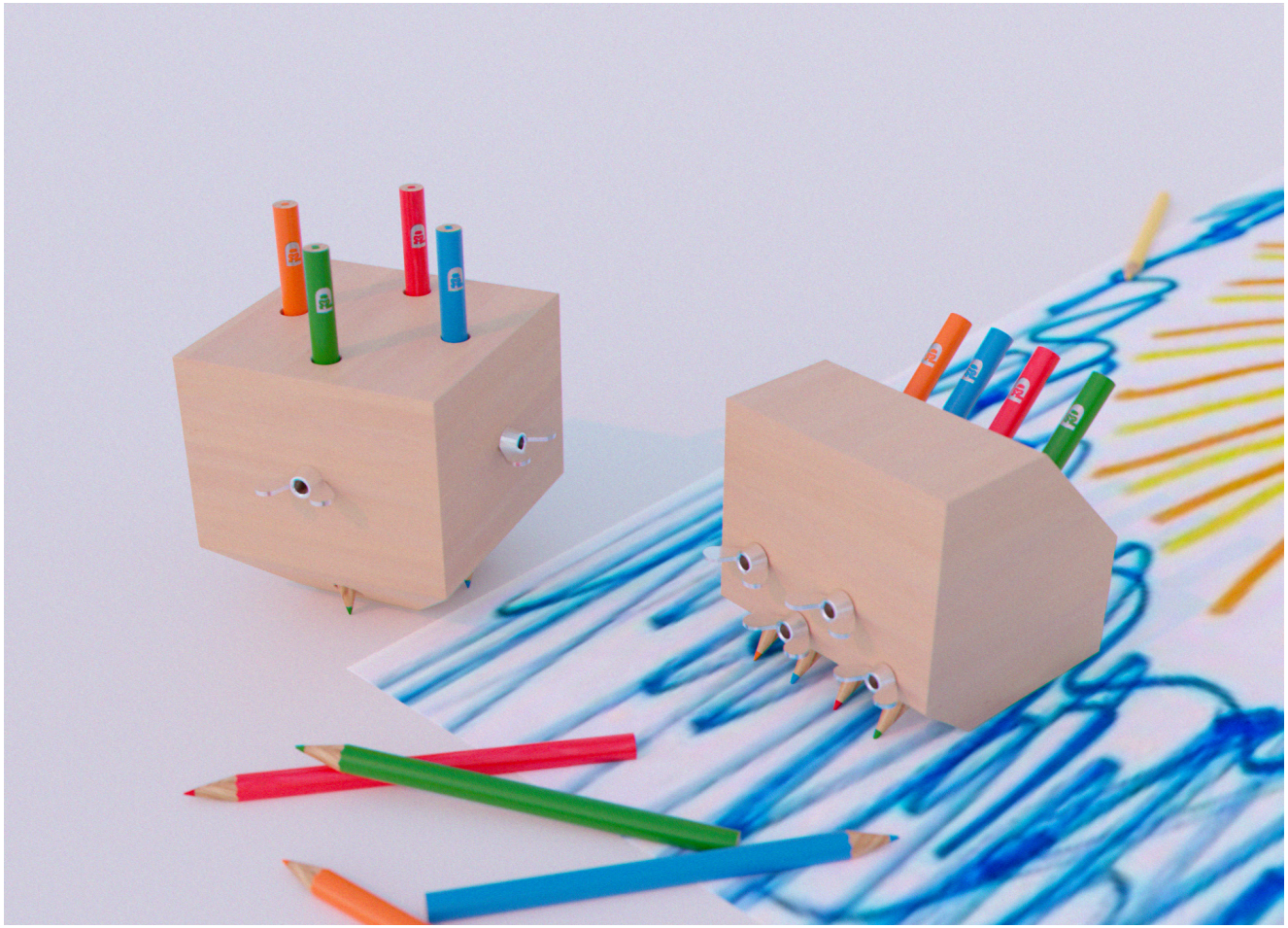
Suètone is a generative music box that turns your drawings into musical partitions.

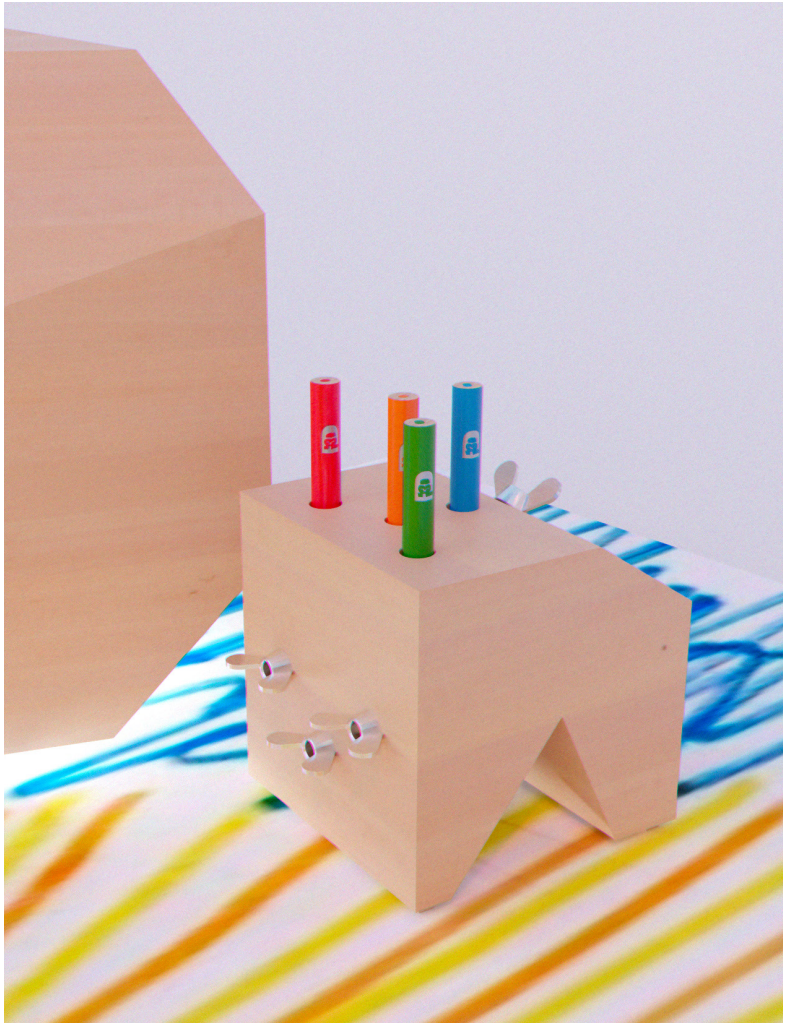
It will be designed for people of all ages, for art enthusiasts, and could also be useful for musicians and illustrators.

Use one of the many drawing tools provided with it to generate line patterns that Suètone will translate into MIDI notes for your music software.

By moving it on your drawing, you will be able to play Suètone like a generative musical instrument that bases its music tone on the colors you've used.





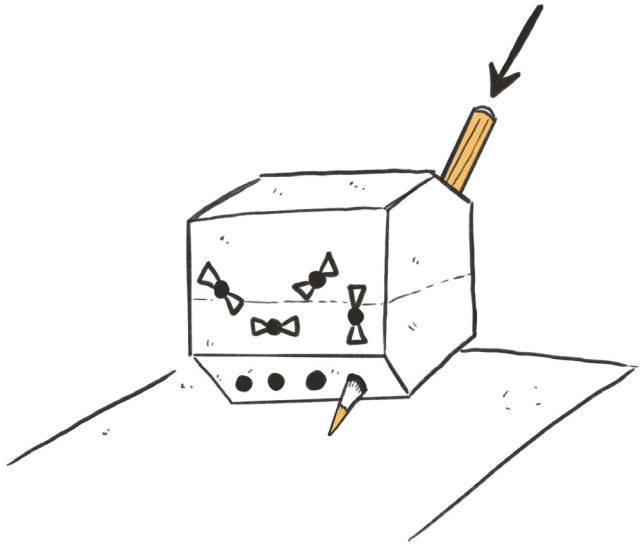


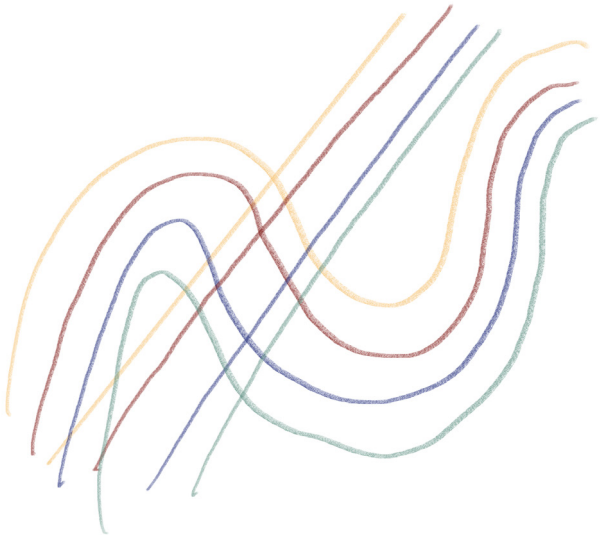
User Journey

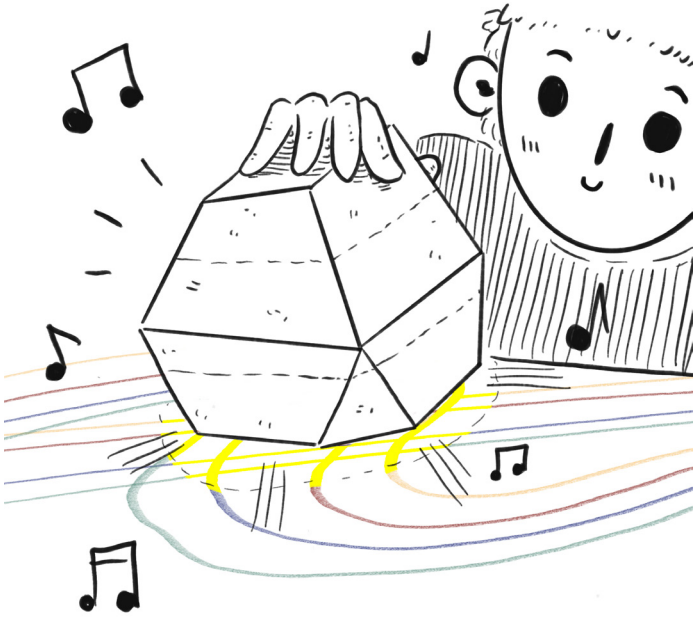
- Insert pencils or Neocolors into the drawing tools. Make sure to use the screws to secure them.

- Use one or many of the drawing tools to create something.

- Move Suètone on your drawing to turn it on and generate sound.







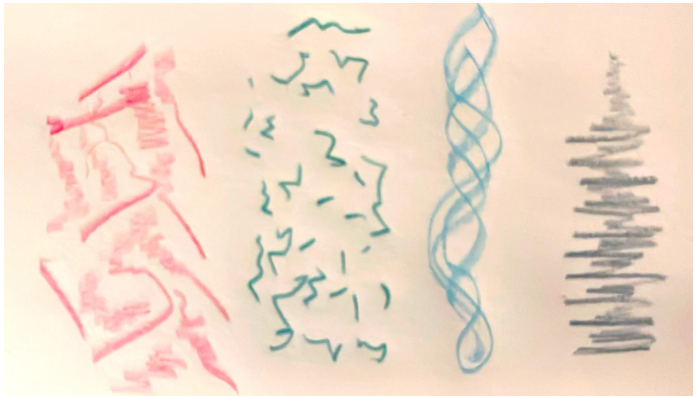
Field observations

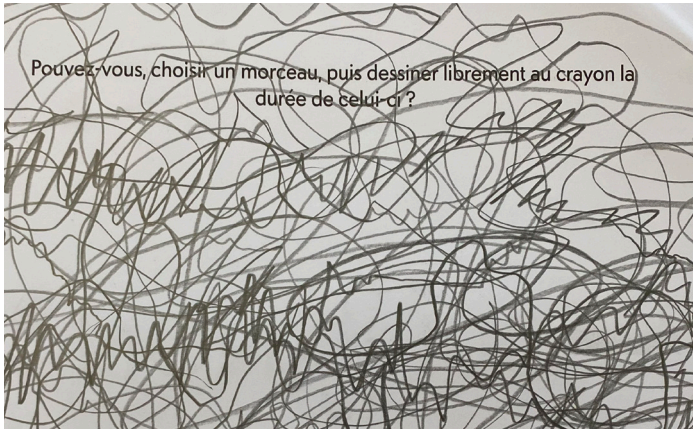
For my research, I focused on creating exercises based on the relationship between sound, colors, and forms.

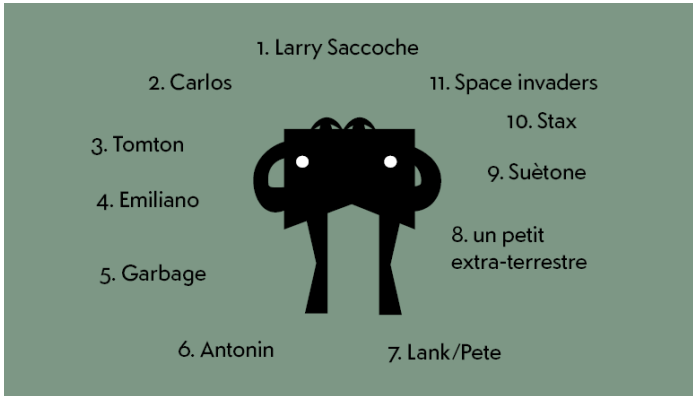
Drawing sound in a flowing motion allowed individuals who are not into drawing to liberate themselves from the pressure of creating «good art» and feeling «unable to draw.»

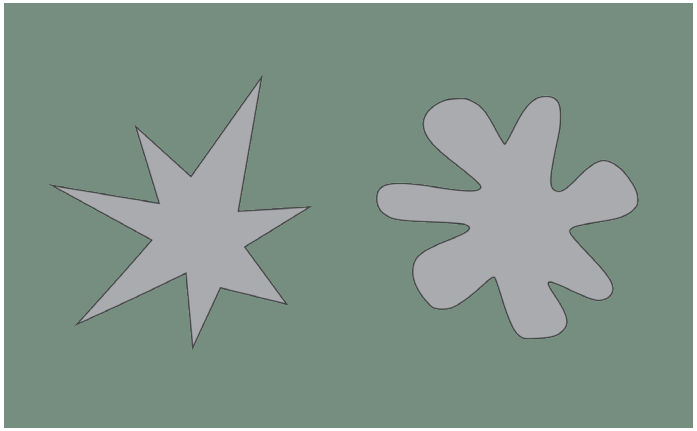
The relation between these motions and the sound they were listening to was deeply connected.

The outputs inspired the first prototypes and their functions.

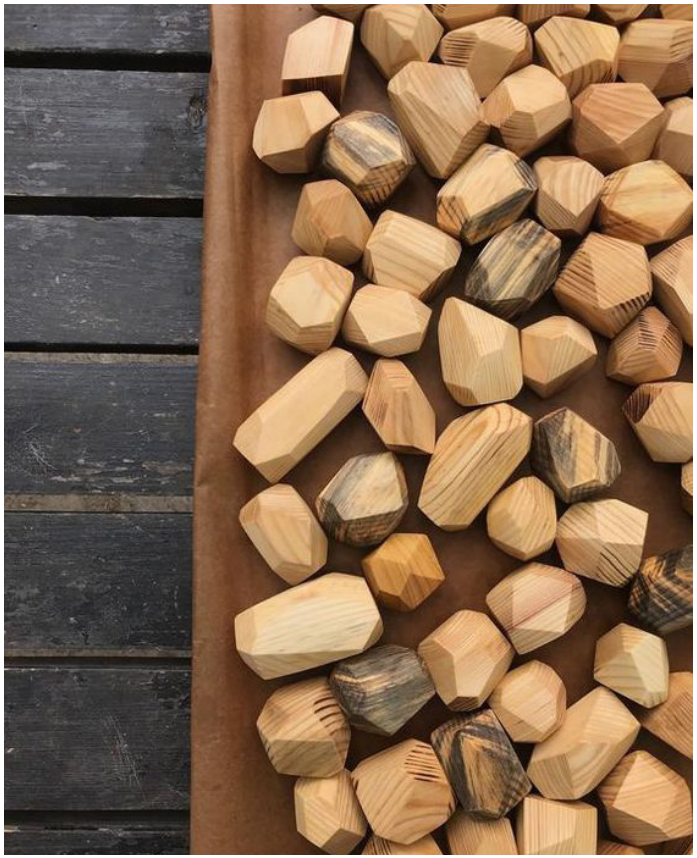


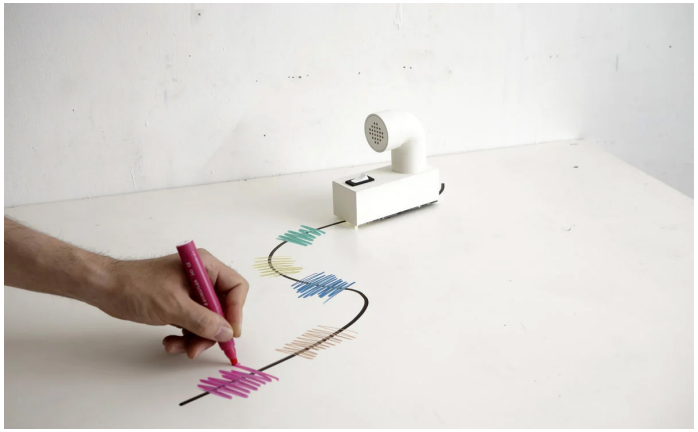


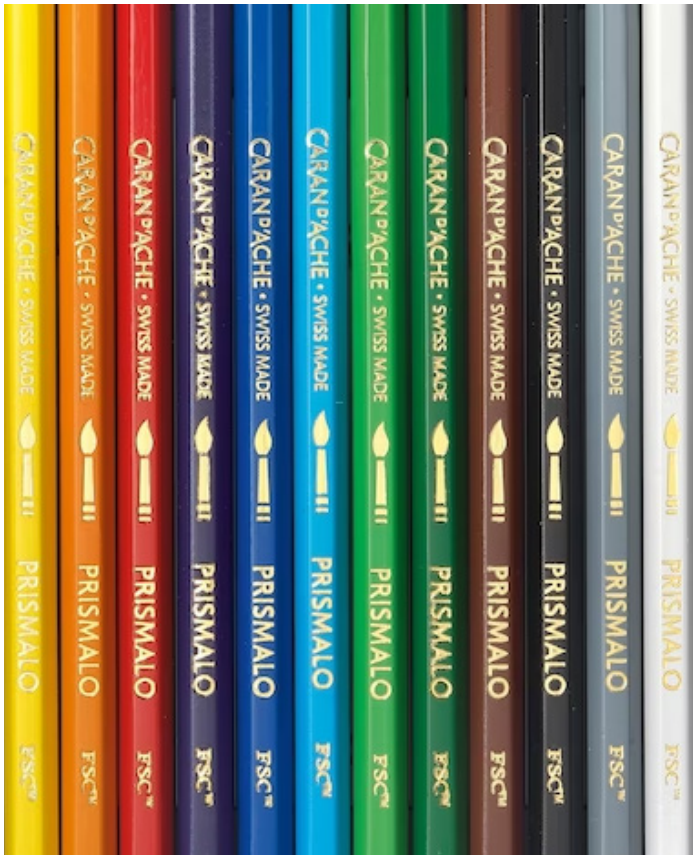




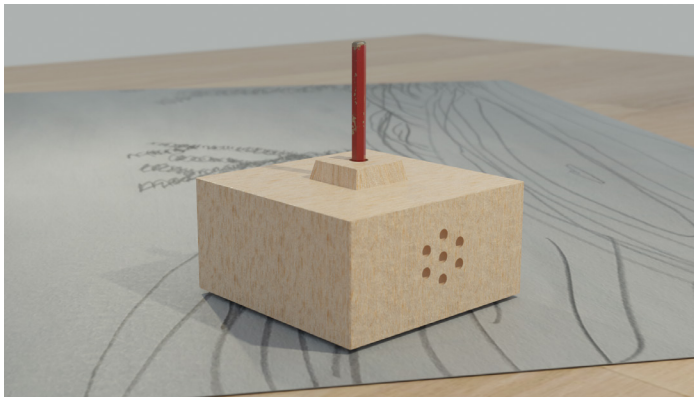
Visual and Material Moodboard

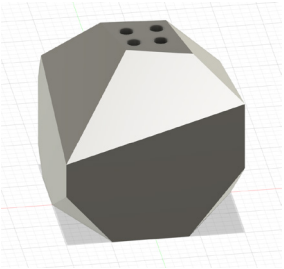


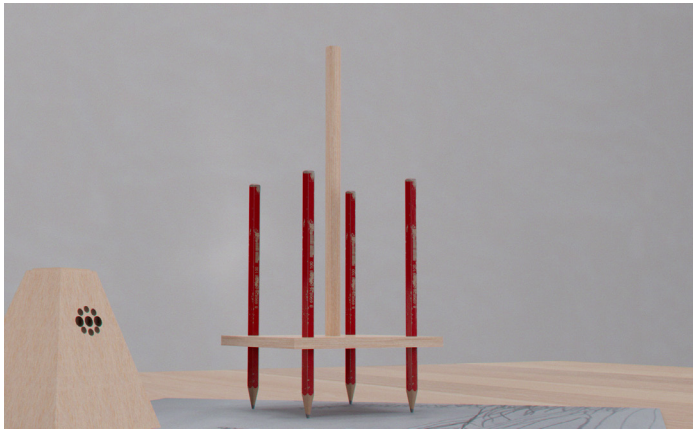


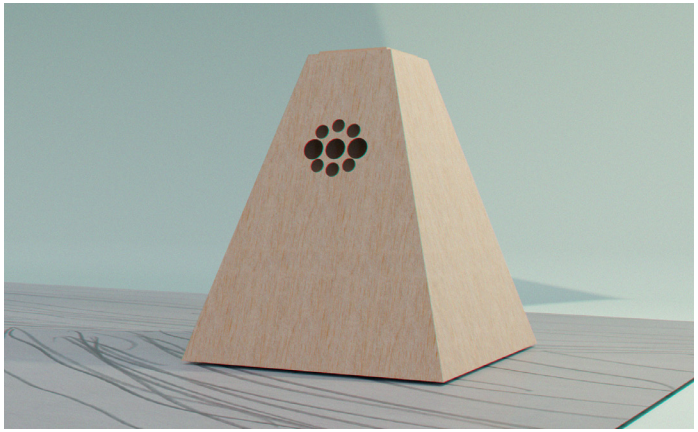


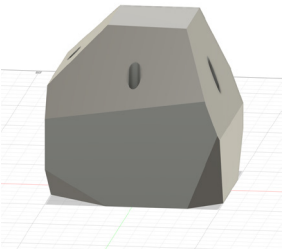
Shape research

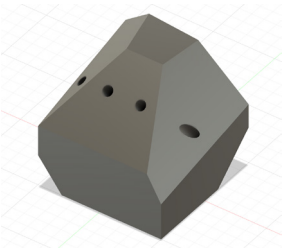










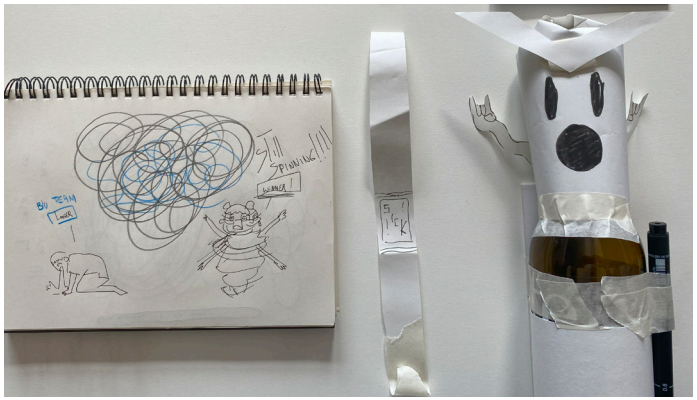


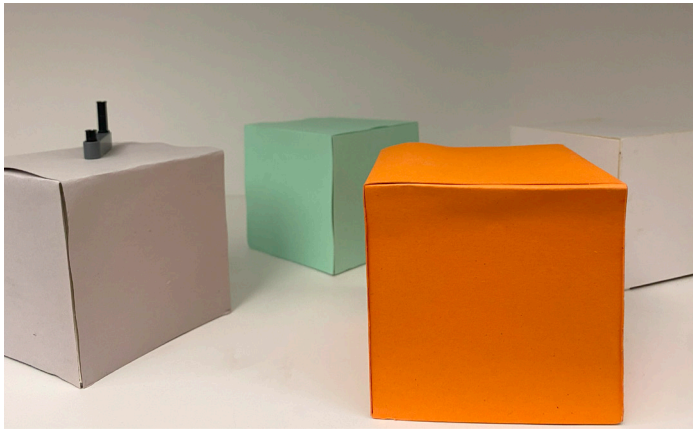
Paper Prototypes

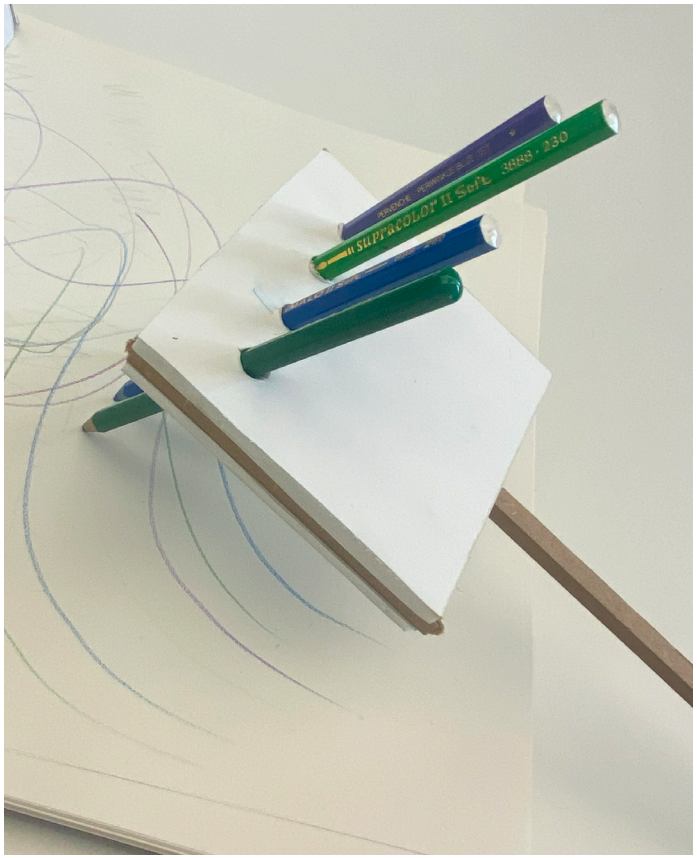
The prototype phase allowed me to refine the shape and the concept of this project.

Starting from a spinning and screaming robot, to a rolling cube that follows your movements, and eventually to Suètone and the drawing tools.

These prototypes paved the way for a more nuanced and effective final design.



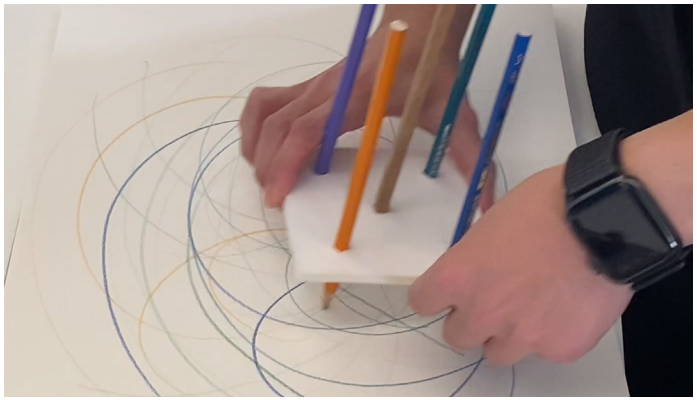


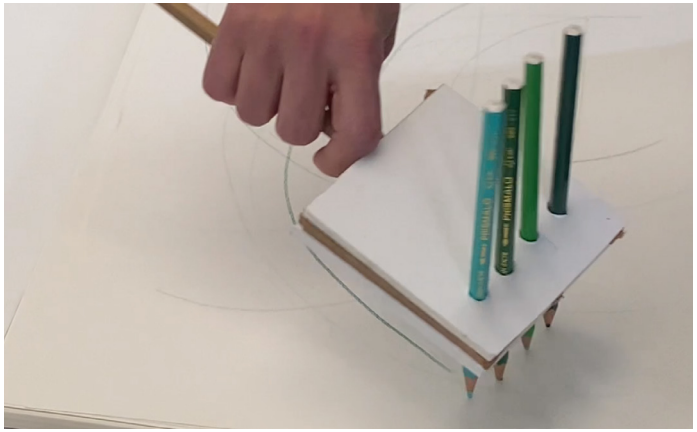


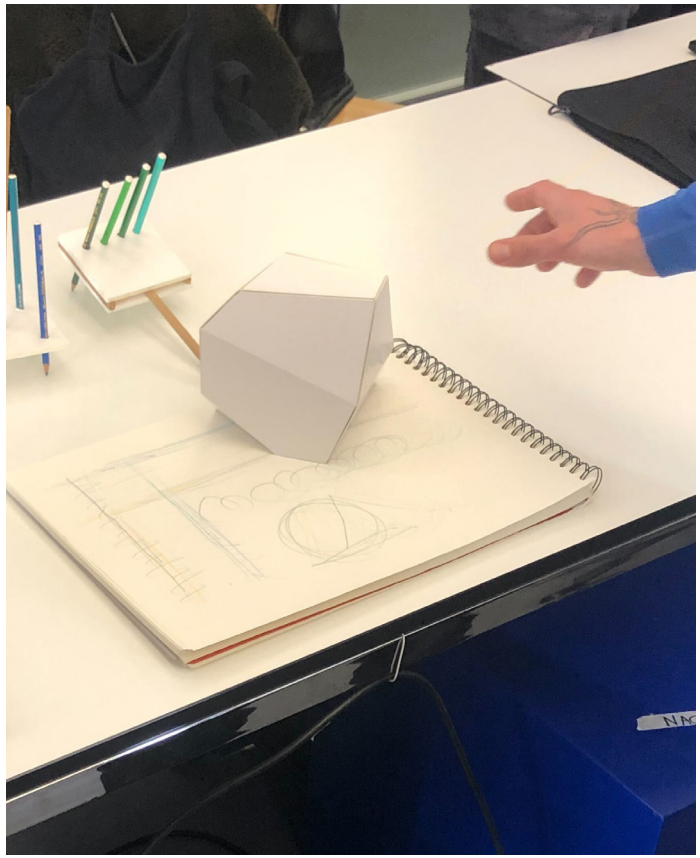
User Tests

The user tests were helpful in giving me a glimpse of how people will use my objects. I gave as few instructions as possible to let them use the drawing objects and Suètone freely. Then, I refined the experience through discussion and sound-design feedback testing.

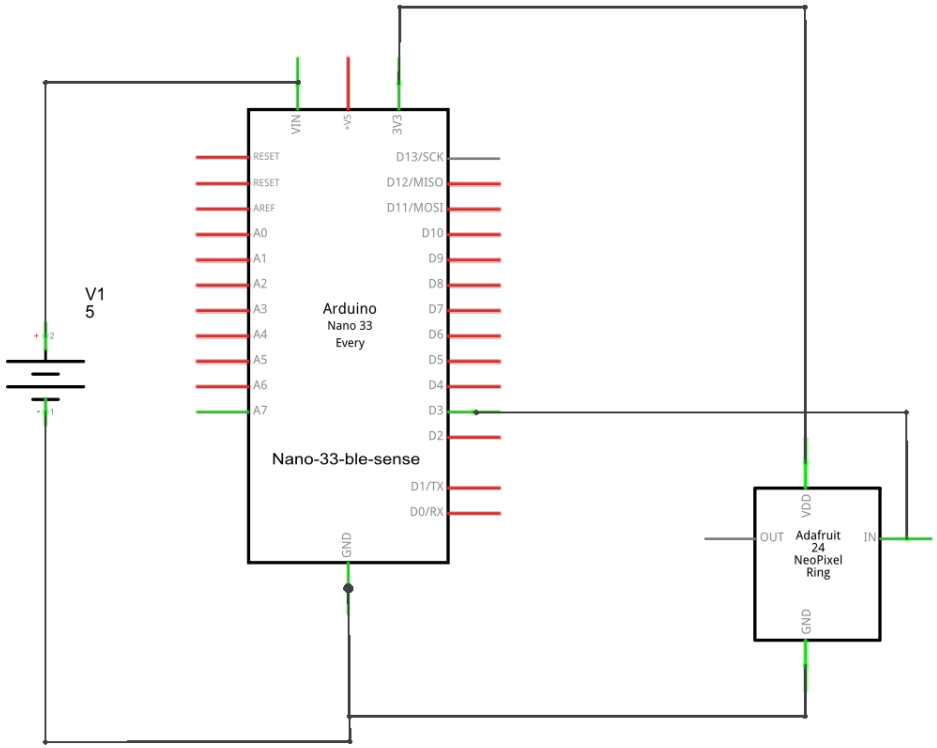
These were the main outputs:
- The drawing objects should match Suètone in form and scale.
- I should find a way to secure the pencils inside the objects.
- We should be able to move Suètone to read the sound.
- The drawing surface should be bigger to match the objects.

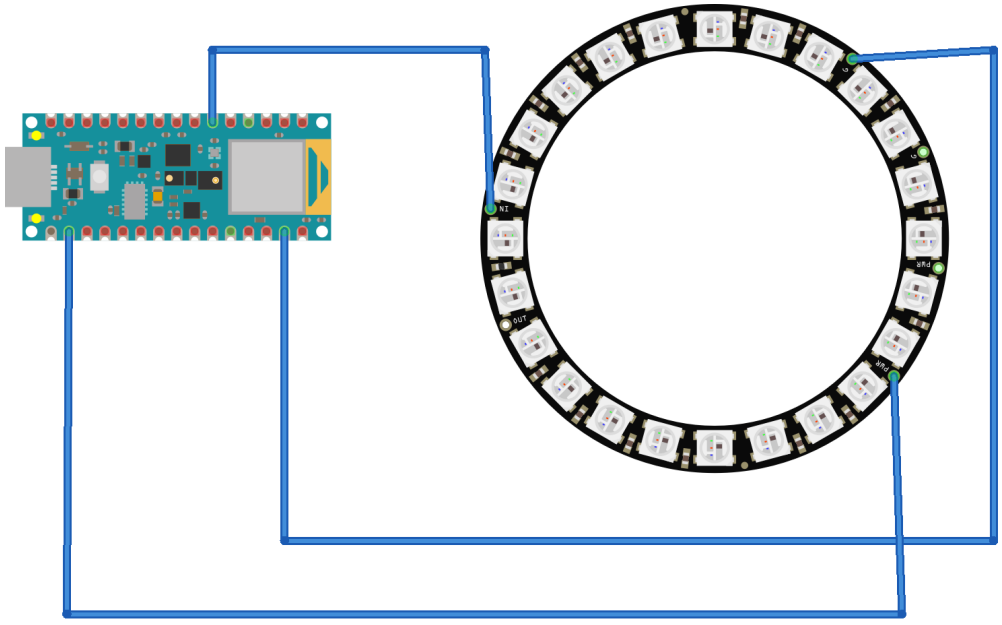






Electronics





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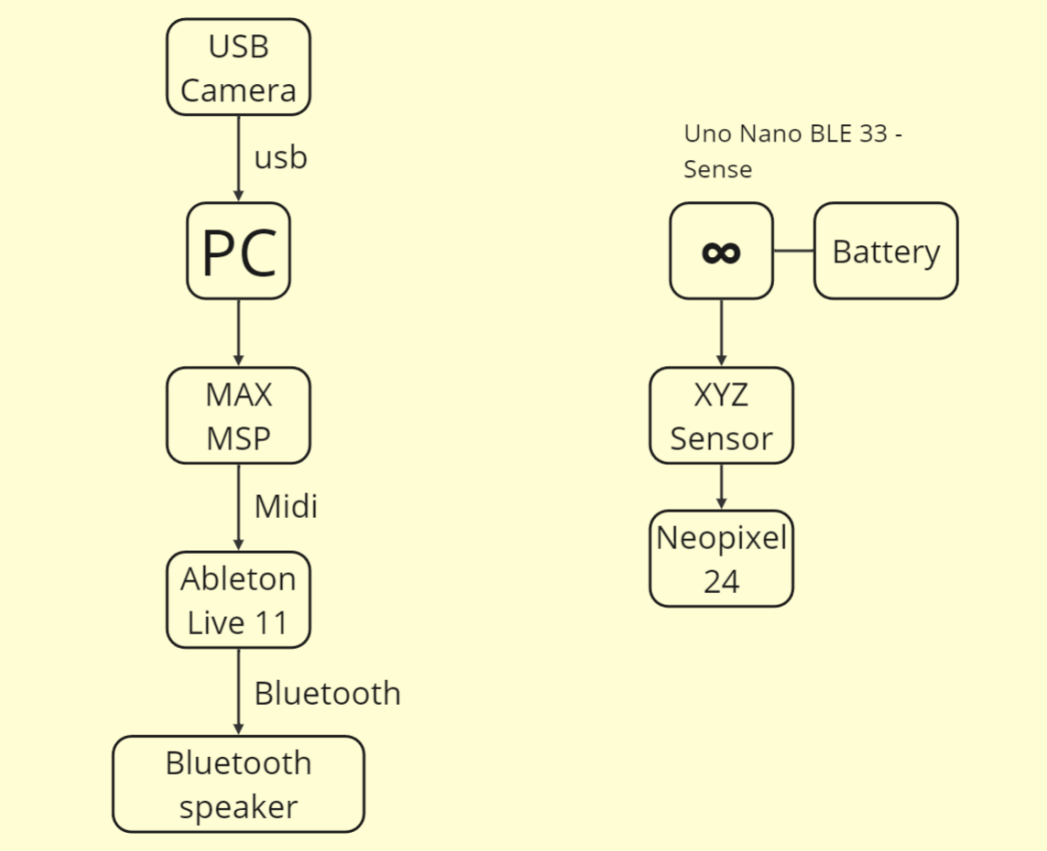
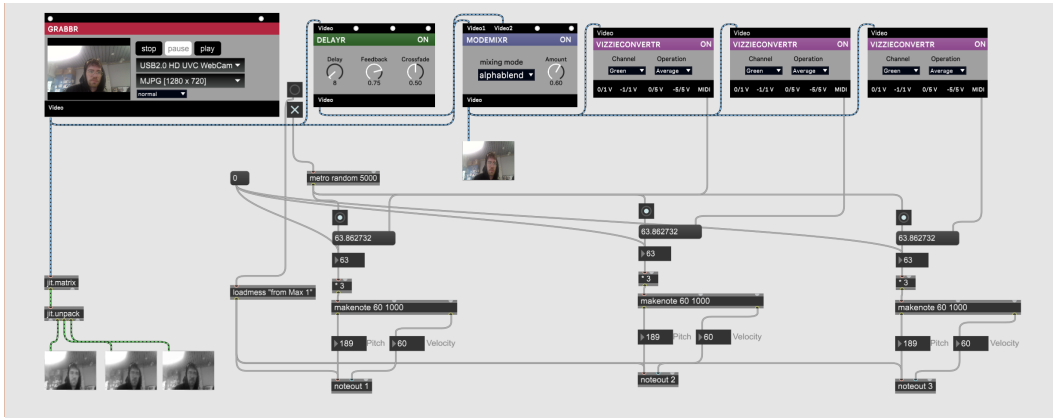
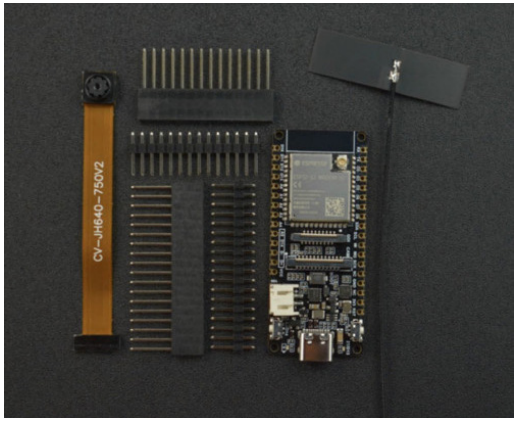
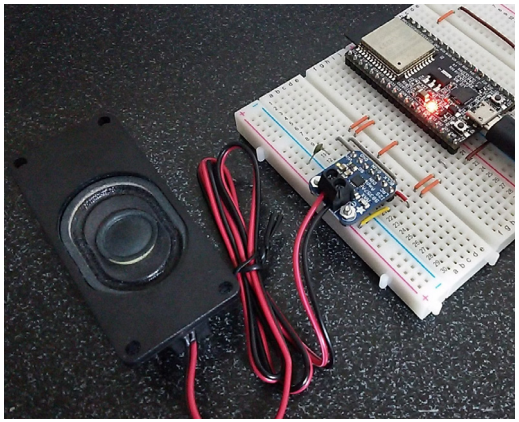


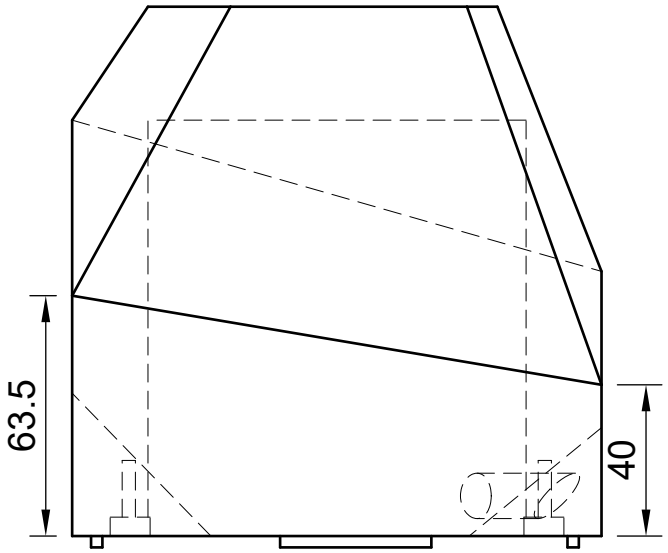


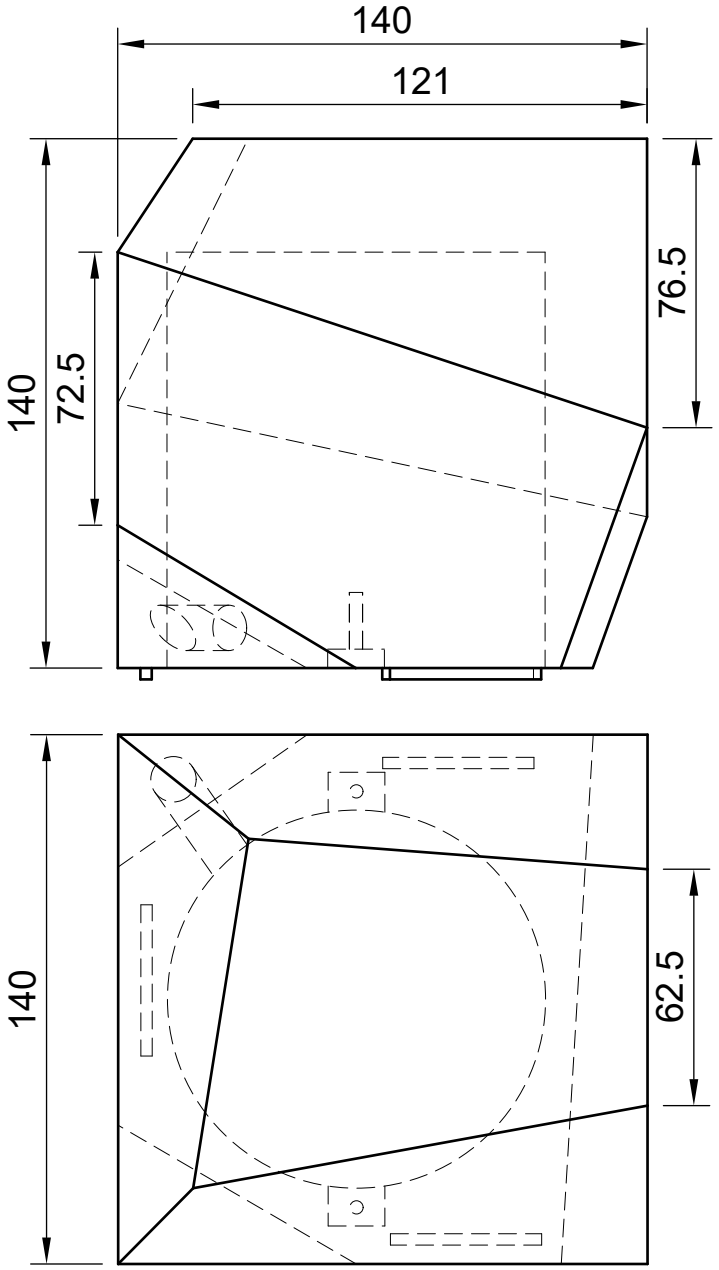


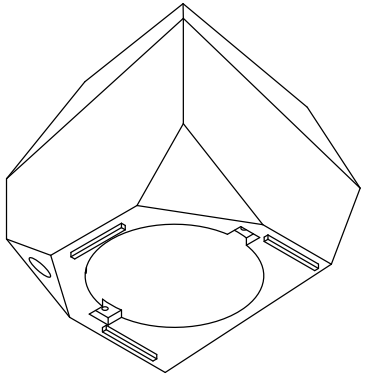


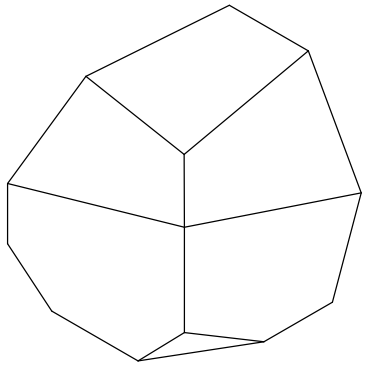
Plan Drawings : Suètone

Materials: Pear wood
Scale: 1:2 in mm // A3



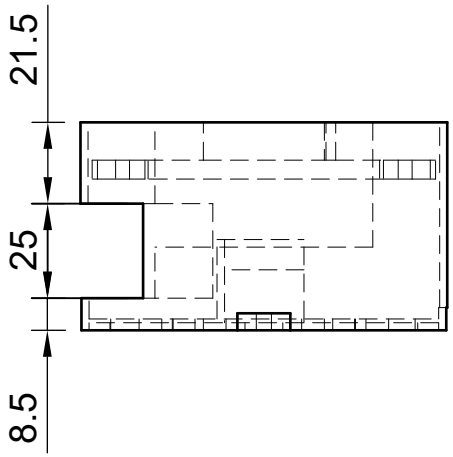


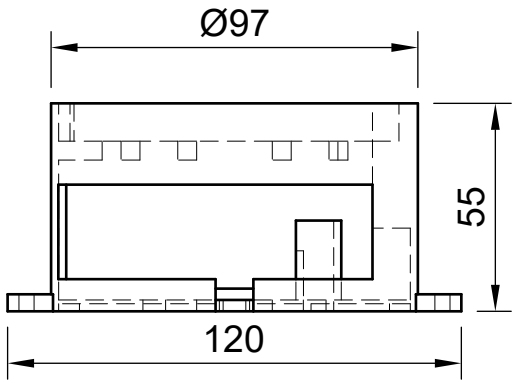


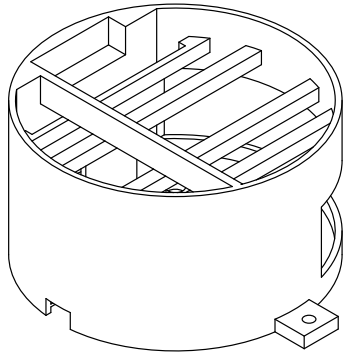


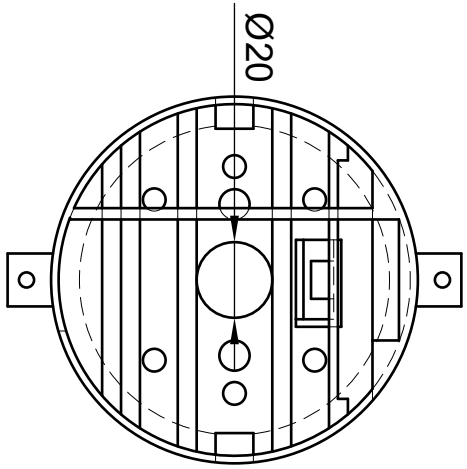
Plan Drawings : Inner structure

Materials: 3D Printed PLA
Scale: 1:2 in mm // A3



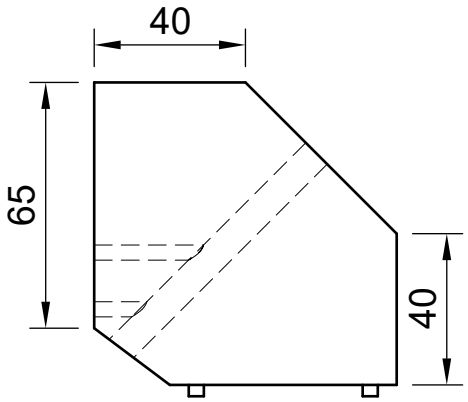


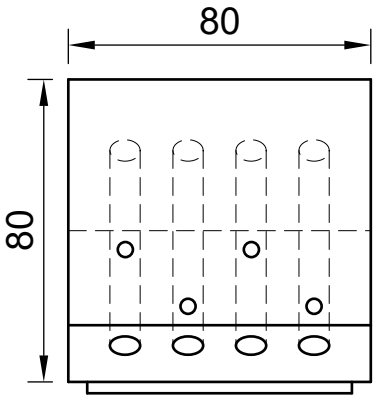


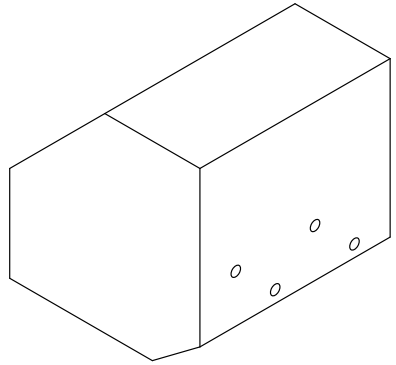


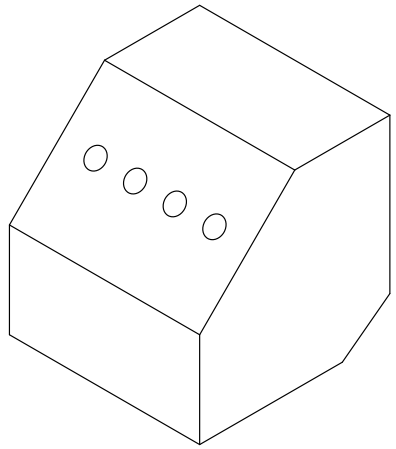
Plan Drawings : Drawing stone 01

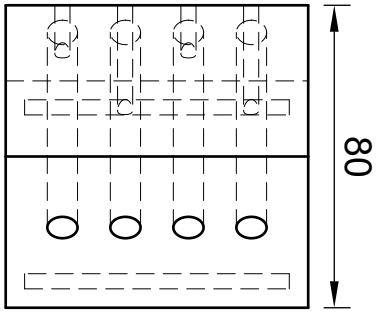
Materials: Pear wood
Scale: 1:2 in mm // A3





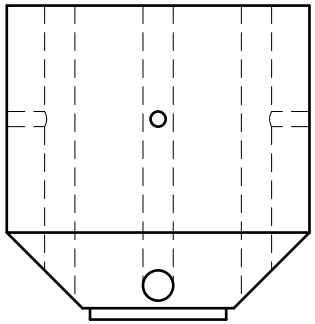


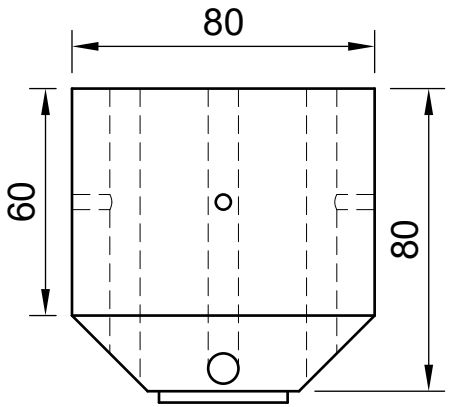


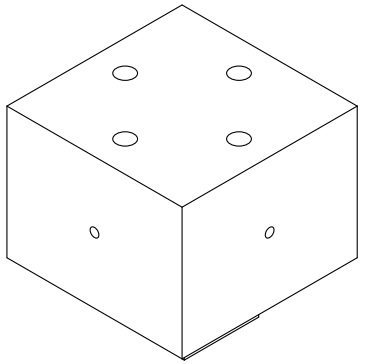


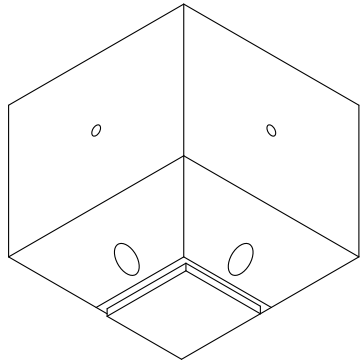
Plan Drawings : Drawing stone 02

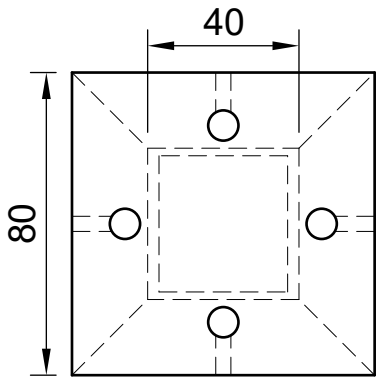
Materials: Pear wood
Scale: 1:2 in mm // A3





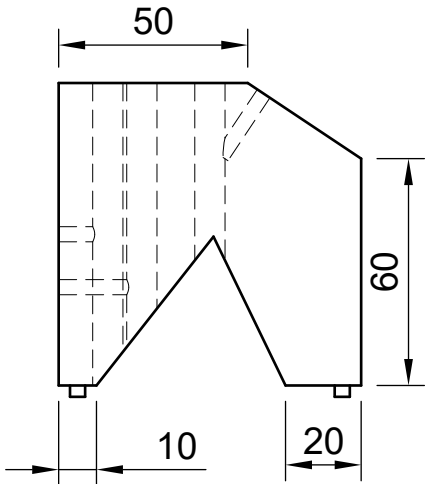


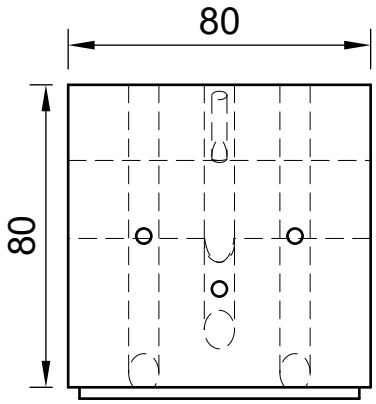


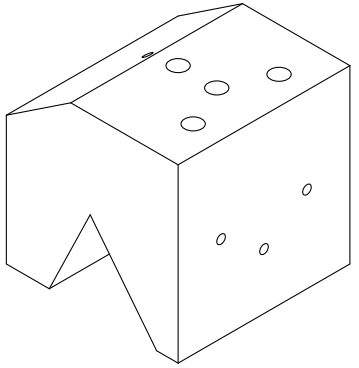


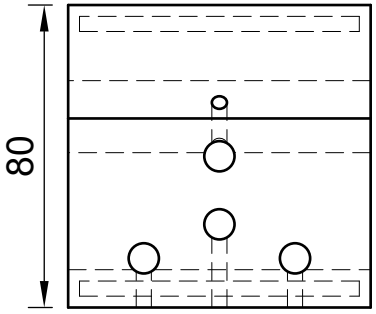
Plan Drawings : Drawing stone 03

Materials: Pear wood
Scale: 1:2 in mm // A3









Morpheus

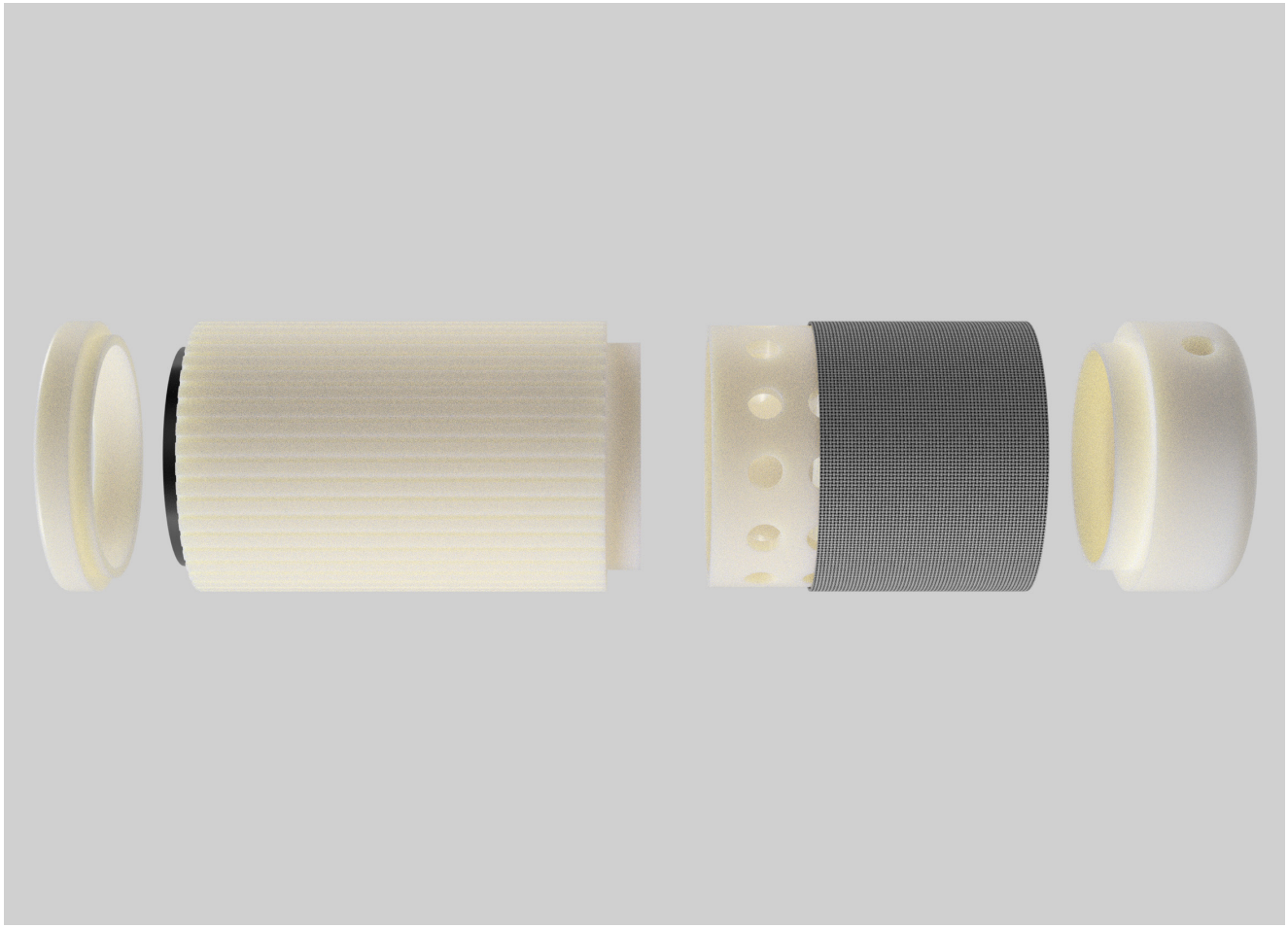
Alive Stories

Project Description

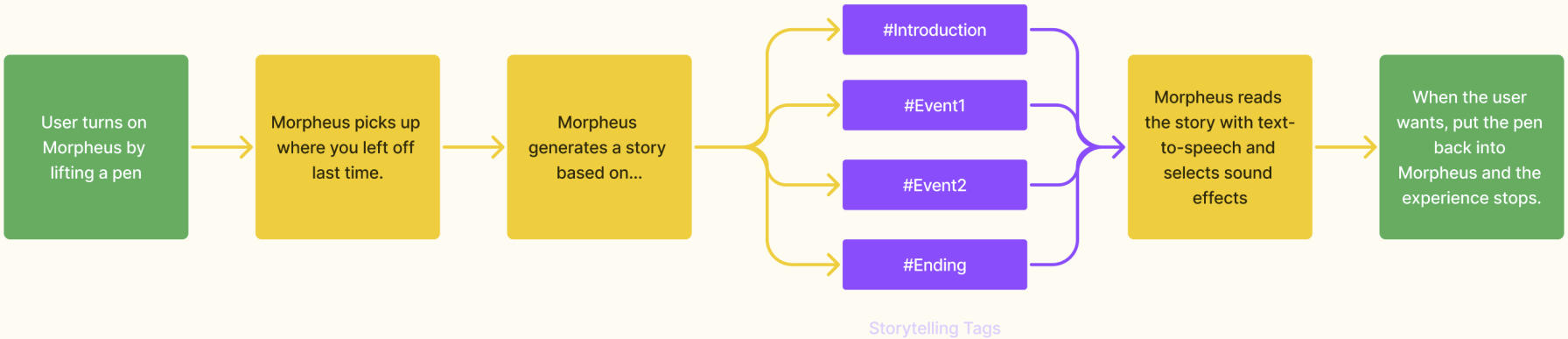
Project Morpheus is an AI assistant that narrates stories to you while drawing.

Each time you turn on the device by lifting the pen from the device, you're guided by the assistant into a virtual world where a story is narrated to you.

Each day, you get one episode to draw and each episode can be part of a series, just like a Netflix series, creating a ritual of drawing every day.



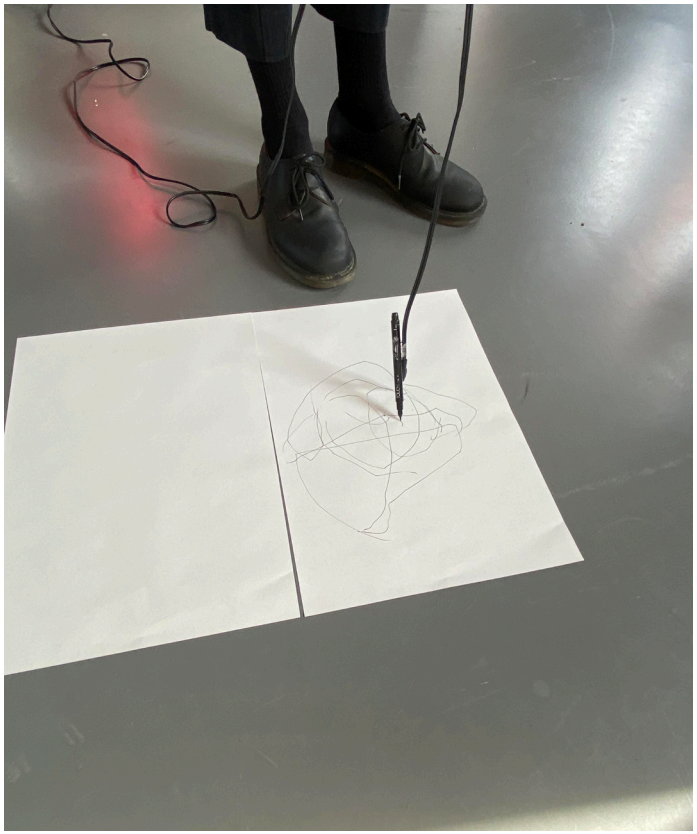
User Journey

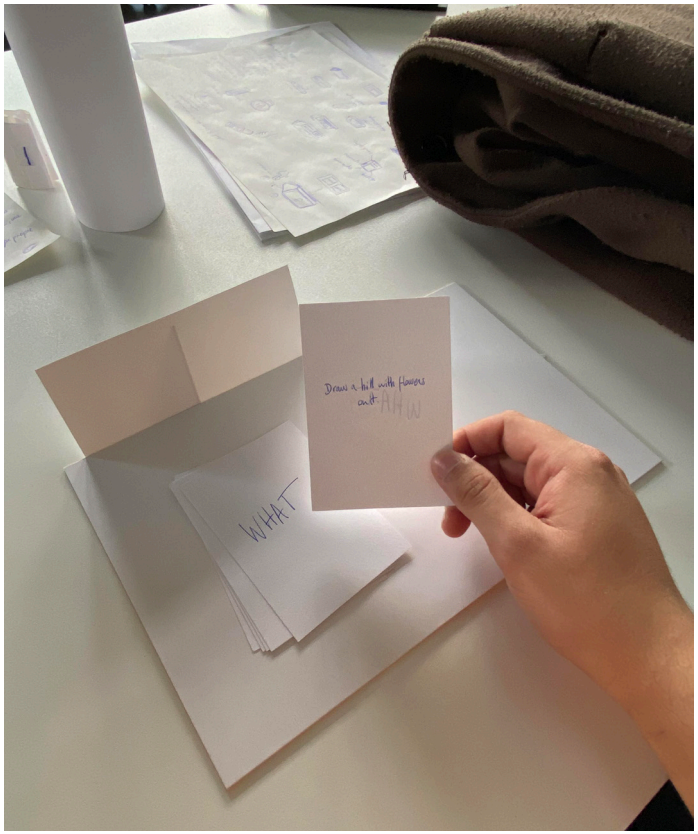


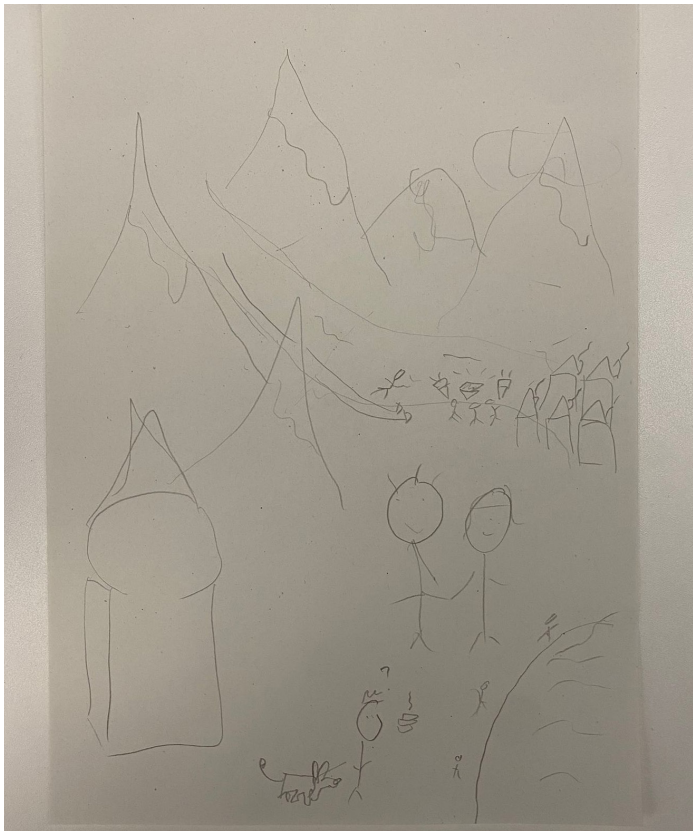
Field observations

It all began with the theme of daily stress, and drawing as an exercice to ease tension. I then became interested in drawing with eyes closed, where people surprised me with their outputs. Subsequently, I tried influencing their drawing by commenting and expressing positive feedback, while at the same time indirrectly giving them ideas that influenced their drawings.

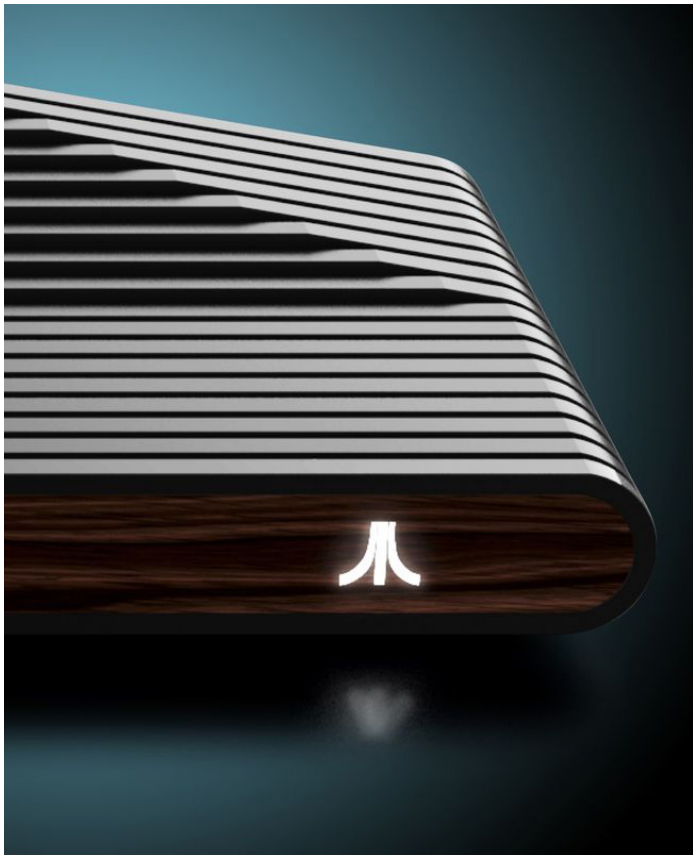
But then, the idea of drawing eyes closed wasn't that much important anymore, and the idea of storytelling and narrating a story was born. The results were so much interesting, with people feeling creative and inspired by stories, desperately waiting for endings.



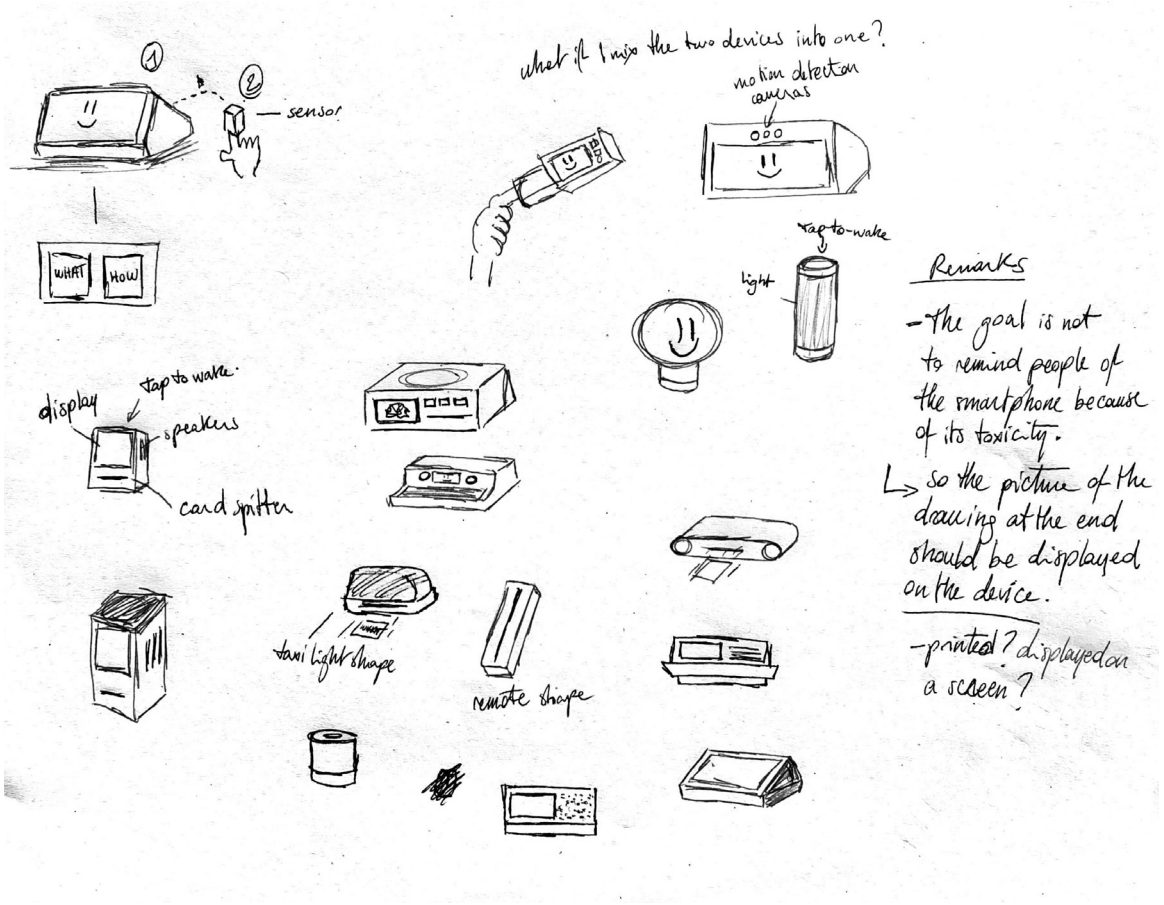


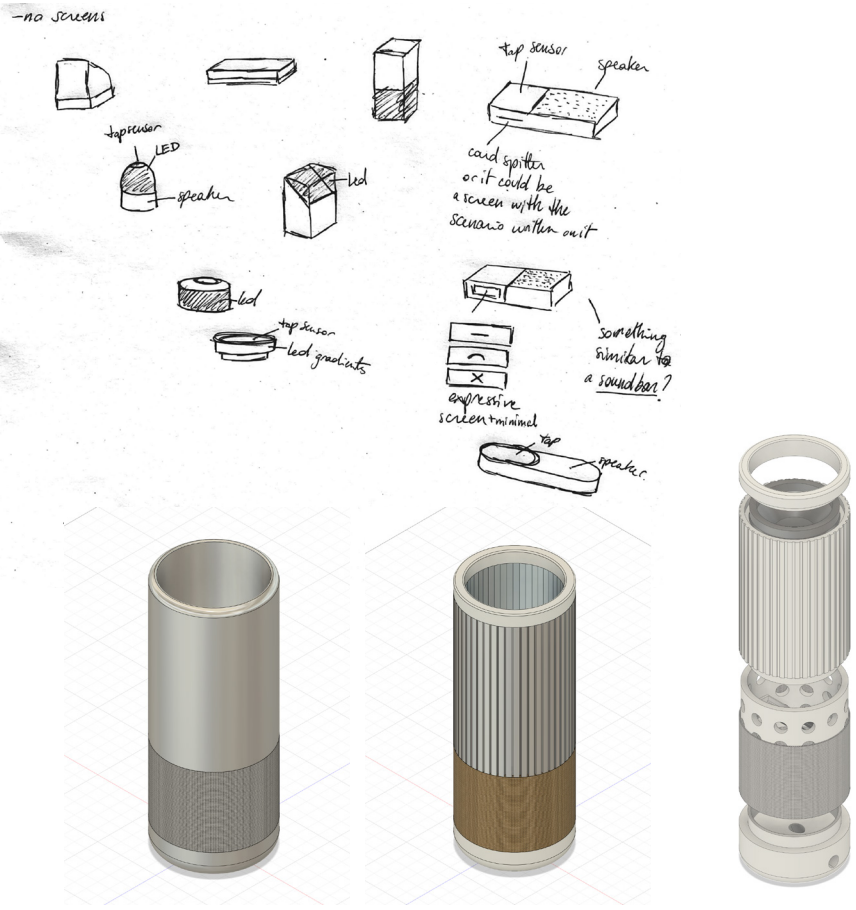


Visual and Material Moodboard



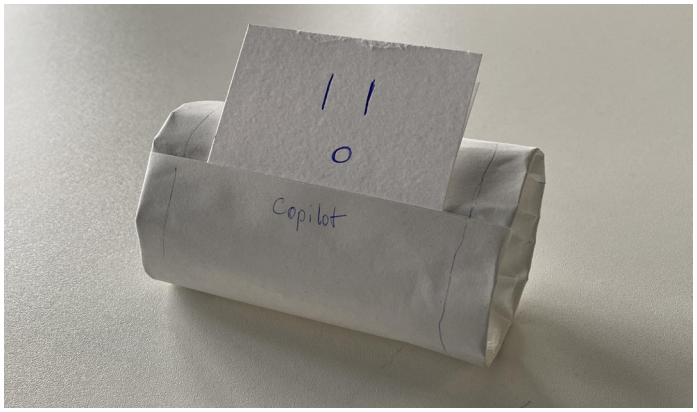
Shape research

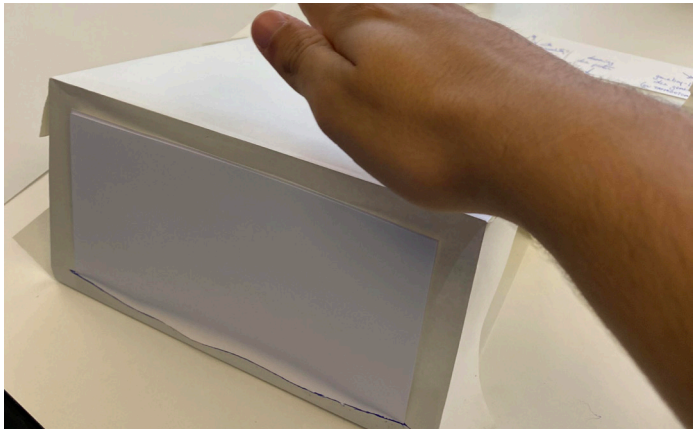


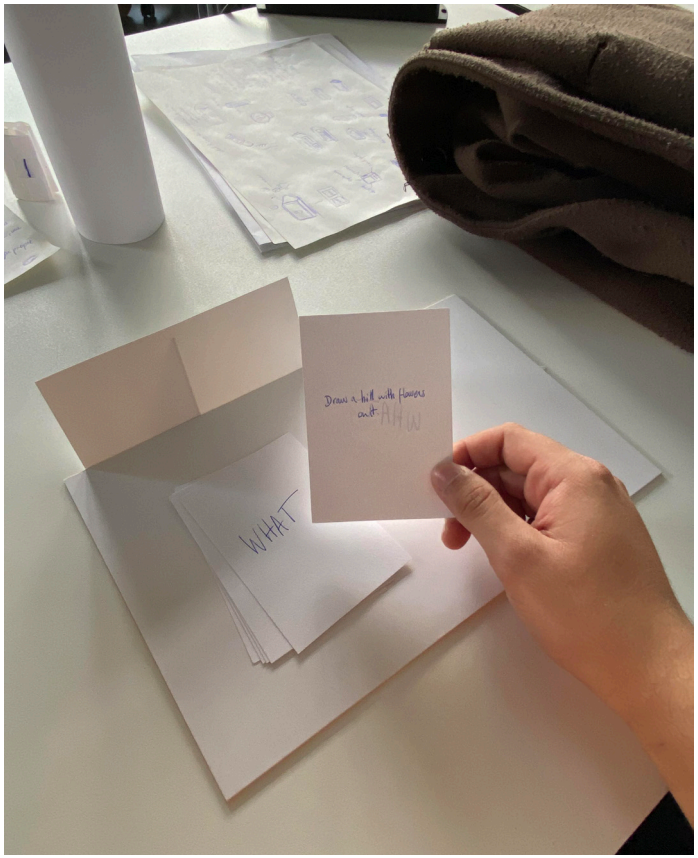


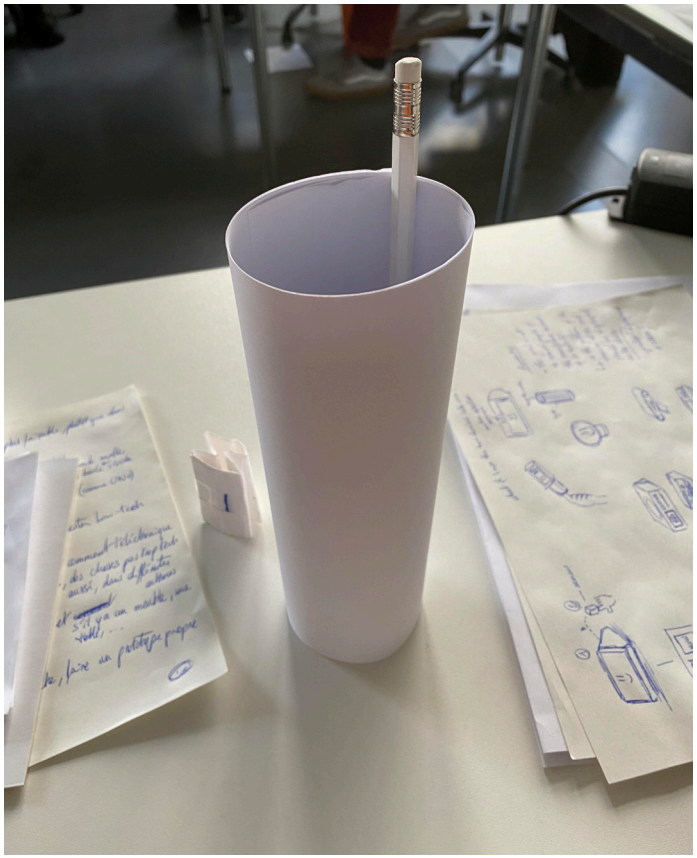
Paper Prototypes

I went from a small rolling robot that gives you ideas on the run, to a card selection machine.
The first designs were a bit too technical, until I focused more on the interactions, and finaly focusing more on the shape of a pen holder.





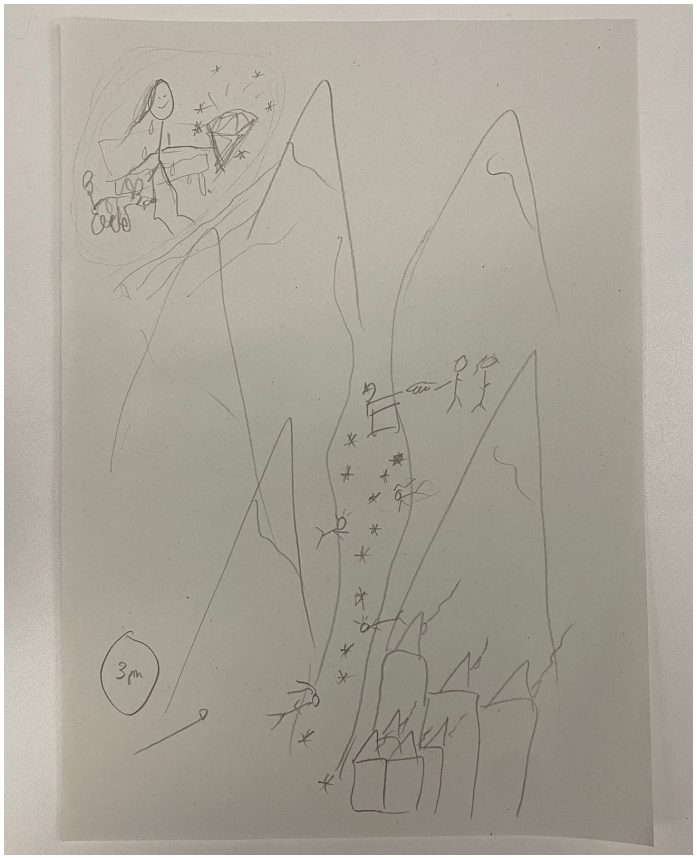


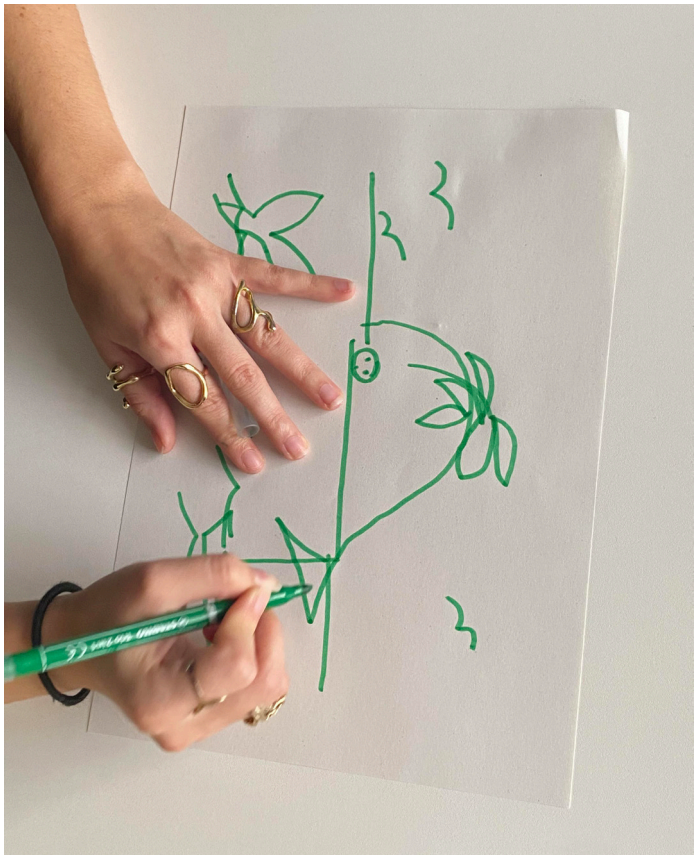


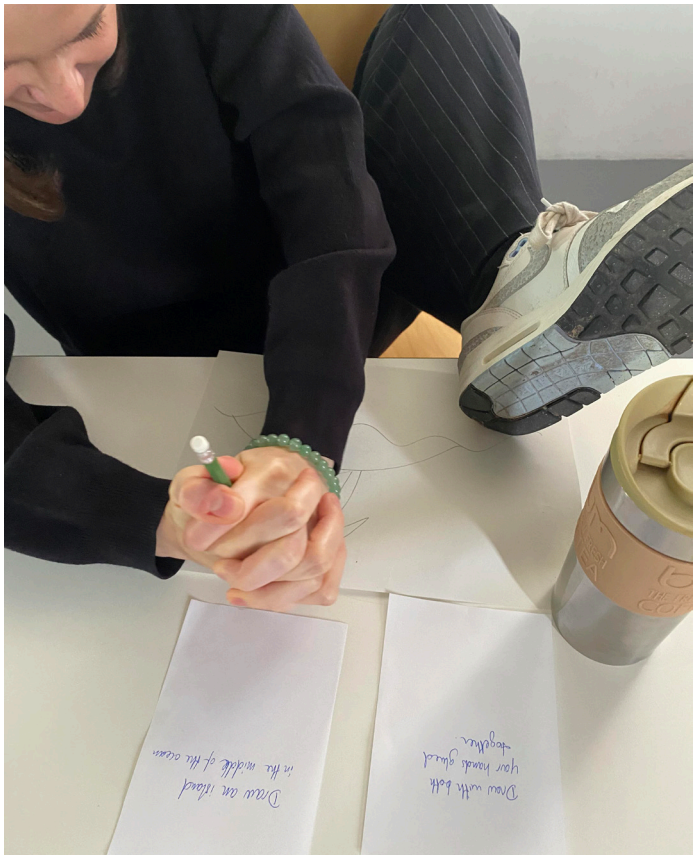
User Tests

People were always surprised to see their drawings at the end and found the experience really fun. The idea of narrating a story and each person imagining their suns, theirs animals, their trees, their cities, their people, etc. was also really interesting to see and hear.

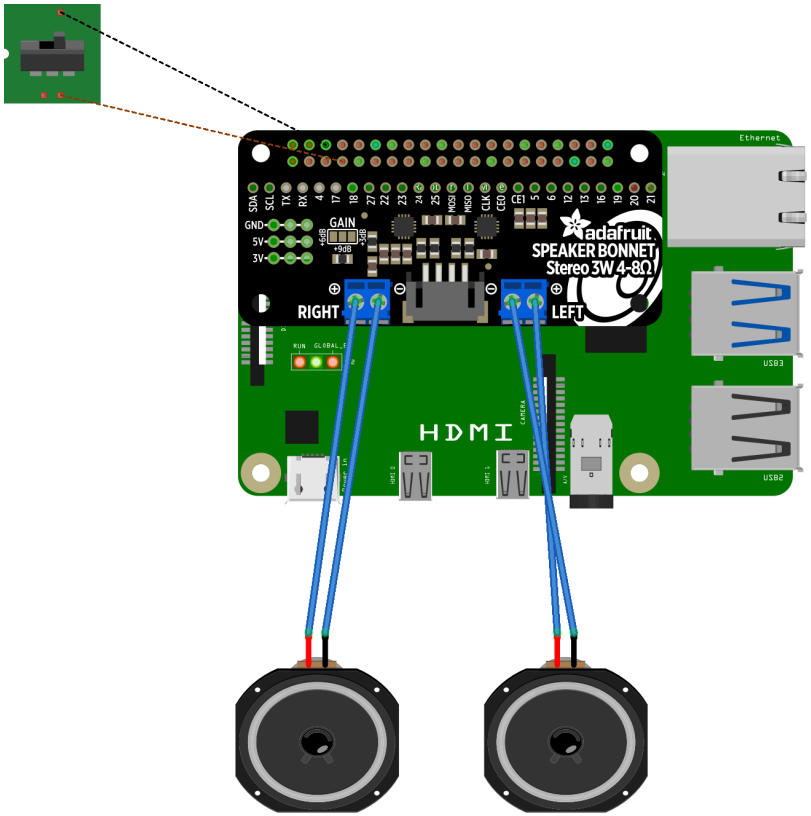
The whole storytelling experience can be compared to a campfire, with people waiting to know what happens to the characters in the story.

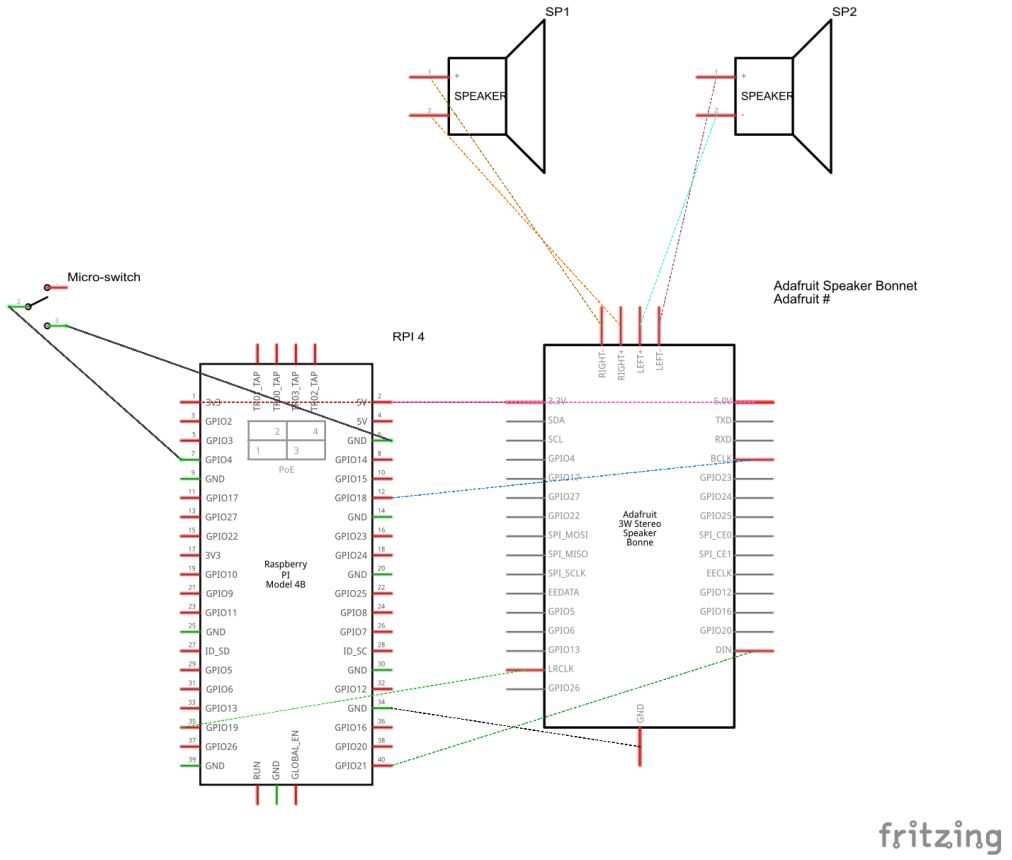






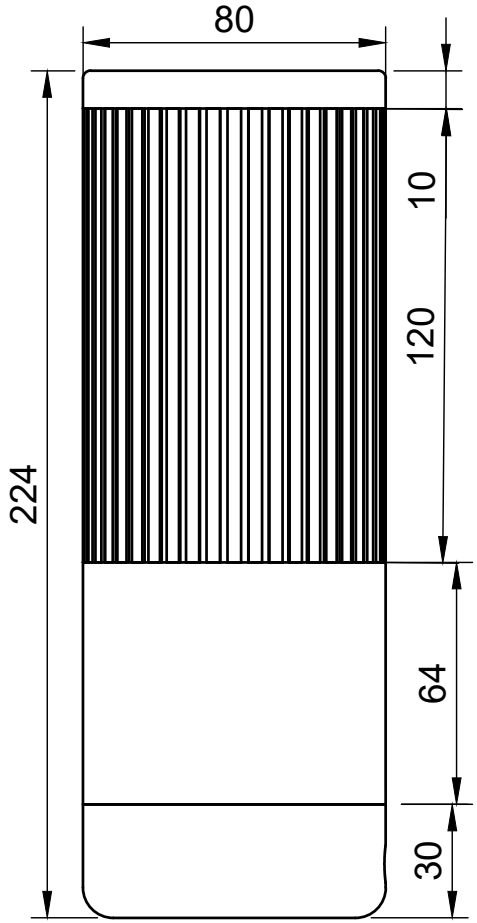
Electronics

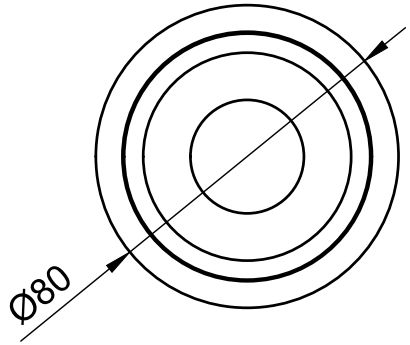


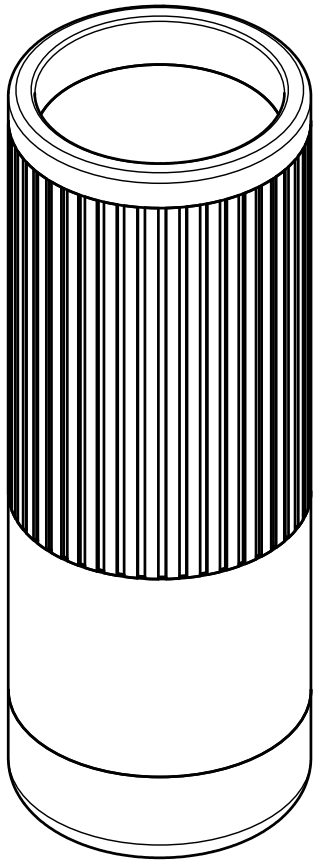


Plan Drawings

Materials: ABS White + Textile (for Speaker Grill)
Scale: 1:2 in mm
Dimensions: 80×224







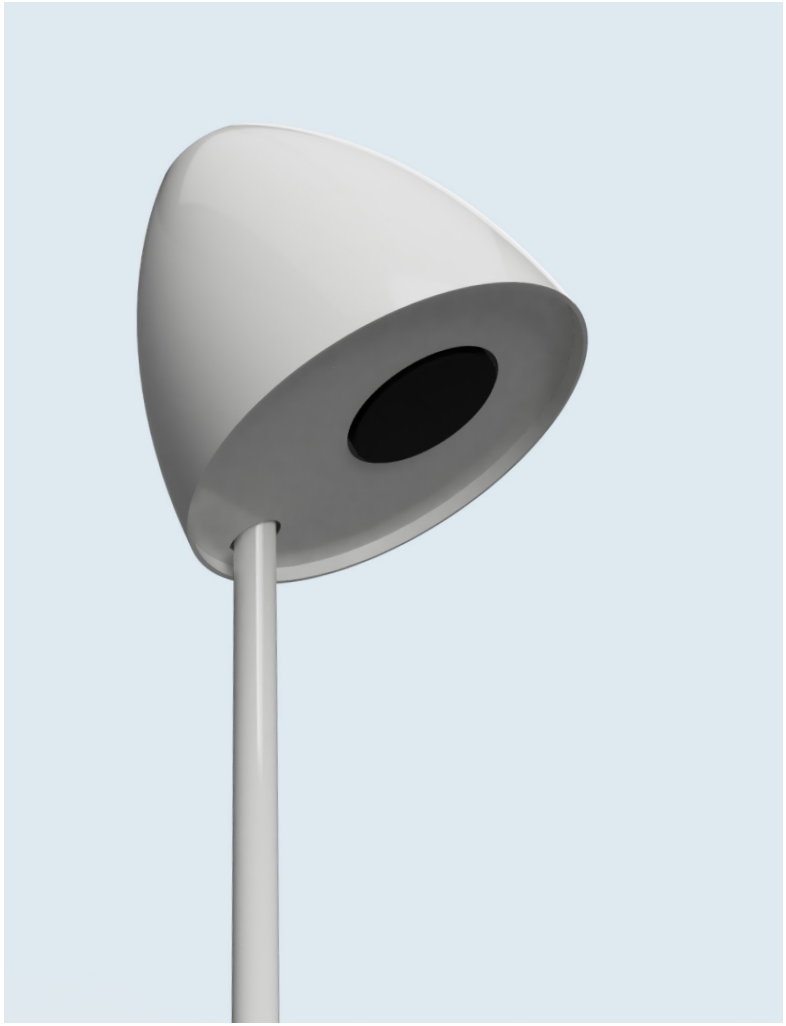
Snailed-it

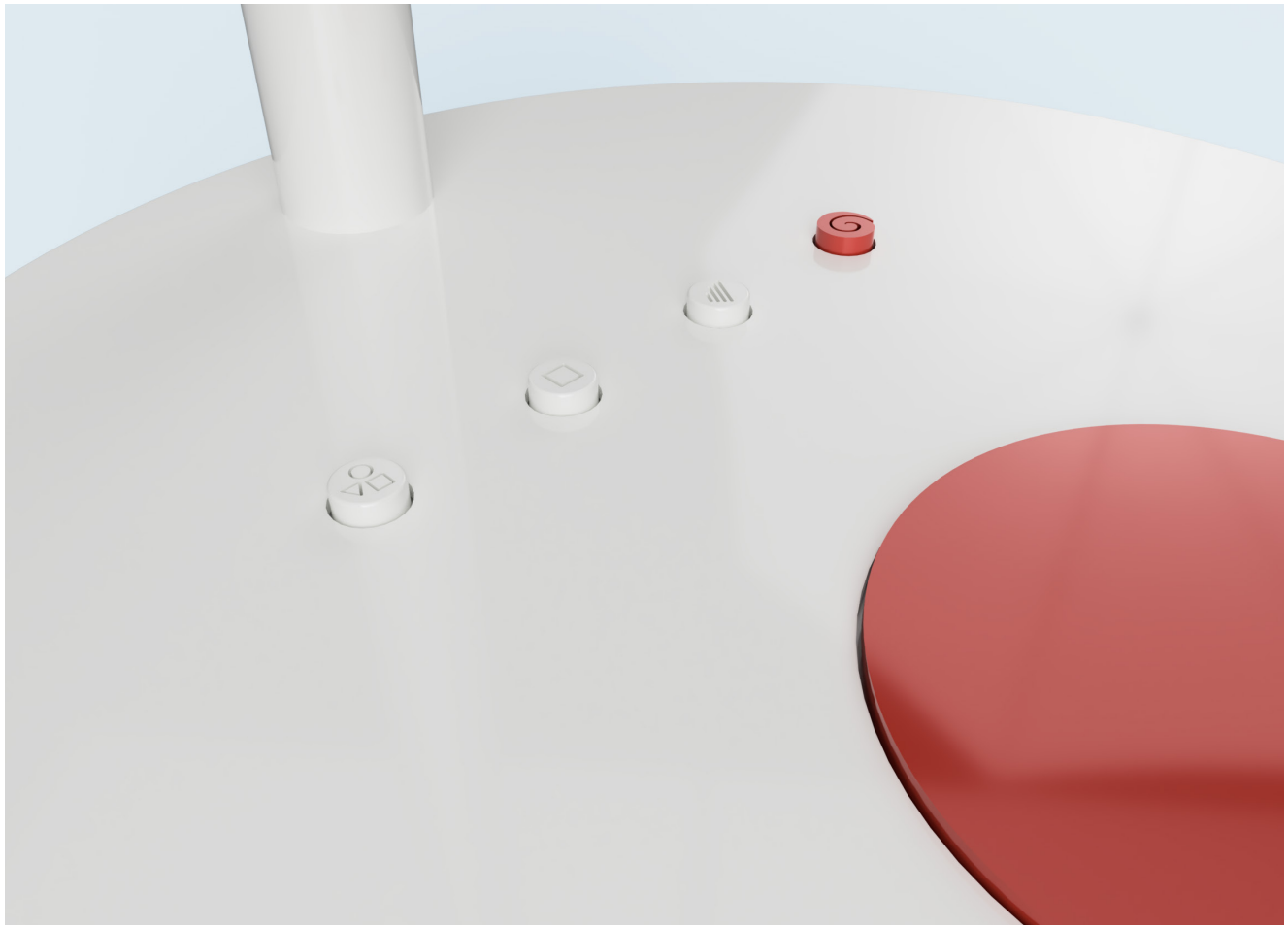
Kick start your drawings

Project Description

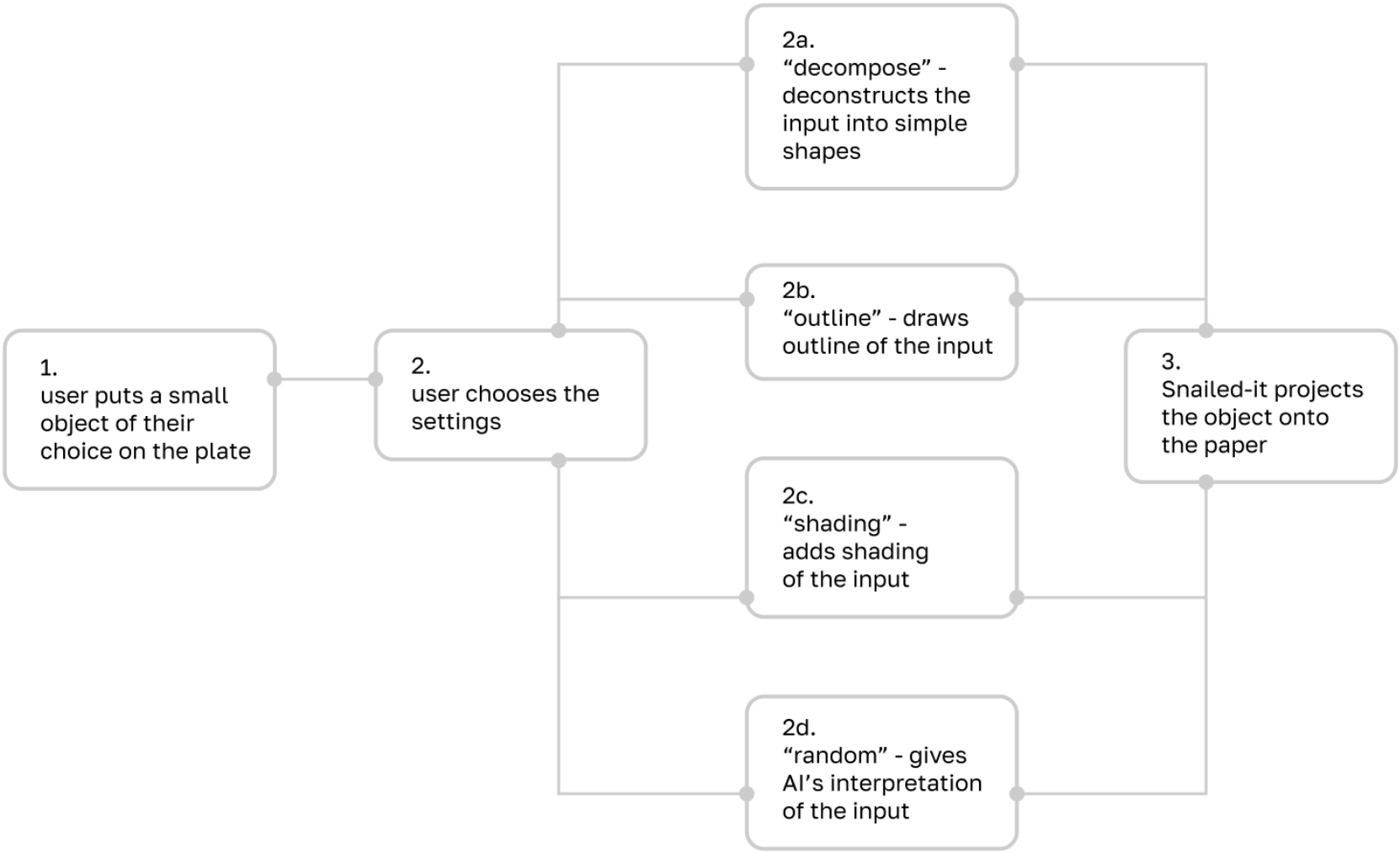
Snailed-it is an AI assistant that helps you start your artistic explorations, occasionally with an unexpected touch. Tailored for people looking for ways to occupy their free time, Snailed-it is a perfect companion for those open to drawing but unsure where or how to begin. Thanks to Snailed-it, you can now use any small object you find as a starting point.

The assistant projects your object based on the settings you choose, so that you can then trace it. Snailed-it can be used in any comfortable setting, as long as it is placed on a flat surface. So, whether you are at home or in the office, the creative possibilities are at your fingertips.





User Journey



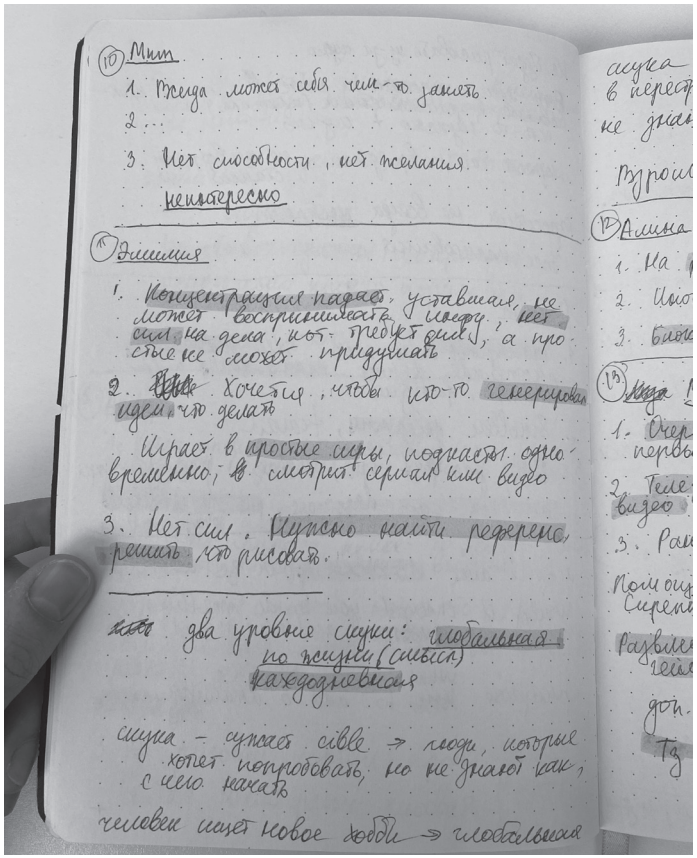
Field observations

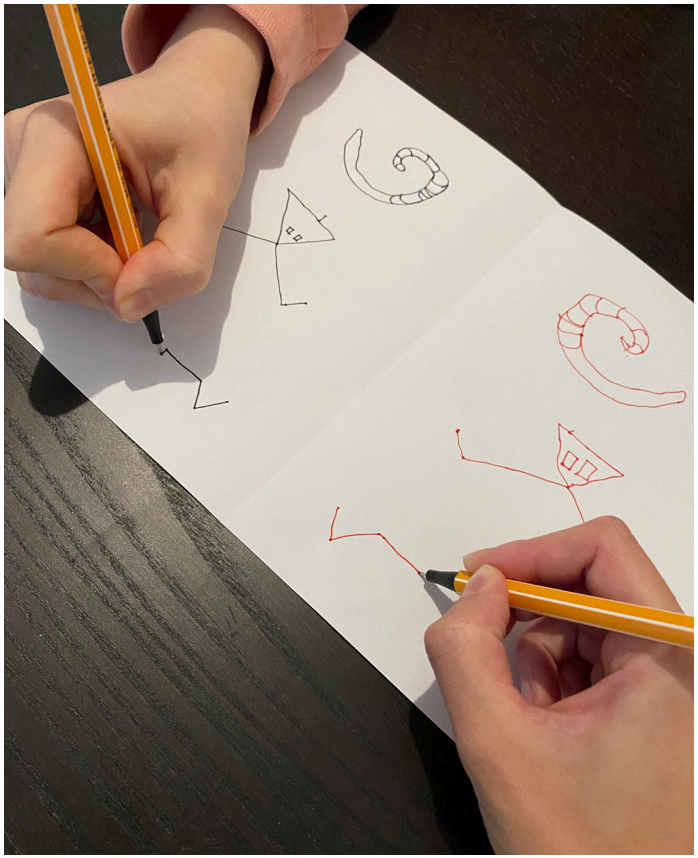
Interviews of 20 people on how they deal with boredom; collaboration experiment; texture-to-drawing blind test.

- People do not draw because they do not know what to draw or how to start.

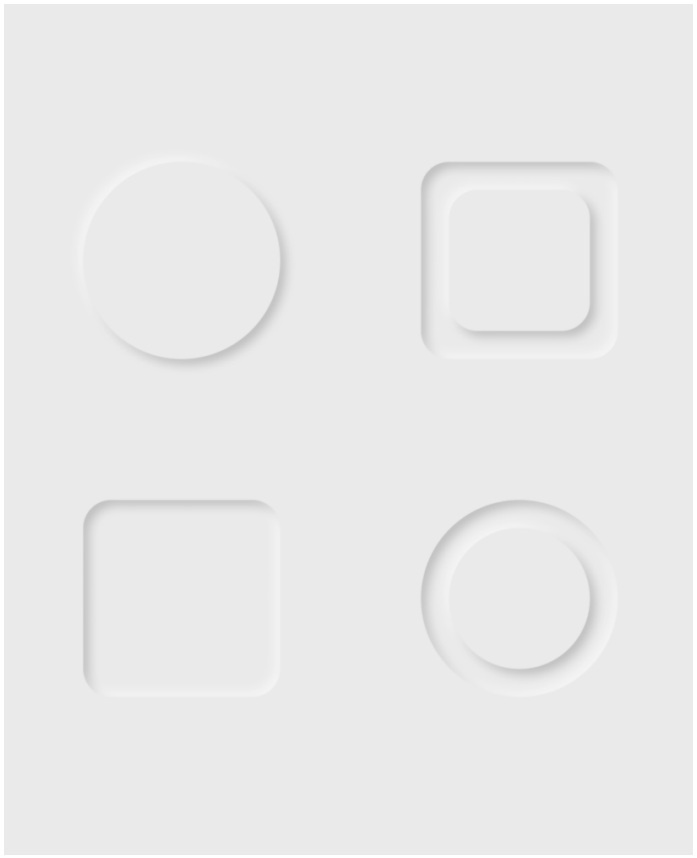
- People want to be guided in their drawing experience.

- Not knowing what you are going to see makes drawing more interesting and fun.

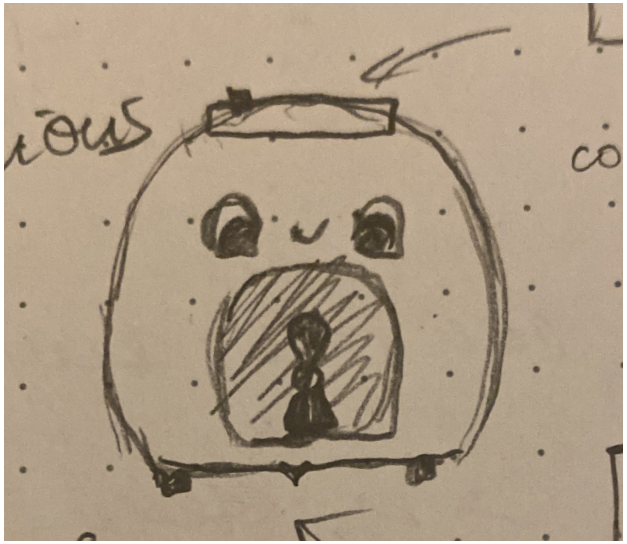


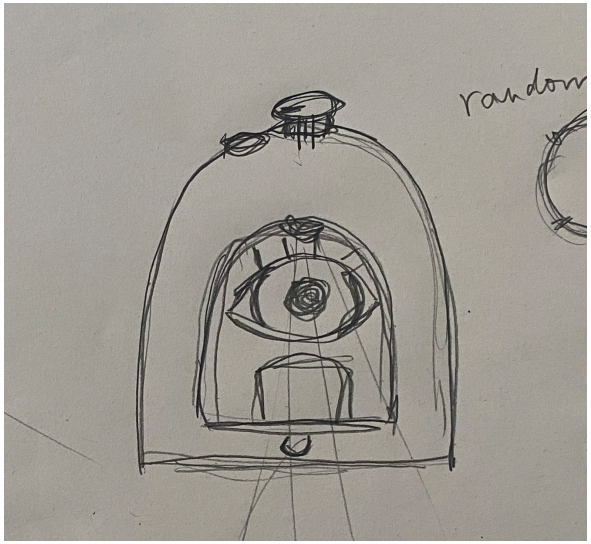


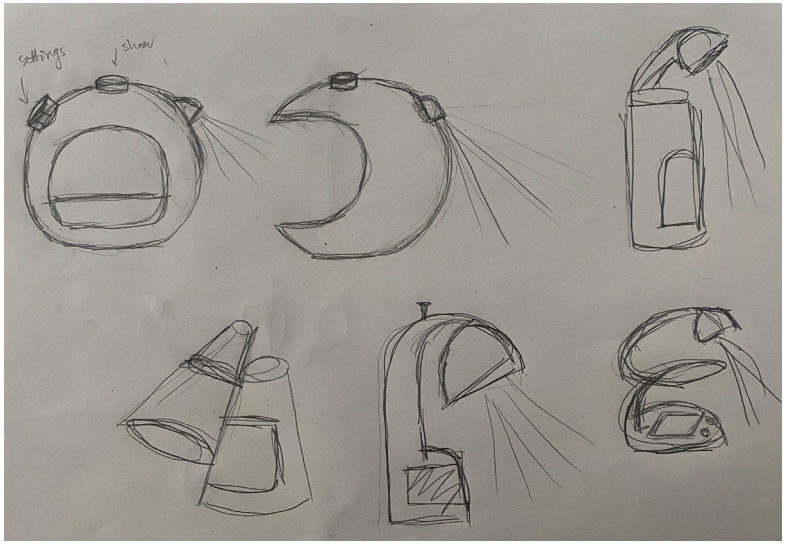
Visual and Material Moodboard

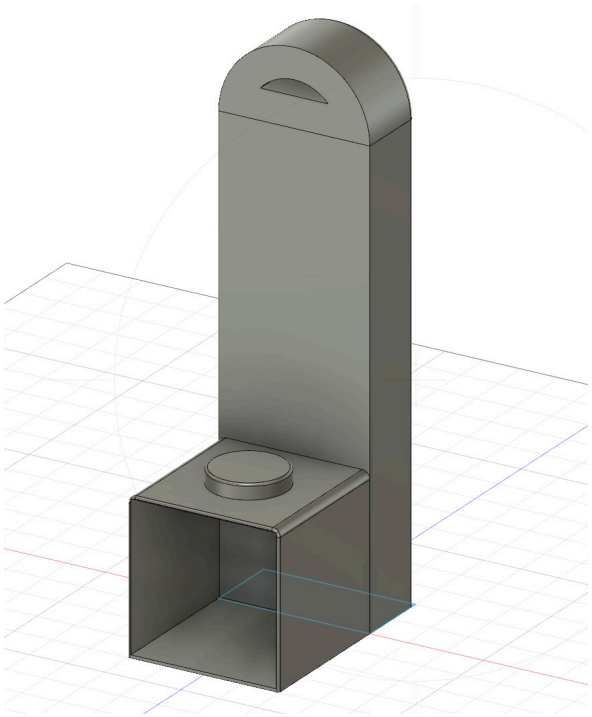


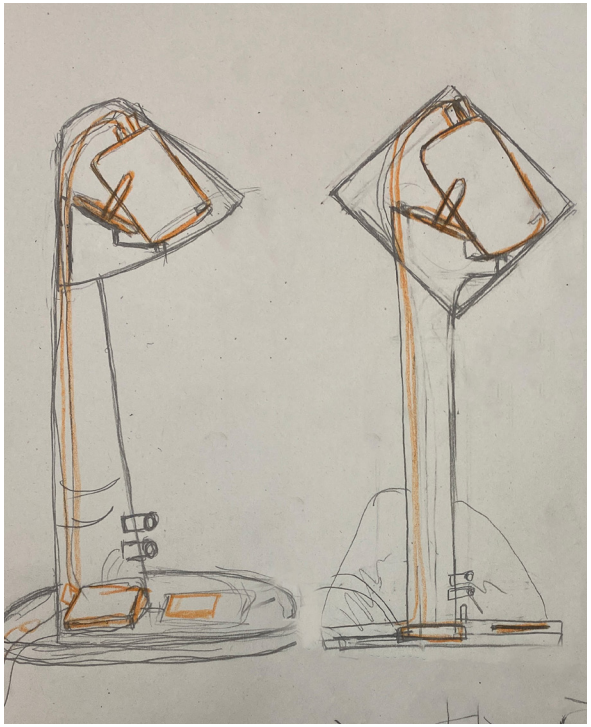
Shape research



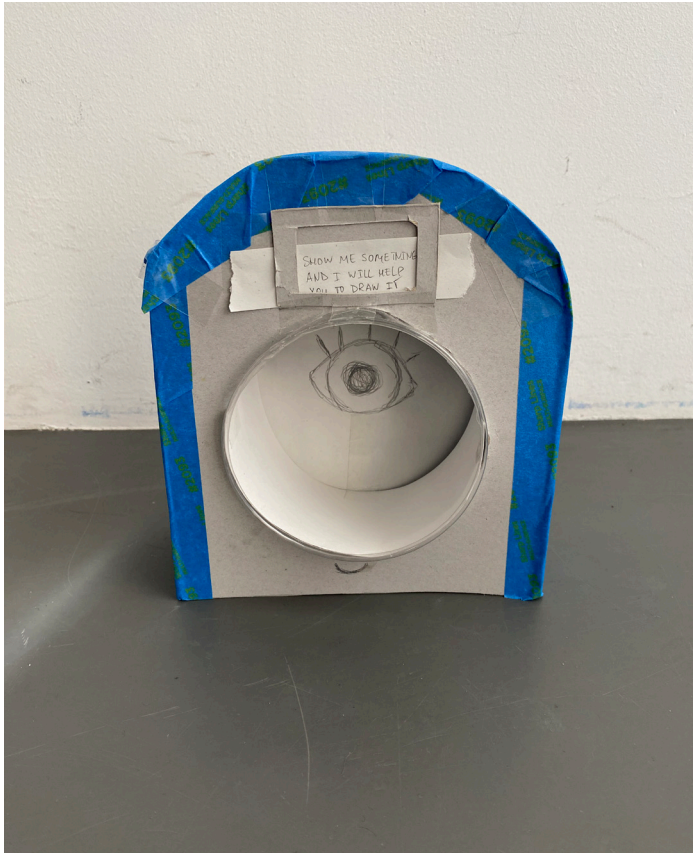








Paper Prototypes



User Tests

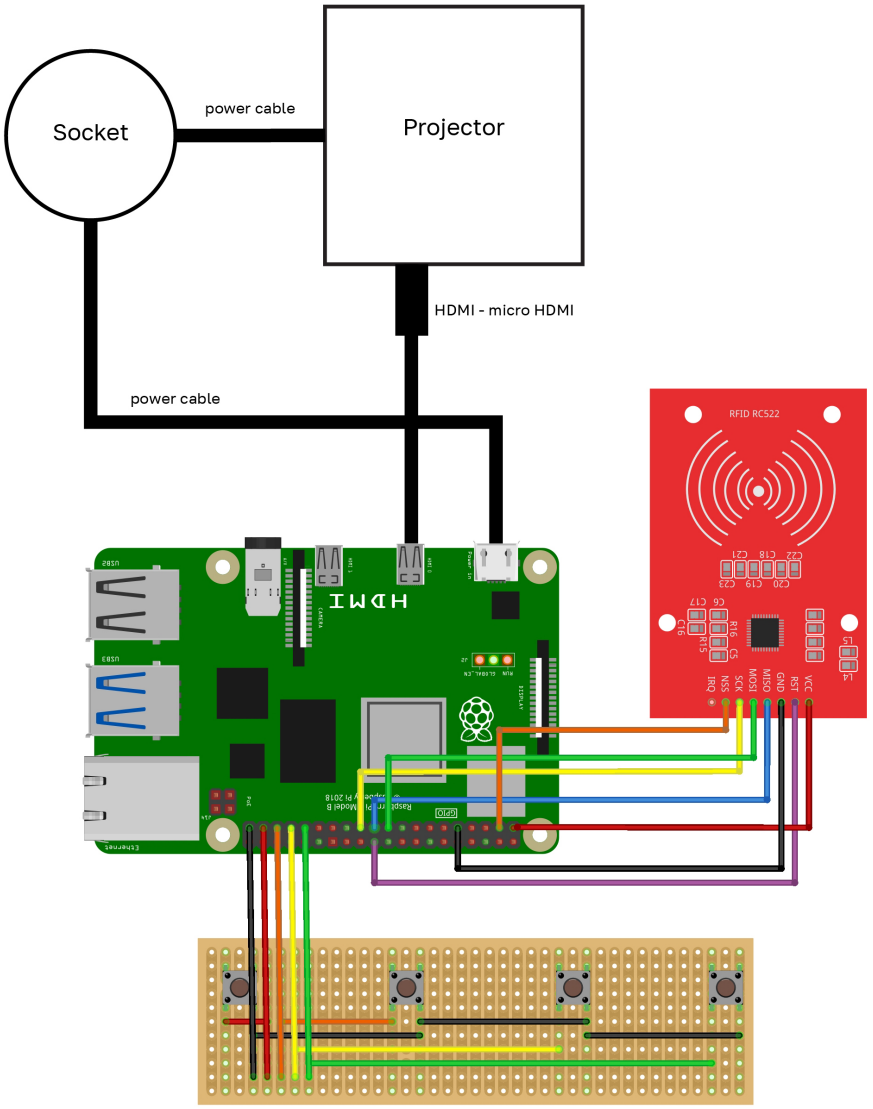
- The fact that you are supposed to put something inside or on the assistant should be obvious.

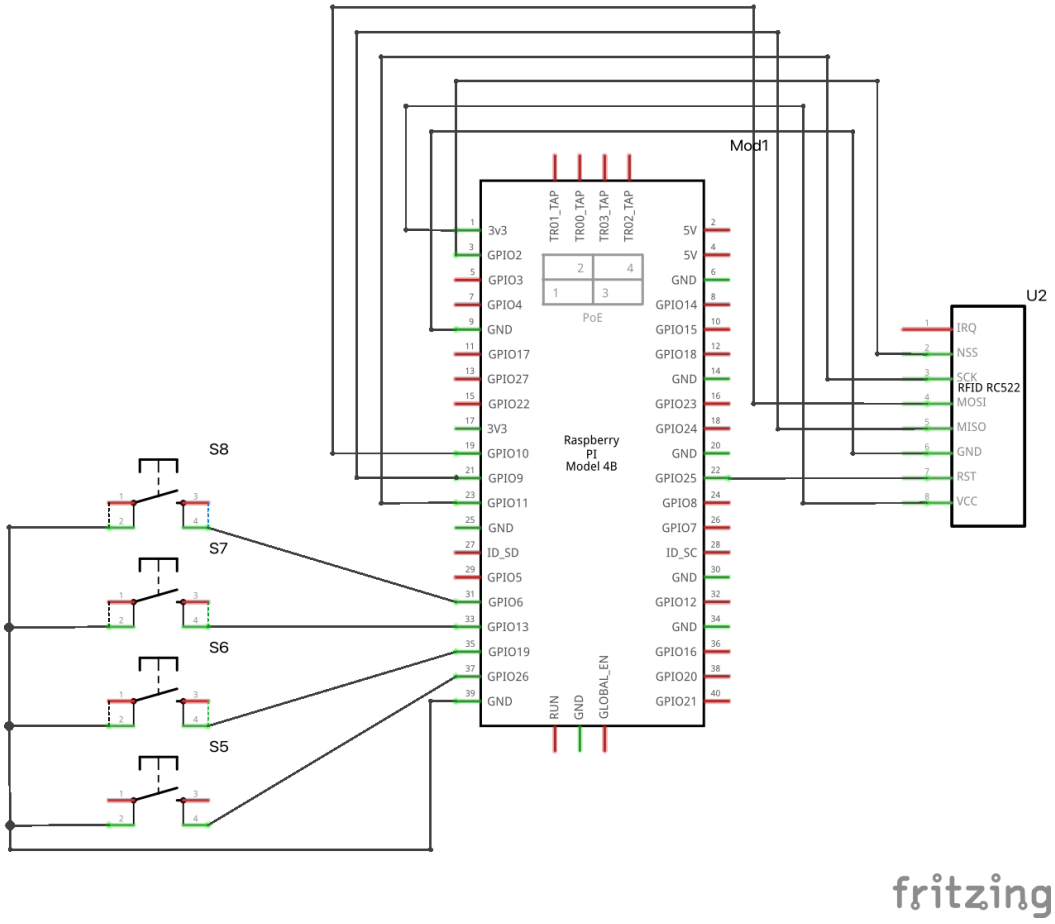
- The random function surprises and sparks an interest.

- The first three buttons (decompose, outline and shading) are percieved together as layers of one drawing.

- The object is at first viewed as a lamp.

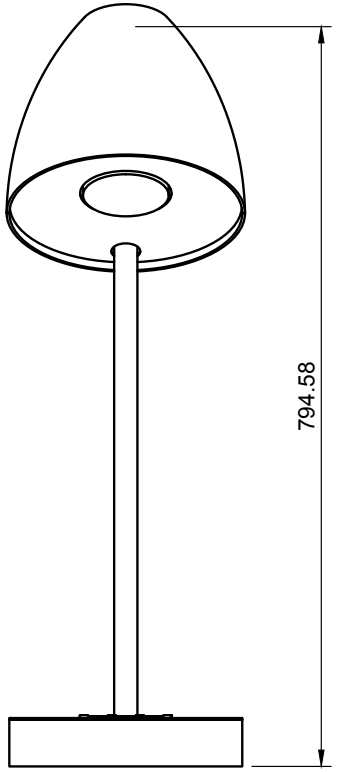
Electronics

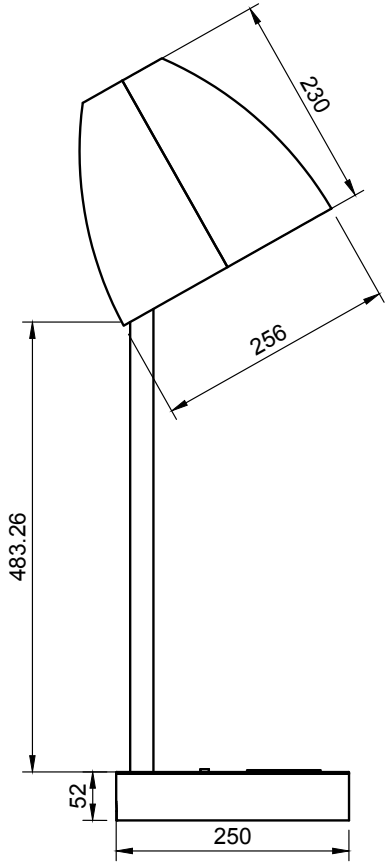


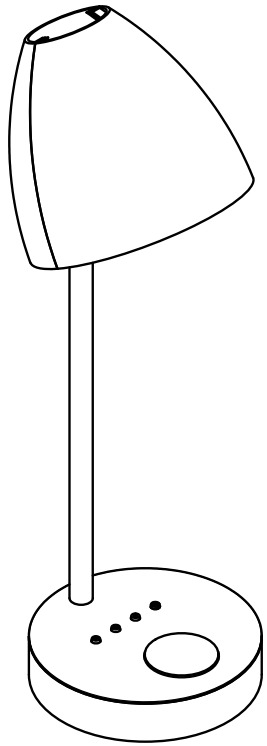


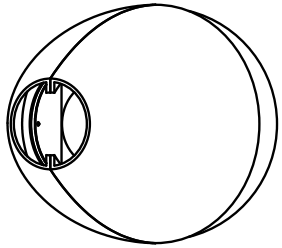
Plan Drawings

Materials: steel, plexiglass, polypropylene, plastic
Scale: 1:5 in mm









ArtSpark

by

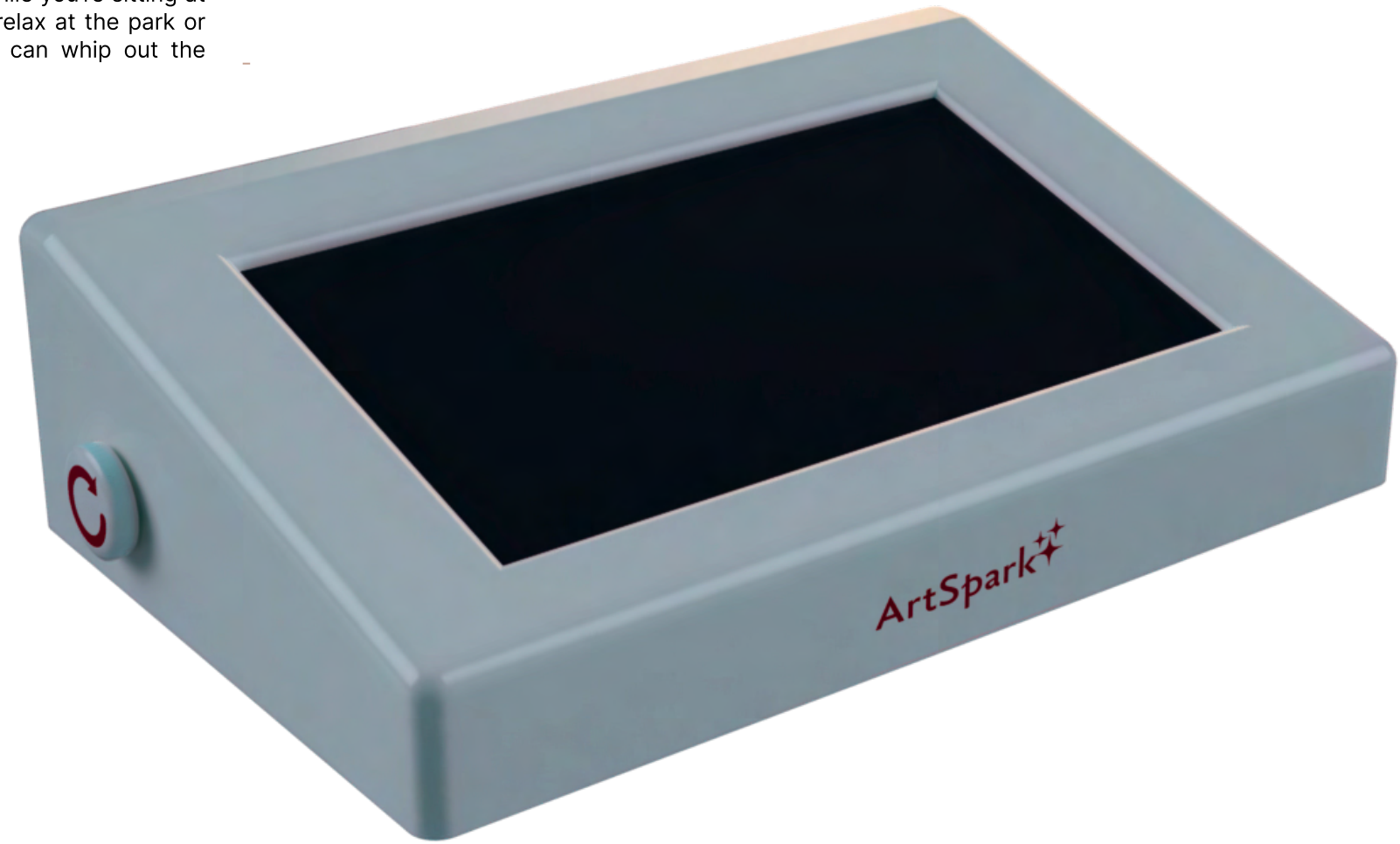
CARAN D'ACHE

Genève

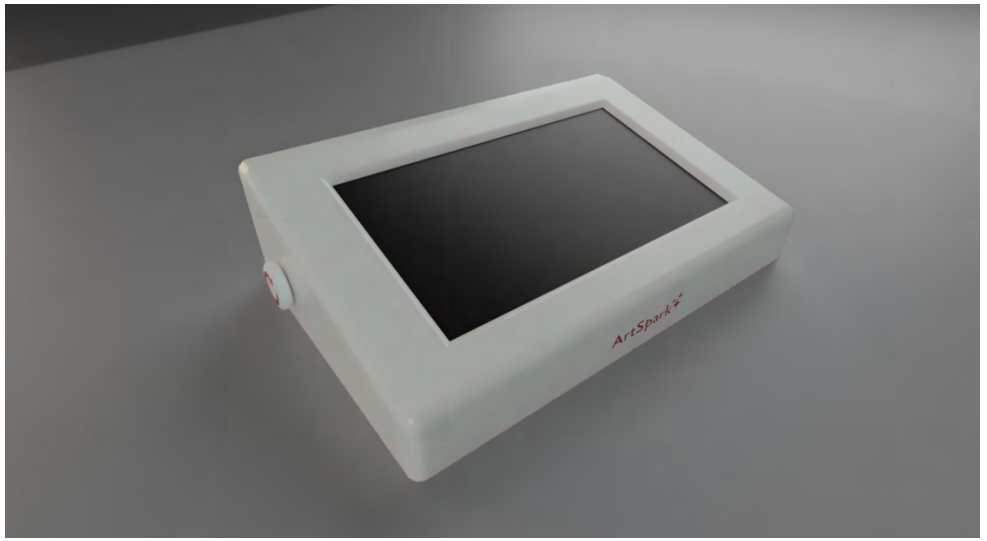
Project Description

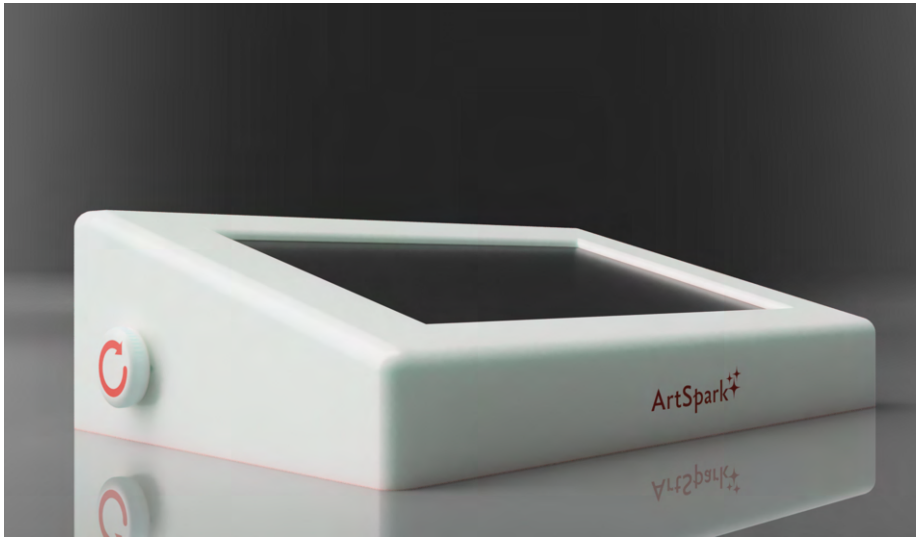
ArtSpark, the ultimate pocket-sized guide for a beginner artist!

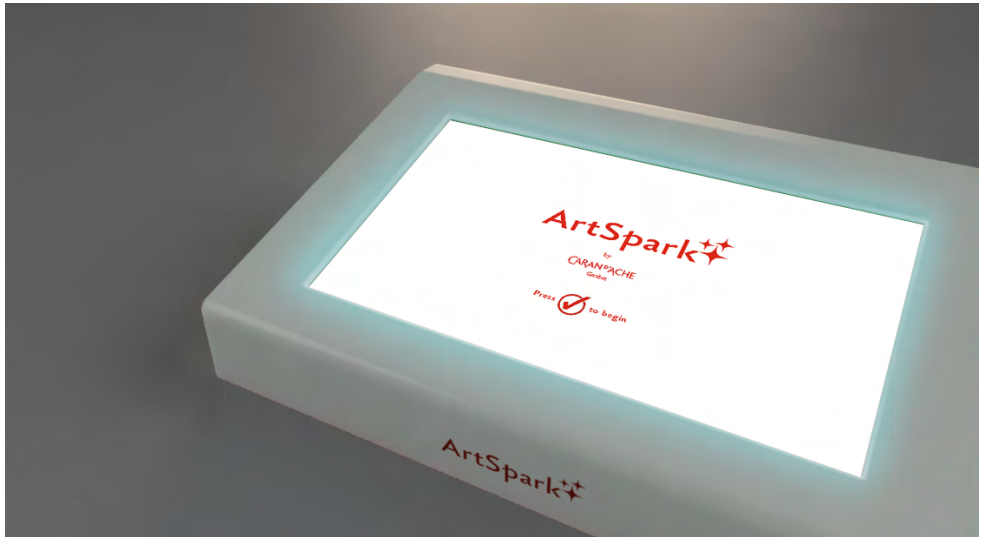
An interactive art teacher and to take your art practice along with you! Choose your experience and learn at your own pace, wherever you want. Be it while you're sitting at a cafe sipping on your coffee, out to relax at the park or resting during your lunch break, you can whip out the ArtSpark for a quick art session.




ArtSpark

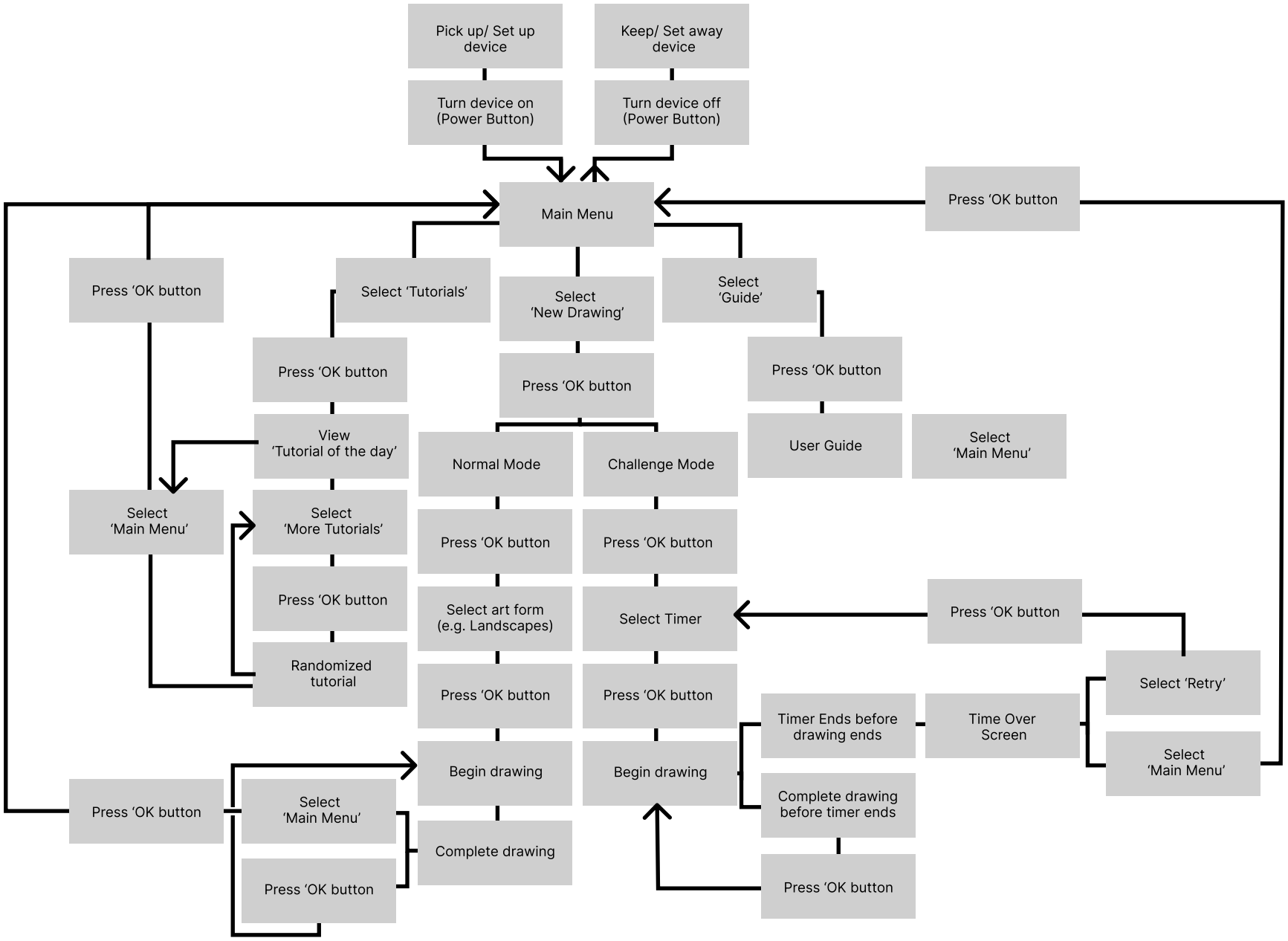

ArtSpark


ArtSpark


ArtSpark
by
CARAN d'ACHE
Genève
Press to begin
ArtSpark

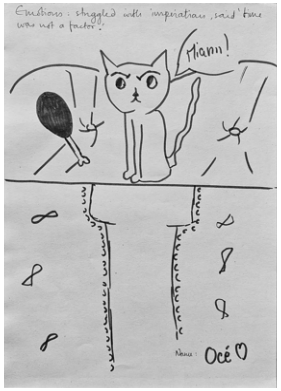
User Journey

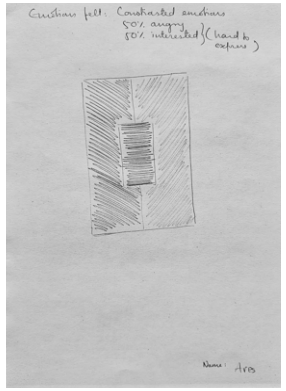
Embark on a personalized art journey. You can choose to take on step by step tutorials catered to you daily and art sessions that you can access in normal and challenge modes, with added customization to fit your learning requirements.

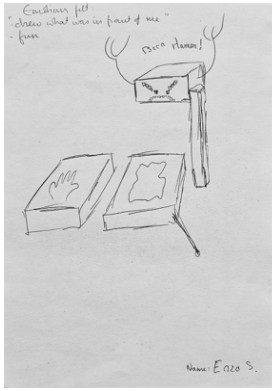

Pick up/ Set up device
Keep/ Set away device
Turn device on (Power Button)
Turn device off (Power Button)
Main Menu
Press ‘OK button
Press ‘OK button
Select ‘Tutorials’
Select ‘New Drawing’
Select ‘Guide’
Press ‘OK button
Press ‘OK button
Press ‘OK button
View ‘Tutorial of the day’
Normal Mode
Challenge Mode
User Guide
Select ‘Main Menu’
Select ‘Main Menu’
Select ‘More Tutorials’
Press ‘OK button
Press ‘OK button
Press ‘OK button
Select art form (e.g. Landscapes)
Select Timer
Press ‘OK button
Randomized tutorial
Press ‘OK button
Press ‘OK button
Select ‘Retry’
Timer Ends before drawing ends
Time Over Screen
Select ‘Main Menu’
Begin drawing
Begin drawing
Press ‘OK button
Select ‘Main Menu’
Complete drawing before timer ends
Complete drawing
Press ‘OK button
Press ‘OK button

Field observations & Key Insights

Field studies included **telephonic and textual interviews**, **questionnaires & drawing exercises**. Each of these were catered towards understanding the mindsets & expectations of amateur artists.







Some key insights that led to the development of the current prototype state:

“I need a source of information as a motivating factor to draw.”

“A source of appreciation, innovative ways to practice art in mundane situations.”

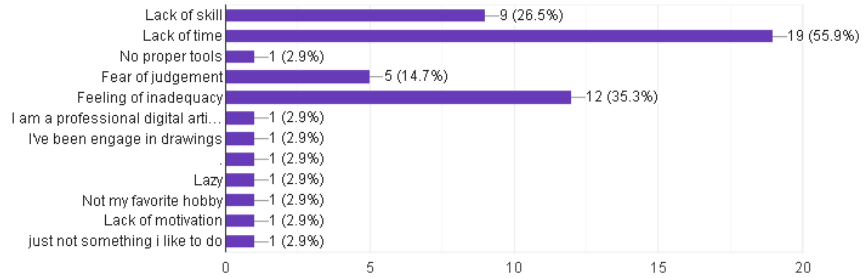
“Should not nag into drawing like mobile apps often do, a way to draw in a flow, a way to warm up before drawing.”

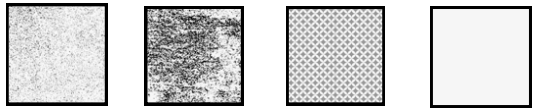
“..the ability to make more time for it, seek less validation for what I create through social media, and draw more for myself .”

“I hate being told that coloring outside the lines is a sin.”

What do you believe are the primary reasons you don’t engage more in drawing?

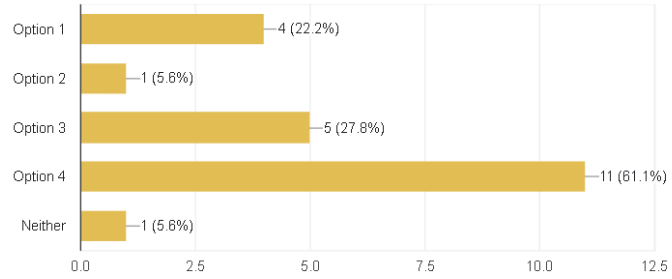
34 responses





Which of the above images do you find relaxing?

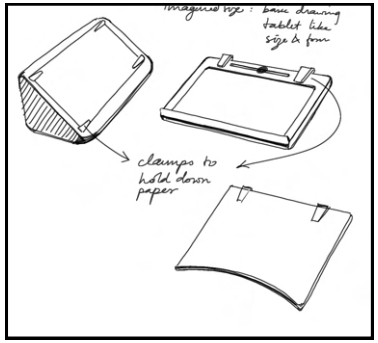
18 responses

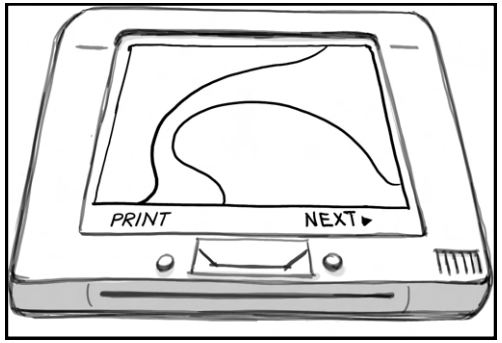


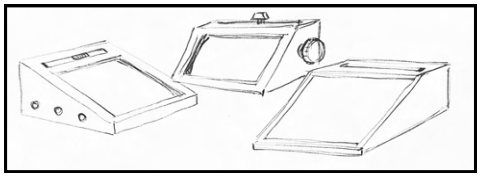
Visual and Material Moodboard

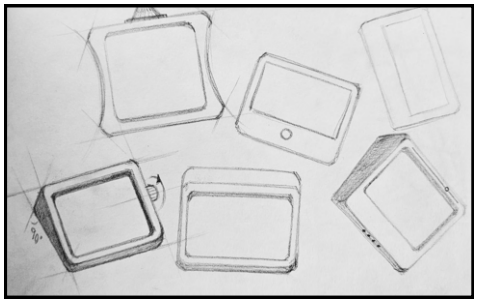


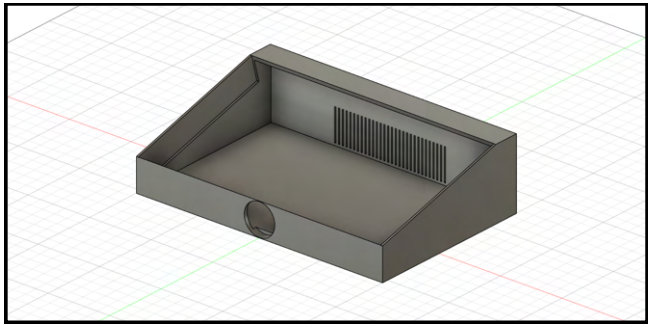

Shape research

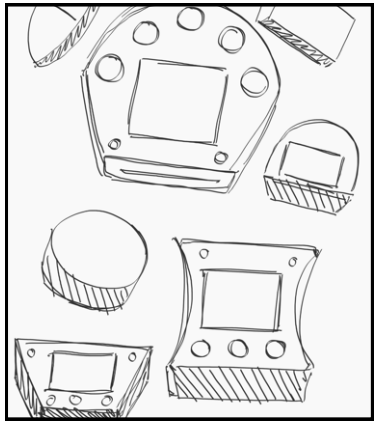


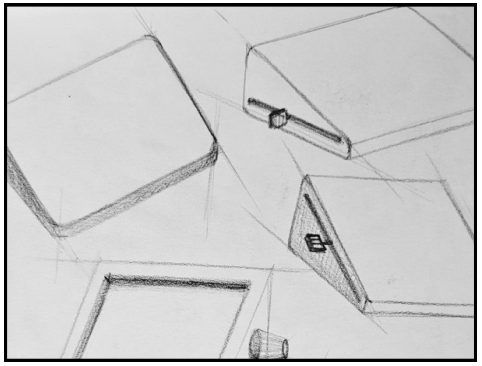


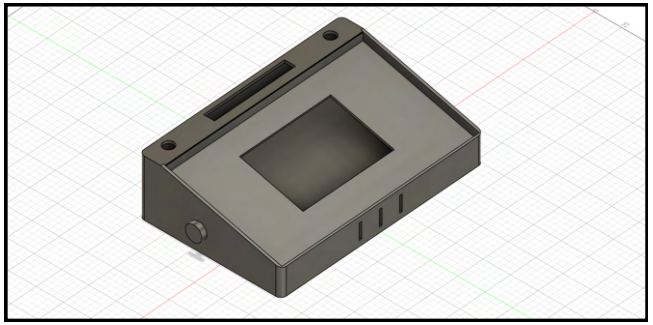


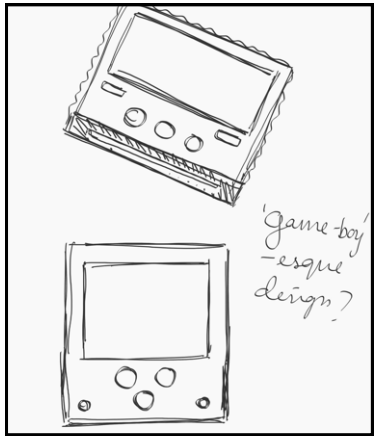


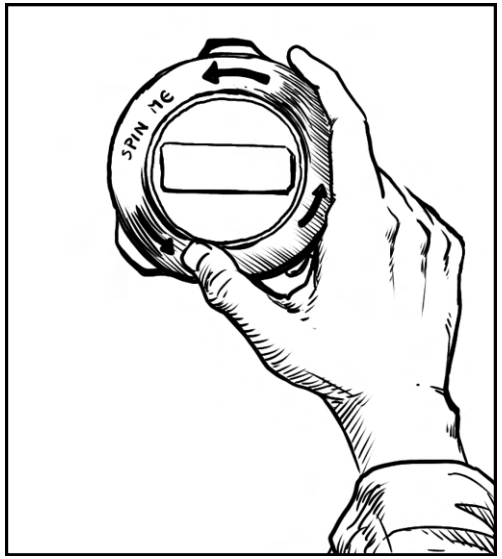


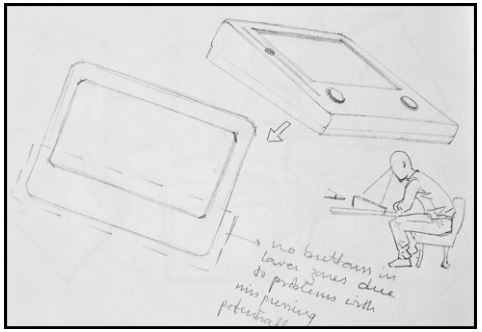


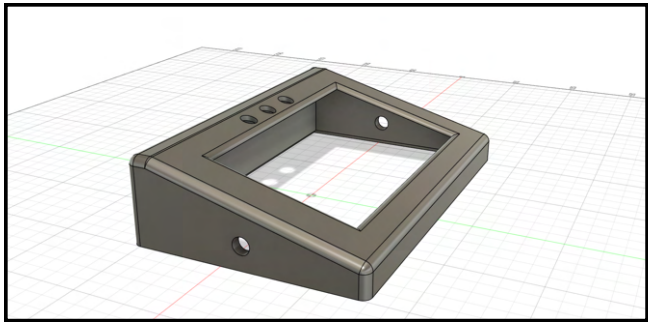


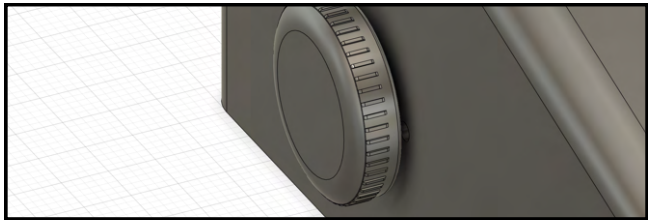




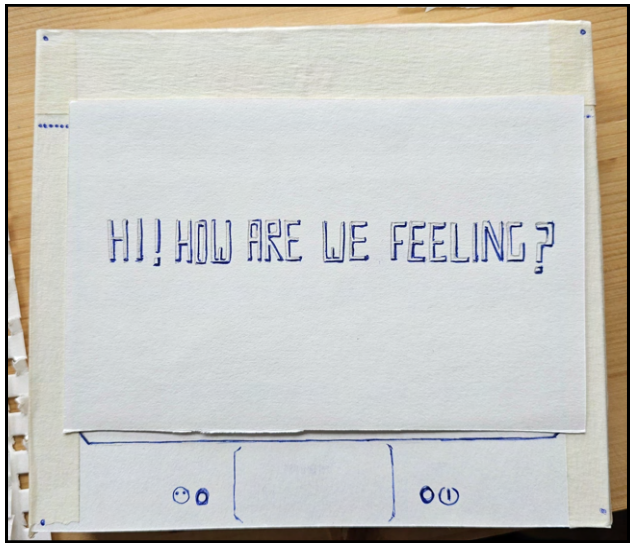


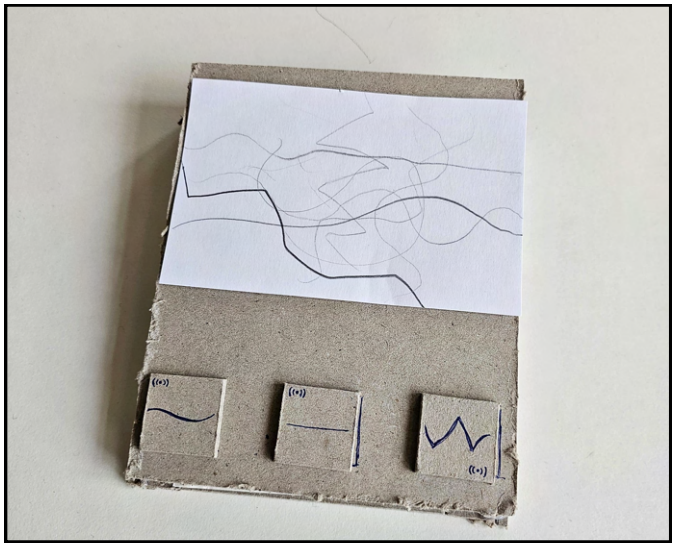


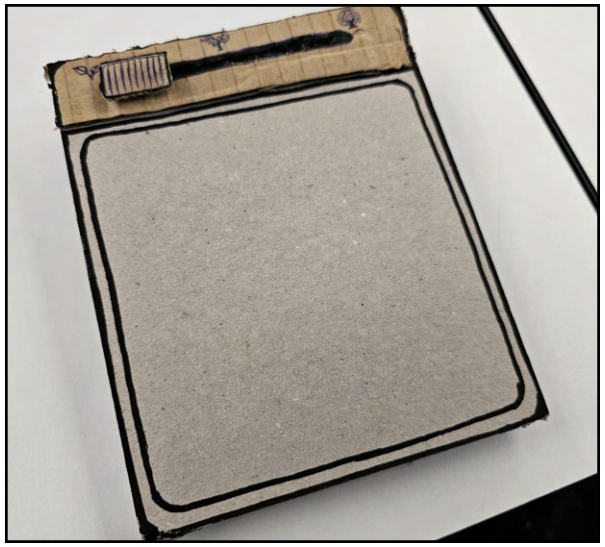


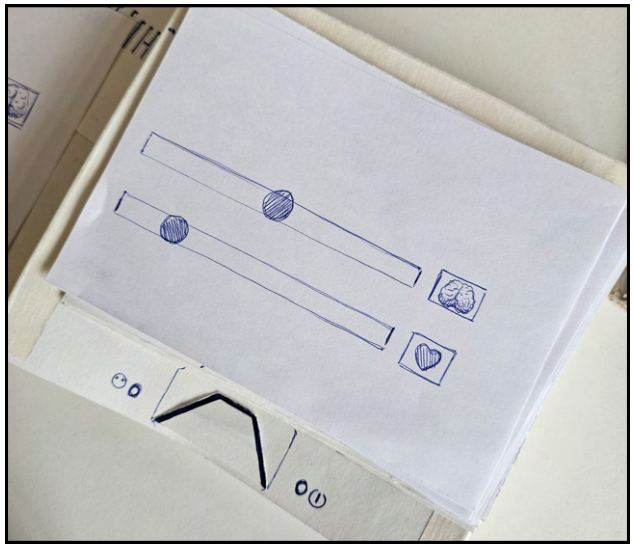


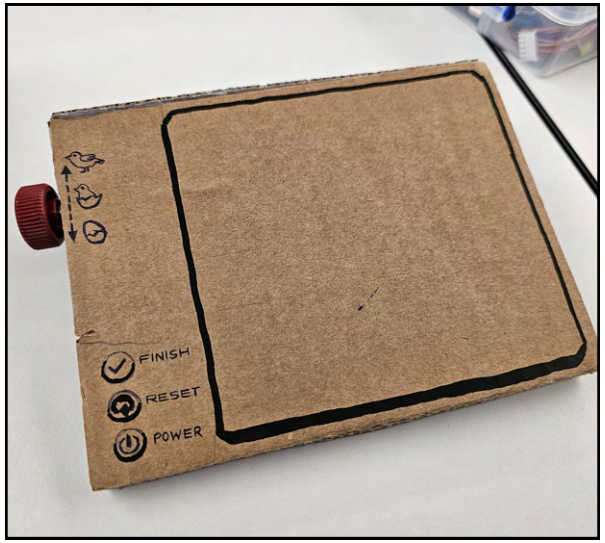
Paper Prototypes











Phase I

Phase II

Phase III

User Tests

Phase I: EMOTIONAL INPUT

The initial paper prototypes mainly attempted to test an input-based interactive system where users could produce printed outputs based on their emotional needs to collaborate with the device to produce art.

Phase II: INTERACTIVE COLLABORATION

This stage of prototypes tried to refine the idea of user input. Emotion-based input was removed and active collaboration to produce art was explored. The second stage introduced the idea of an 'art education' like experience for the first time.

Phase III: ART TEACHER

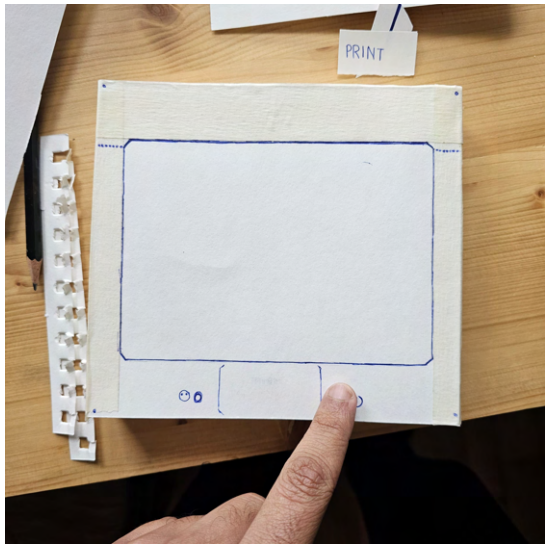
This stage saw the final idea really take shape. The prototypes at this stage started exploring ways to help users access quality growth in their art skills. Timer based drawing experiences and tutorials were explored.

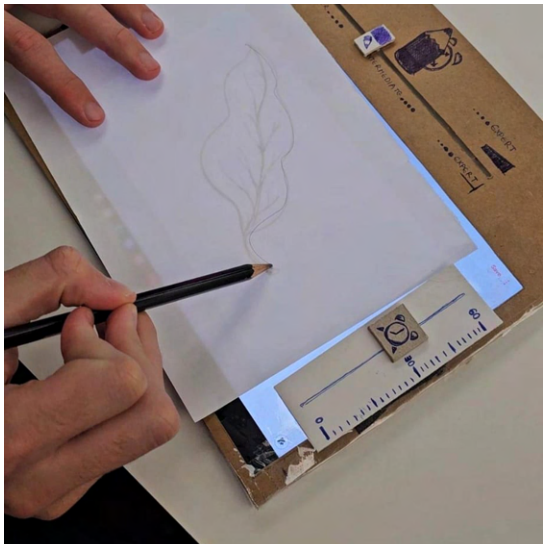
Some key takeaways from all user tests that helped build the final experience are listed below:

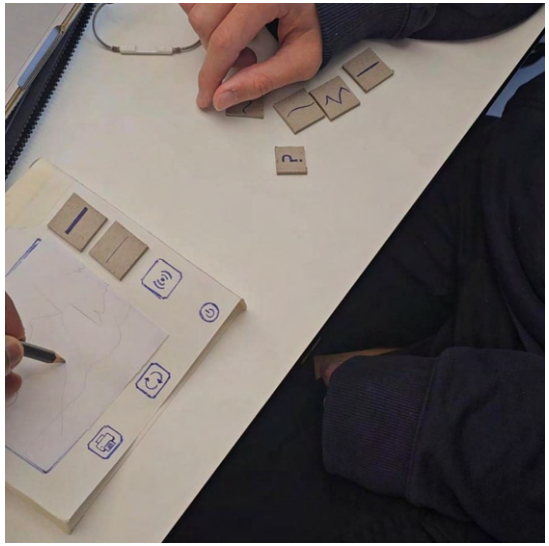
"Focus on creating a personalized experience."

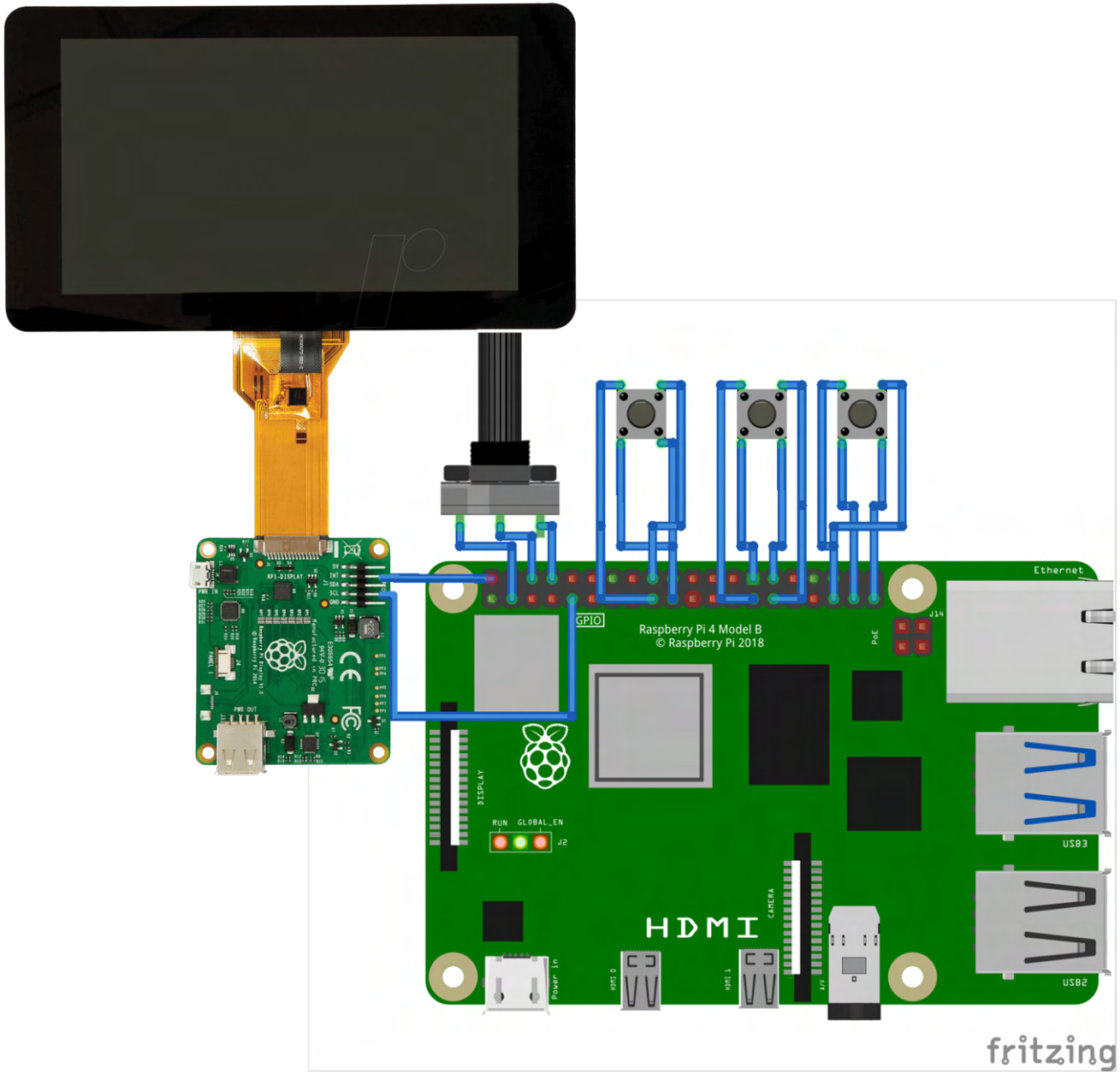
"Remove features and elements that make the user feel judged."

"I need east access to references and prompts."



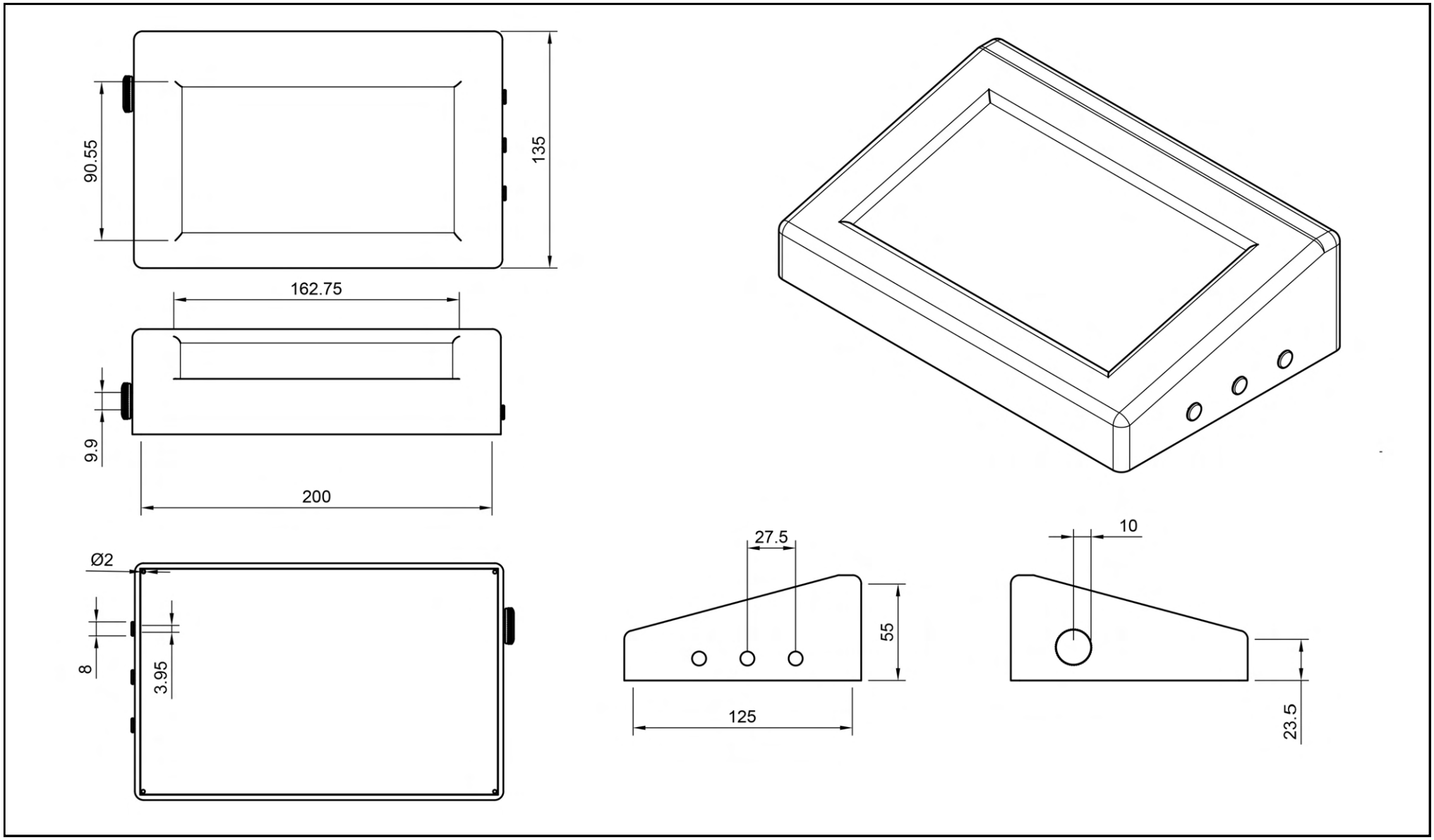





Raspberry Pi 4 Model B
© Raspberry Pi 2018
GPIO
Ethernet
USB3
USB2
HDMI
DISPLAY
CAMERA
RUN
GLOBAL_EN
Power in
fritzing

Plan Drawings

Materials: PLA (3D Print)
Scale: 1:2



John

ready-made poetry

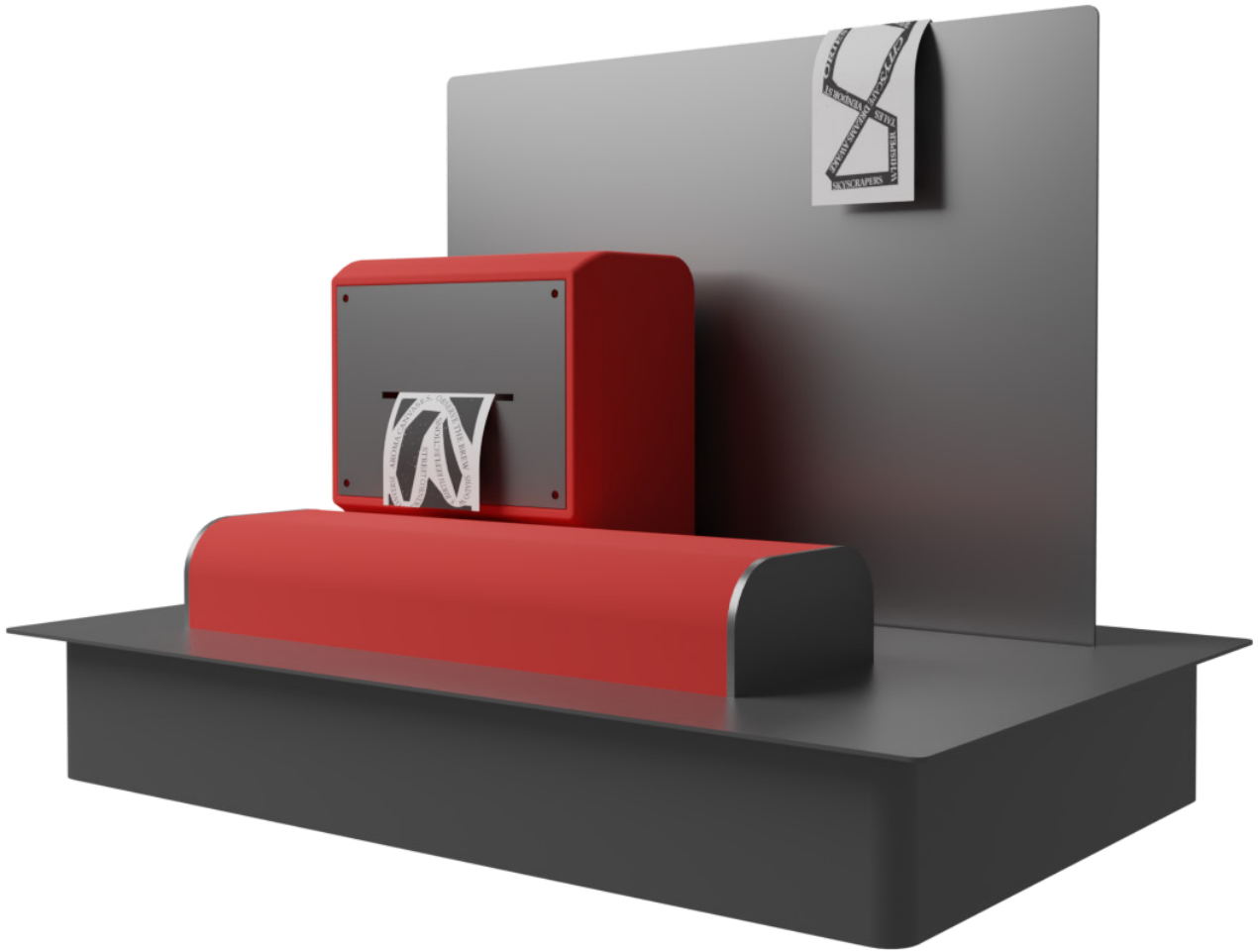
Project Description

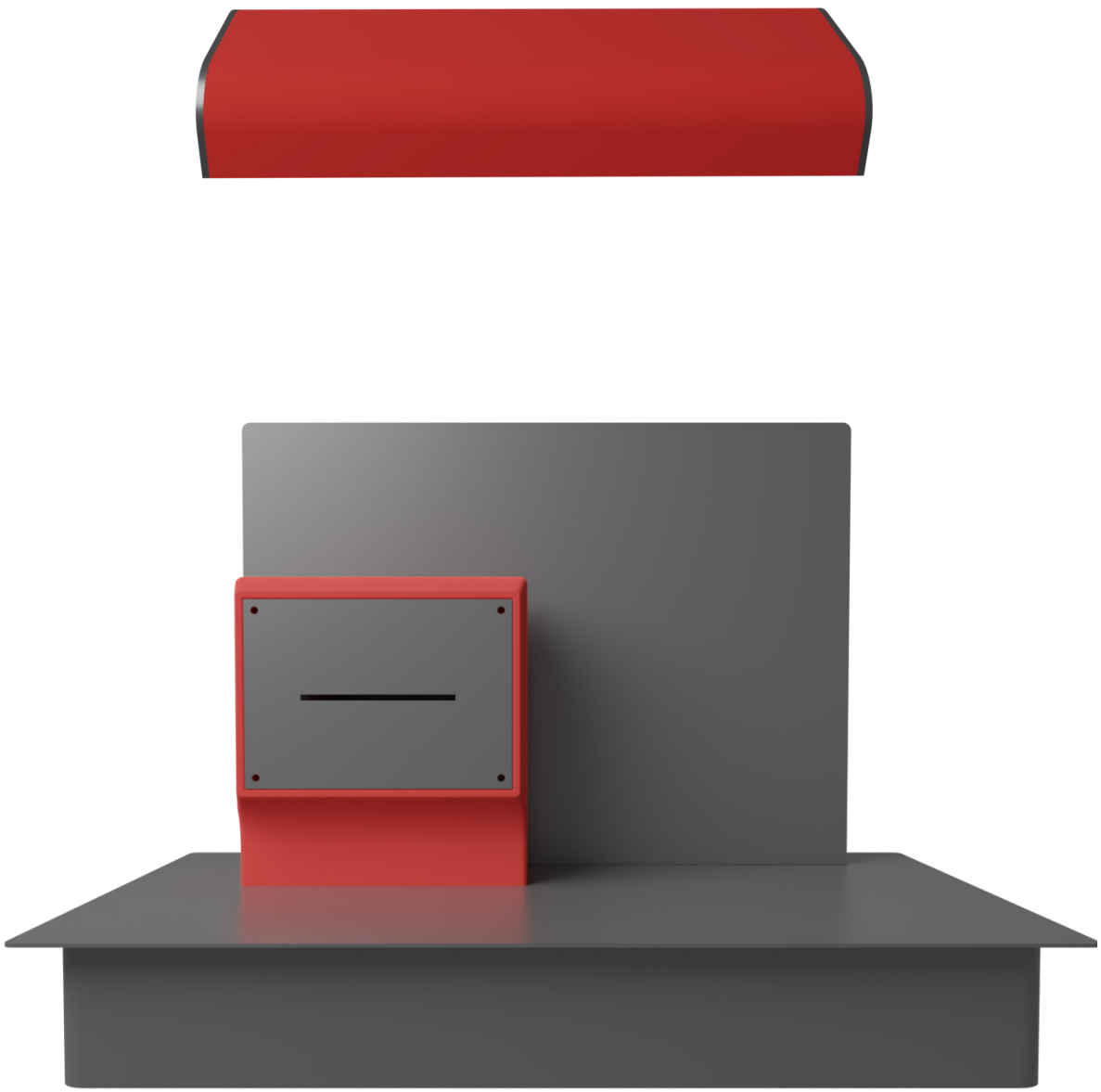
«John» accompanies young artists on their daily and artistic journeys to stimulate their inspiration through their own mobility.

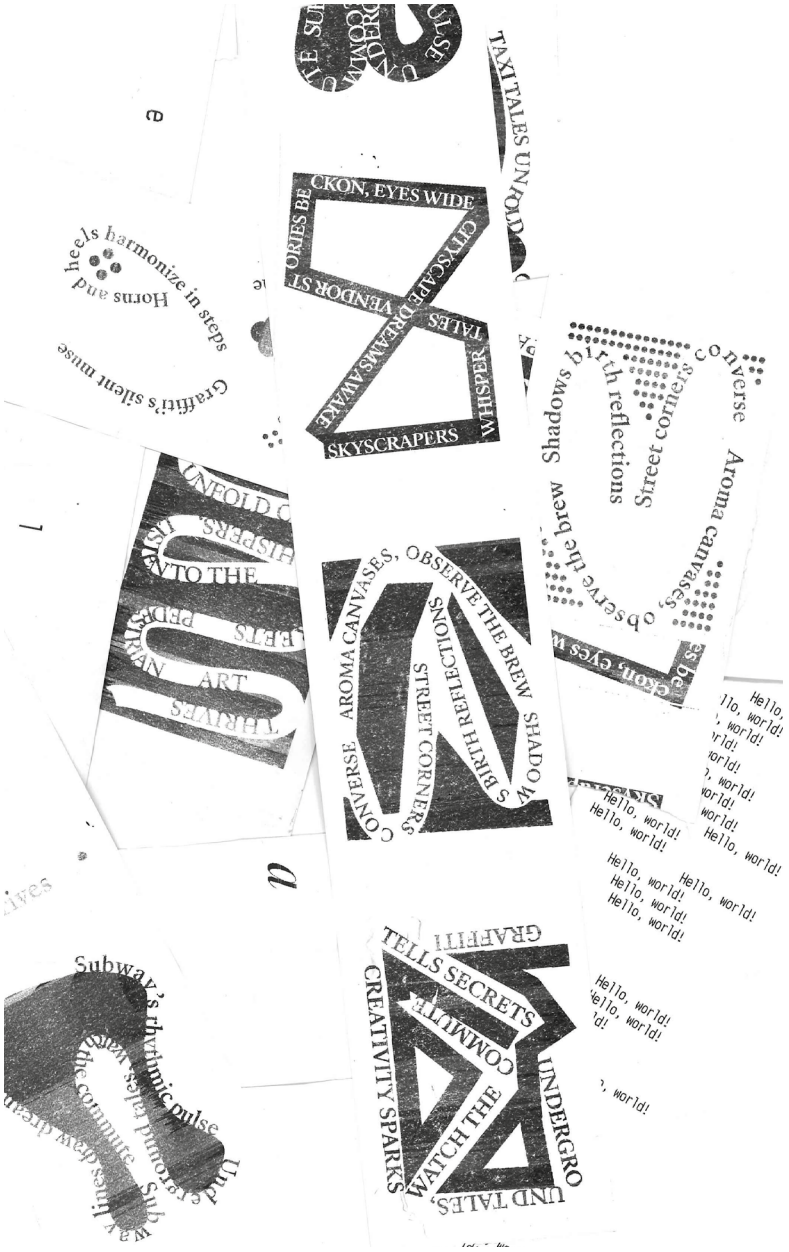
His aim is to show beginer creators that their daily paths can evolve into something creative, much like their artistic journeys,where the developmental process itself is an art form. I aim to help them realize that simple gestures can be translated into something artistic, making them aware that they are creating without even knowing it.

By recording GPS movements, the AI translates them into a graphic poem, forming a visual representation of the journey. The route taken by the user influences the layout, and the visited areas impacts on the poetry meaning. The aim of the poetry is also to remind artists to look around, find inspiration and beauty in surrounding them streets, cars etc.

Designed in two components, it adopts the form of a home working setup. The portable segment accompanies the user daily, while its home station remains stationary and houses a printer. The concept aims to establish a comprehensive working and creative environment that enables users to store and organize their ideas.



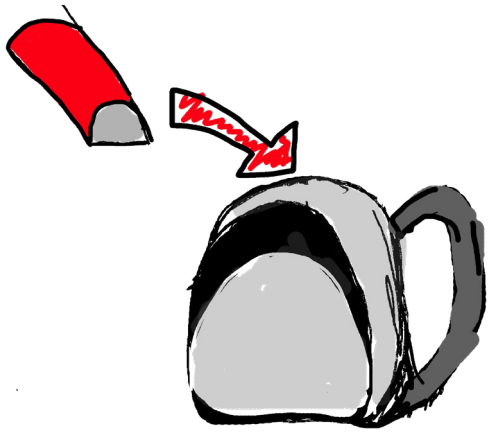



TAXI TALES UNFOLD
CKON, EYES WIDE
SKYSCRAPERS
WHISPER
TALES
Horns and
heels harmonize in steps
Graffiti's silent muse
Shadows birth reflections
Street corners converse
Aroma canvases, observe the brew
AROMA CANVASES, OBSERVE THE BREW
STREET CORNERS
SHADOWS
GRAFFITI
TELLS SECRETS
CREATIVITY SPARKS
WATCH THE
UNDERGRO
Hello, world!

User Journey

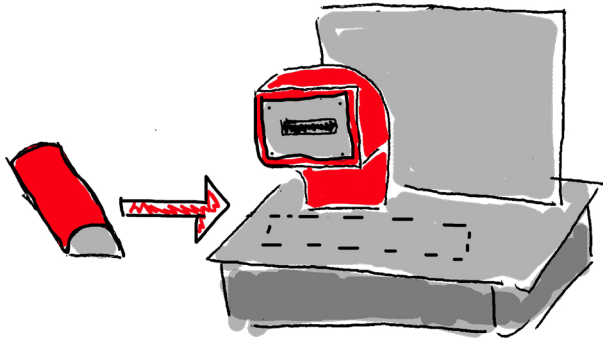
The user is supposed to carry John in his school bag, as if it was a pencil case. During the day it records and stores his GPS data. Once the user is back home, he puts John back to its main station, where it connects to the printer. As the result he recieves a haiku, where layout is based on the gps data.

1. User struggles with inspiration = sad



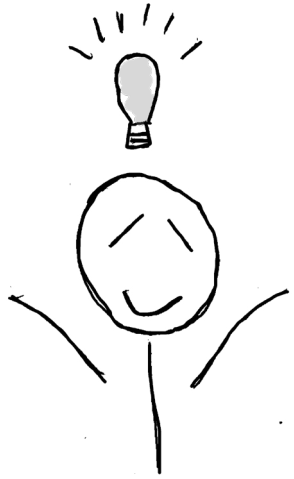
2. User puts John in bag

3. User carries it all day long



4. When he is back, he connects it to the home station

5. Printer gives out a poem based on the user's paths



6. User got an idea = happy

Field observations

All artists struggle to find inspiration. Sometimes all it takes is a word, a situation, a sound... Inspiration can also come at an unpredictable moment. Many of the little things that surround us in everyday life can be transformed into something artistic, and beginning artists are unaware of this.

Have random events had an impact on your inspiration? Which ones?

A scooter accident, a downpour,
a glass spilling on my computer...
Just thinking about the fact
that nothing lasts

It happens that a random song pops
in my playlist and inspire
me visuals or things

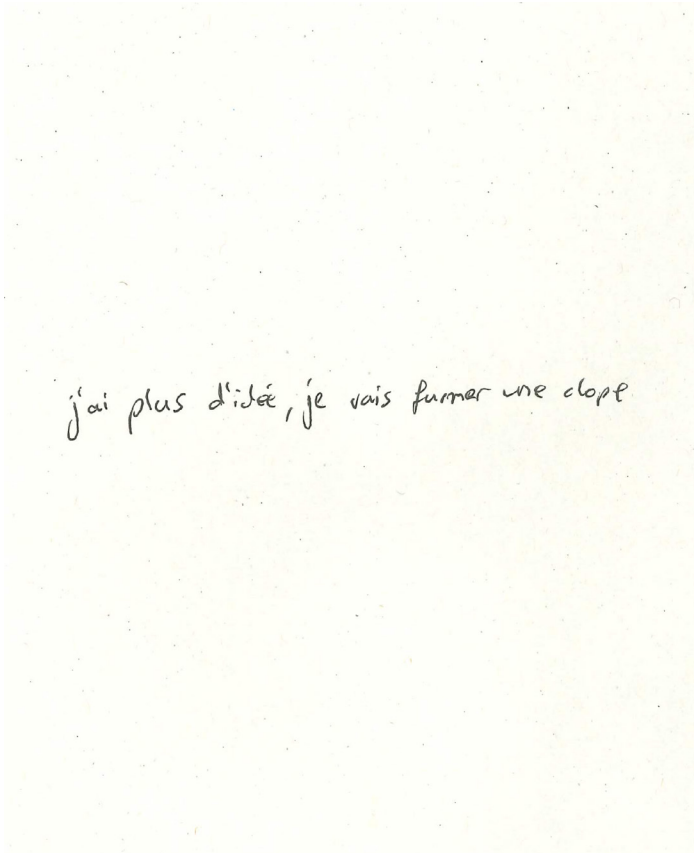
Sometimes I see random shit on fyp
of instagram /tik Tok that make me
think about my master thesis, like
graphic choices

How often are you faced to those events in daily life?

Infinity! you just have
to take the time to look.

Up to twice or thrice on some days

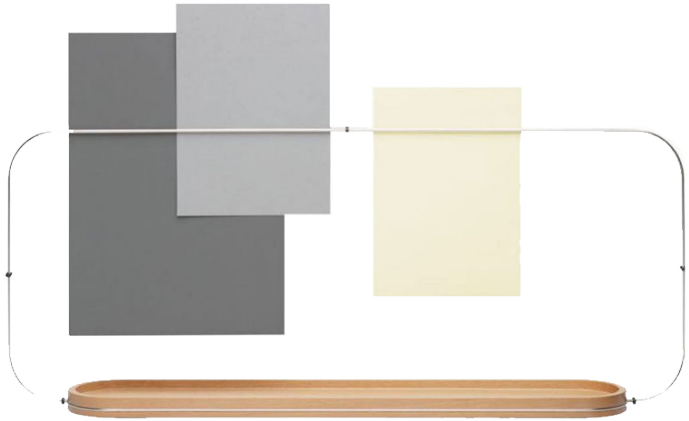
At least 1

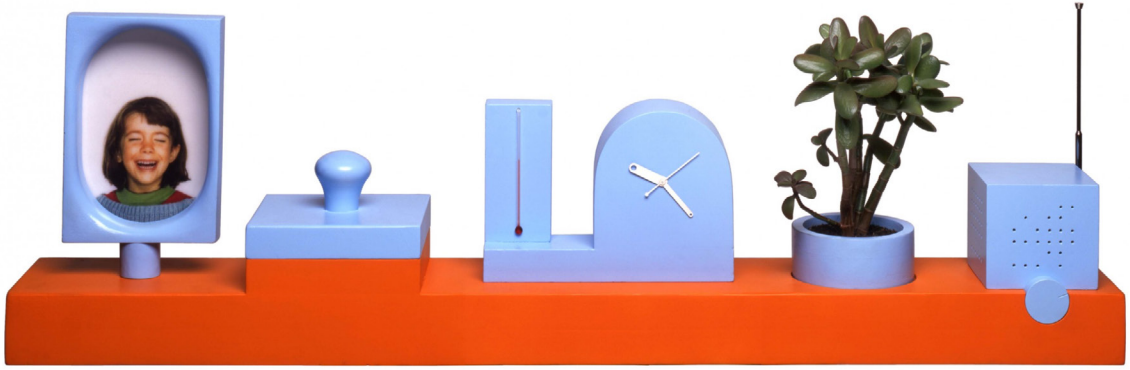


Paper prototypes

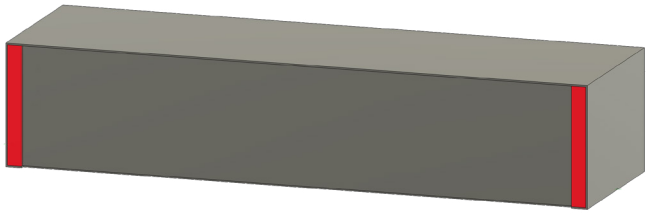
Reference images

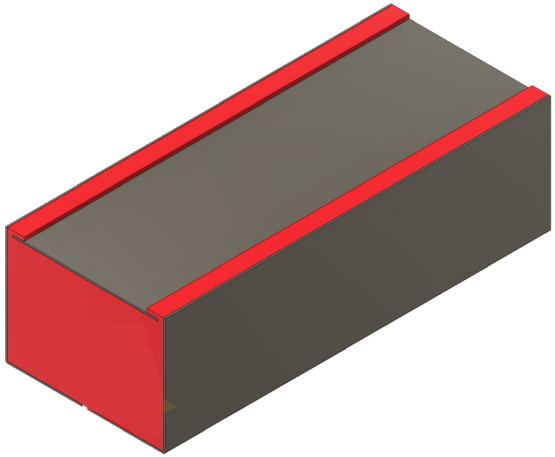
Reference images

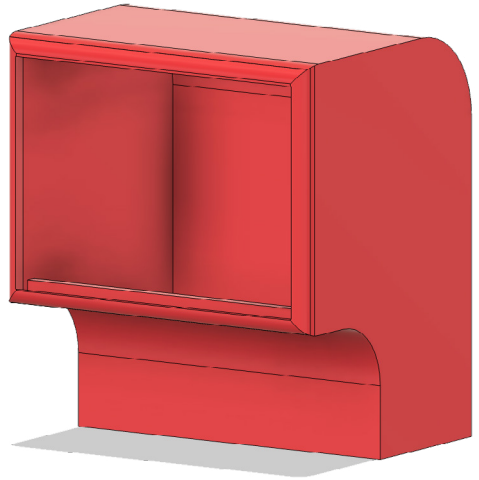


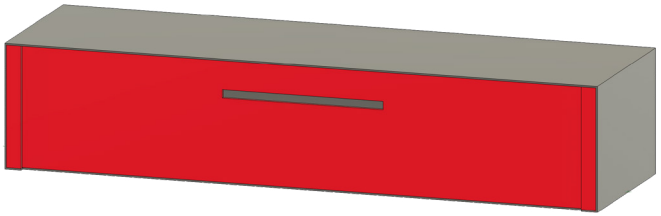


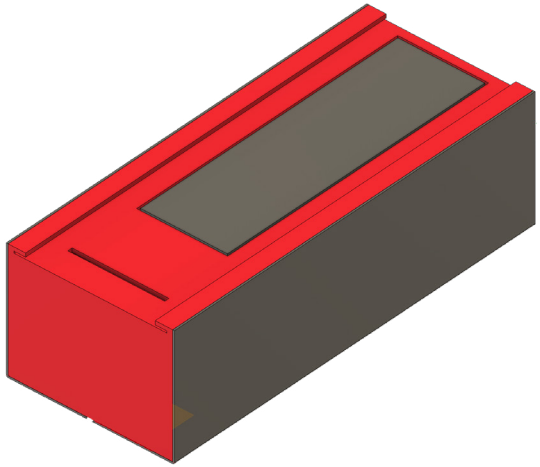
Shape research

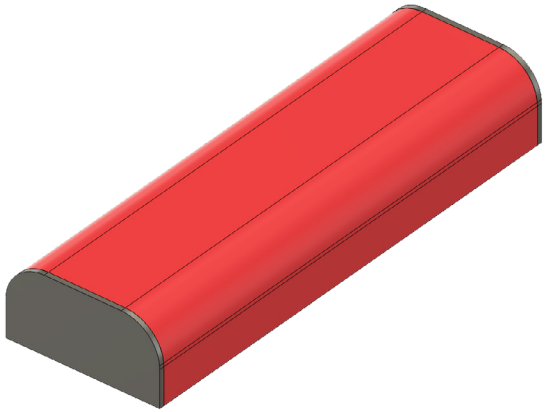




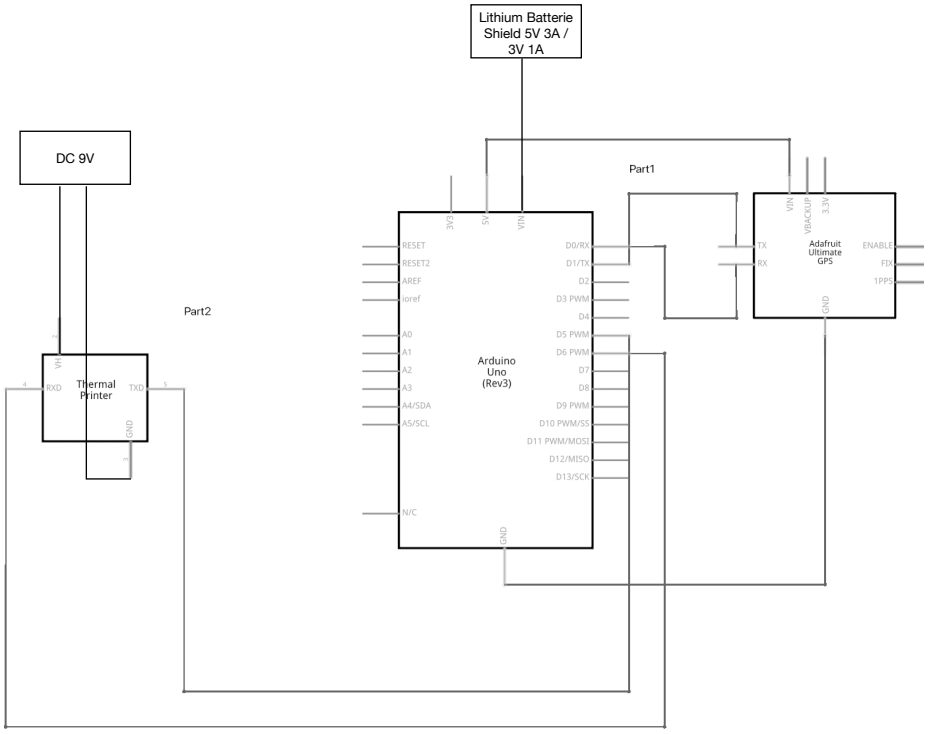


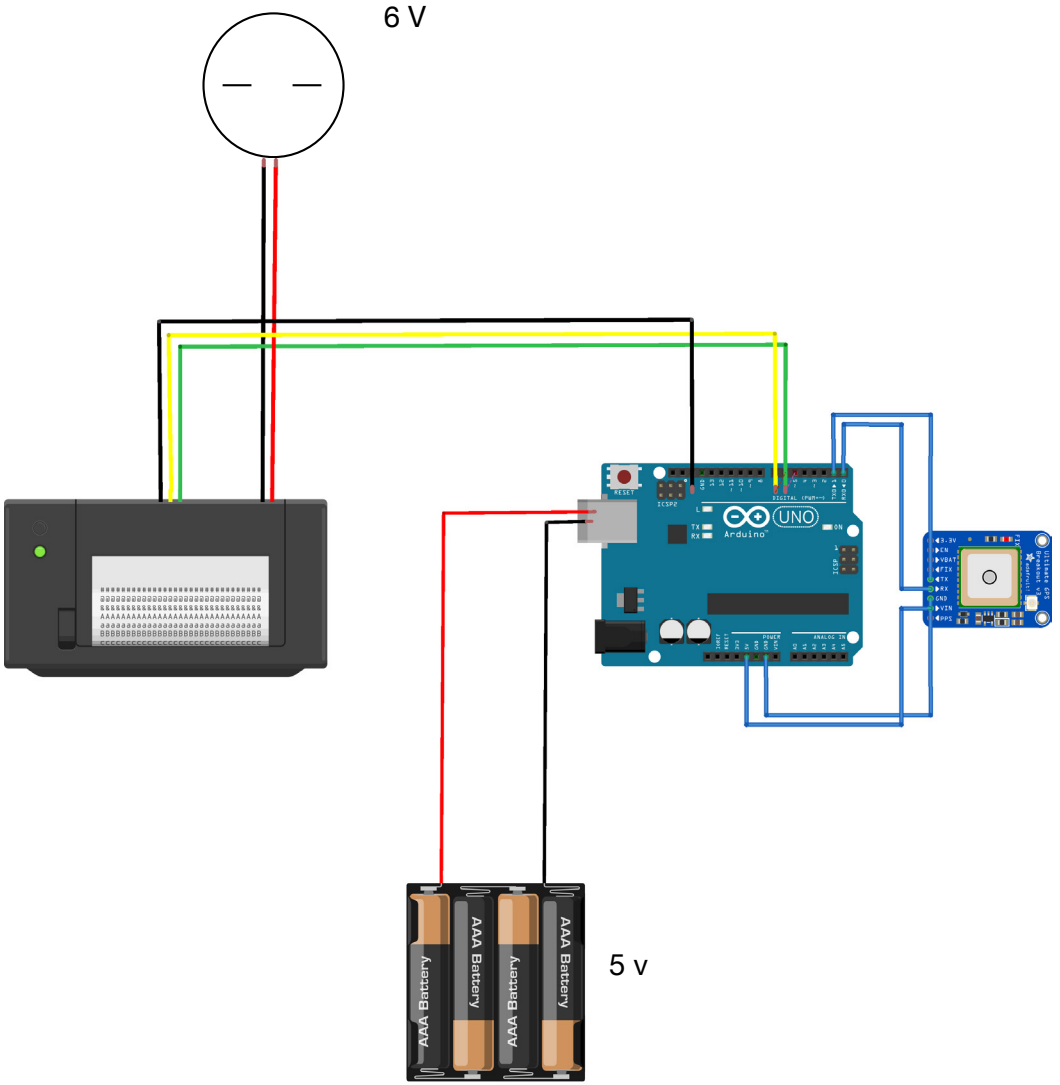






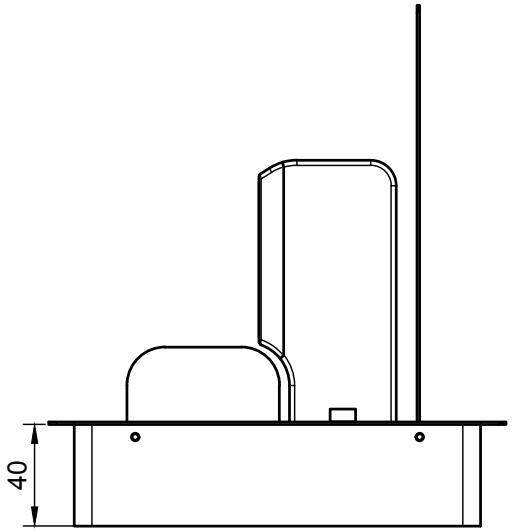
Electronics

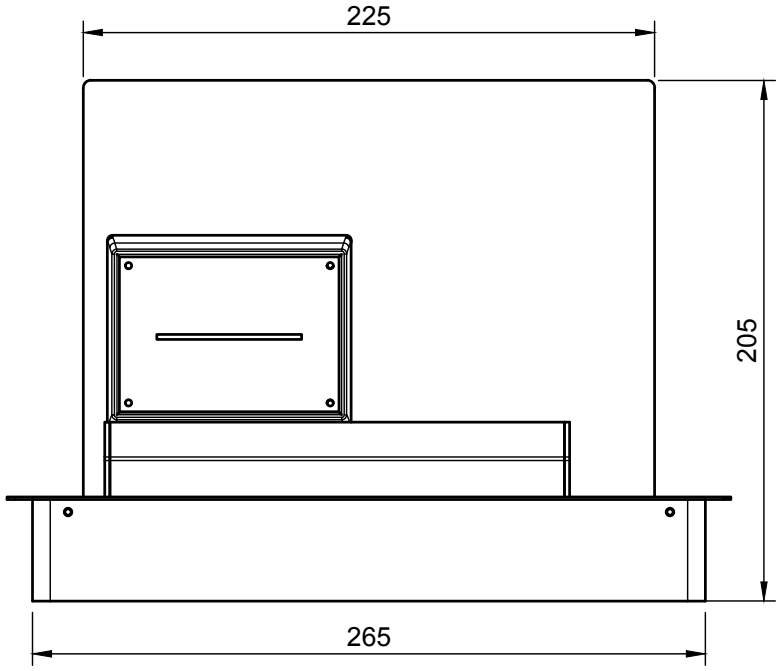


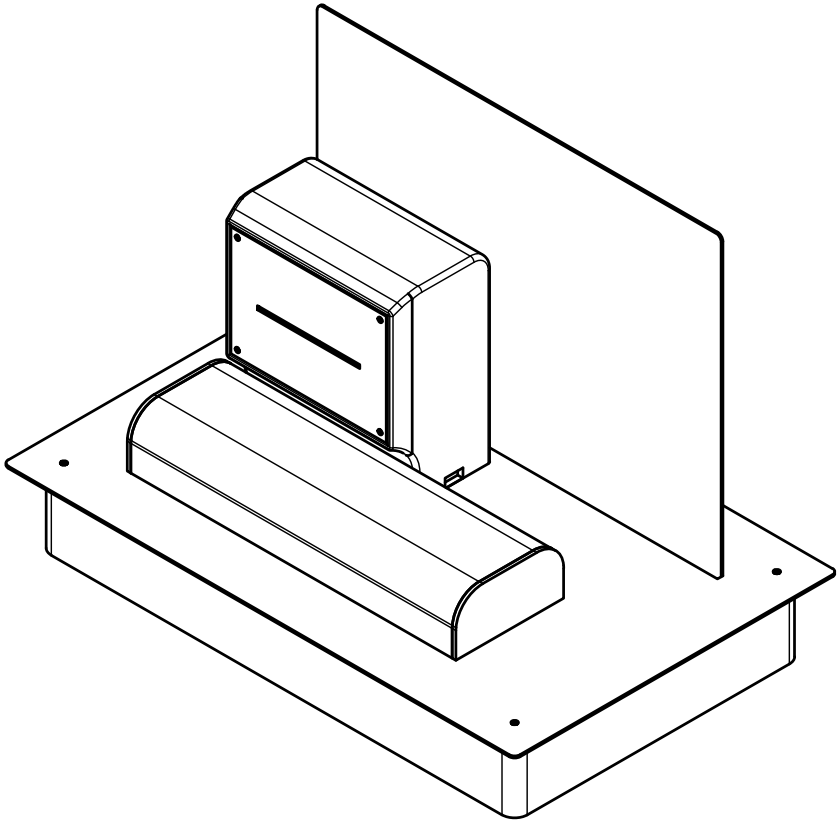


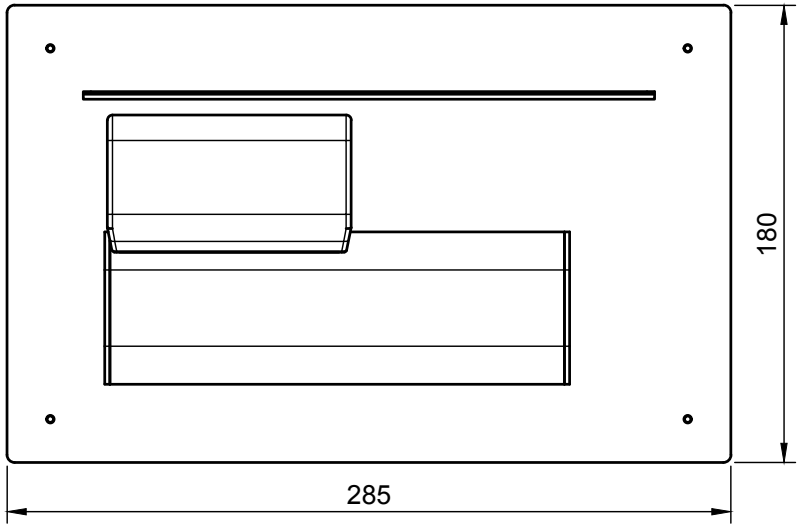
Plan Drawings: The set

Materials: Alluminum and PLA
Scale: 1:3 in mm



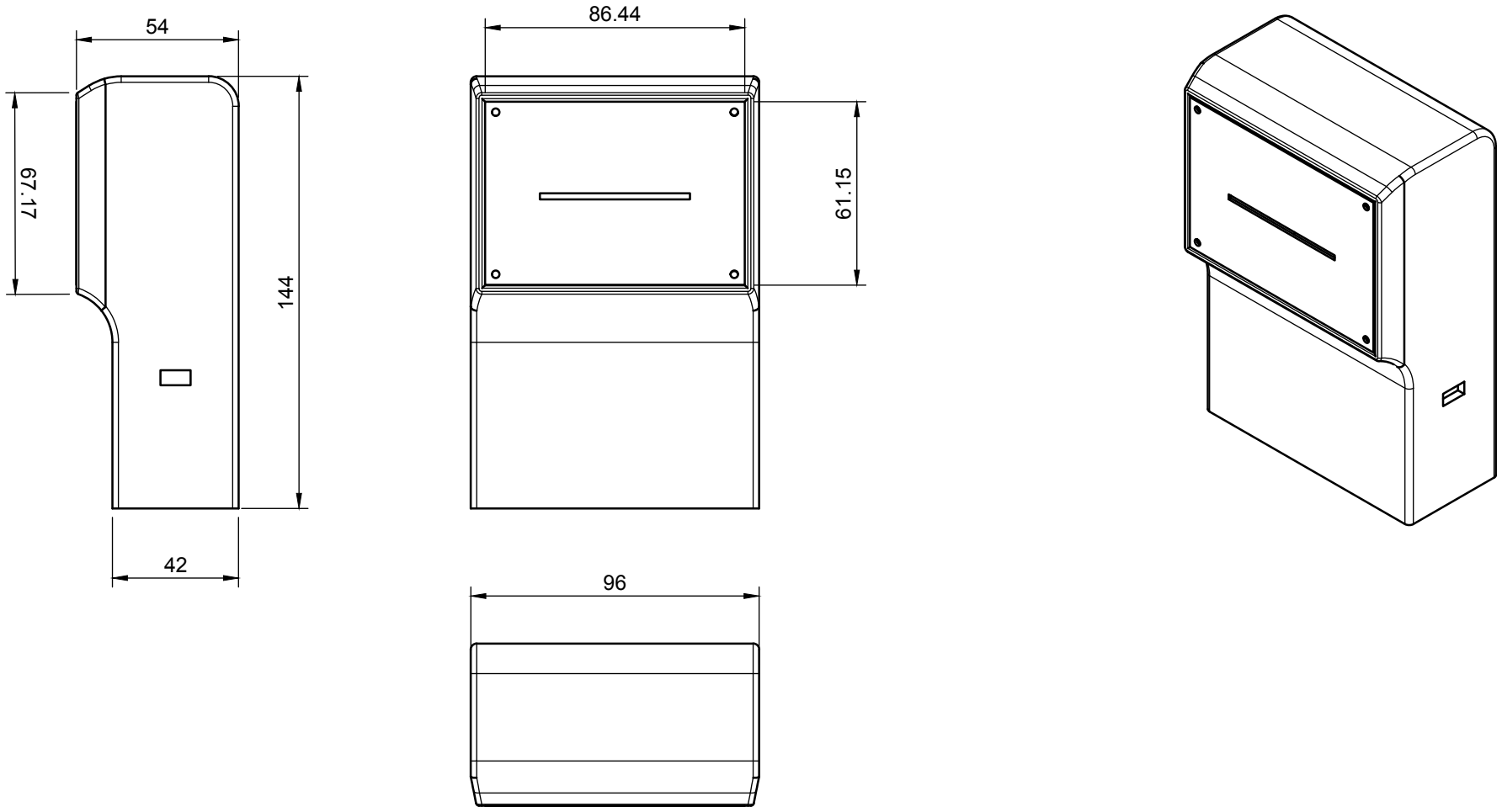






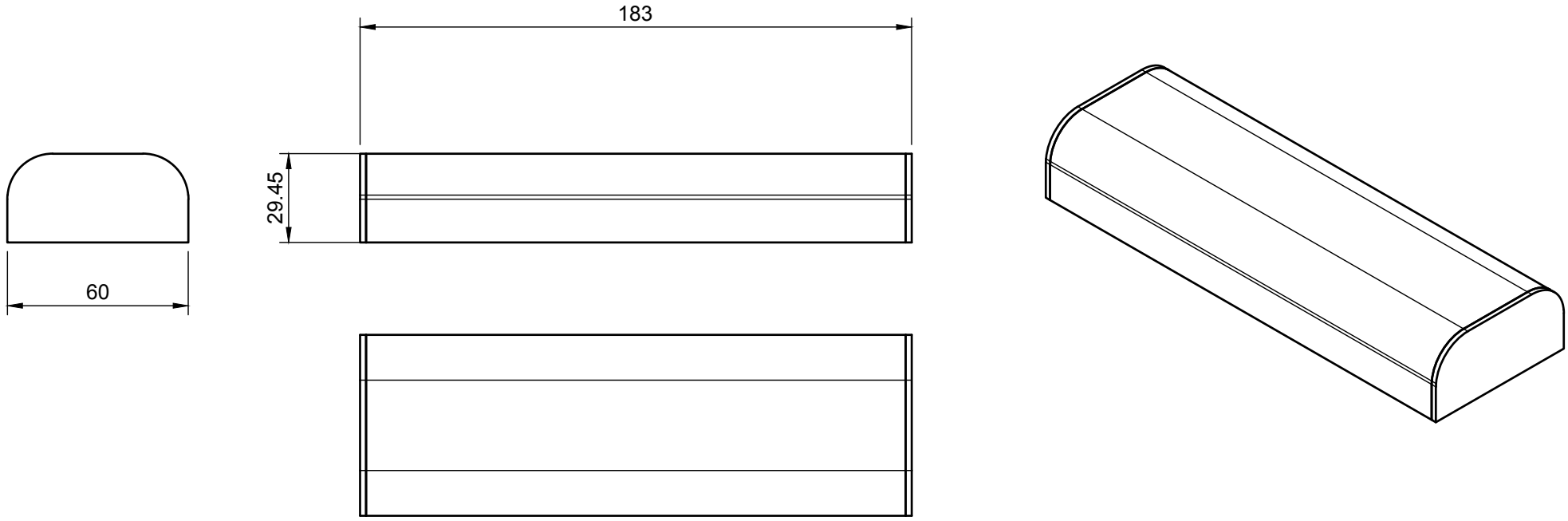
Plan Drawings: Fixed Printer

Materials: Alluminum and PLA
Scale: 1:2 in mm



Plan Drawings: Portable assistant

Materials: Alluminum and PLA
Scale: 1:2 in mm



Resonance

Finding the inner balance through the movement of drawing

Resonance

In the contemplative drawing experience *Resonance* people are encouraged to pause, slow down and enter a state of resonance - physically within the installation as well as metaphorically with themselves.

The core of the installation forms a novel interpretation of a sound bowl, crafted from wood and graphite. By engaging in slow rhythmic pencil movements on the object, people can set suspended pendulums in the space into gentle motion, creating contemplative soundscapes.

The rich electromagnetic properties of graphite are used to sense the rhythmic movement, allowing the pendulum to respond only when individuals move in resonance.

User Journey

① Person takes a seat on the carpet.

② Person gets curious about the object, picks up the pencil next to it and touches the graphite strips.

③ One of the floating objects lights up, although it remains stationary.

④ Person starts moving the pencil on the graphite strip.

⑤ The floating object starts gently oscillating, emitting a soft sound from the speaker in front of it.

⑥ Attempting to control the floating object, the person realizes that it does not respond directly to pencil movements. After little experimentation, the person discovers that syncing the pencil movements with the slow rhythm of the pendulum is key for finding its resonance.

⑦ Having understood the rhytmic interaction, the person starts playing with the pendulums, creating different melodies and sounds that resonante with their state of mind.

Field observations

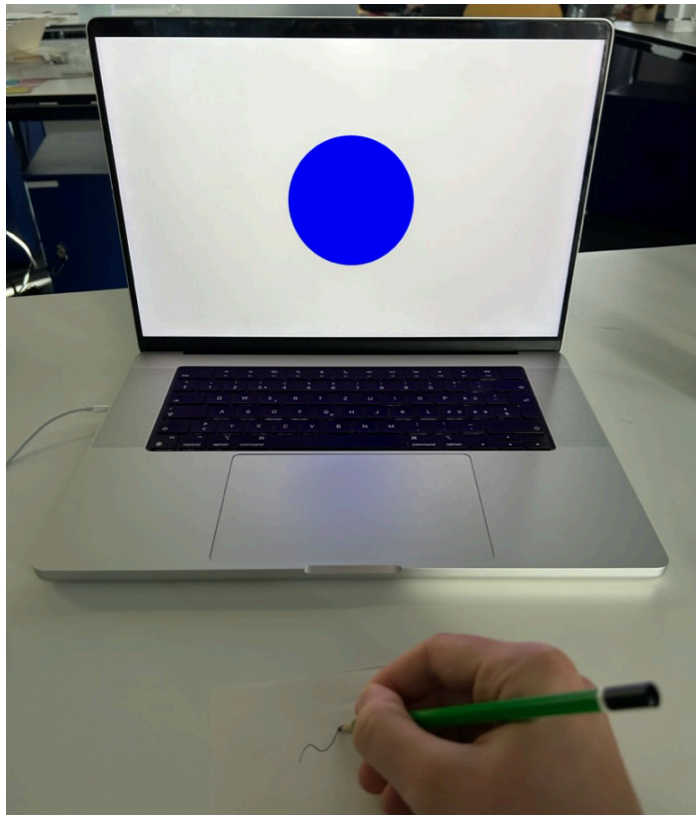
As research for this project I did many practical experiments with different people. My goal was to come away from the content of the drawing, but instead focus on drawing as movement and drawing as a multisensory experience.

Insights

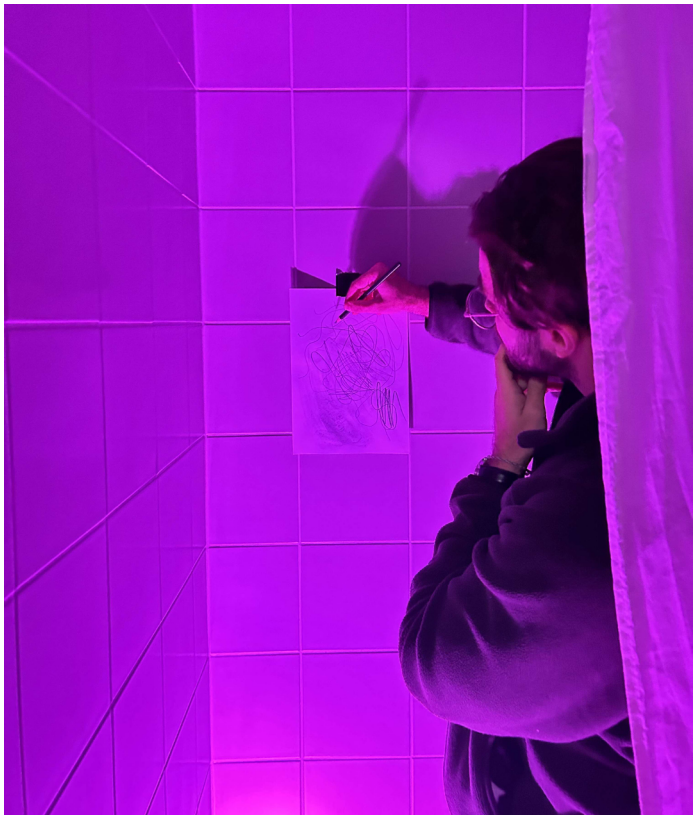
- Without instructions or constraints people most often draw figuratively. It is not easy to get people to draw abstract.
- Constraints like blindfold drawing increase haptic perception and imagination and lead to a intensified sensory drawing experience
- Drawing combined with breathing meditation gets people into a flow where they they start to focus on movements instead of the content
- Slow rhythm and repetition helps to get grounded
- Drawing while meditating can help not to wander off with thoughts

Experiment
Drawing blindfold

Experiment
One breath = One drawing

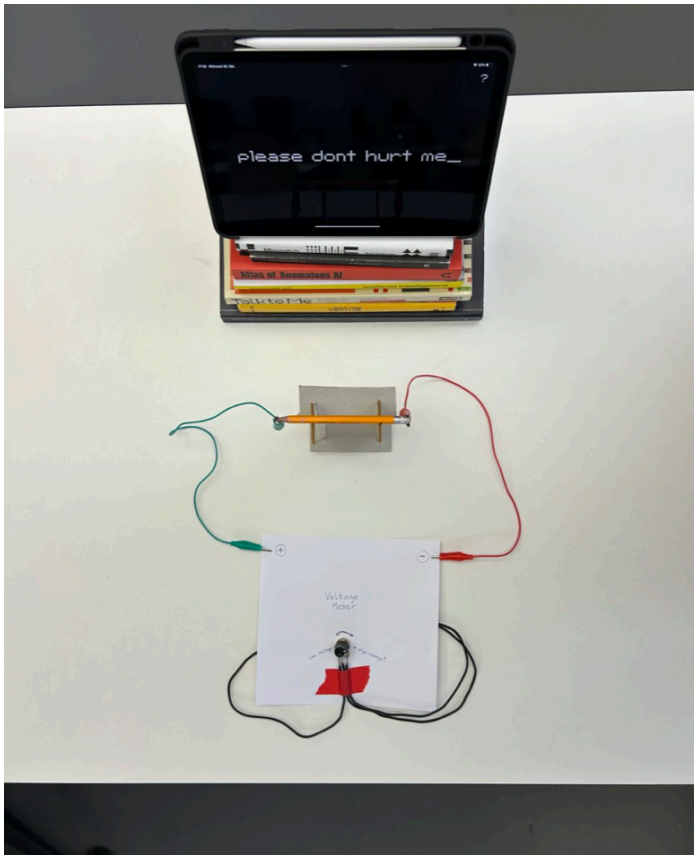


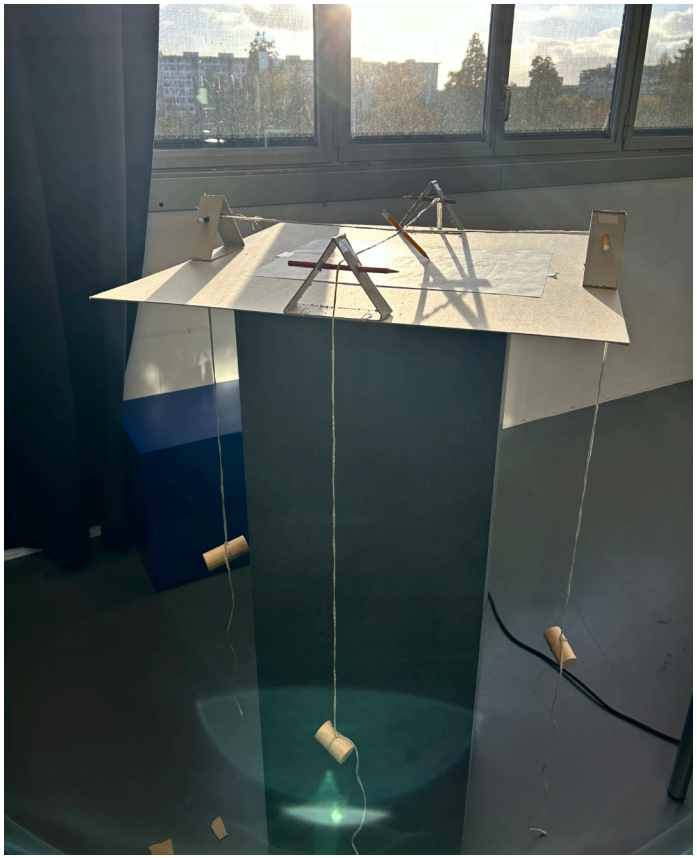
Experiment
Drawing barefoot in the shower



Paper Prototypes

Evolution of multiple paper prototypes, from of spiritual prophecies, pencil torturing to graphite superpowers.





Visual and Material Moodboard

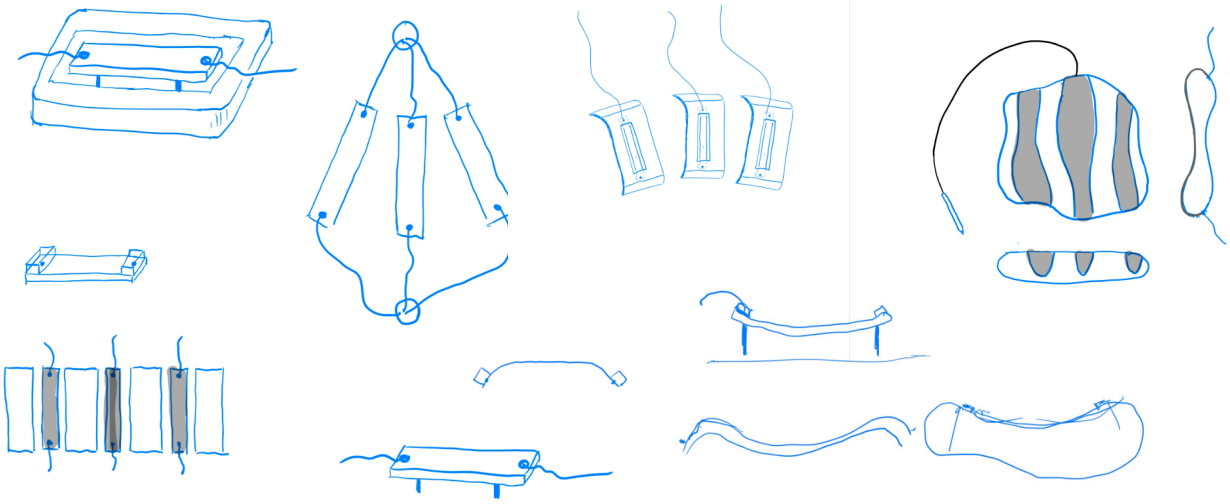
Object as instrument or resonance body

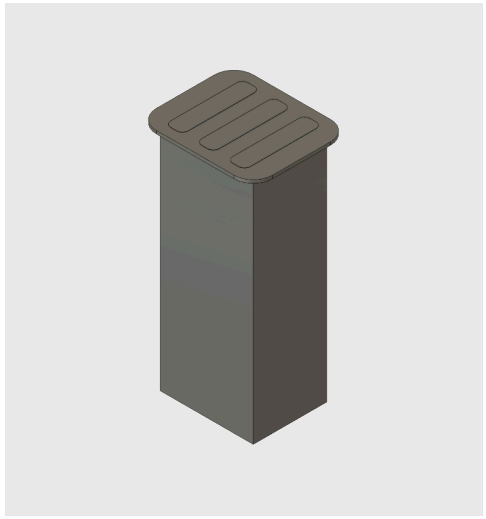
Softer organic forms, warm materials

Shape research - Interactive object

I was thinkining of the interactive object as an instrument. Inspired by the form of sound bowls, gongs as well as xylophones I started sketching out a lot of different ideas.

In the beginning I had straight graphite strips but then had the idea to bend the plates. From bended plates it developed into more round and fluid forms and eventually into one continous object instead of several strips that are held together.





Shape research - Harmonic pendulum

How will the object look that people enter resonance with?
I collected references and did own experimentations to find interesting shapes for the pendulums.

However, througout the course of this project and due to time constraints I had to take a step back from this part and bundle my ressources on the main interaction object. Consequently the form of the pendulum is not yet fully defined.

My last experiments included luminous paper objects, as I liked the poetics of combining graphite and paper in this new way.

Although, upon reconsideration I would also like to delve more into the world of instrument design and resonance bodies as a source of inspiration.

Atelier Oï
Oïphorique

Jerusalem Chimes
Pendulum on Sand

Own experimentation
Plastic foil, carton

Own experimentation
Paper, pencil, LED lights

User Tests

I did many spontaneous little user tests throughout the whole process.

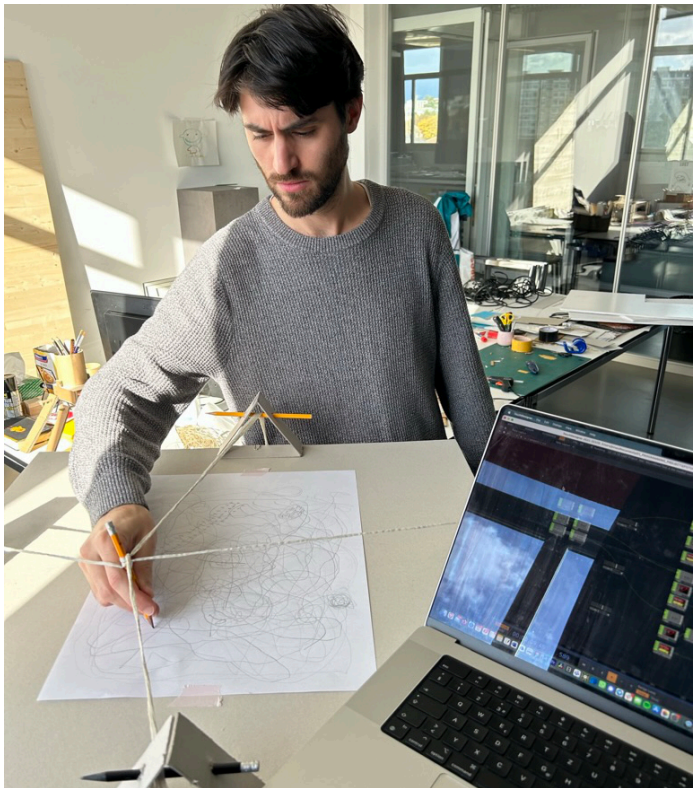
My first test for the resonance interaction was a swinging bottle that I manually set into motion depending on the drawing movements of the testee.

However I realized quickly that the quality of interaction is very difficult to test without actual electronics. For this reason I prepared a working electronics version for the testing day.

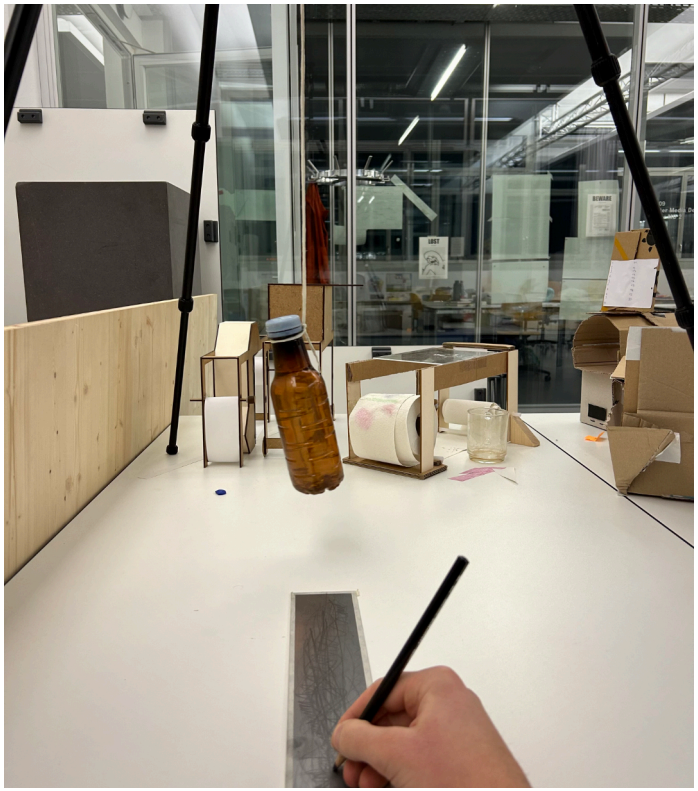
Insights Testing Day

- Speed of the pendulum and sensitivity of the pencil matters a lot and influences whether people understand the interaction or not.
- Testees were intrigued by the interaction once they found out how it worked. However, if they fail to understand it, it might lead to frustration.
- People prefer to sit during interaction instead of standing due to a more comfortable hand drawing pose

Testing sound drawing relationship

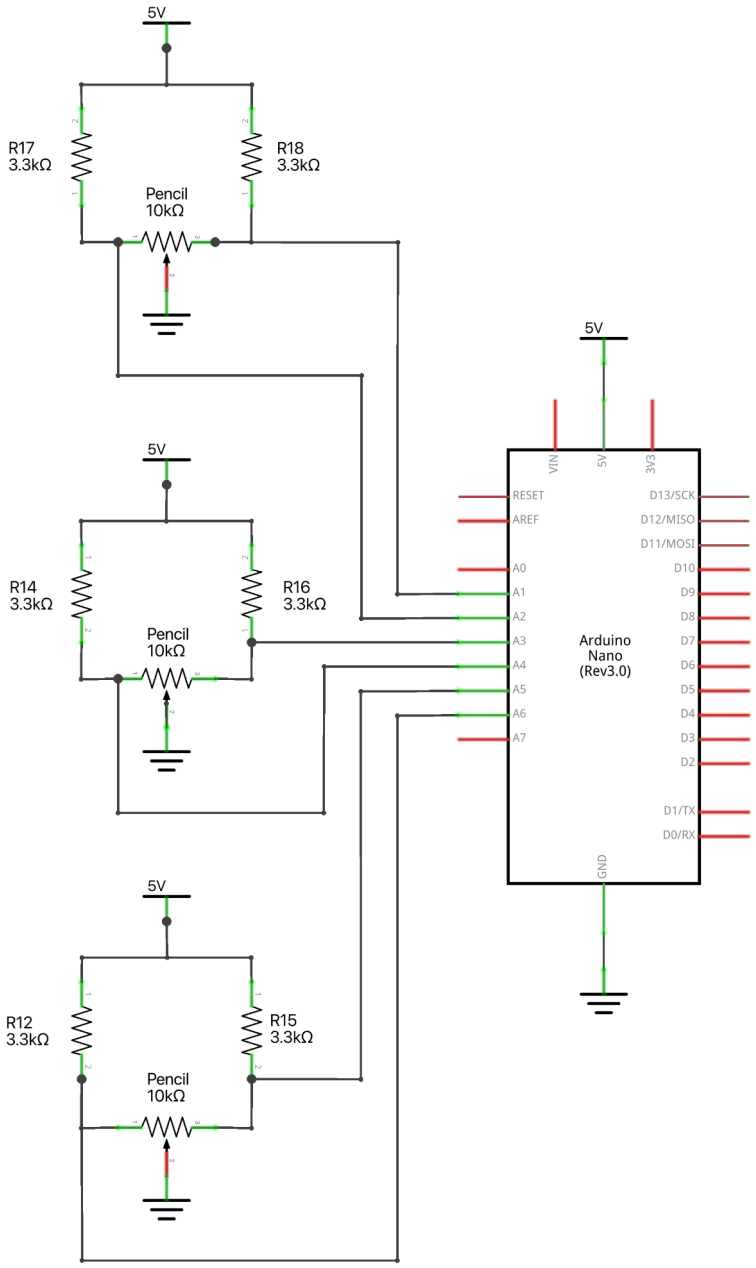


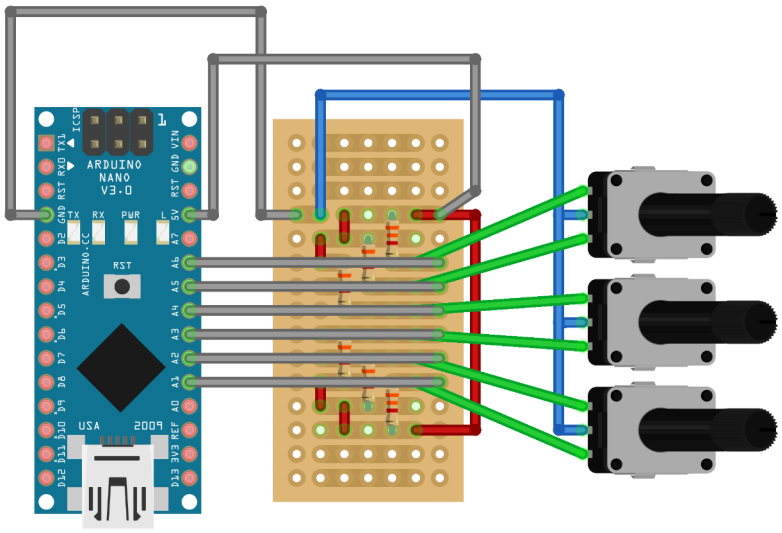
First test for resonance interaction



Testing Day already with working electronics

Electronics

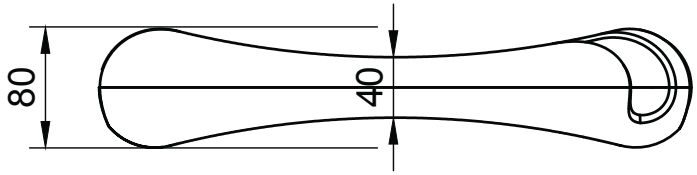




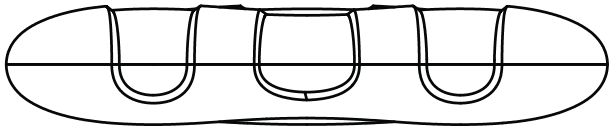
Plan Drawings

Materials: Beechwood (Hêtre), Graphite
Scale: 1:5 in mm

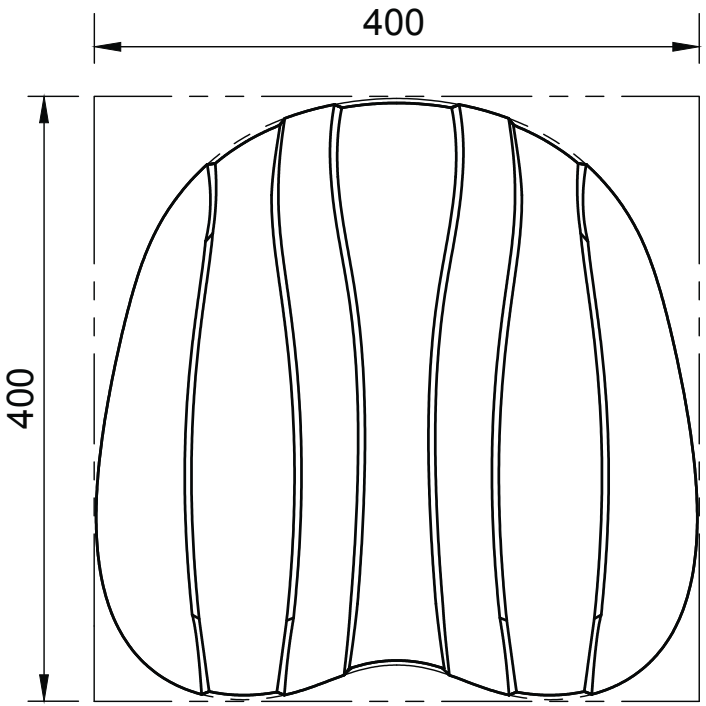
Left Side



Front View



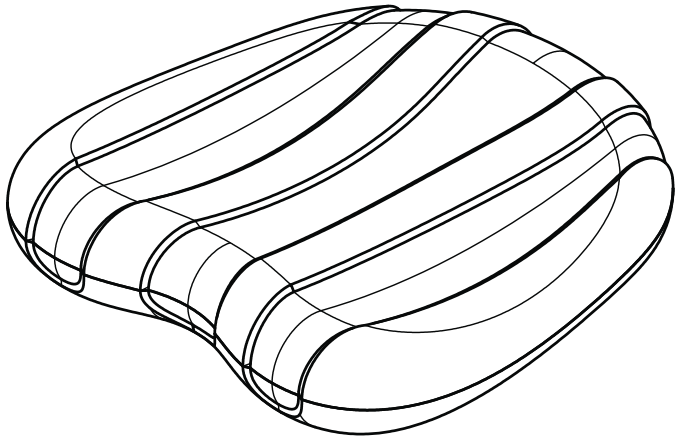
Top View



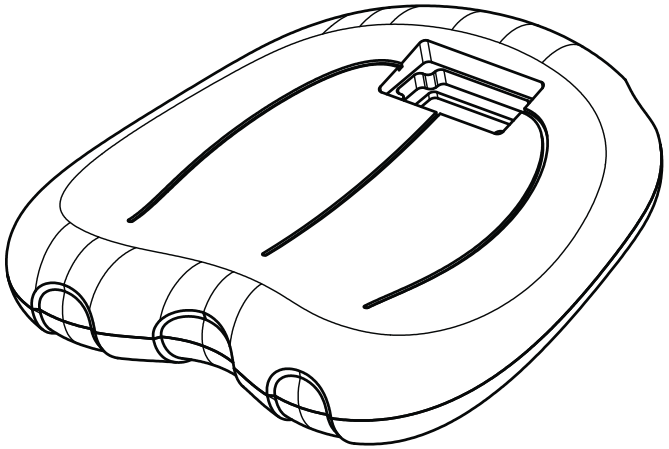
Plan Drawings

Materials: Beechwood (Hêtre), Graphite
Scale: 1:5 in mm

Front Perspective



Back Perspective



Magic House
Automating the Analog Animation Process

Project Description

This enchanted mobile art station captures your sketches, projecting them onto paper for effortless frame-by-frame animation on paper.

Snap each drawing, guide your next frame. Preview your sequence on paper without any complex animation techniques needed —an accessible creative tool for all.

Beyond functionality, the station transforms into a decorative piece with ambient lights, evoking the magical atmosphere of beloved animated films. Immerse yourself in the inspiration for countless stories.

Switching frames, the mobile station gracefully glides to a new space on the paper, clearing the canvas.

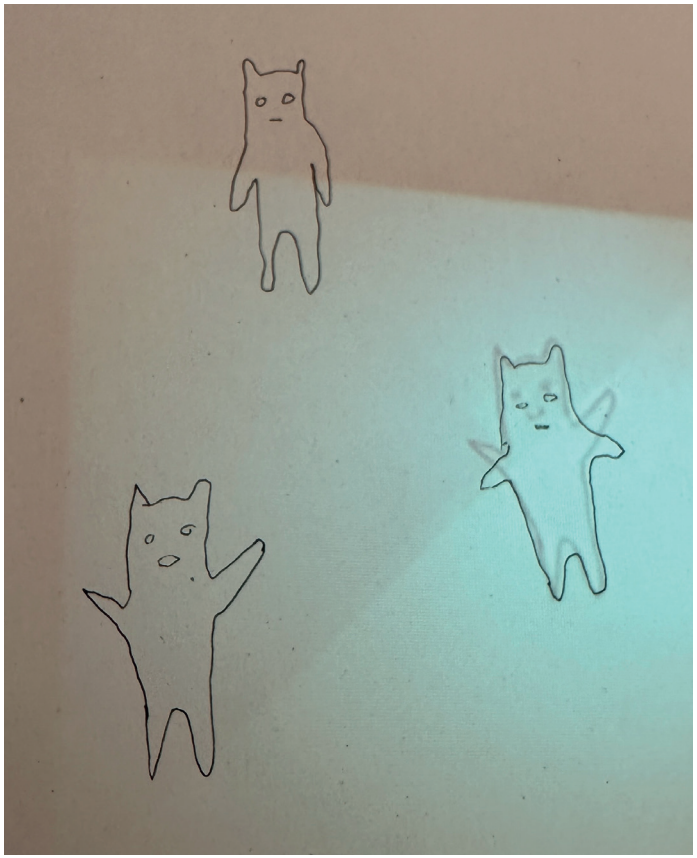
Drawings slowly scatter across the large canvas, creating collaboration. Each participant adds their touch, continuing the cadavre exquis collaboration. Over time, a tapestry of drawings unfolds on the paper, creating an art piece woven with interconnected stories.

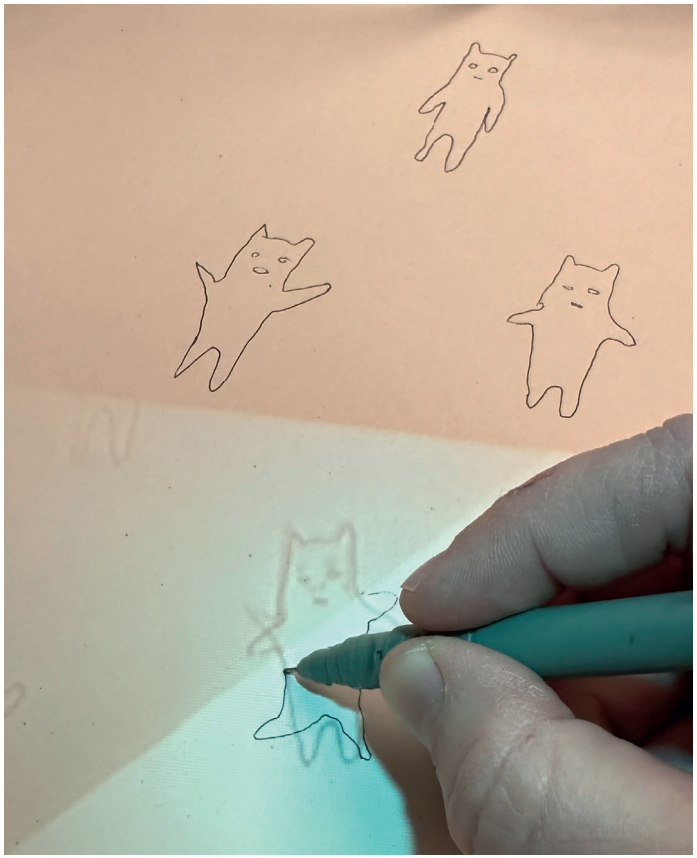

NEXT
FRAME

User Journey

Draw, press, draw. You made a film !
It’s that quick and easy.

The user starts by drawing the initial animation frame within the projector’s projection area. With a press of the «next frame» button, the house captures the drawing, its wheels set in motion, transporting it randomly across the paper. Users can then contribute their next animation frame, or invite others to join and continue the narrative. At any point, a preview of the collective frames’ animation can be enjoyed by pressing the «preview» button.





Field observations

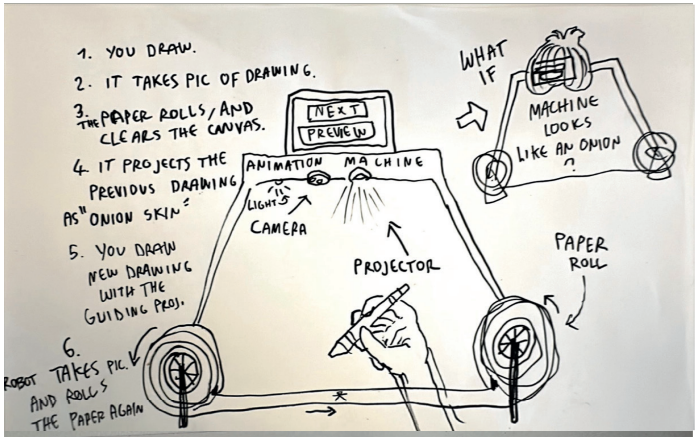
Began thinking animation is fun but challenging. Realized it shouldn't be so hard—there must be a way to simplify.

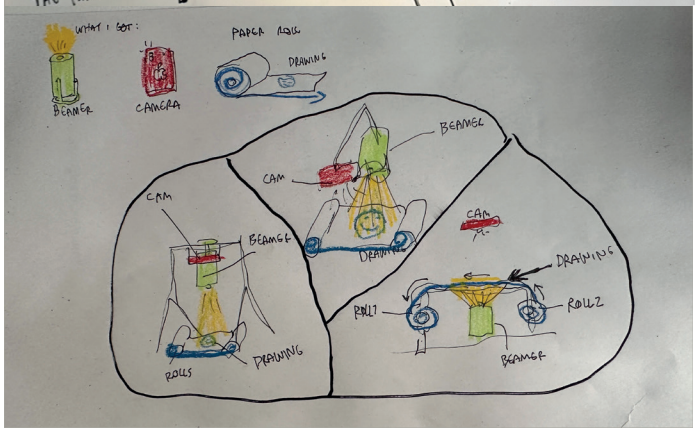
Individuals experimenting with animation enjoyed drawing within that framework, even if drawing isn't their usual practice. / Any sketches can lead to captivating movements, yet many perceive the drawings needing to be «good,» creating a perception of inaccessibility in animation. / Even those proficient in drawing find analogue animation daunting due to the involved steps, complexities, and time commitment.

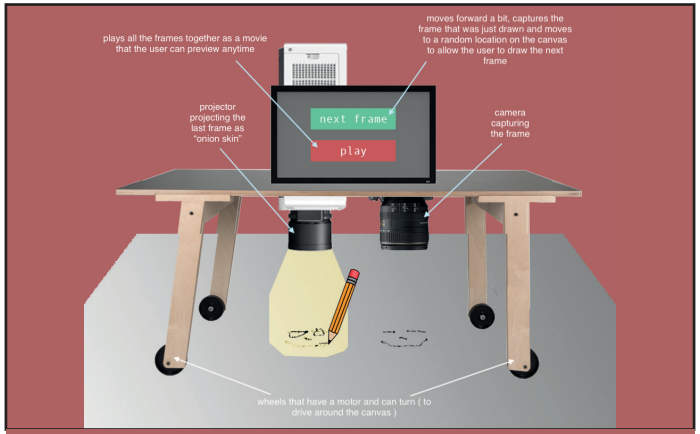
Visual and Material Moodboard

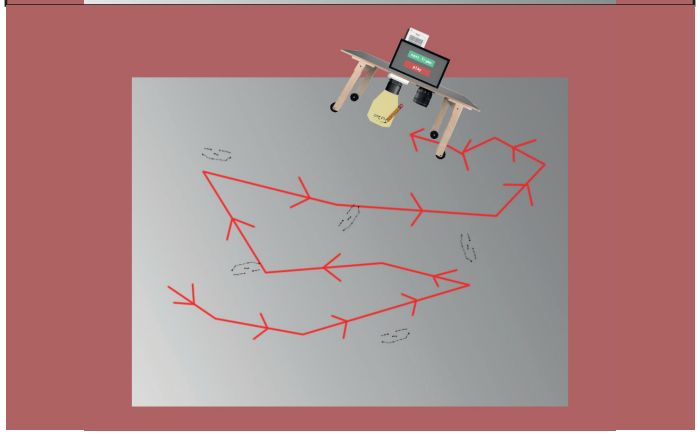
My design takes inspiration from the cozy decor found in Nordic countries, where a cultural tradition has evolved to combat the long, dark winter nights. In an effort to lift spirits during challenging times, people adorn their homes with charming decorations and lights. I aimed to imbue my creation with a touch of magic, hoping it would serve as a source of inspiration for drawing and animation.

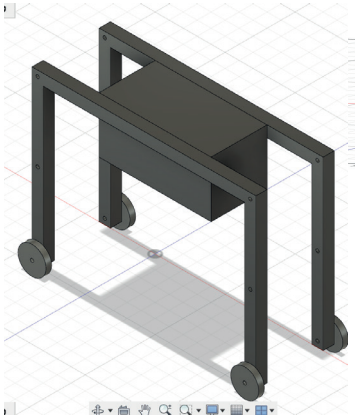
Shape research

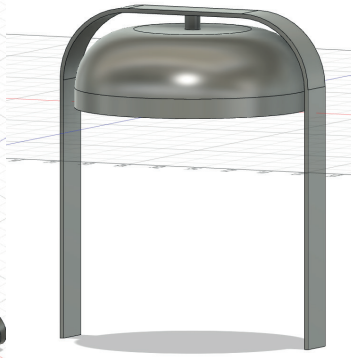


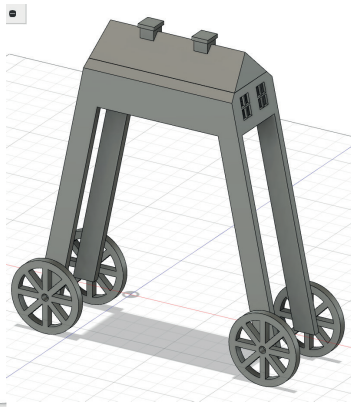




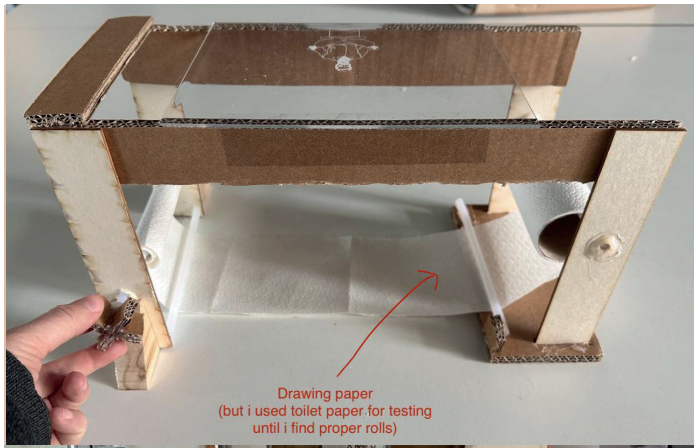


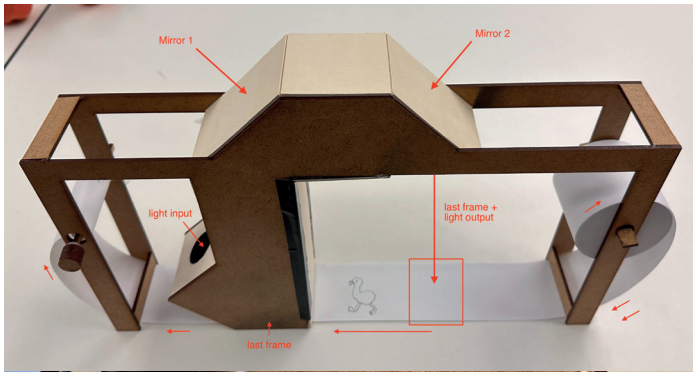


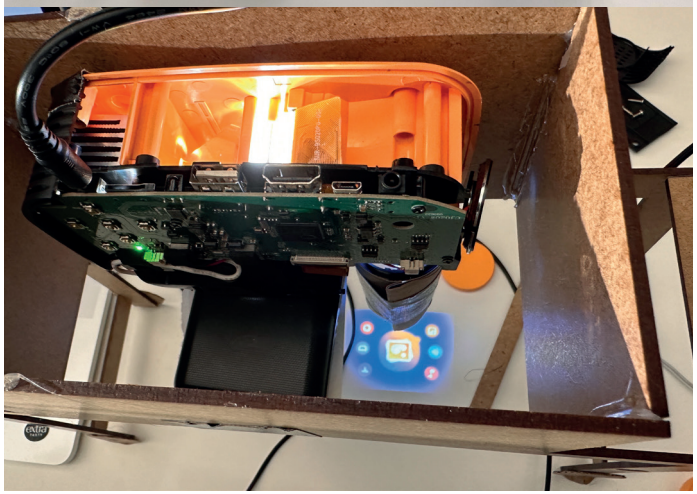




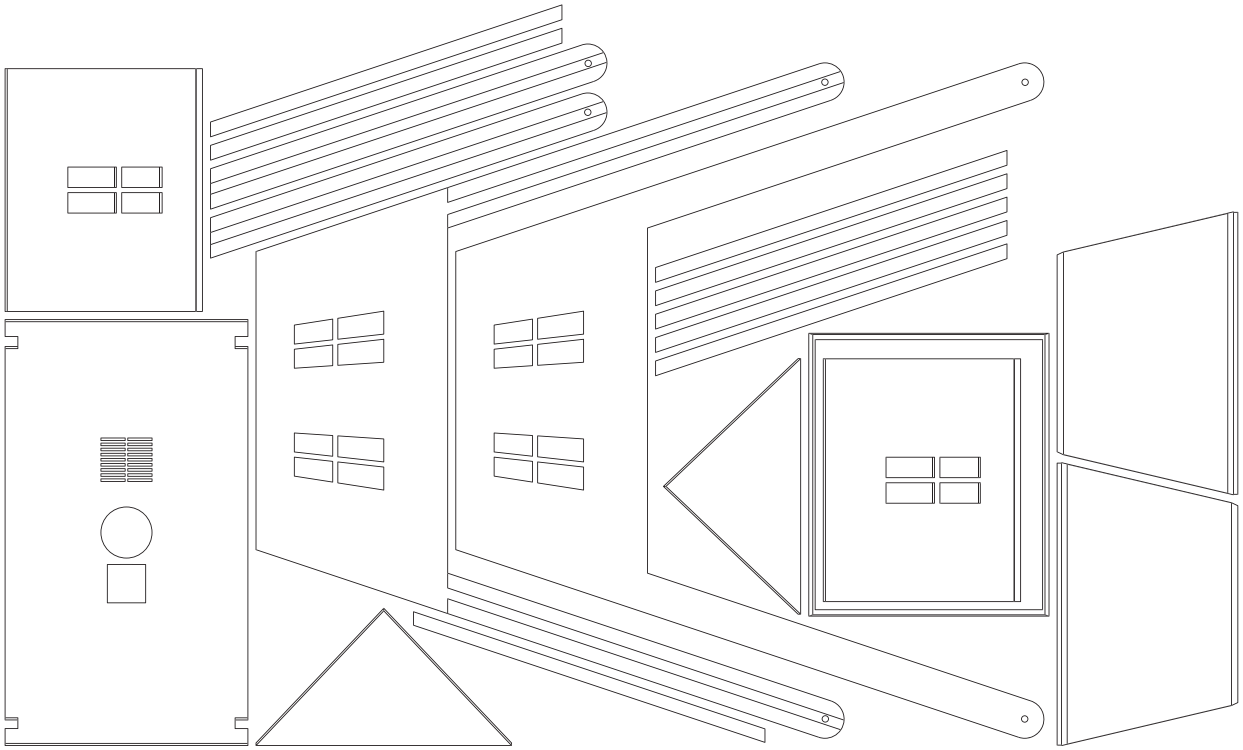
Paper Prototypes

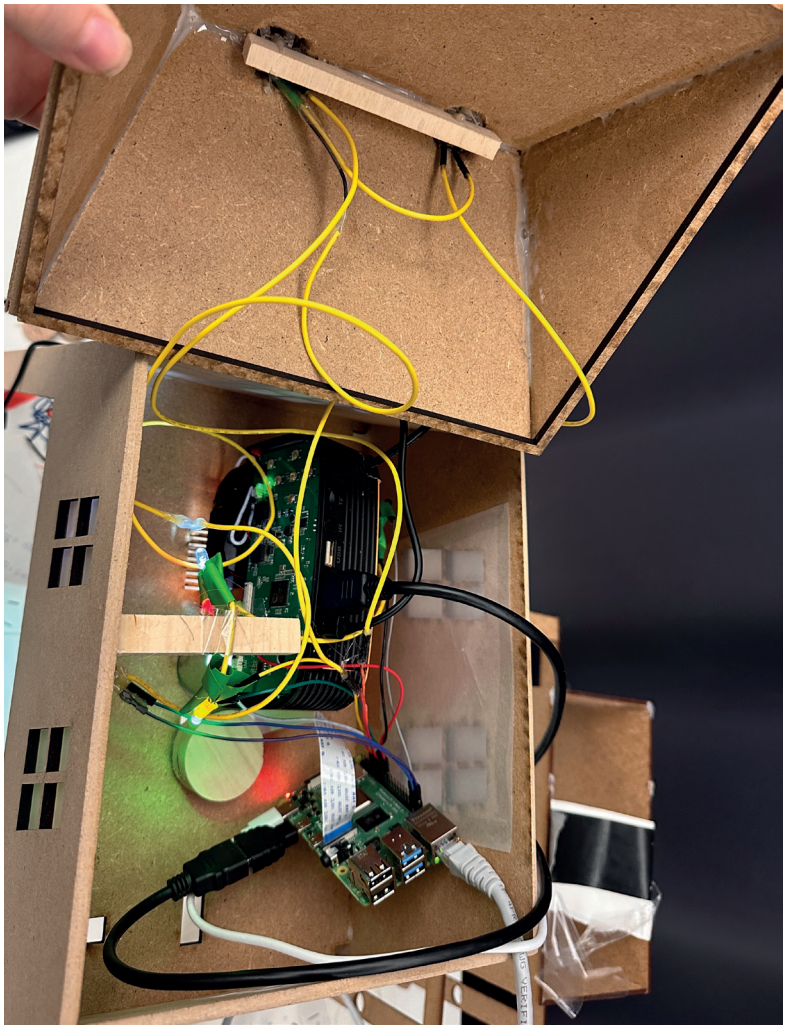




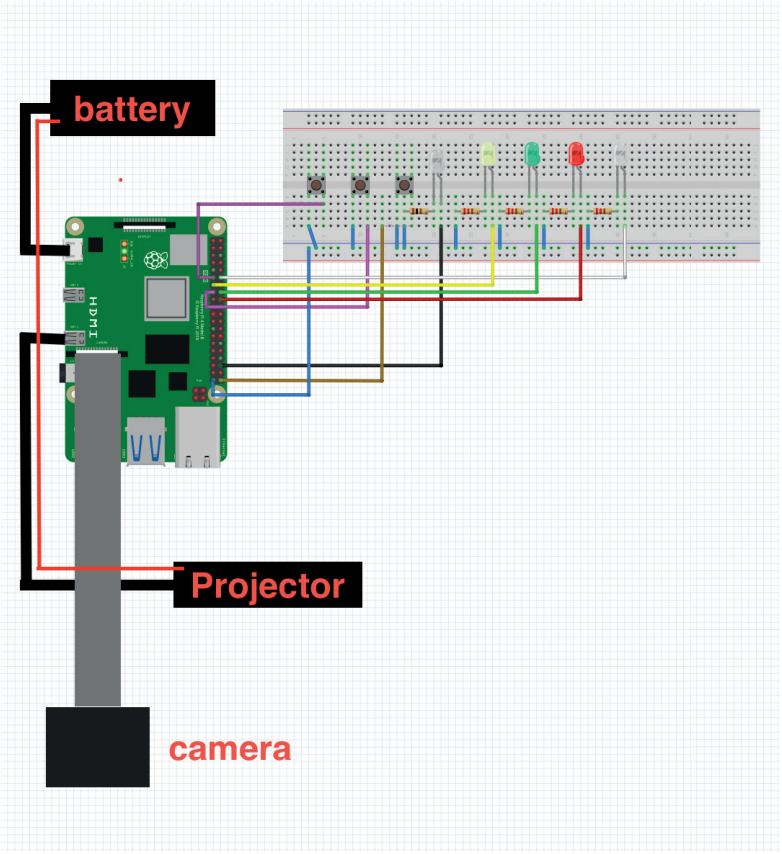


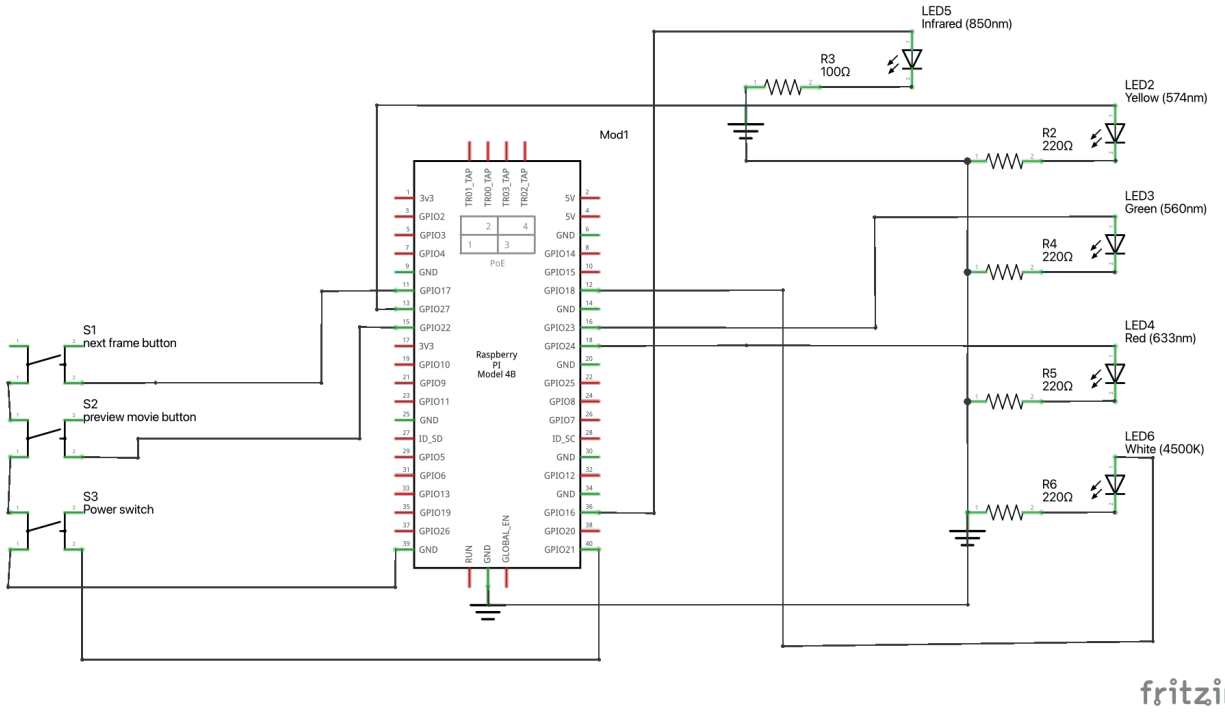
Construction





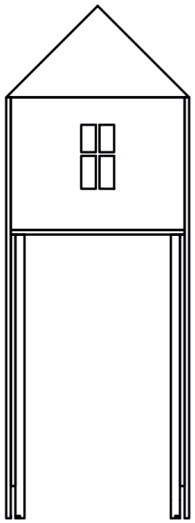
Electronics

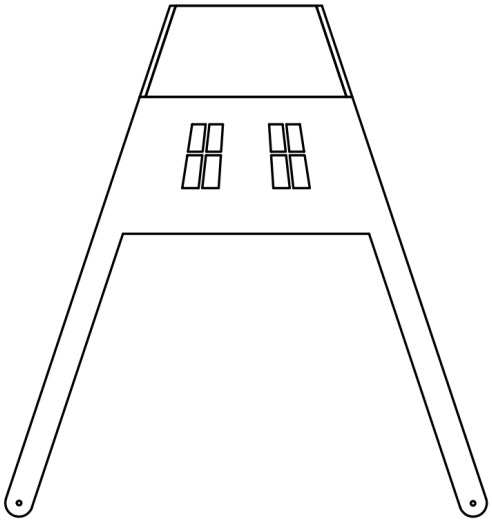


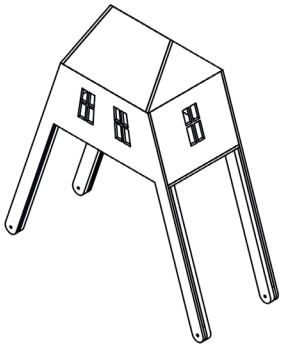


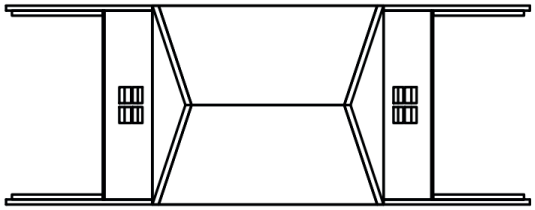
Plan Drawings

Materials: MDF
Scale: 1:5 in mm
~ 200 x 450 x 600 mm









Let me fix it for you

How will AI reinterprets your drawing ?

Project Description

« Let me fix it for you » is an installation where AI reinterpret human drawing. Visitors are invited to contribute a personal drawing, which is then reinterpreted by an advanced AI.

This AI reimagines each drawing, presenting a new artwork based on its own interpretation of it. It generates a projection of your revisited drawing.

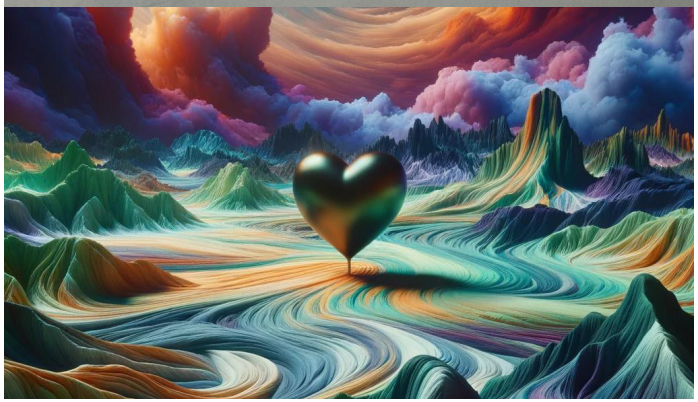
Some people may feel amazed or surprised, others may feel judged or frustrated.

This experiment offers a new way of approaching works created by AIs, showing that no technology can match the charm of a human drawing.

Field observations

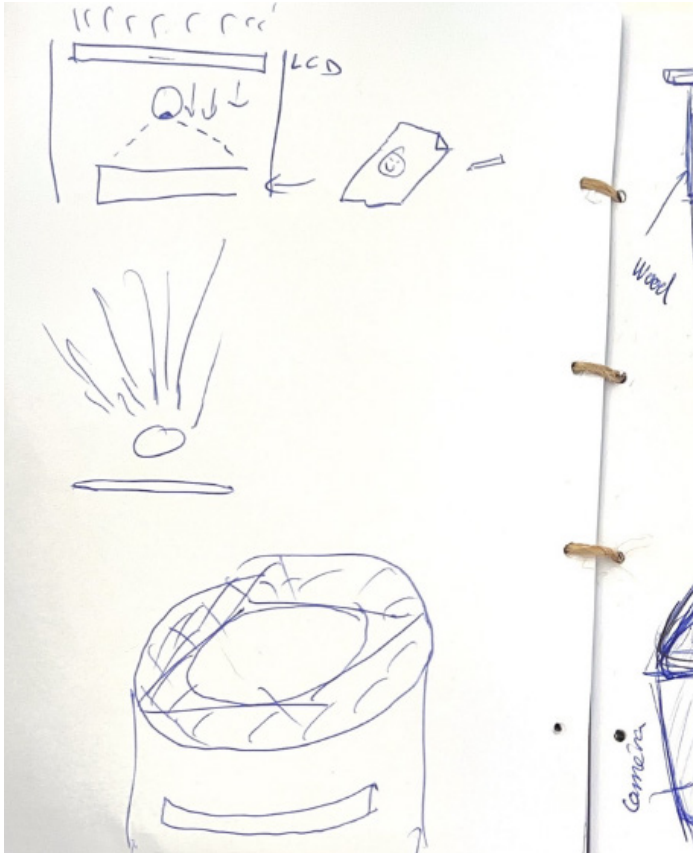
- There is a fascination with images generated by AIs.
- People easily feel judged on what they produce.

- The more elements there are in a prompt, the more visually interesting the generated image is.



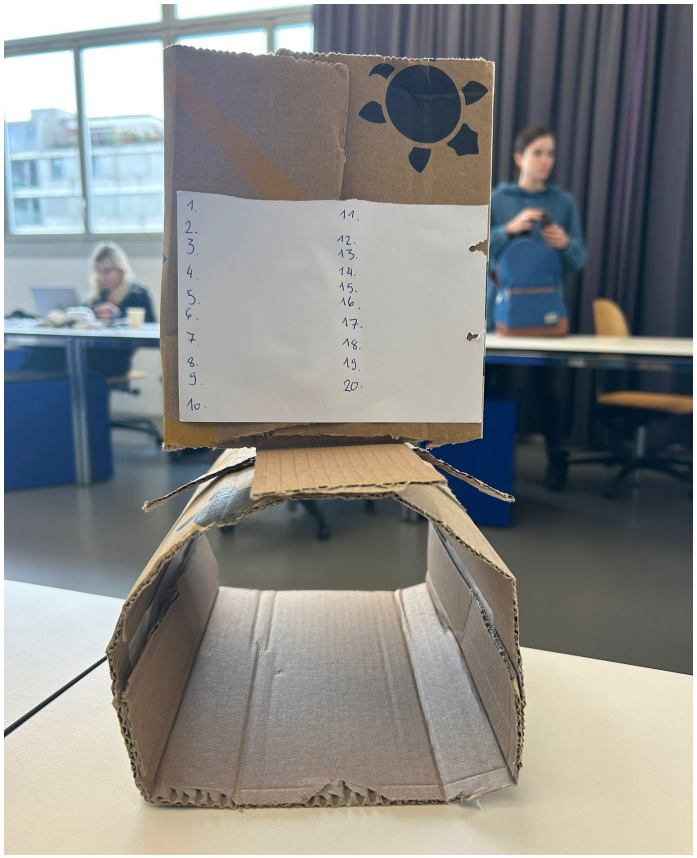
Visual and Material Moodboard

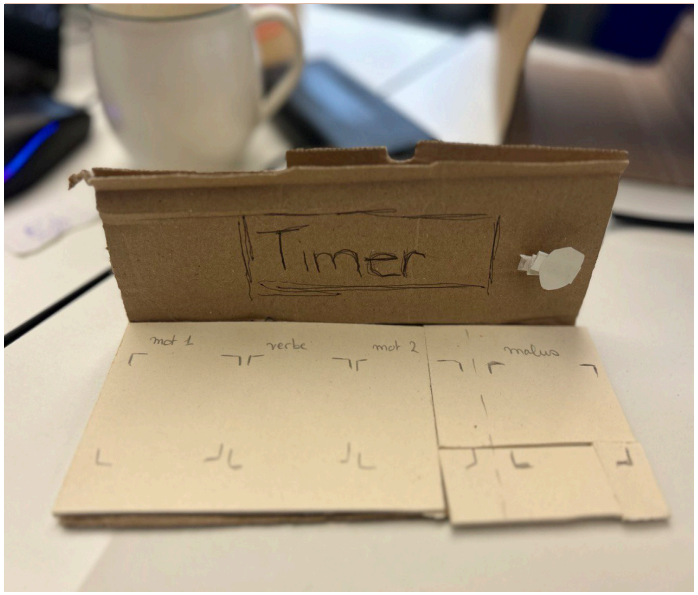
Shape research

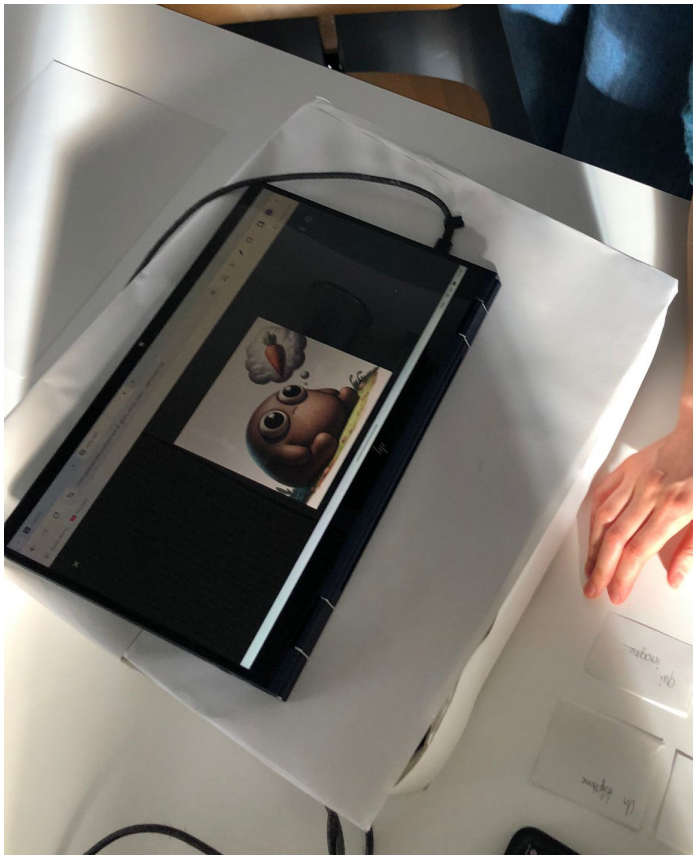


Paper Prototypes

- The first idea was to make a game where you try to understand someone's drawing only with their regenerated version.
- The concept worked well but was better for a market project.
- The actual project is a version adapted for an exhibition.

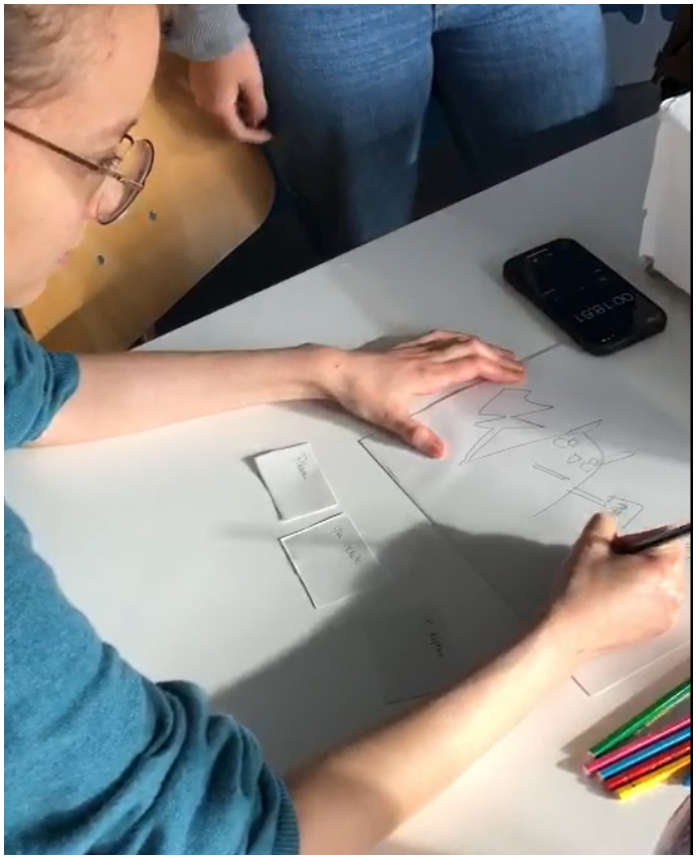


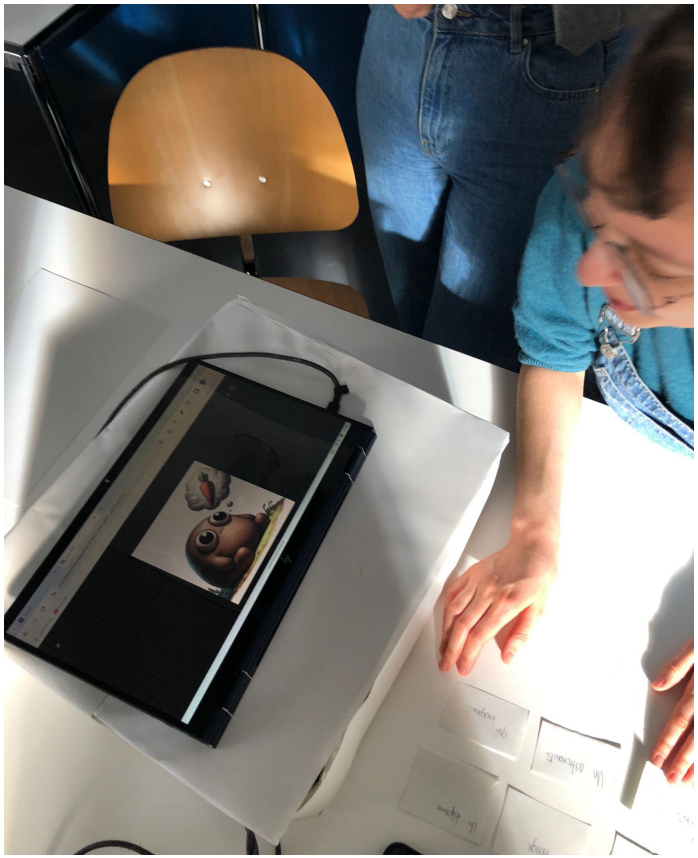


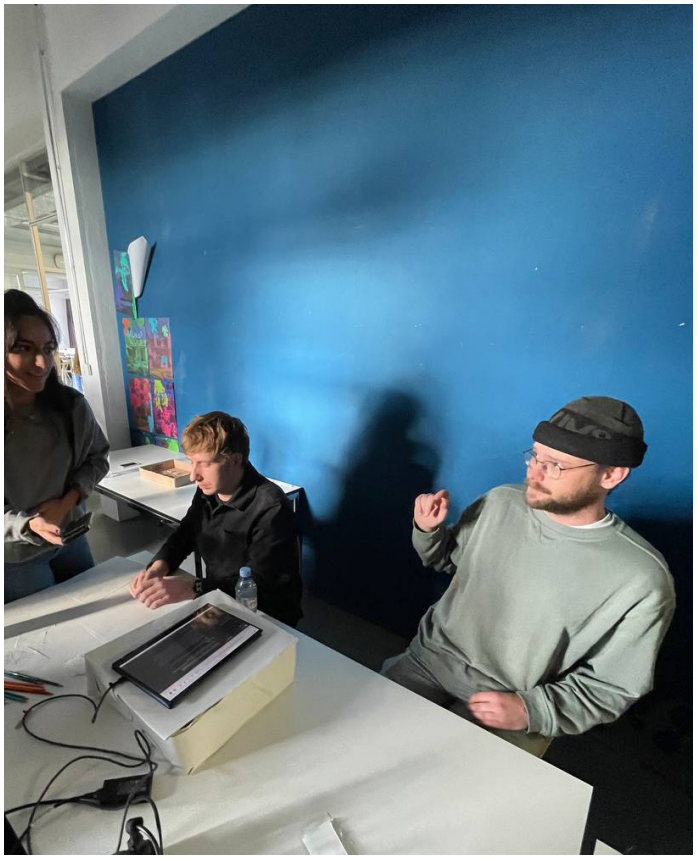


User Tests

- The moment when people discover how AI reinterprets their own drawing is always very fun. It’s never exactly what the person wanted to draw.
- The experience creates moments of sharing. No need to do a game.
- AI can’t match the charm and creativity found in human drawings







Code

Script.js

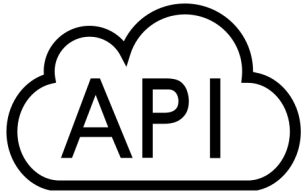
- Interacts with the user (webcam)
- Sends images to and receives results from the server (app.js)

App.js

- Web Server (Express.js)
- Receives the photos and sends them to the analyze.js file
- Once the photo is analyzed, it gets the results and sends them back to the user (script.js)

Analyze.js

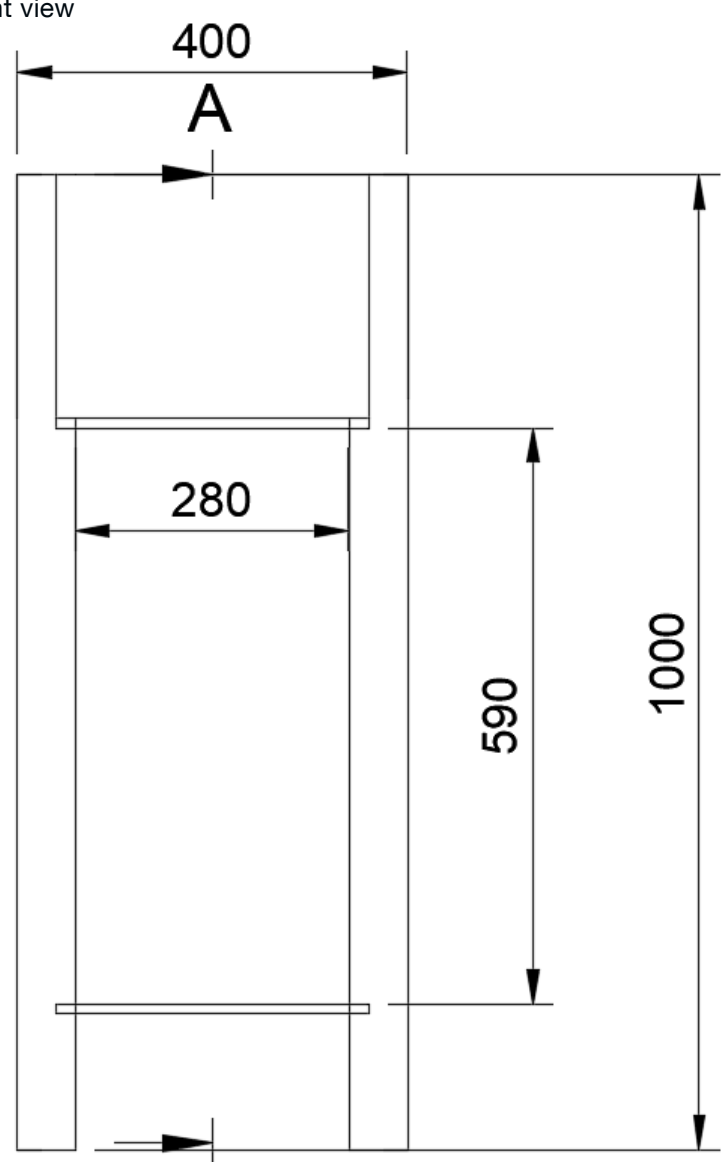
- Etablishes communication with OpenAI's API
- Communicate the results back to the server (app.js)



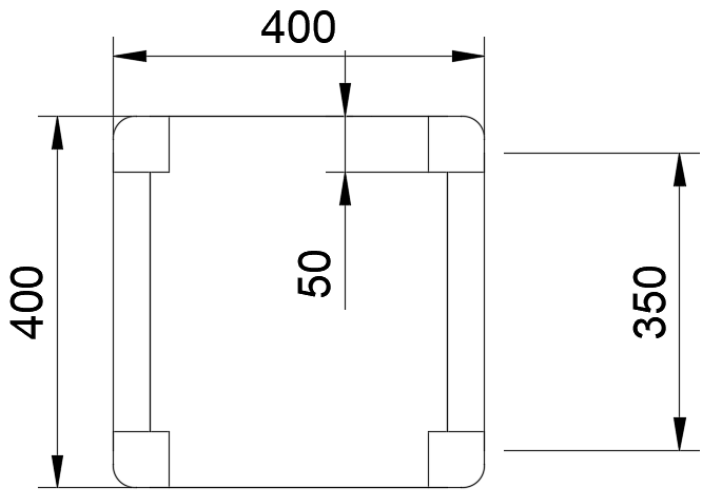
Plan Drawings

Materials: Wood (Bouleau)
Scale: 1:10 in mm

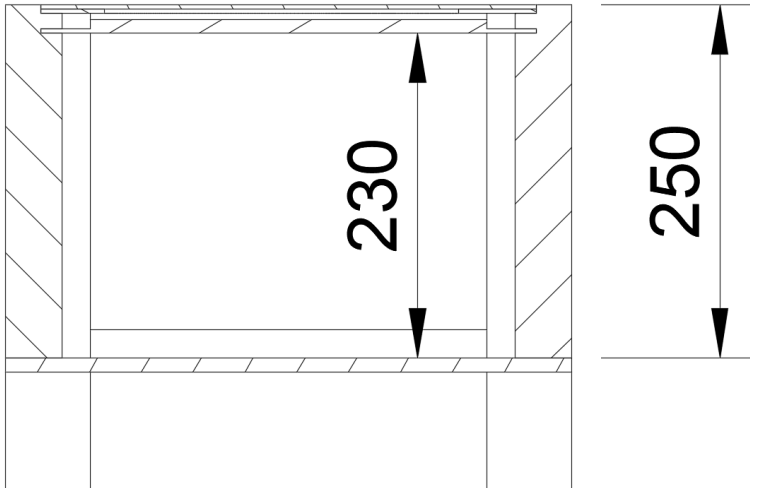
Front view



Top view



Inside view

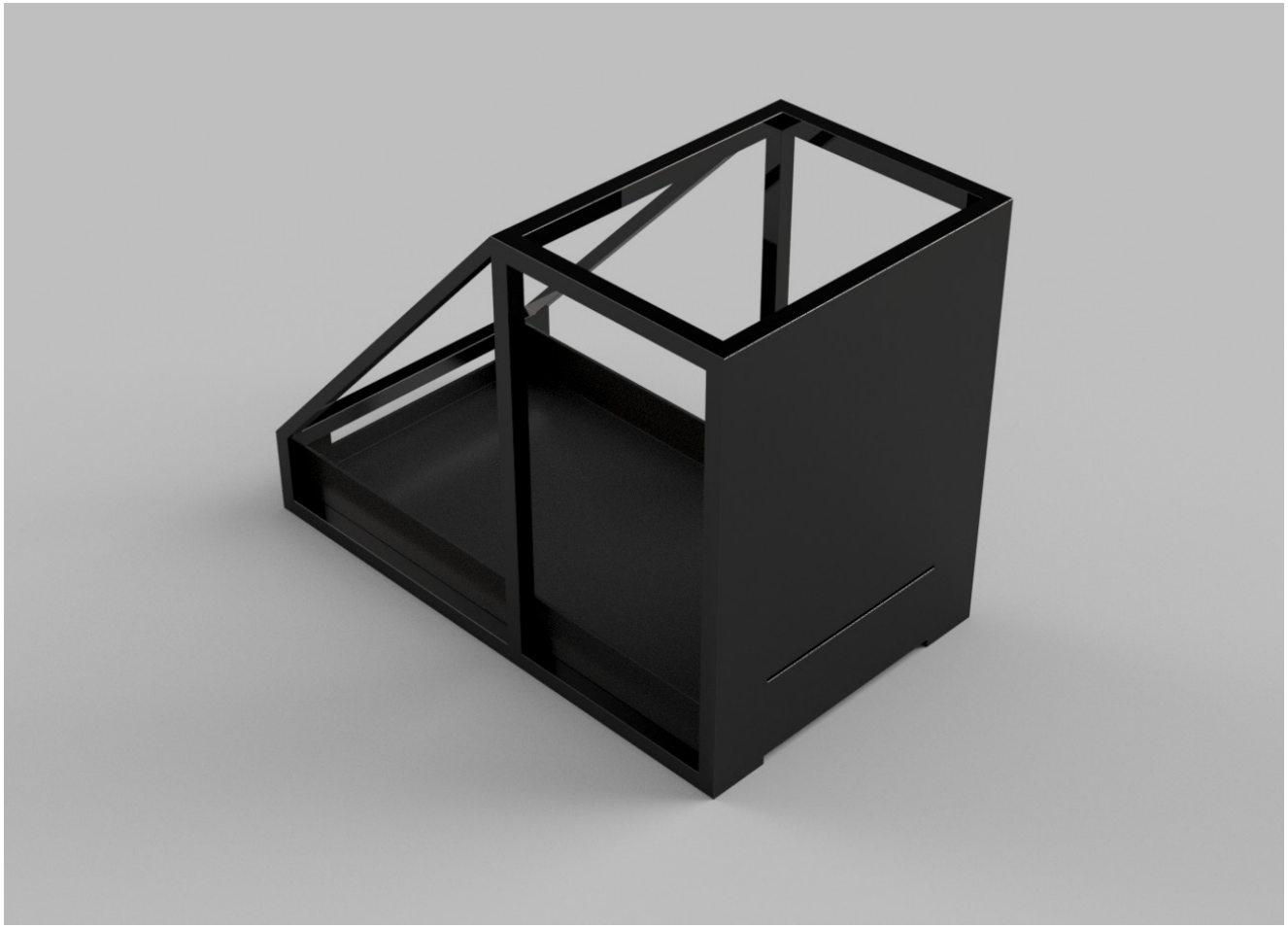


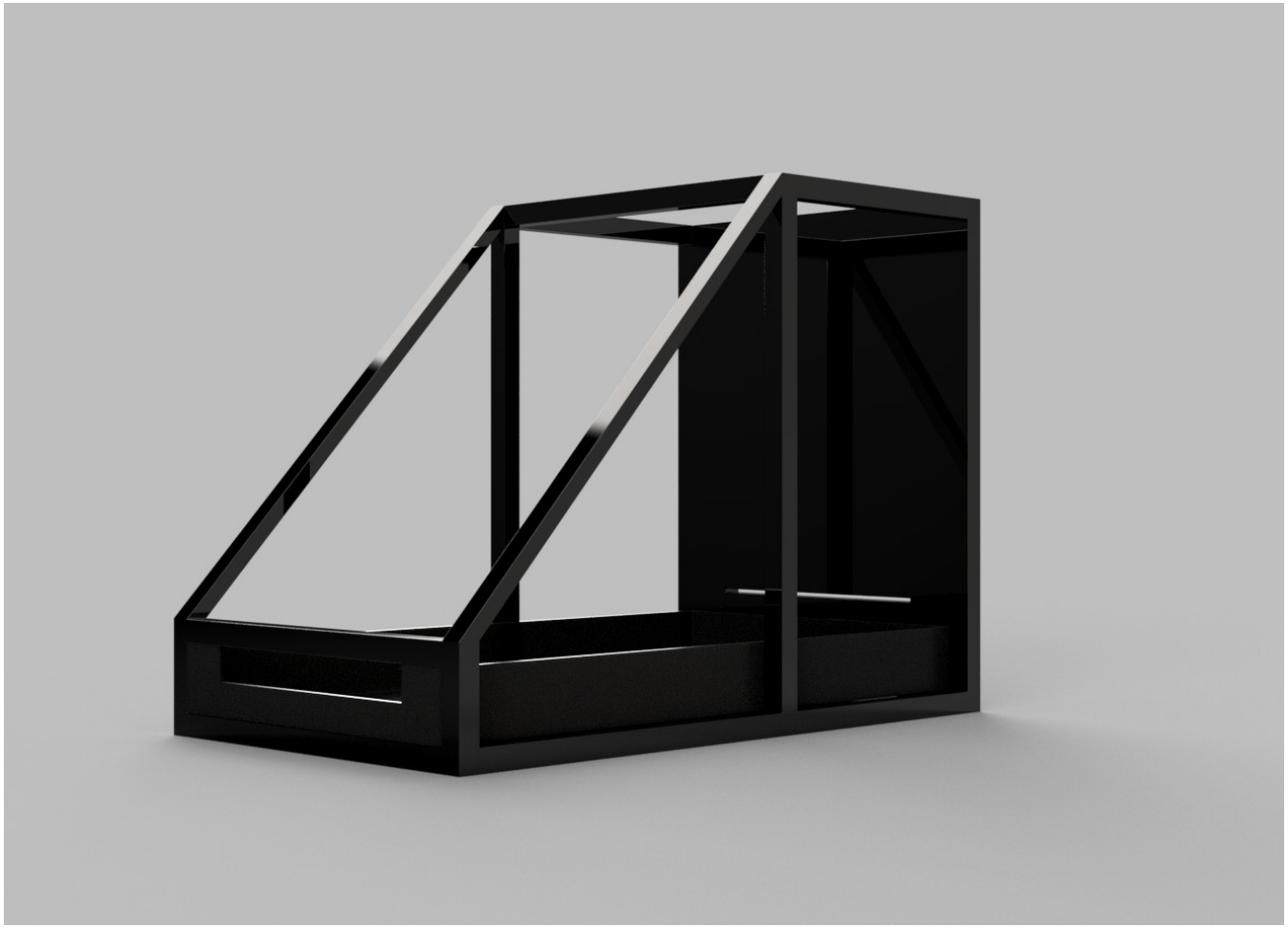
Chimères

An interactive drawing experience between human and printer.

Project Description

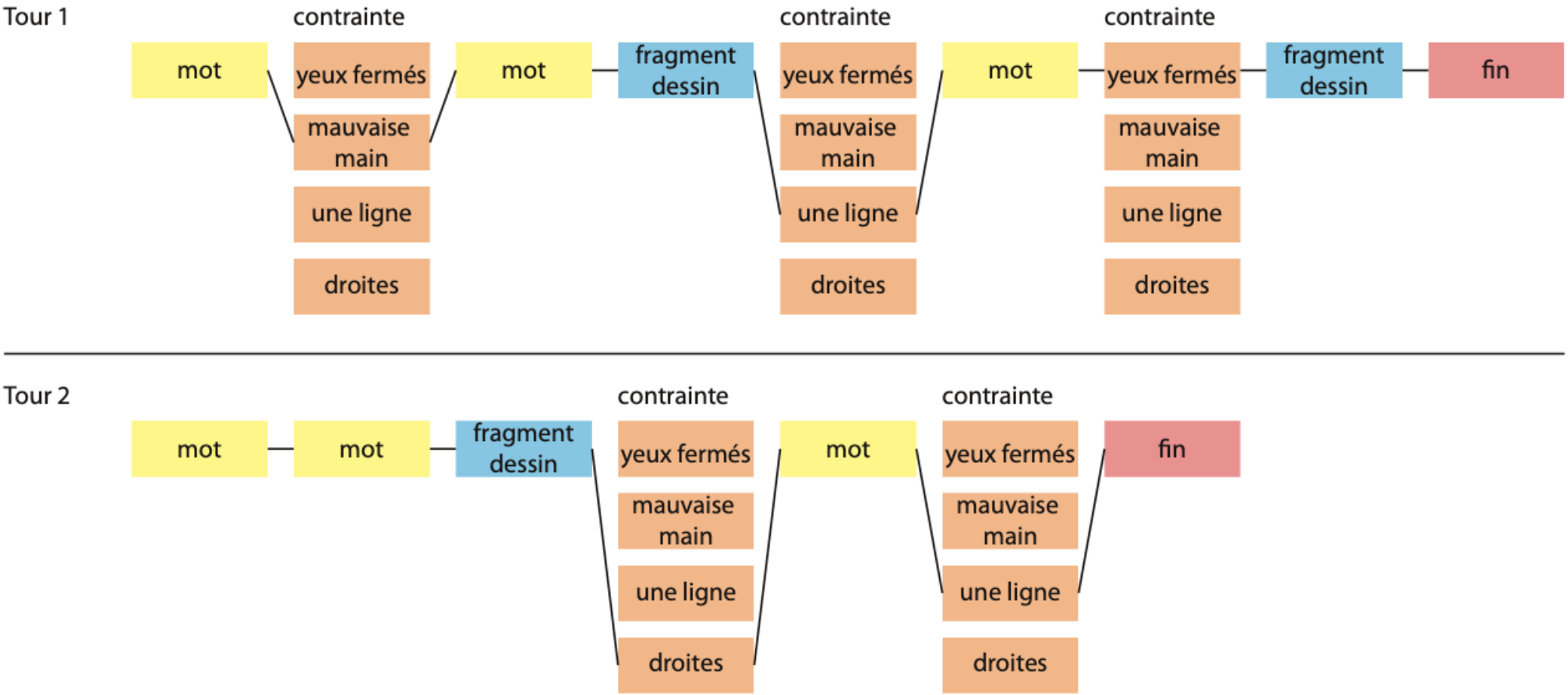
Chimère is an interactive drawing experience between human and printer, offering any user a creative routine while freeing themselves from the judgment of others.
Thanks to the small size of the object, you can draw at home, in a bar, with friends or on your own.
The idea is to draw the words within the constraints set by the assistant. The long format of the paper allows you to create large compositions, some more eccentric than others, while remaining in the spirit of an exquisite corpse.
As long as the user remains active on the drawing surface, the session continues ad infinitum. The session ends when the user is inactive for a short period, forcing spontaneity and instinctive drawing, putting aside any aesthetic principles or rules that might stand in the way of individual creative freedom.





User Journey

This is the User Journey that served as the basis for my project. The concept of drawing against/with the machine has remained, but the rules and constraints have been simplified to make the drawing experience as pleasant as possible.



Résultats: Le joueur 1 gagne la partie car son dessin est plus long

Field observations

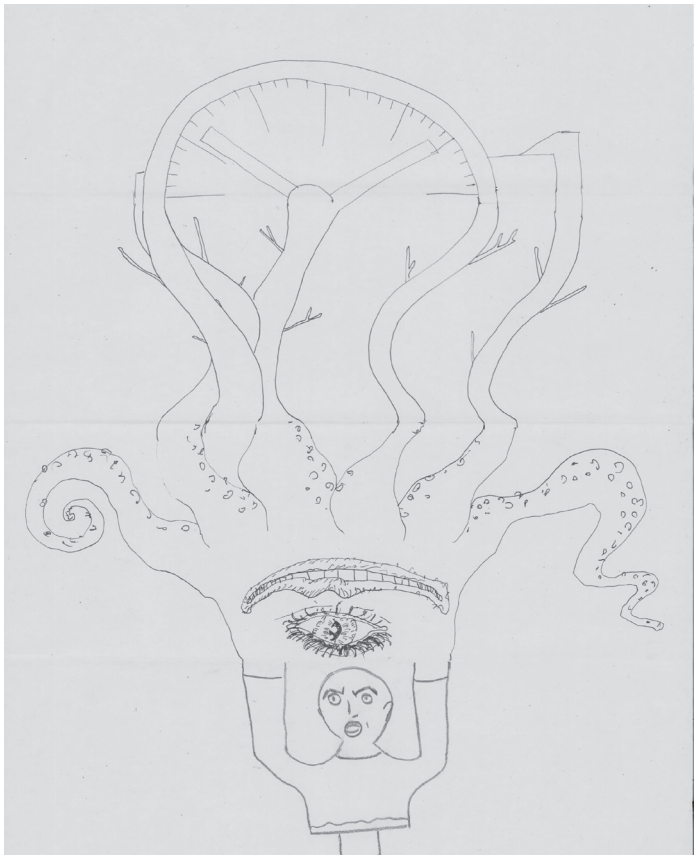
1. Most of the interviewed people not dare to draw because of the judgment of others

2. Legitimacy when money is mentioned.

3. Aesthetic vs. critical sens; the most initiated people give less importance to the appearance of a work.

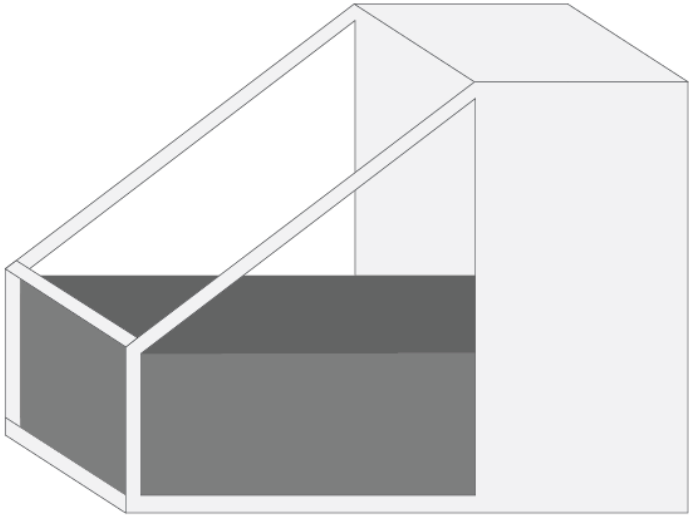
4. During exquisite corpse, people found it easier to draw than write.

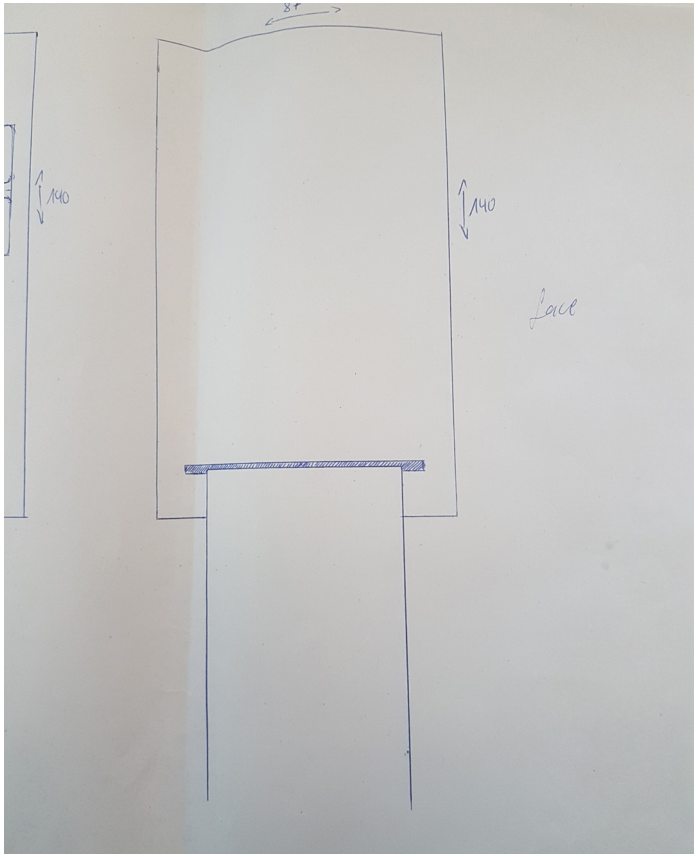
5. Through drawing, the participants gave free rein to their imagination for the benefit of the collective work.

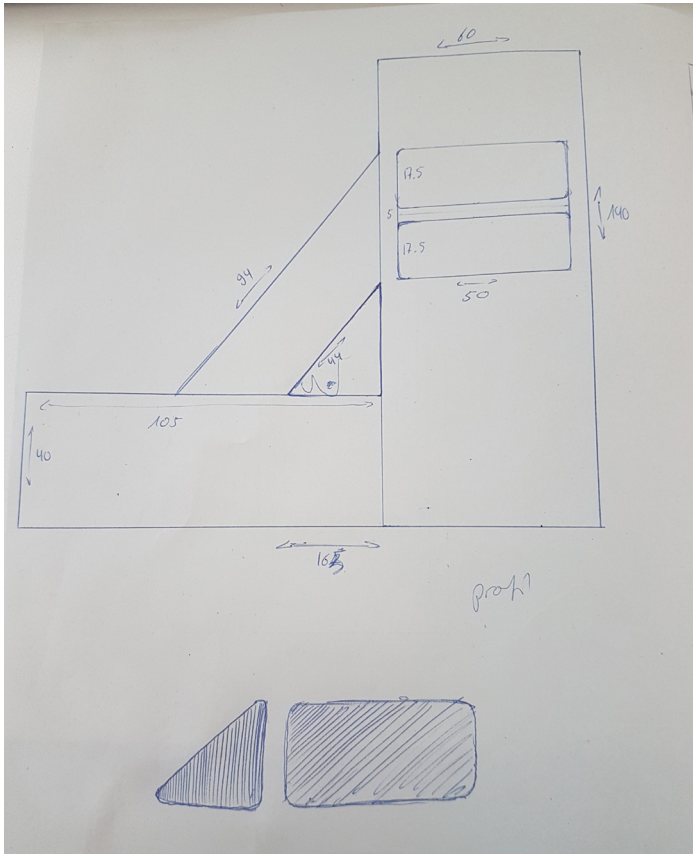


Visual and Material Moodboard

Shape research

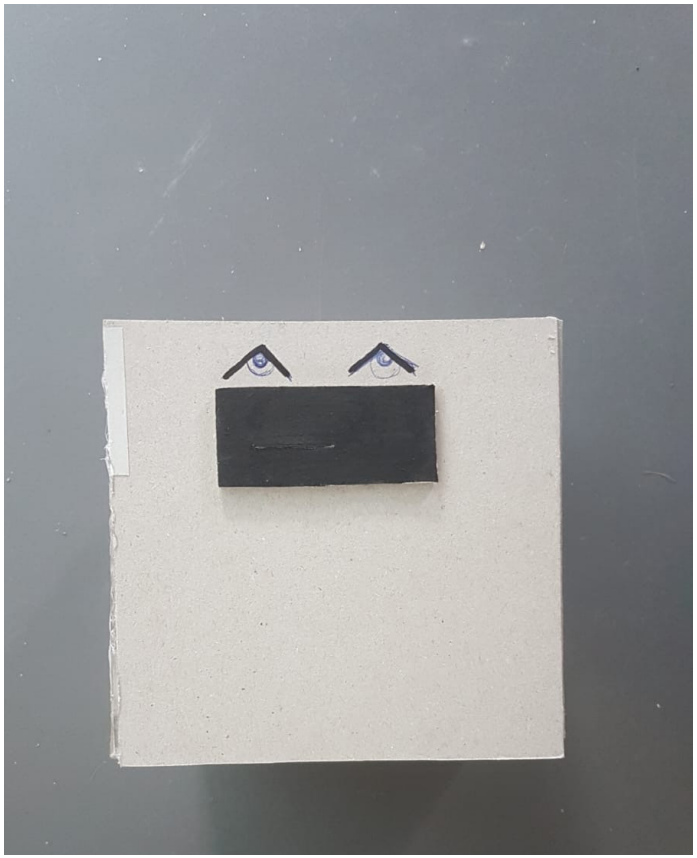


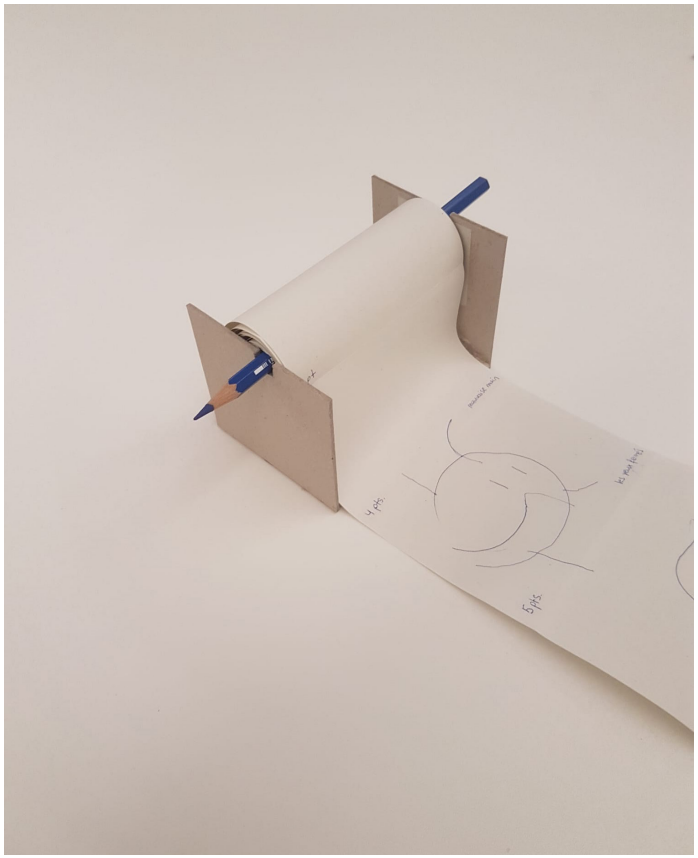


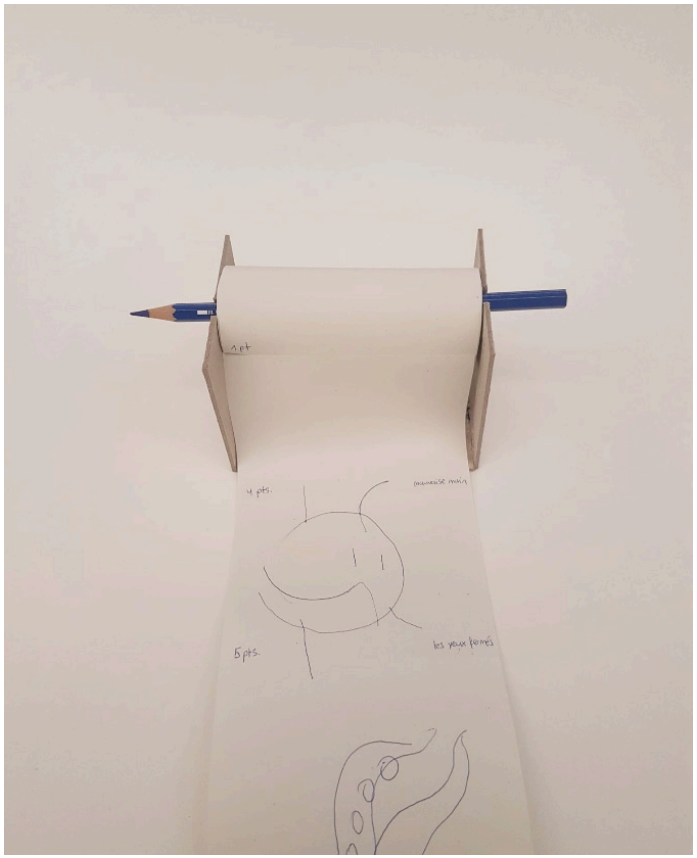


Paper Prototypes

These paper prototypes are the first exquisite corpse interactive games I explored. None of them worked well but they gave me nice inputs to keep for the last evolution.

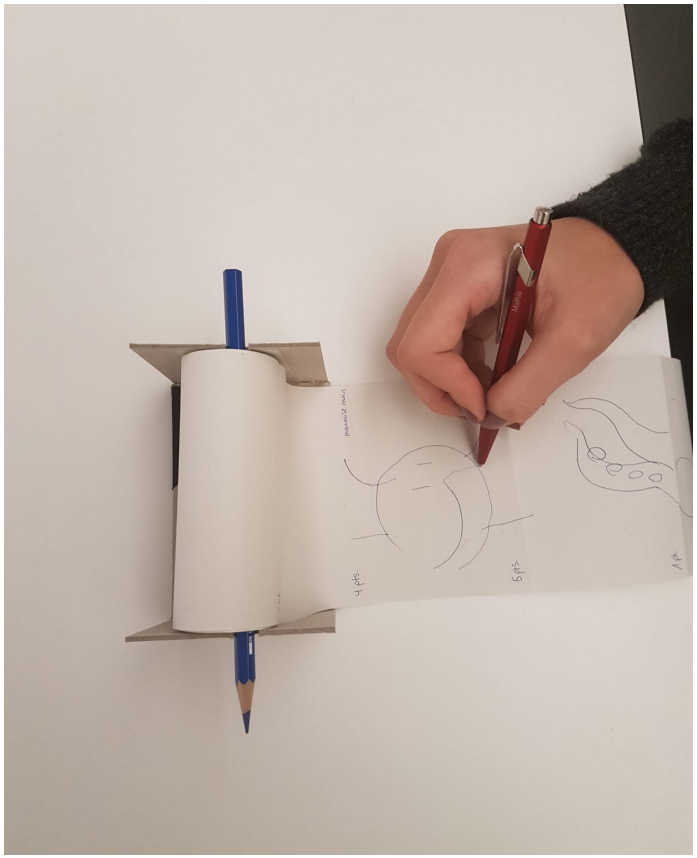


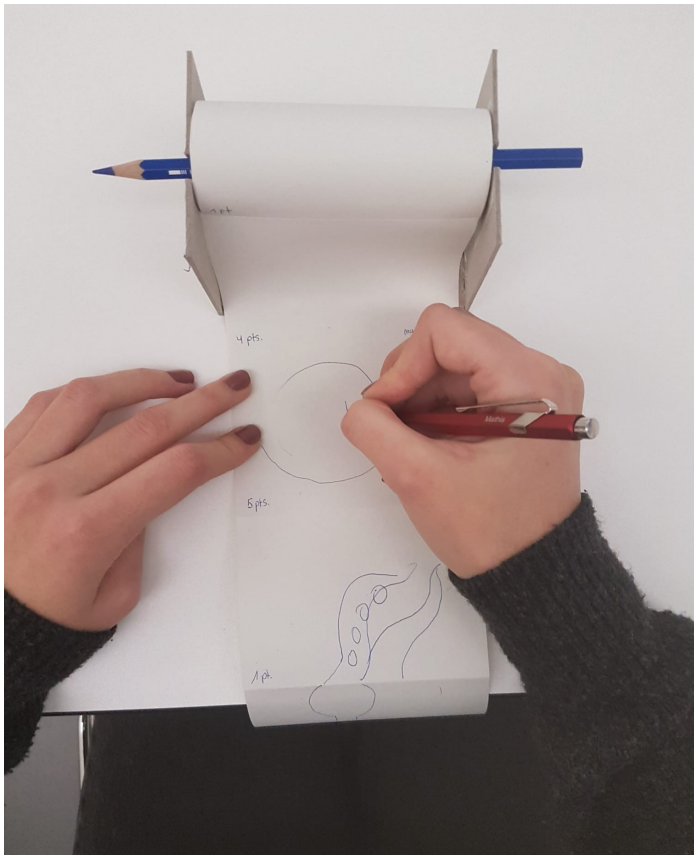


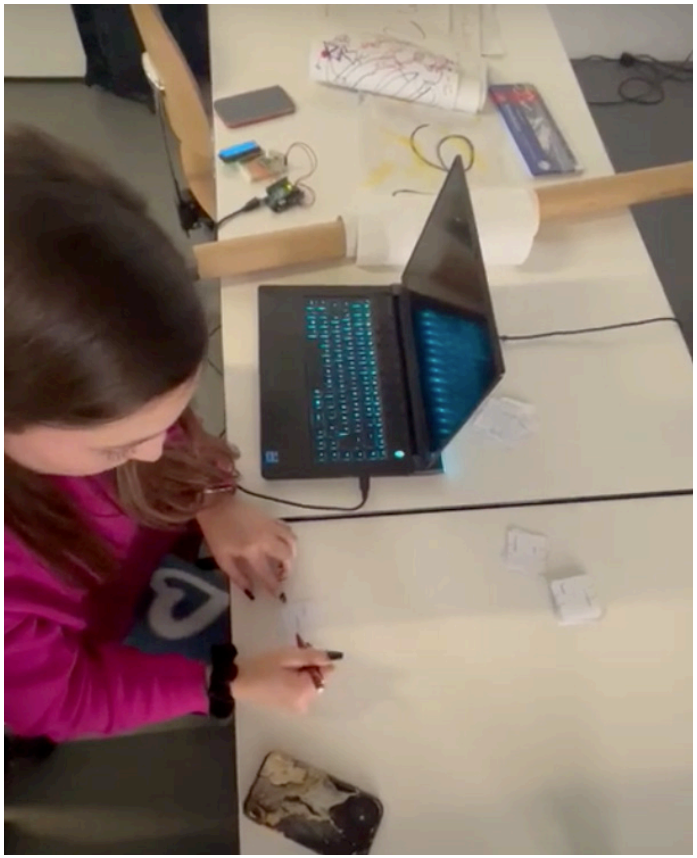


User Tests

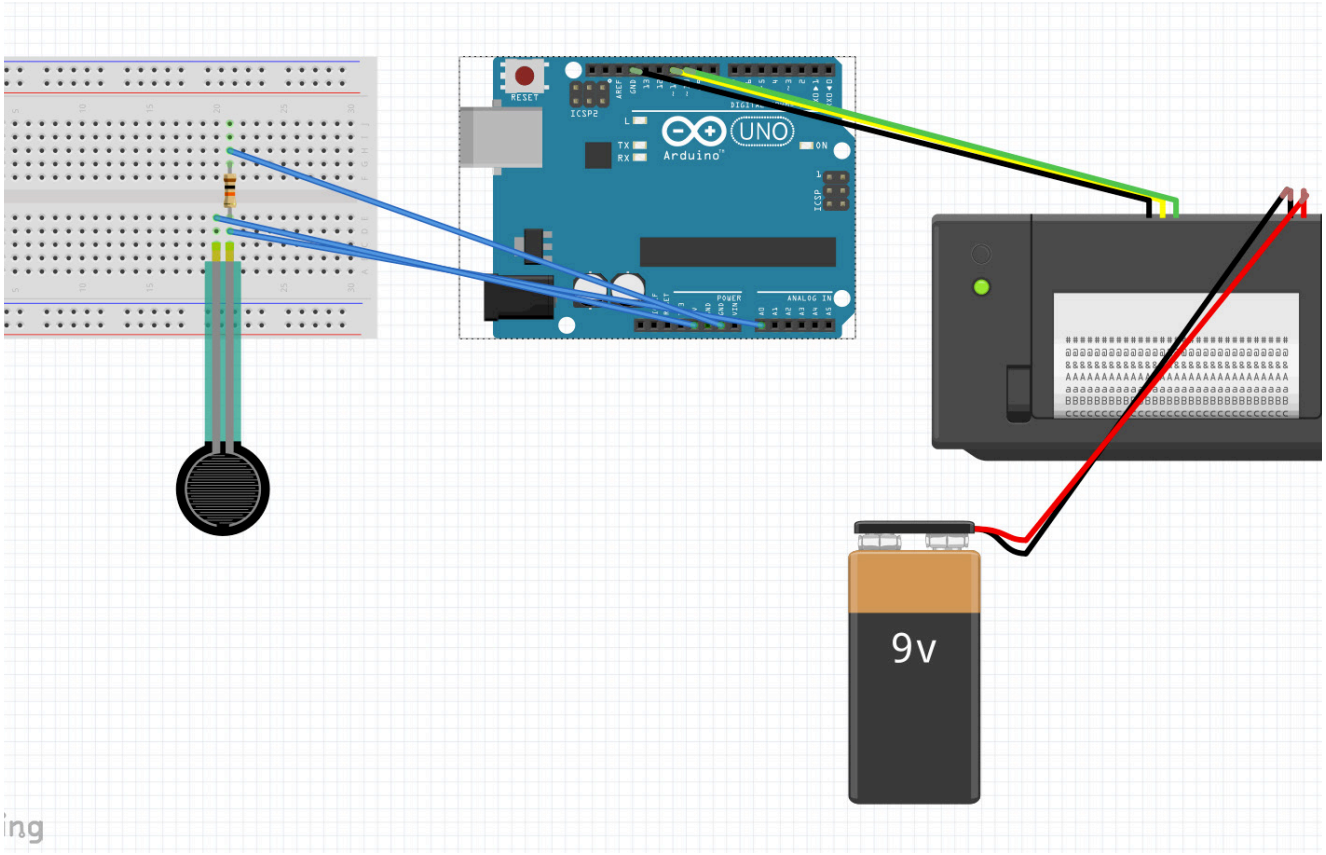
As we can see in these user tests, the concept also works for the moment. The next steps will be to spend more time into the formal aspect of the assistant for an optimal functionality.

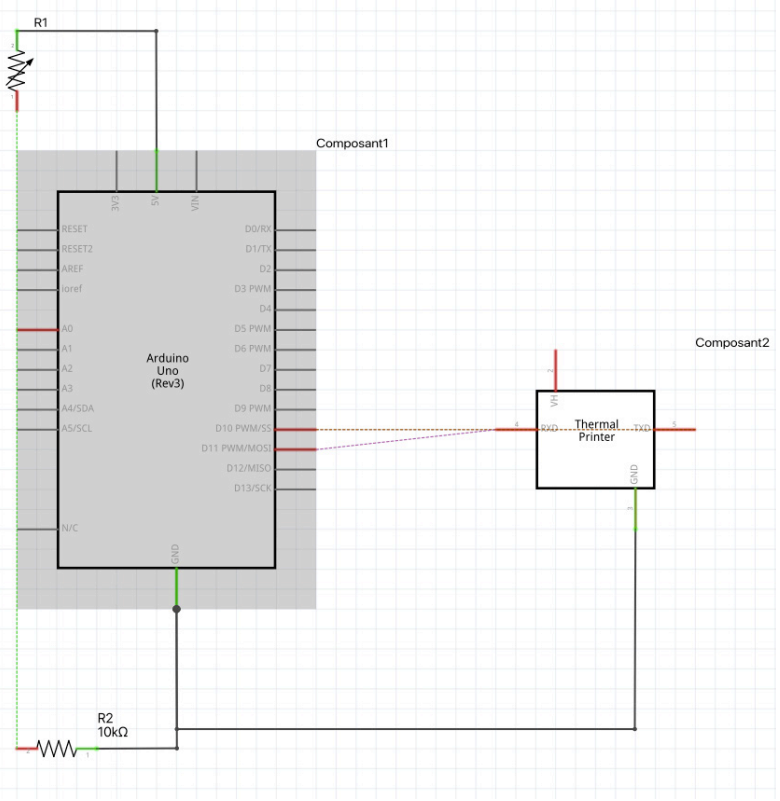






Electronics

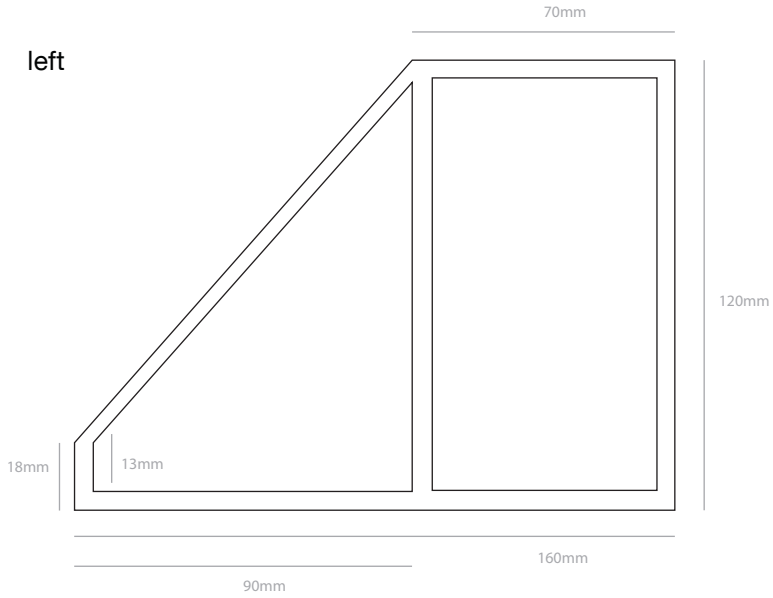




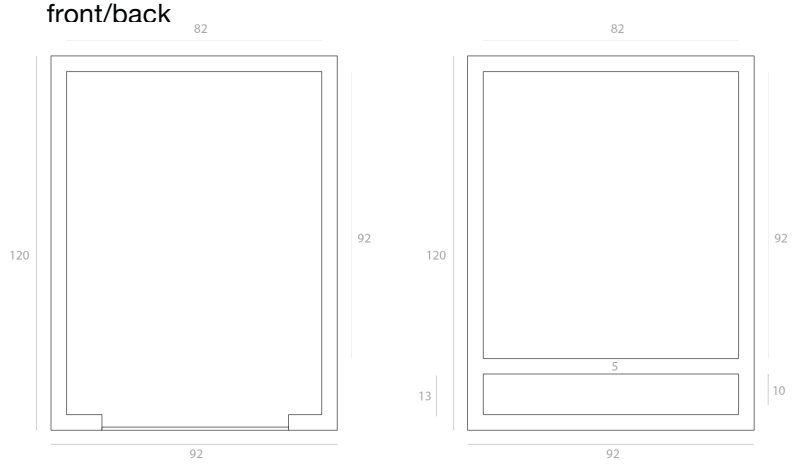
Plan Drawings

Materials: Steel, plastic

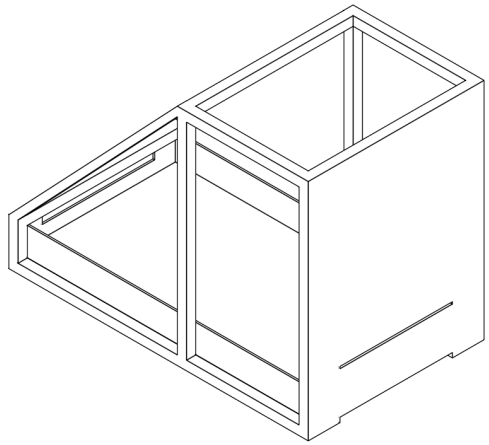
left



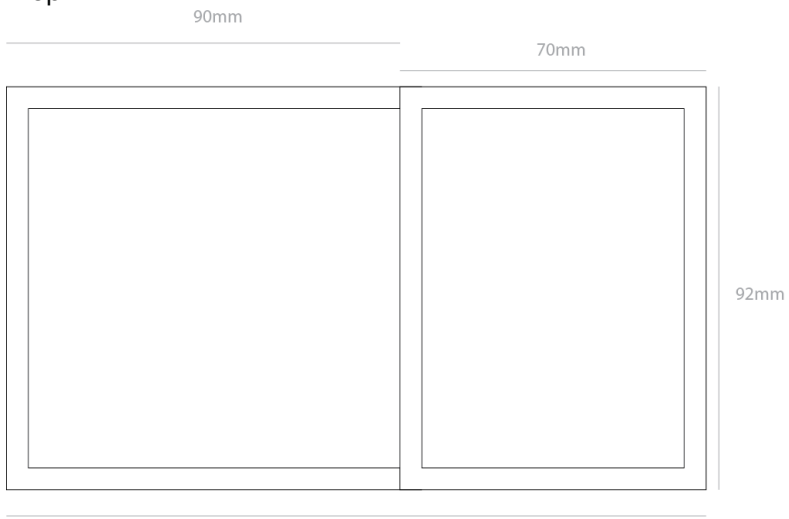
front/back



perspective



top



Color Catcher

«We don’t create a color, we capture it and then simply reveal it.»

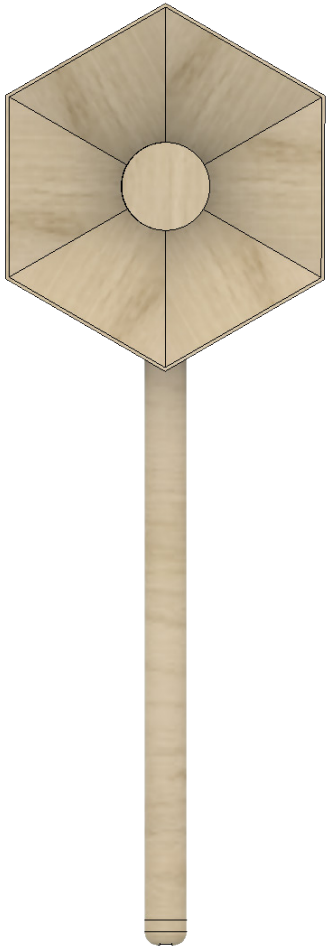
Project Description

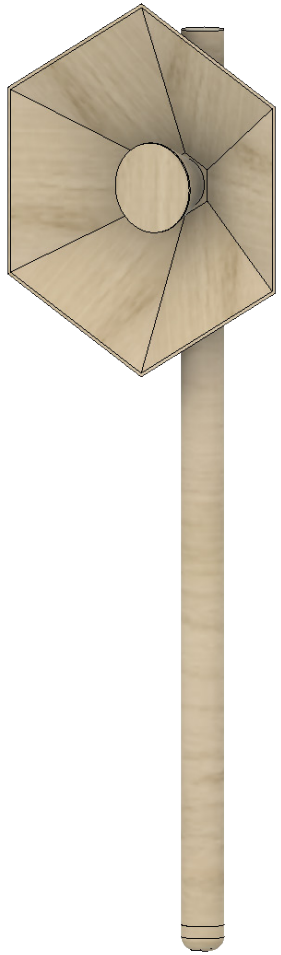
Color catcher is a playful grabar color that allows the user to create his own Caran d'Ache *Luminance 6901®* palette by using his curiosity as a tool.

«I don't know what to draw and which colors to use». Choosing colors that match well can be difficult and can completely transform a creation. This object allows to generate 4 colors correctly associated to simplify and reduce the stress related to the selection of the latter facilitating the creation and with confidence. They can also inspire the user on the choice of subject to draw at the beginning of creation.

Allowing the detection of colors (invisible to the naked eye), Color Catcher encourages the player to move all around the room to find them through increasingly dense sound. The player must be curious in the various possible interactions with the object to capture an unexpected color palette.

At the end of the experiment, the user will be able to download on his phone the poster indicating his palette of colors generated with the references Caran d'Ache.





Example of generated color palette and their visual

Example of the final poster with the Caran d'Ache indications

CARAN D'ACHE
Genève

LUMINANCE 6901™

649
Indanthrone blue - Bleu indanthrène
Indanthren-Blau - Azzurro di indantrene
Azul indantreno - Azul indantreno
PB60

865
Russet - Sanguine
Rotbraun - Sanguigna
Sanguina - Sanguinea
PR101/PR188/PY42

820
Golden bismuth yellow - Jaune bismuth doré
Gold Bismuthgelb - Giallo bismuth dorato
Amarillo bismuth dorado - Amarelo bismuto dourado
PY184

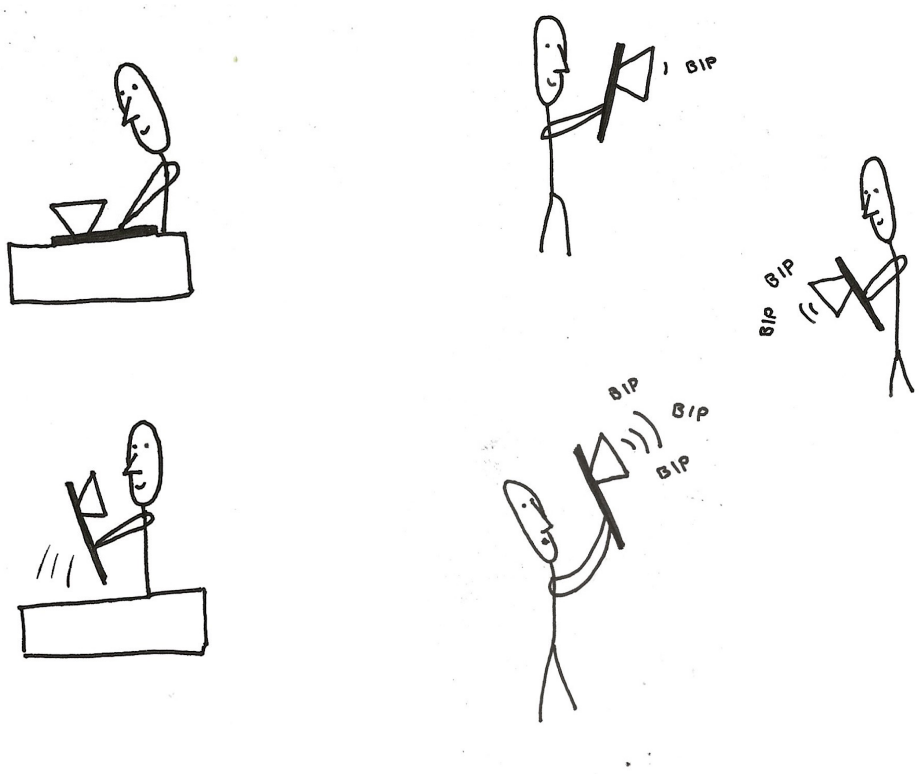
671
Chryscolla blue - Bleu chryscolle
Chrysokoll-Blau - Azzuro crisocolla
Azula criocola - Azul-crisocola
PB28

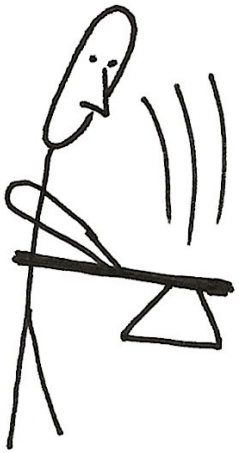
User Journey

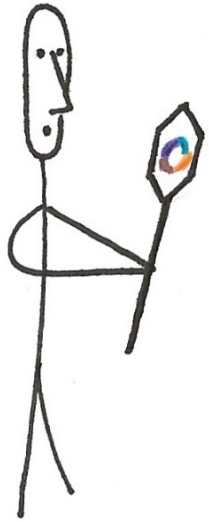
Quote by Caran d'Ache : «We don't create a color, we capture it and then simply reveal it», the idea is to find and catch the colors hiding all around you.

1. Grab The Color Catcher with your hands to activate it.
2. Follow the density of the sound to detect a color.
3. When you are at the right spot catch the color by using the color catcher like a net.
(The first color will reveal herself in the center of the object when the capture is done).
4. Rest The Color Catcher once you have generated your 4 colors.

Don't forget ! Each color has it own personality so use your curiosity to find different one.



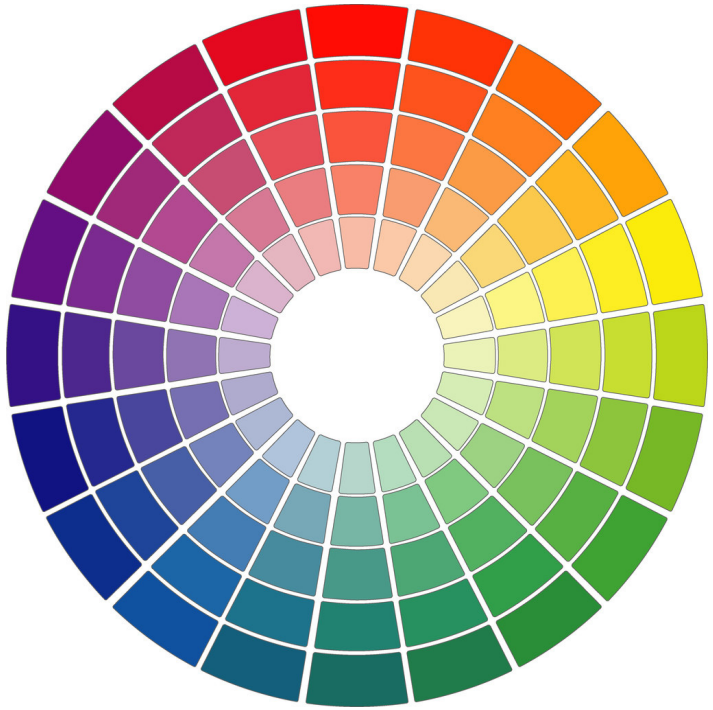


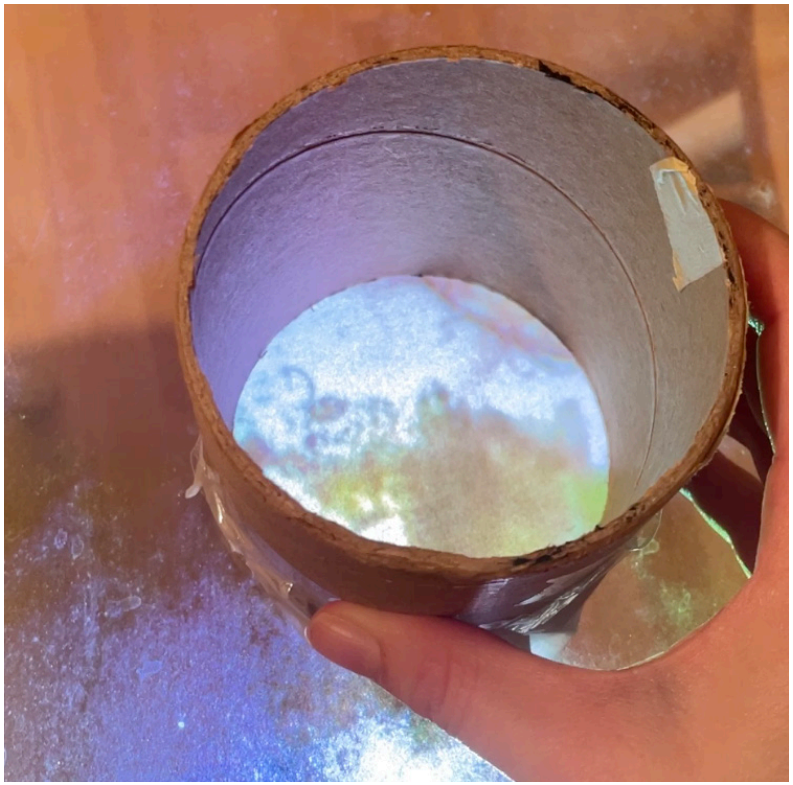


Field observations

I was inspired by detection object like the thermal camera, for example, who offer the possibility to see color who are invisible for our eyes. By using the machine, you find a new world full of color possibilities ! The roundness of the chromatic circle also reminds me the shape of a radar also used for detection.

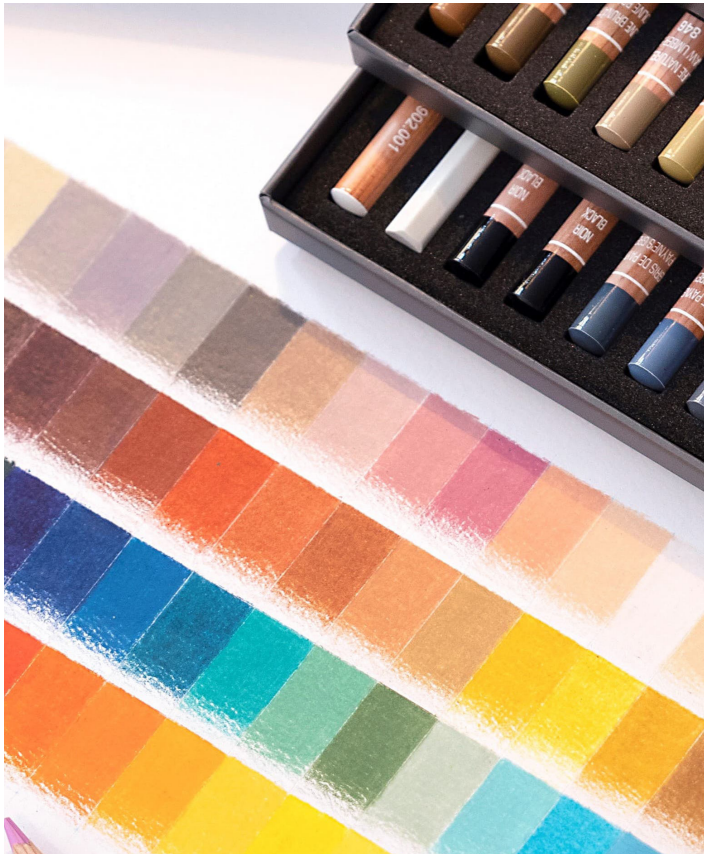
My research were based about how catching visually invisible living things.

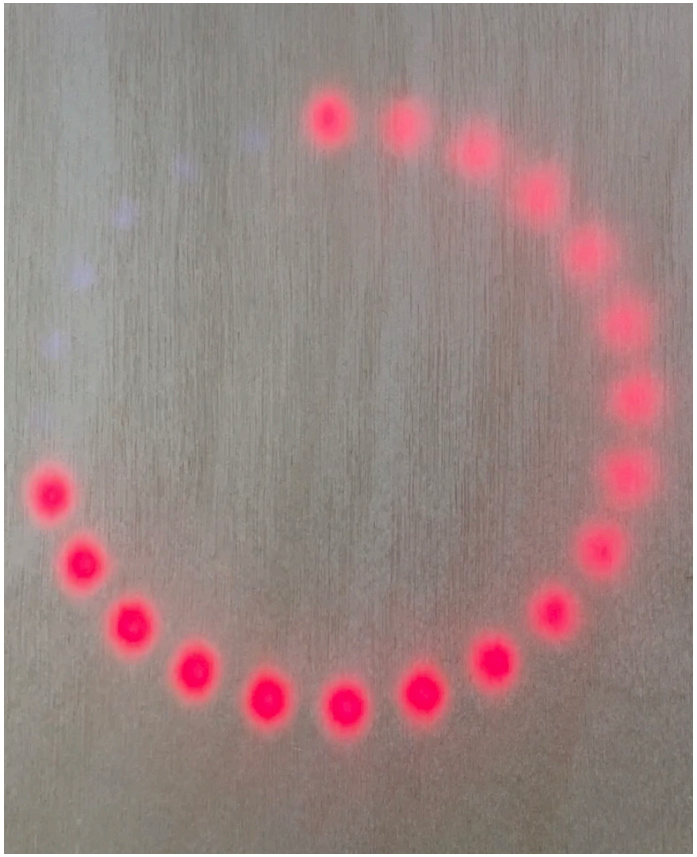




Visual and Material Moodboard

Color pencil are the main reference, they are thin and round. The material of the object is wood, which is also a material used to make Caran d'Ache pencils. The fine wood also allows to let transparent LED lights to see the various colors.





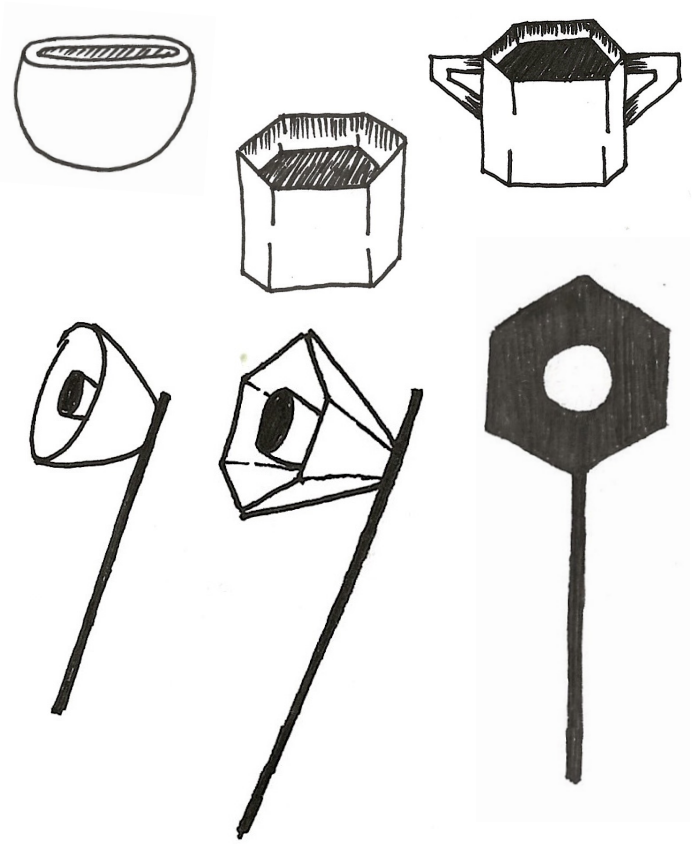
Shape research

The hexagonal shape of the object come from the Caran d'Ache logo, it's at the center of it that you can see the colors.

The conical effect of it represents the possibility of capturing something inside the object and be curious to look at it.
It can also remember the buckets that continent pigments at the Caran d'Ache factory.

Paper Prototypes

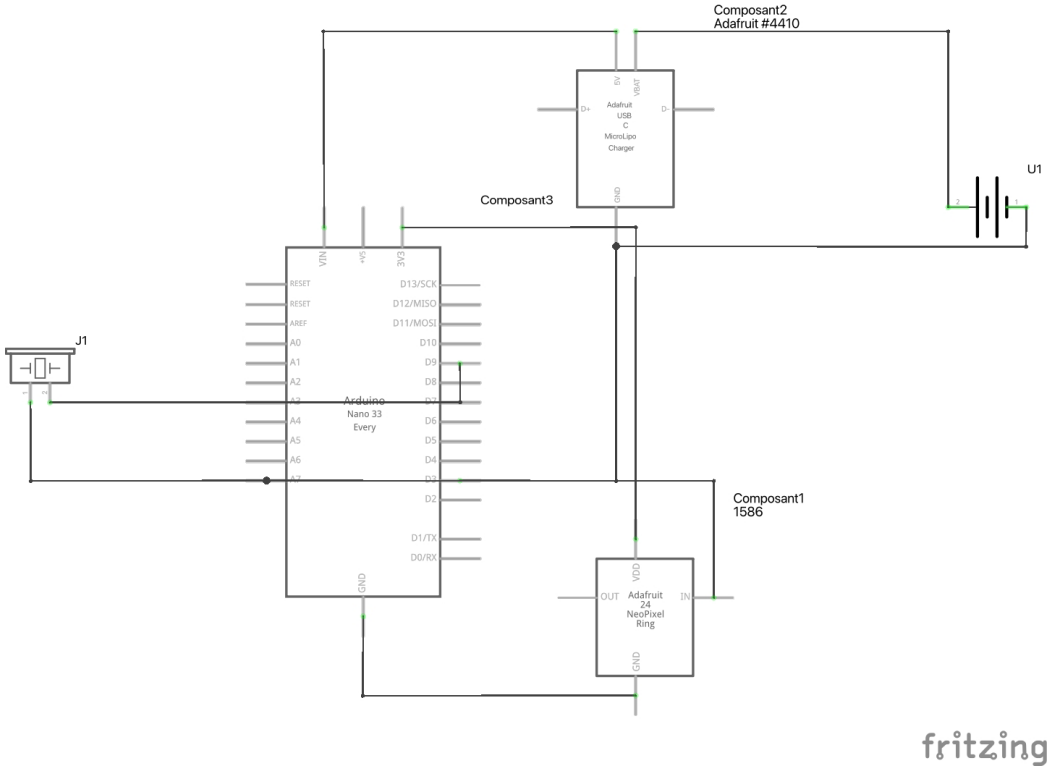
My paper prototype started with a bowl that you can hold with your hand. I finally changed the shape of it and added a handle to let the user being more various about possibilities of interaction. He/She can go higher and perform a real movement like with a net and a detector.

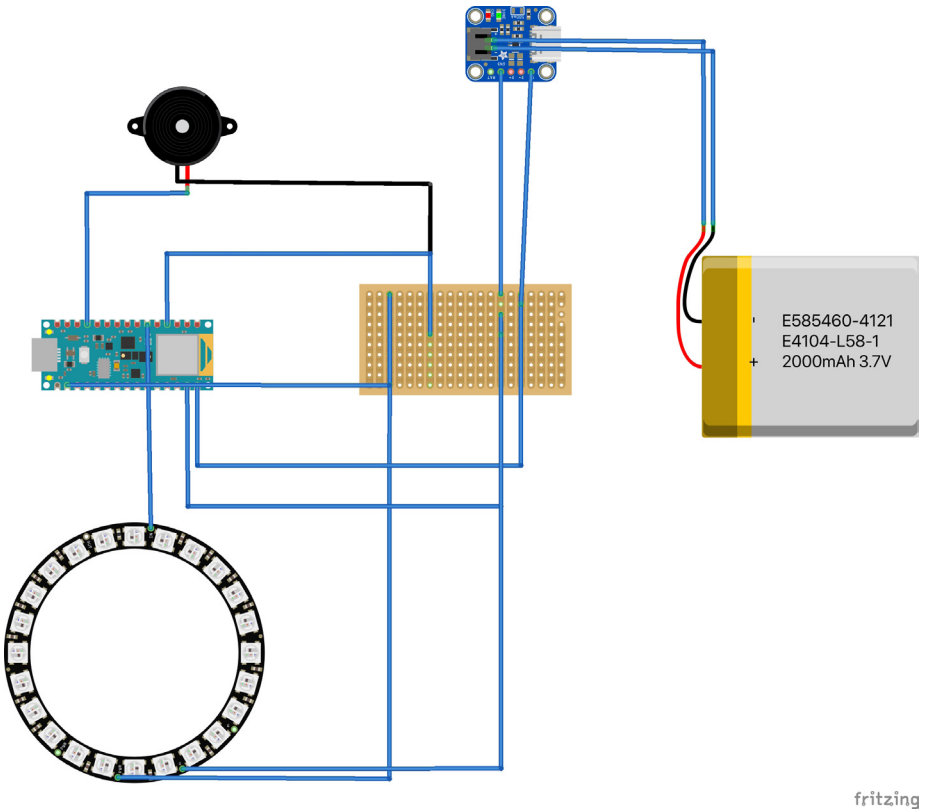


User Tests

- Test of the size of the handle
- Test of intuitive mouvements through the sound

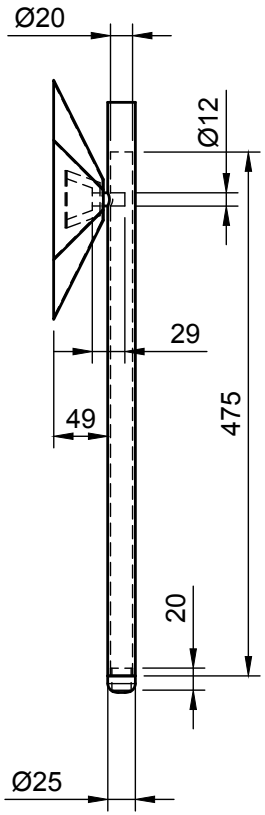
Electronics

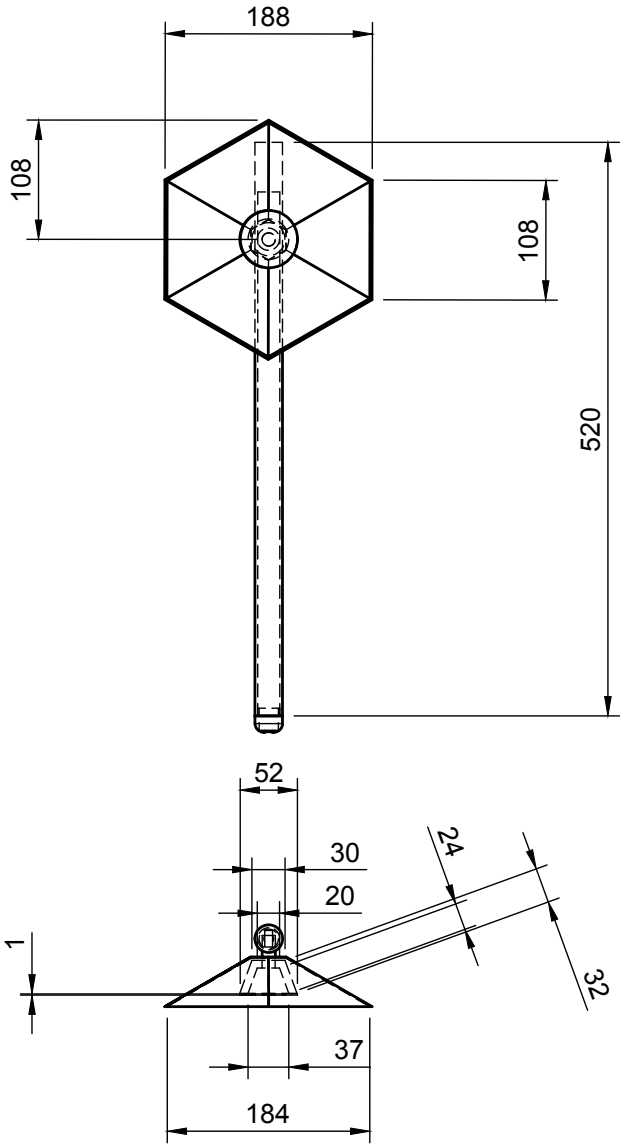


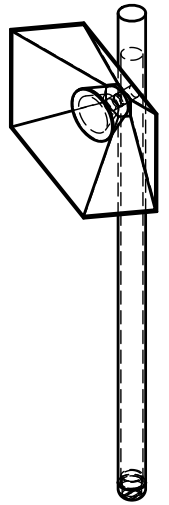


Plan Drawings

Materials: Wood
Scale: 1:05 in mm







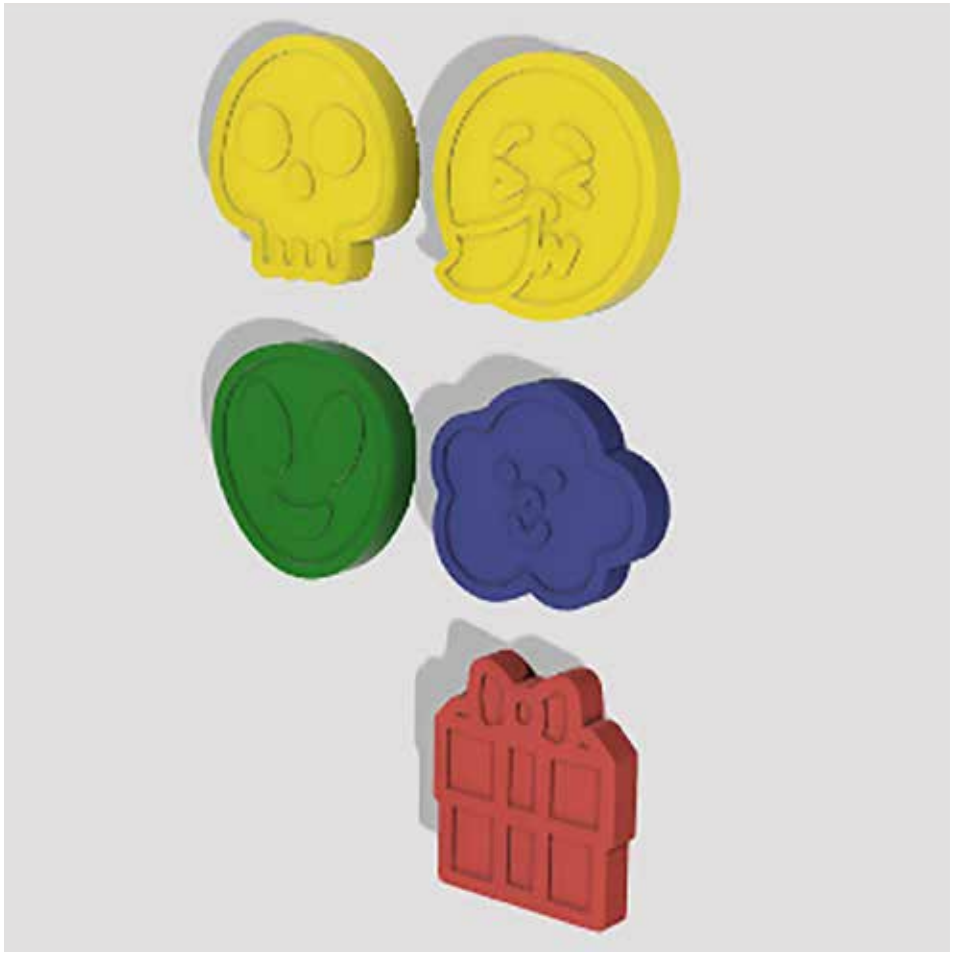
Moji

Project Description

Moji, your friendly writing assistant, collaborates with you to craft a short story through a playful emoji interaction. As you place emojis in predefined slots, Moji responds on the screen, adding intriguing details to your chosen story elements. Maybe you won't get what it tries to tell you, perhaps you are not even sure of what your chosen emoji means, but that's all part of the guessing game between you and Moji.

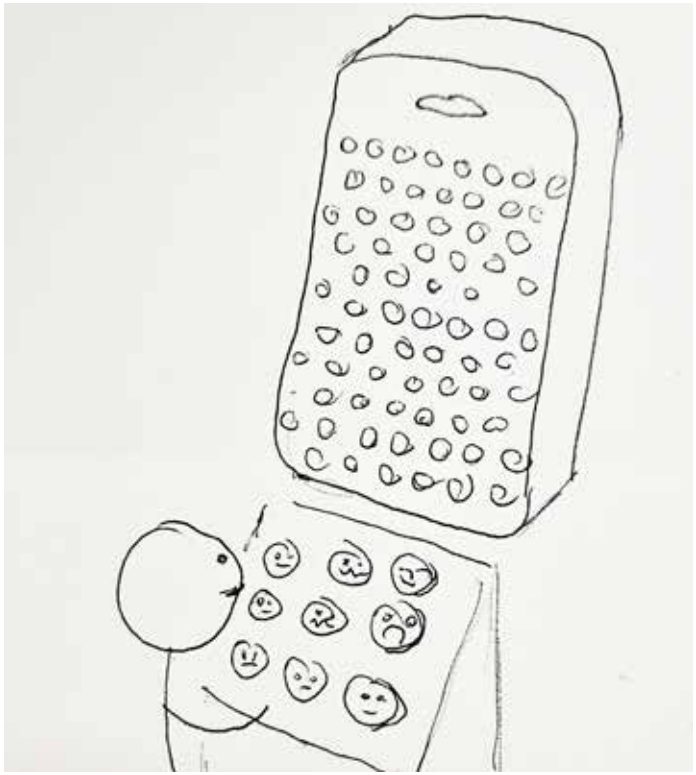
The process mimics the everyday act of texting; the interaction encourages users to express themselves in a more chill manner. By replacing the formality of traditional writing with a simpler, more universally understood language.

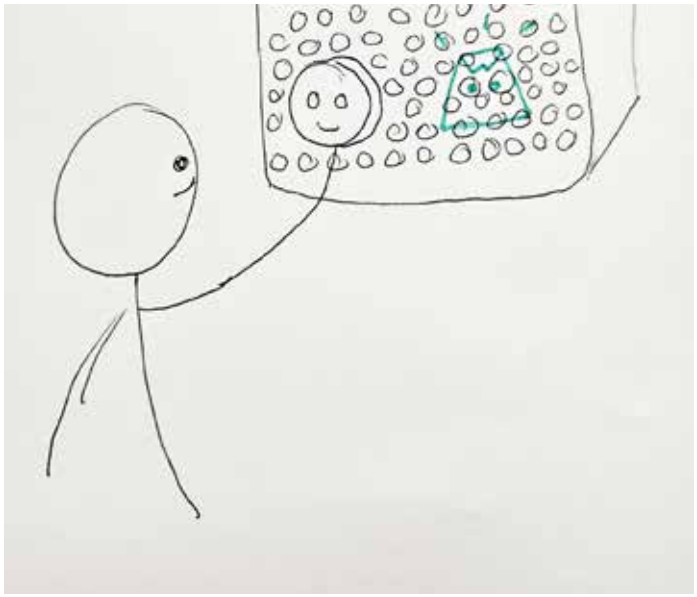
Together with Moji, you plan the protagonist, setting, conflict object, and literary style by selecting emojis for each category. After both of you have communicated your desired story parameters, Moji sends them to an AI. The AI then weaves a short story based on your collaboration. The final result is printed, ready to be shared or taken home.

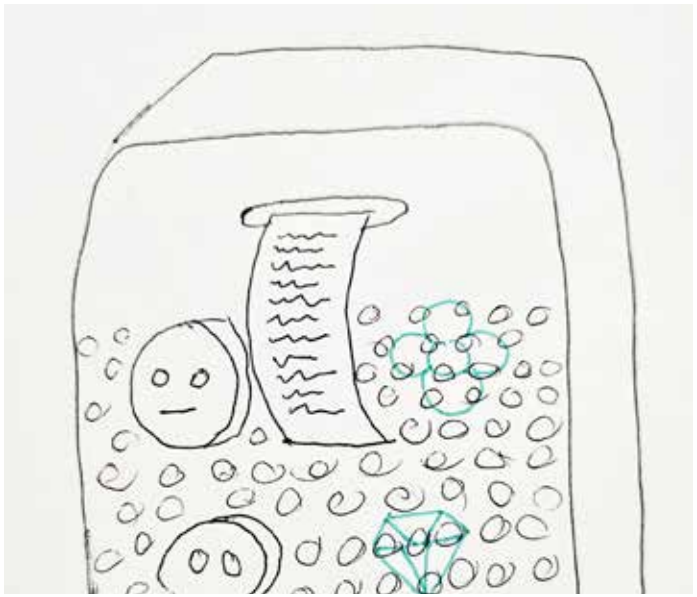


User Journey

1. The user chooses an emoji that they like.
2. They place it in the slot with the corresponding color.
3. The AI responds to them.
4. Once all emojis are placed, their background will start blinking, indicating that the story is being generated.
5. The story is printed.





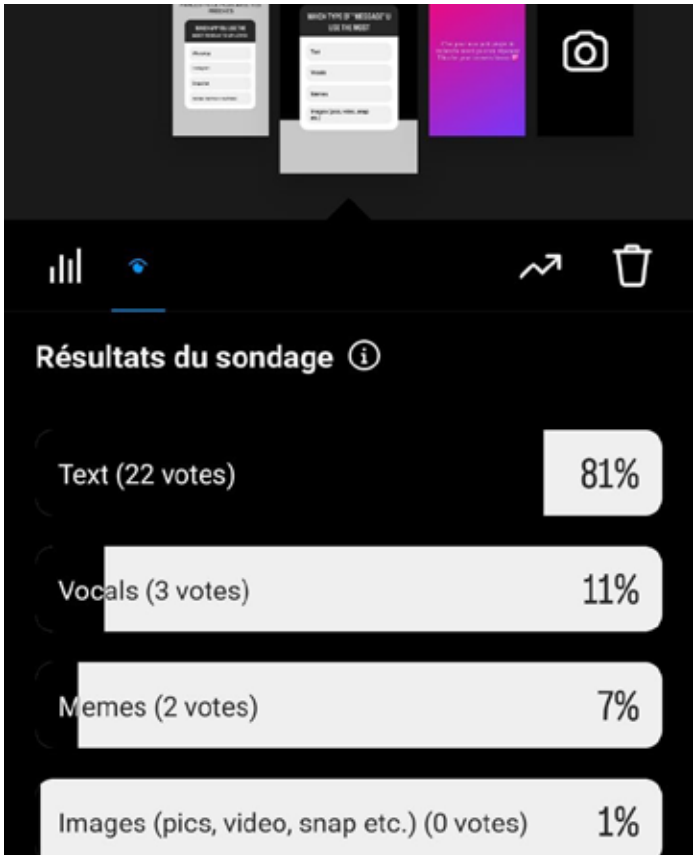


Field observations

«Texting» is one of the most common ways to communicate affection to your loved ones. It's a mundane act that can take different forms, like sending memes, snaps, or through the use of certain emojis.

People developed their mini own language through the usage of emojis.

Writing a story or even a prompt can be intimidating.



What's up, Switzerland?
A corpus-based research project in a multilingual country*

Simone Ueberwasser and Elisabeth Stark (Zürich)

Abstract

This paper offers some initial insights into the first large-scale and multilingual corpus of WhatsApp messages for linguistic research and the related research project "What's up, Switzerland?". Data was gathered in Switzerland in the summer of 2014 and will be made available to the academic public online at the end of the project (end of 2018). This article presents facts and figures about the corpus and the participants' demographic data as well as an overview of (the lack of) existing linguistic research in the field and the research intended in the SNSF-funded research project.

1 Introduction

This paper aims to present a recently begun research project on the language and use of WhatsApp messages in Switzerland, and first and foremost its common database, the first multilingual large-scale corpus of WhatsApp messages (617 chats, 763,650 messages, 5,543,692 tokens that can be used for linguistic research). Although the main device for mobile graphic[1] communication nowadays is WhatsApp, which has clearly replaced the older text messages (see Dürscheid/Frick (2014) on this issue), there were no sufficiently large databases available to investigate this new form of communication until our project was started. Contrary to the abundance of research on CMC in general and text messages in specific and contrary to the existence of a large number of CMC corpora (e. g. *sms4science Belgium:* www.sms4science.org; *sud4science Montpellier:* www.sud4science.org;, *sms4science Canada:* www.texto4science.ca; see also the table in Dürscheid/Stark (2011:303); the *Dortmunder Chat-Korpus:* www.chatkorpus.tu-dortmund.de; *IDS Wikipedia-Korpora:* www1.ids-mannheim.de/kl/projekte/korpora/verfuegbarkeit.html), WhatsApp communication is still a

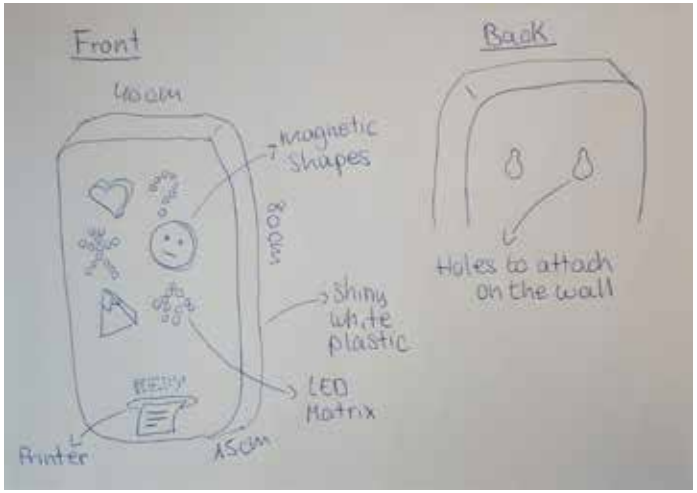
Visual and Material Moodboard

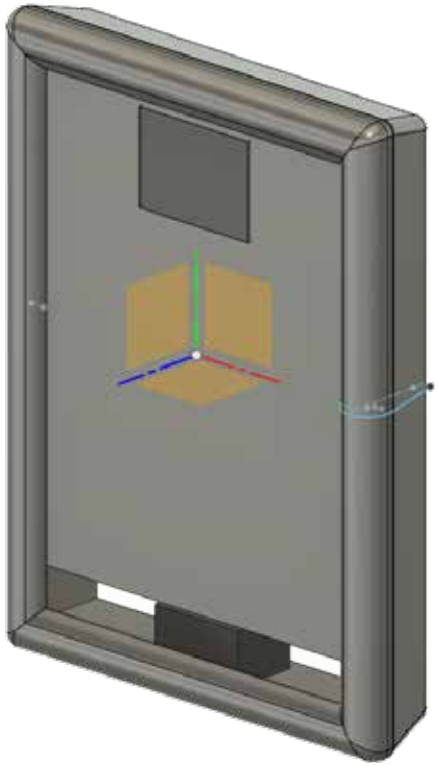
SMEG — Mini fridge

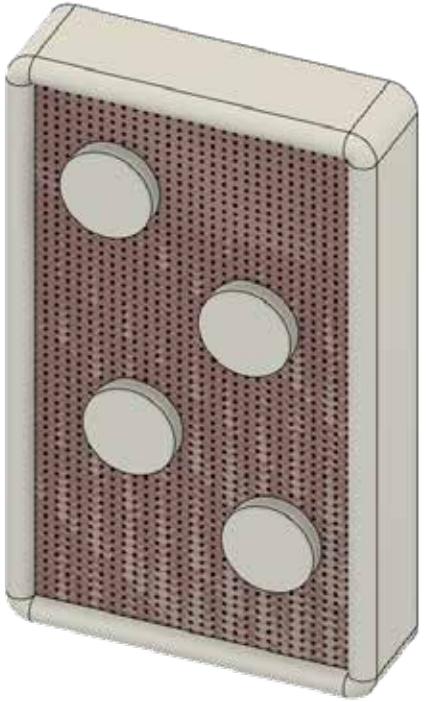
Jelly Safari — Pinaffo & Pluvinage

Joe O'Donnell — Horse, 2021

Shape research





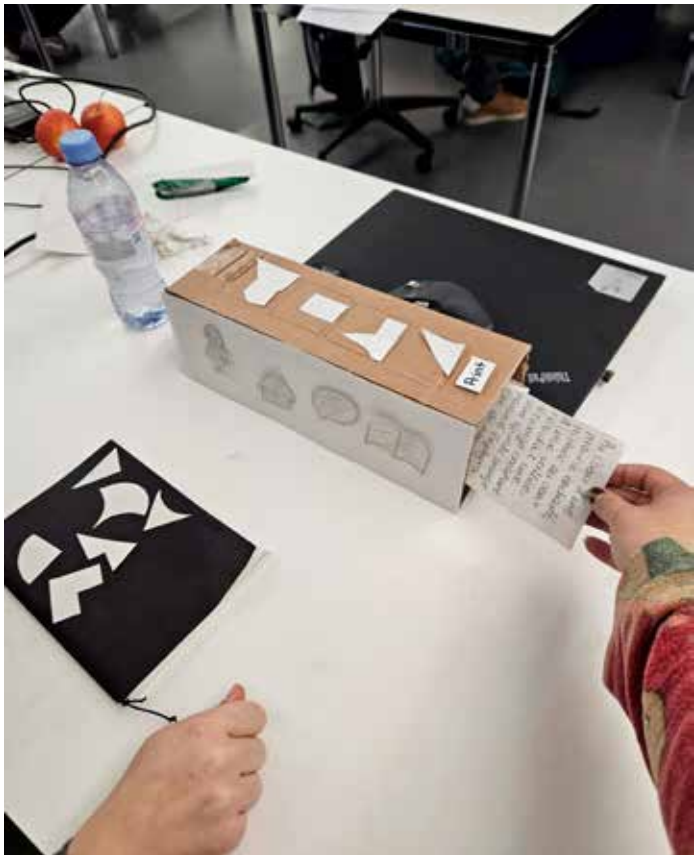


Paper Prototypes & user tests

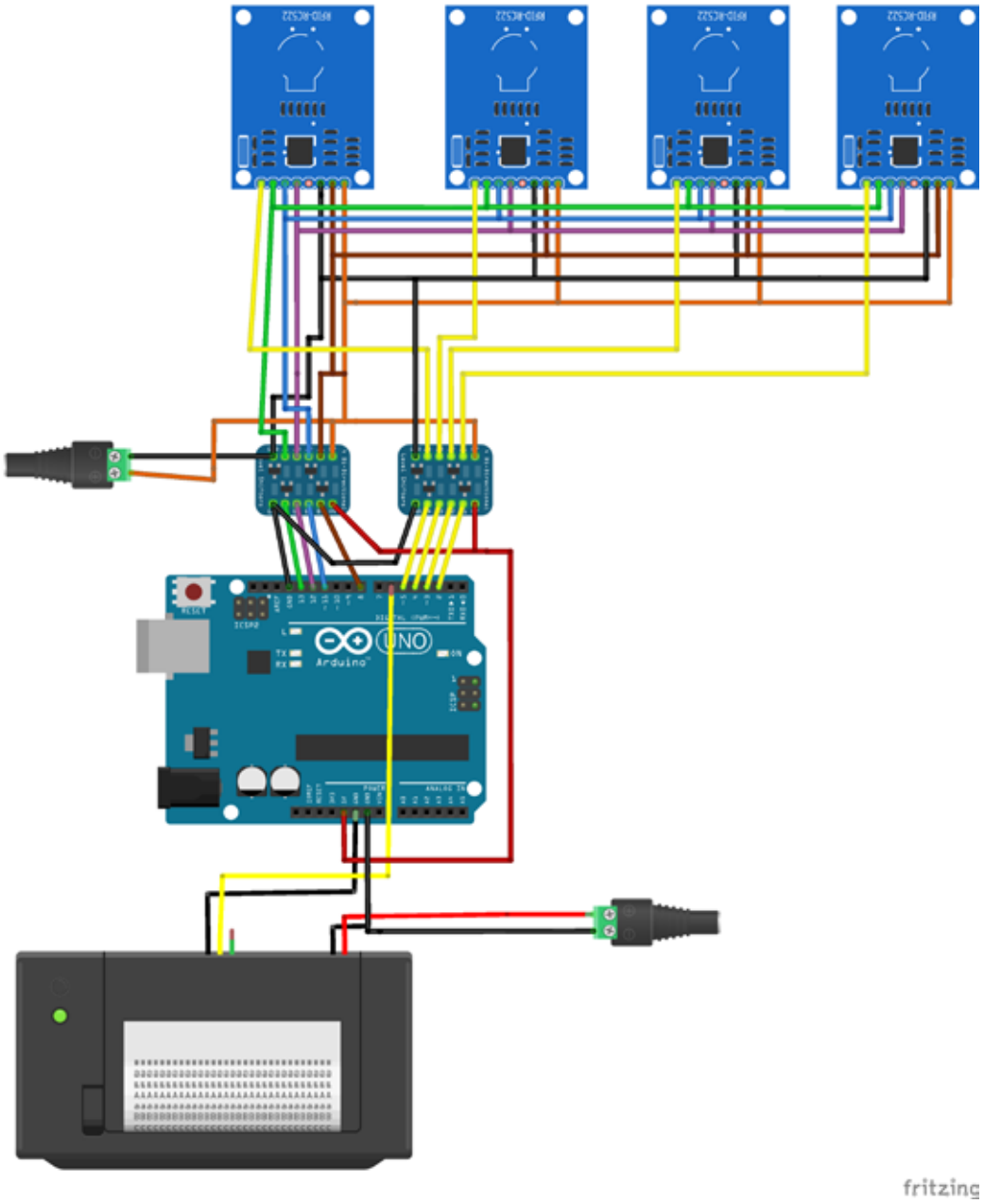
1. The user thought the light where buttons, the separation between color and shape is unnecessary.

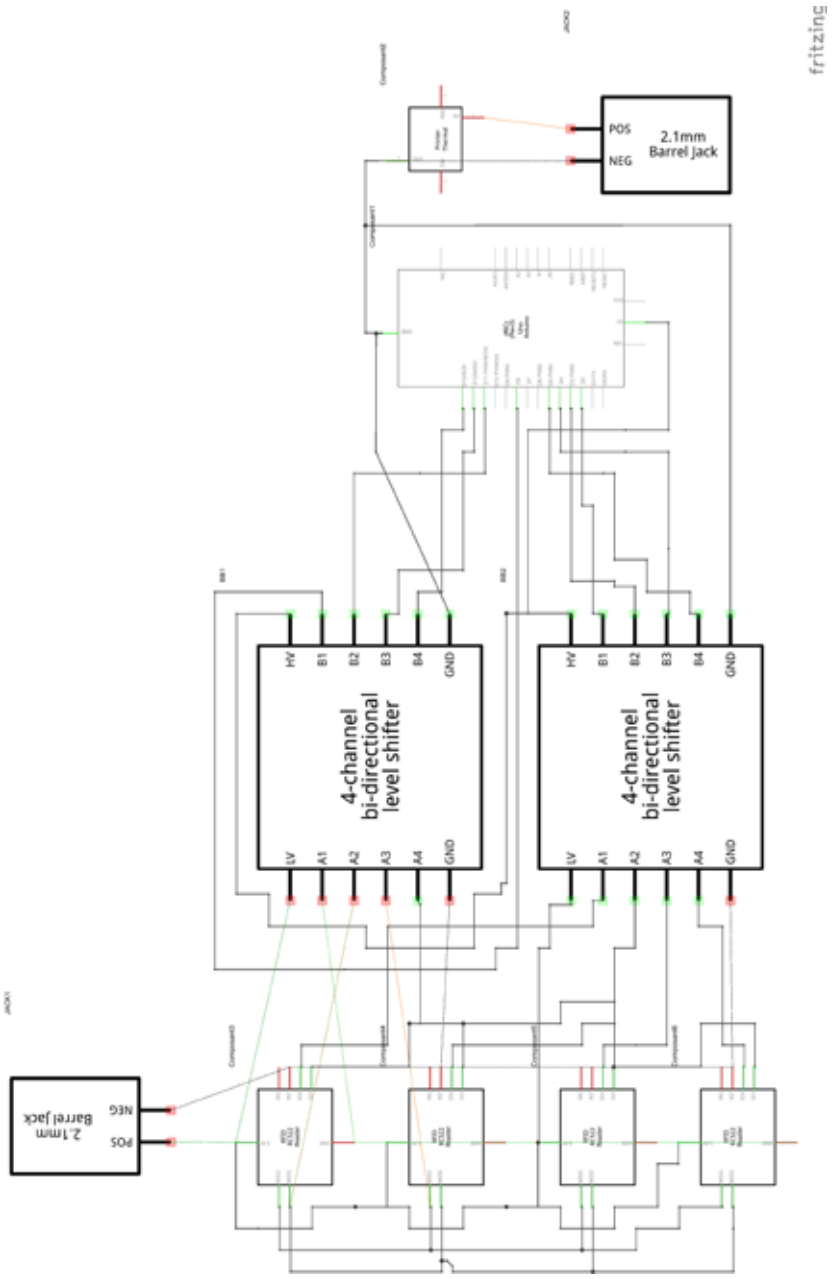
2. Since the input is shapes, the users expected the output to be a drawing. Each person has their interpretation of what each shape may want to convey. It's amusing to compare that to the interpretation of the AI.

3. The users found the magnet principle intuitive. They like the idea of talking via Emoji only; think it's accessible. The interaction could be clearer.



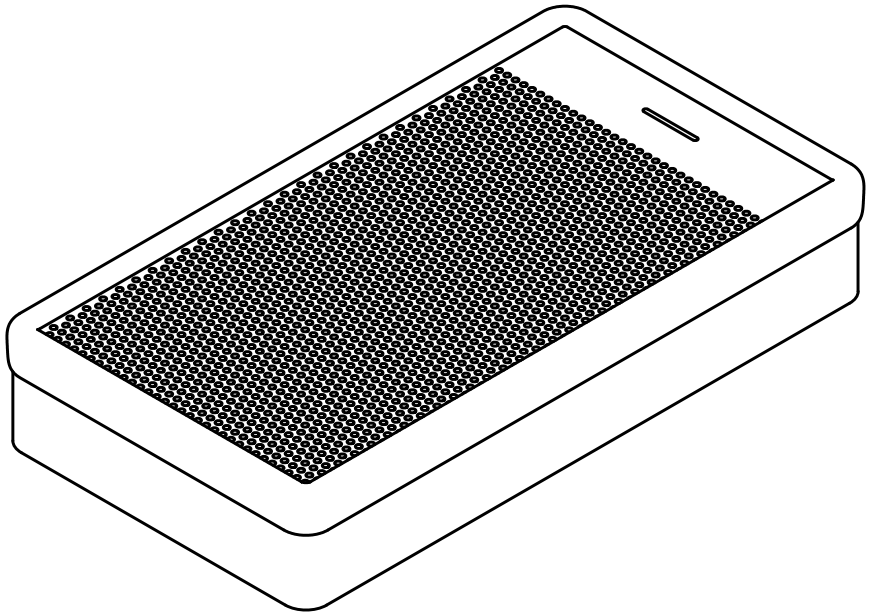
Electronics

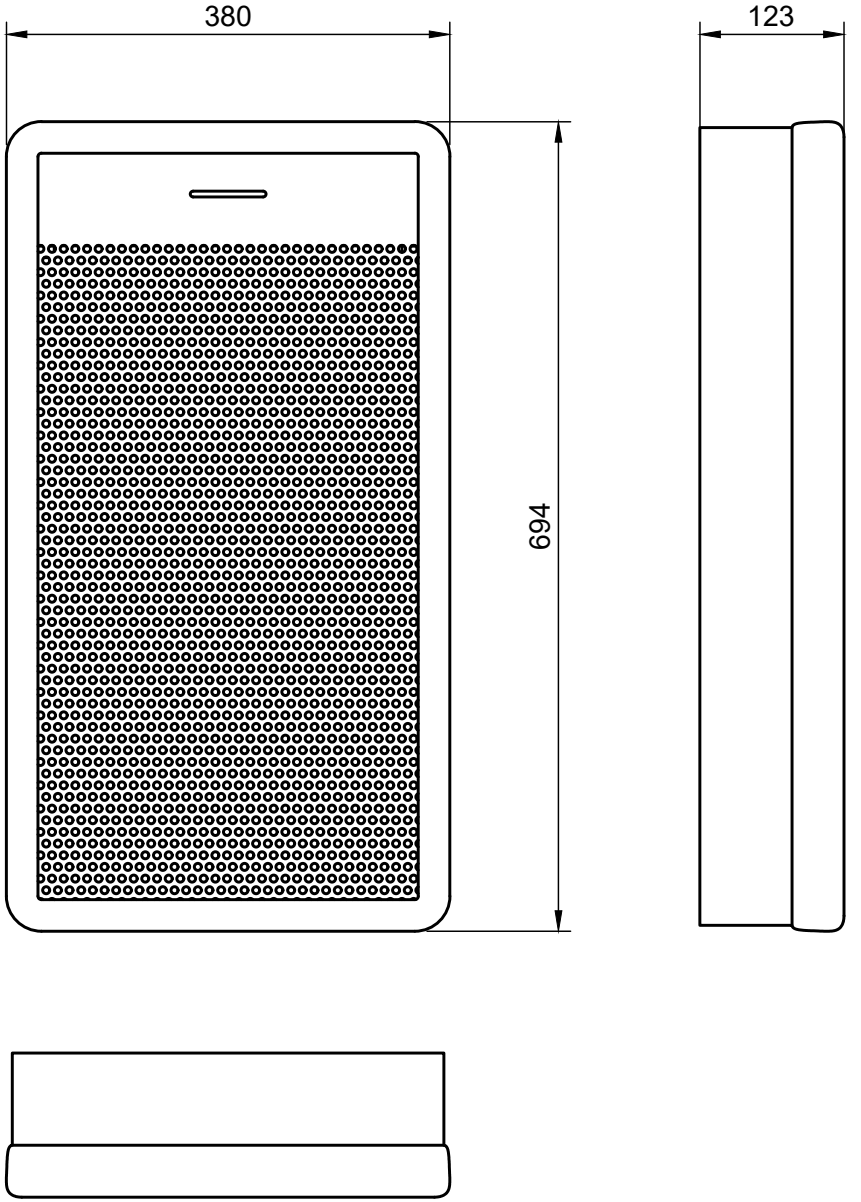




Plan Drawings

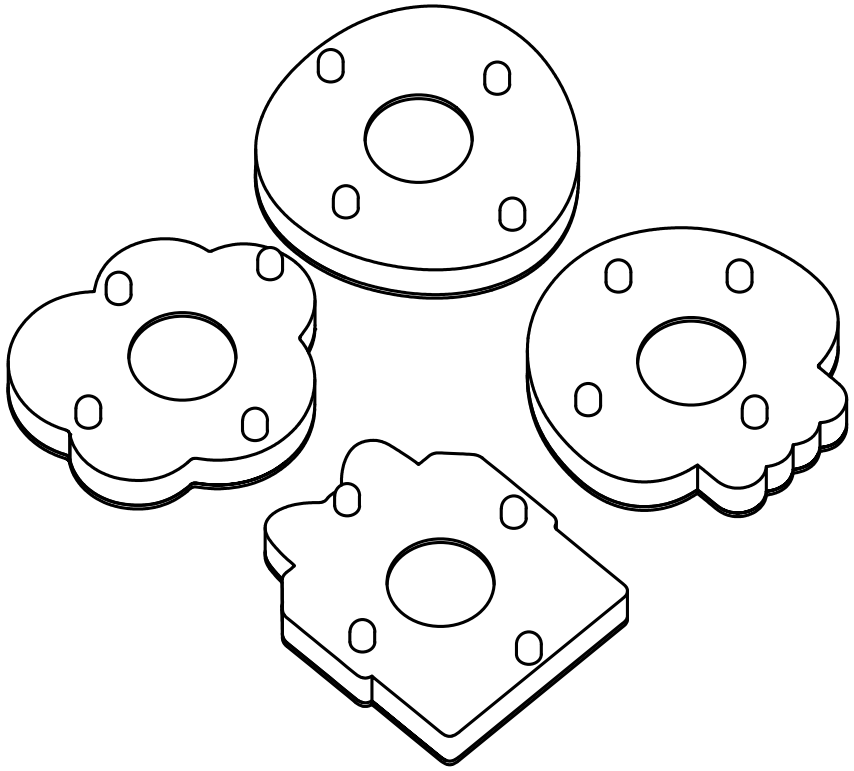
Materials: MDF & plexi glass

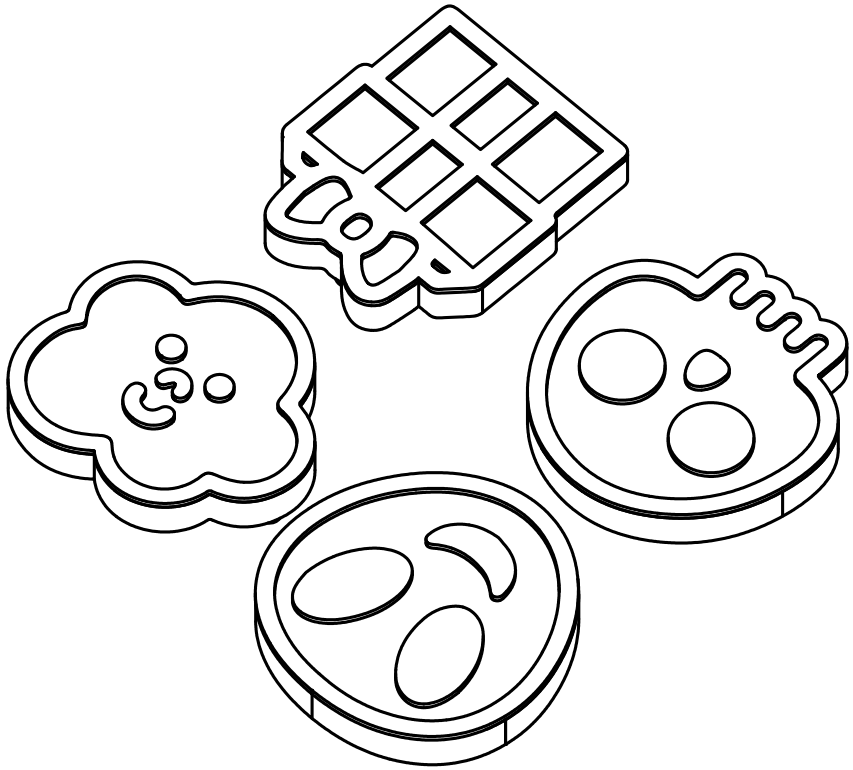




Plan Drawings

Materials: PLA impression 3D
Scale: 1:2 in mm
Longest length is 100mm, thickness 10mm, height of the feet 6mm





Discovery

Project Description

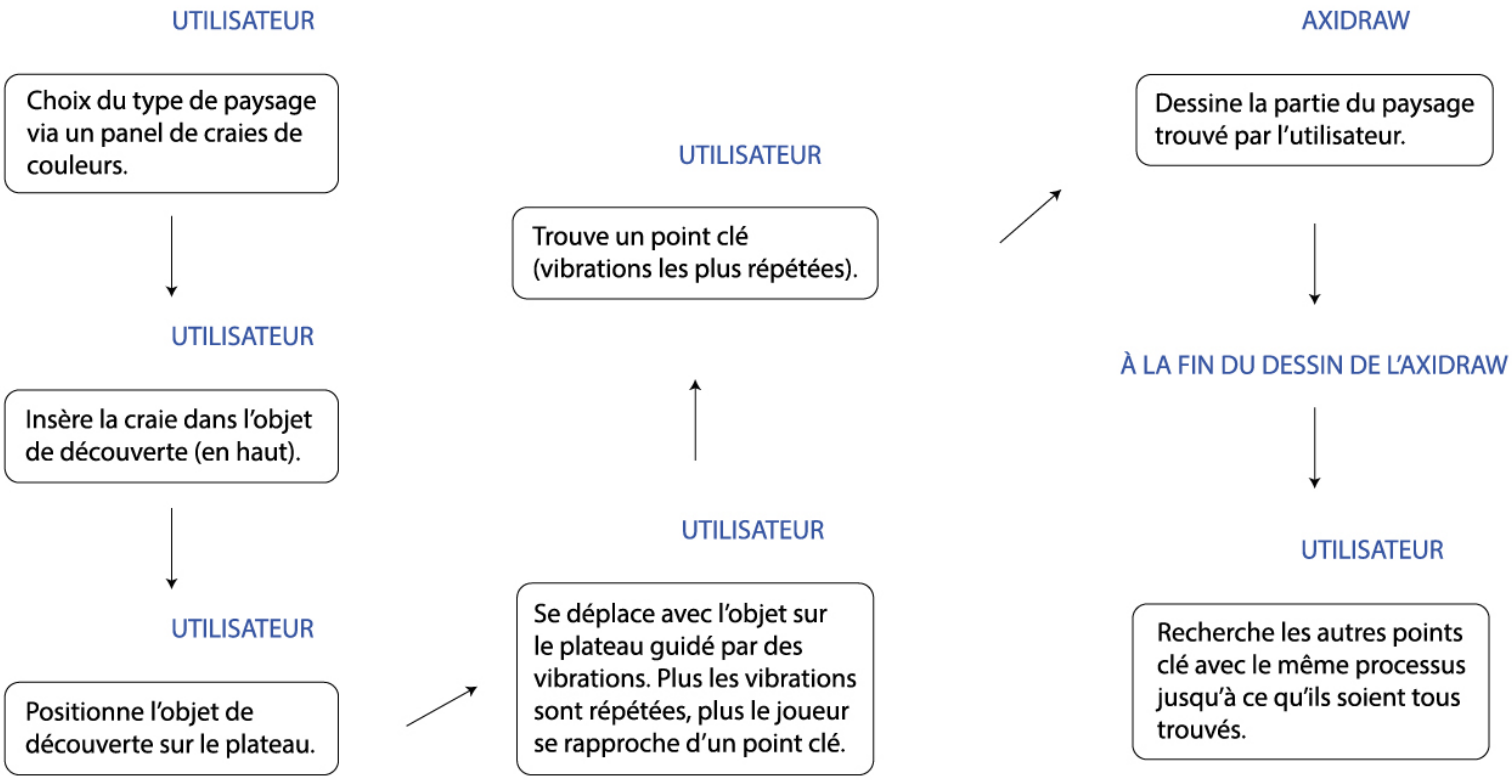
Discovery est un jeu qui donne un nouveau regard sur la pratique du dessin. Guidé par le sens du toucher, il explore la collaboration entre l'objet et le joueur dans un processus de création.

L'objet invite le joueur à interagir avec un espace qu'il choisit via une craie, révélant progressivement un paysage dessiné à travers des vibrations tout au long de l'expérience.

Discovery est idéal pour expérimenter, dessiner de façon intuitive, ou tout simplement dans un moment contemplatif.

Le jeu permet de rendre accessible le dessin à toute personne curieuse, motivée, ou démotivée dans l'apprentissage de cette pratique, ou simplement celles qui ne pratiquent pas d'art créatif en général.

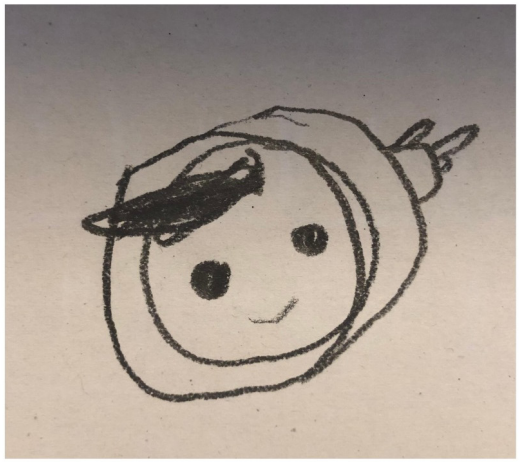
User Journey

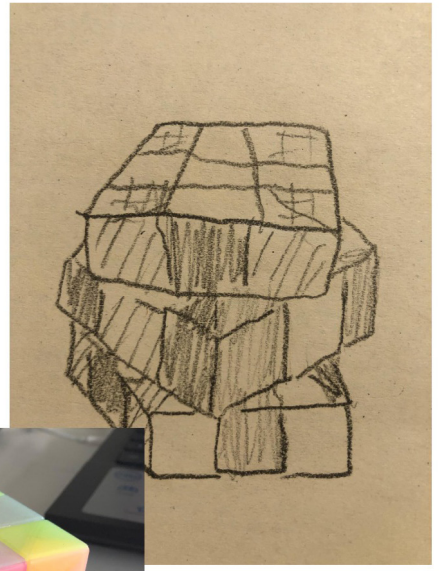


Field observations

1. Expérimentations : moins de frustrations sur la façon de dessiner avec la première expérience, utilisation du toucher pour dessiner, mouvements plus libérés, activité fun. L'idée de faire une expérience ou on découverte au fur et à mesure le dessin qu'on a construit viens de ces expérimentations.

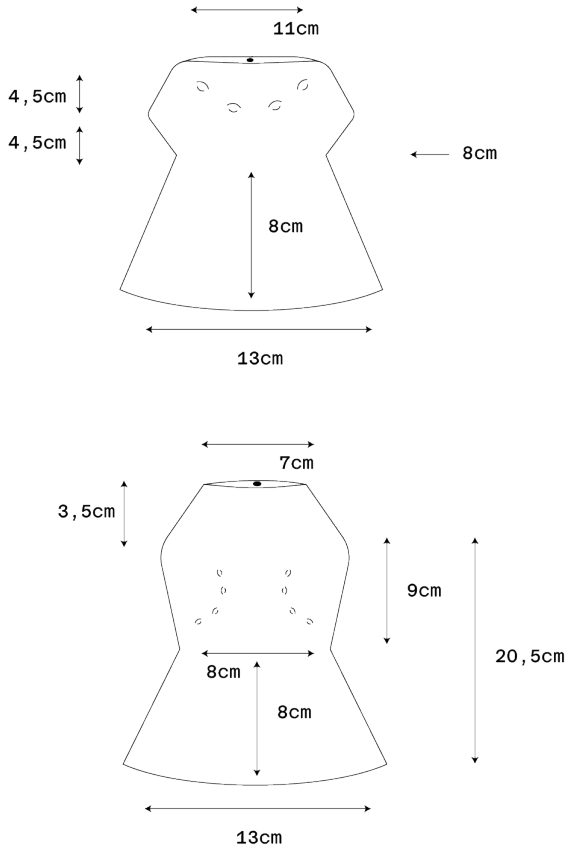
2. Interviews sur les peurs autour de la pratique du dessin :
- Pas de dessin réussi ou non : doit plaire d'abord à soi-même, pas de catégories spécifiques, dessiner au feeling.
- Frustrations, déception, perfectionnisme, blocage sur les détails.





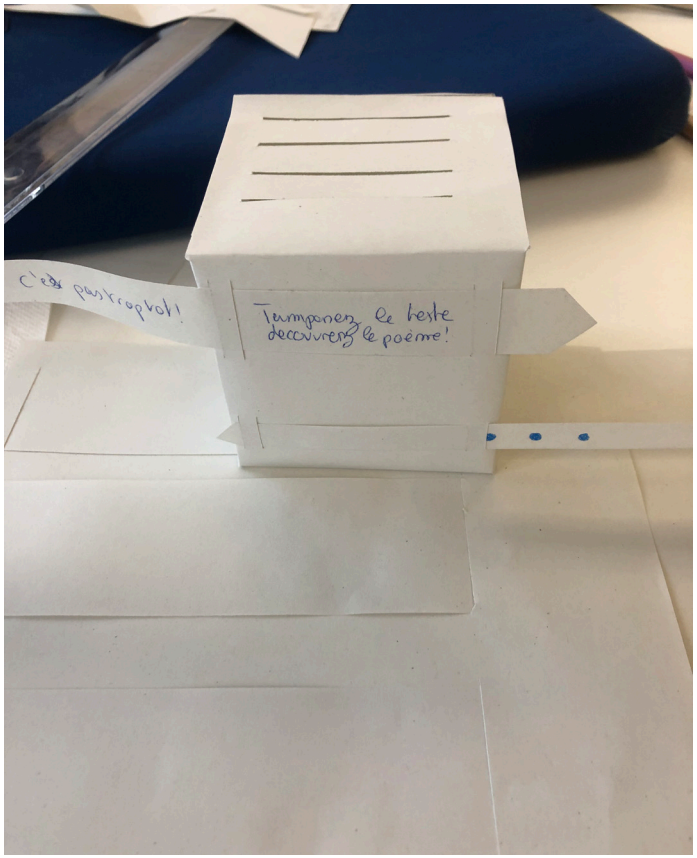
Visual and Material Moodboard

Shape research



Paper Prototypes

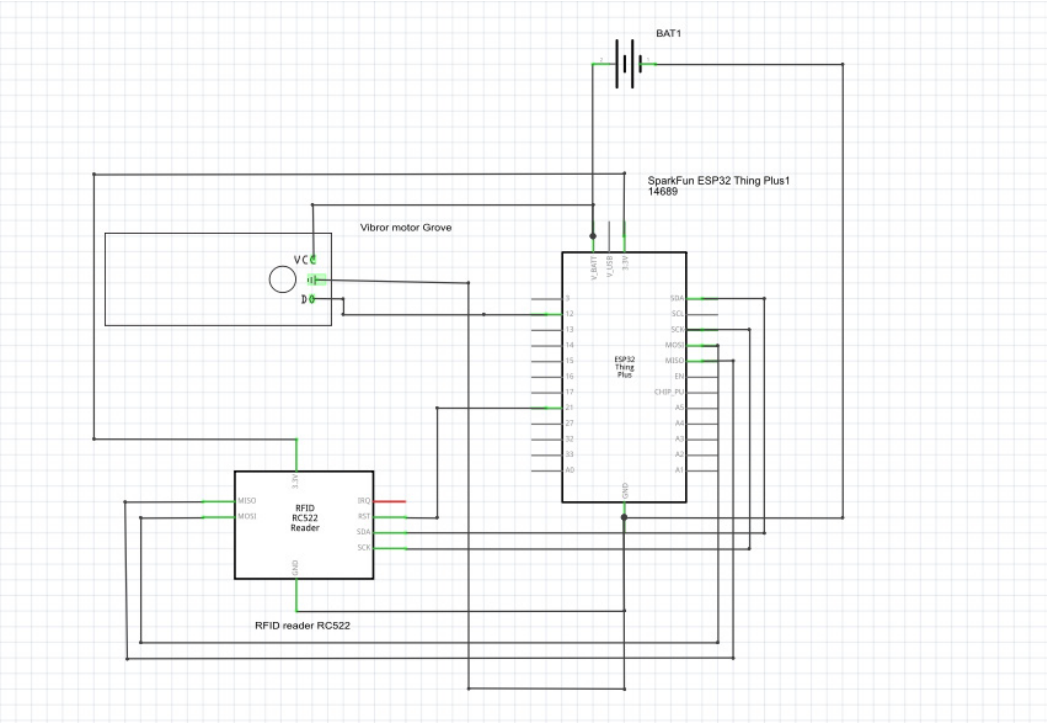
- Prototypes papiers coniques , cylindre, inputs forme anneaux
- Premier prototype papier

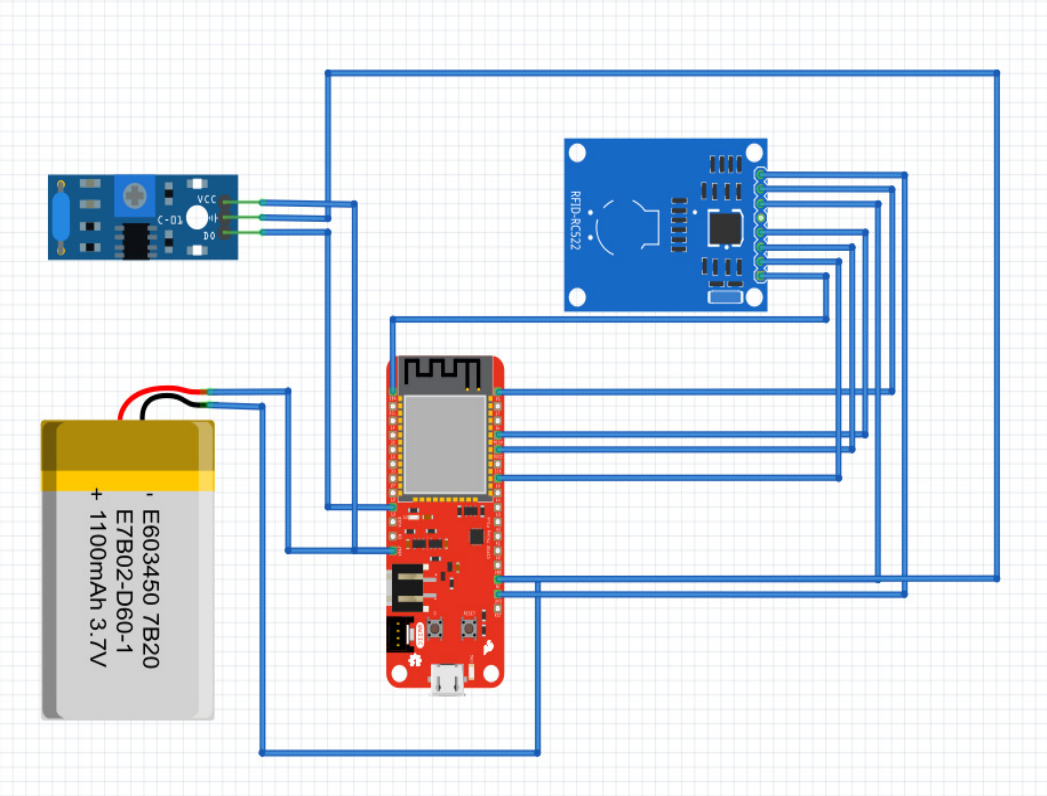


User Tests

- A/B test pour la prise en main de l'objet
- Test d'un prototype papier, test de l'experience, du jeu

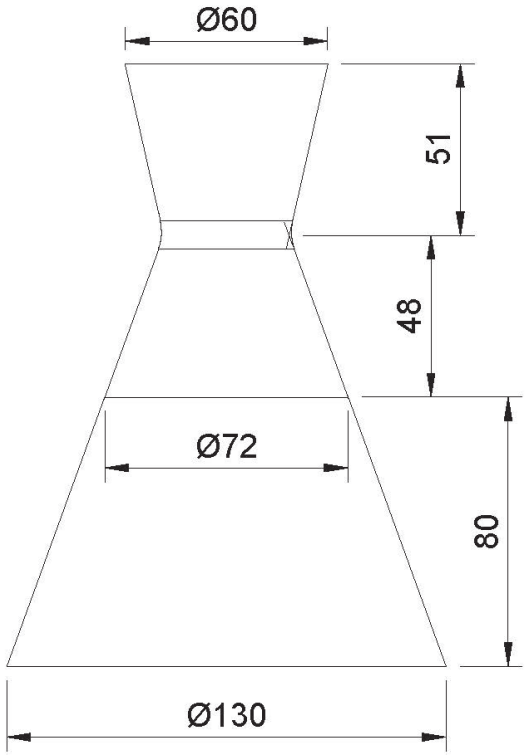
Electronics

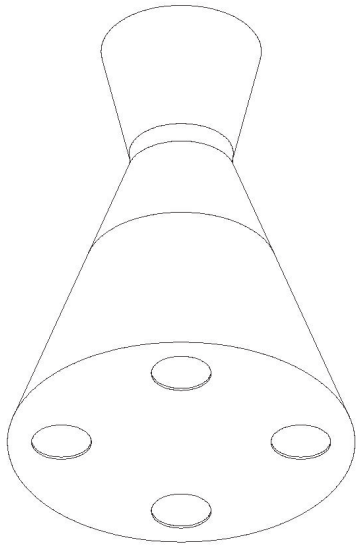


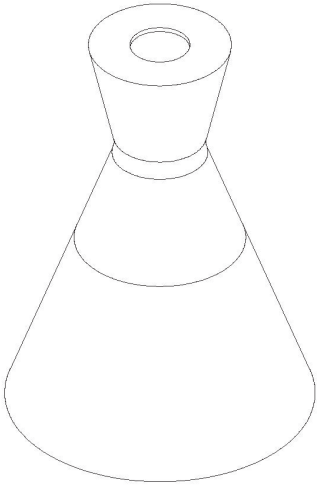


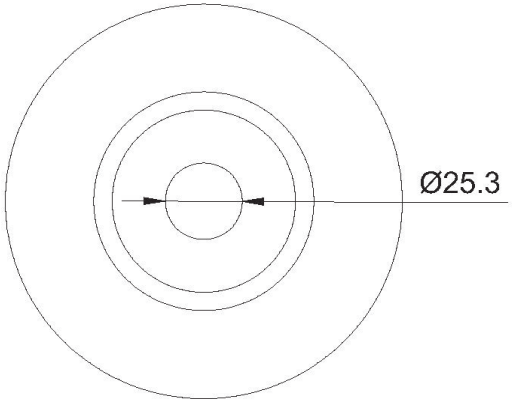
Plan Drawings

Materials: Wood, Plastic
Scale: 1:2 in mm



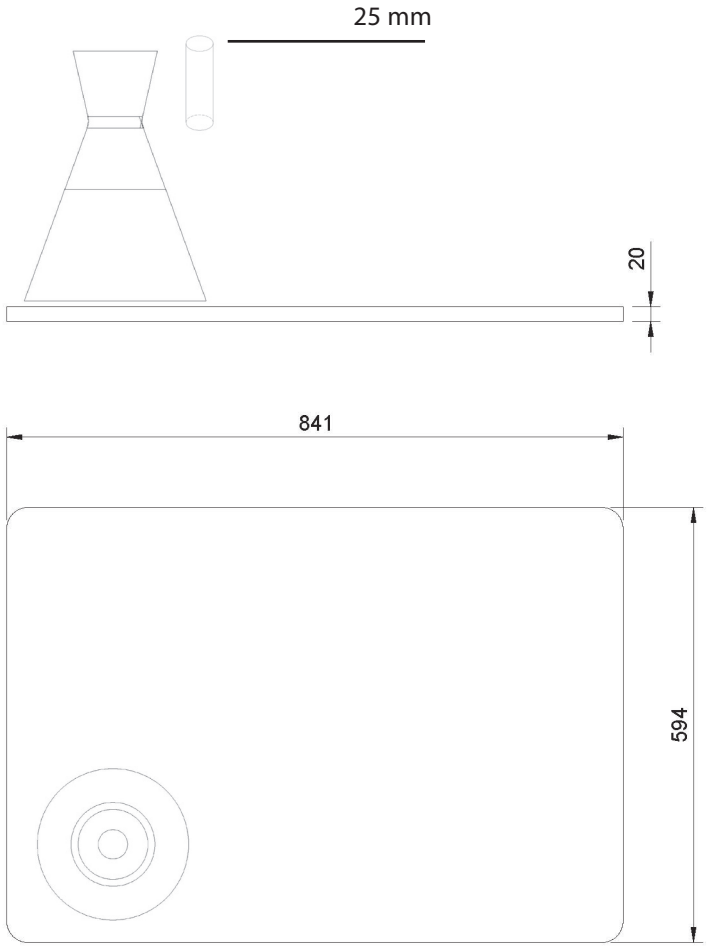


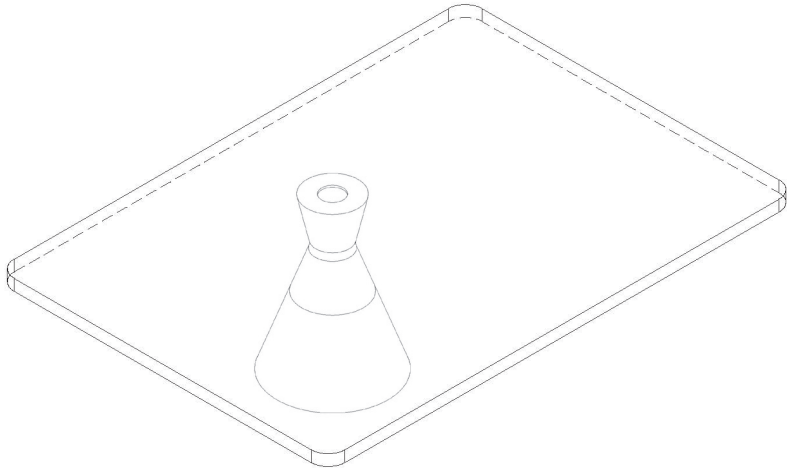




Plan Drawings

Materials: Wood, Paper
Scale: 1:5 in mm





Topos

An interactive tale on curiosity, observation, and creativity.

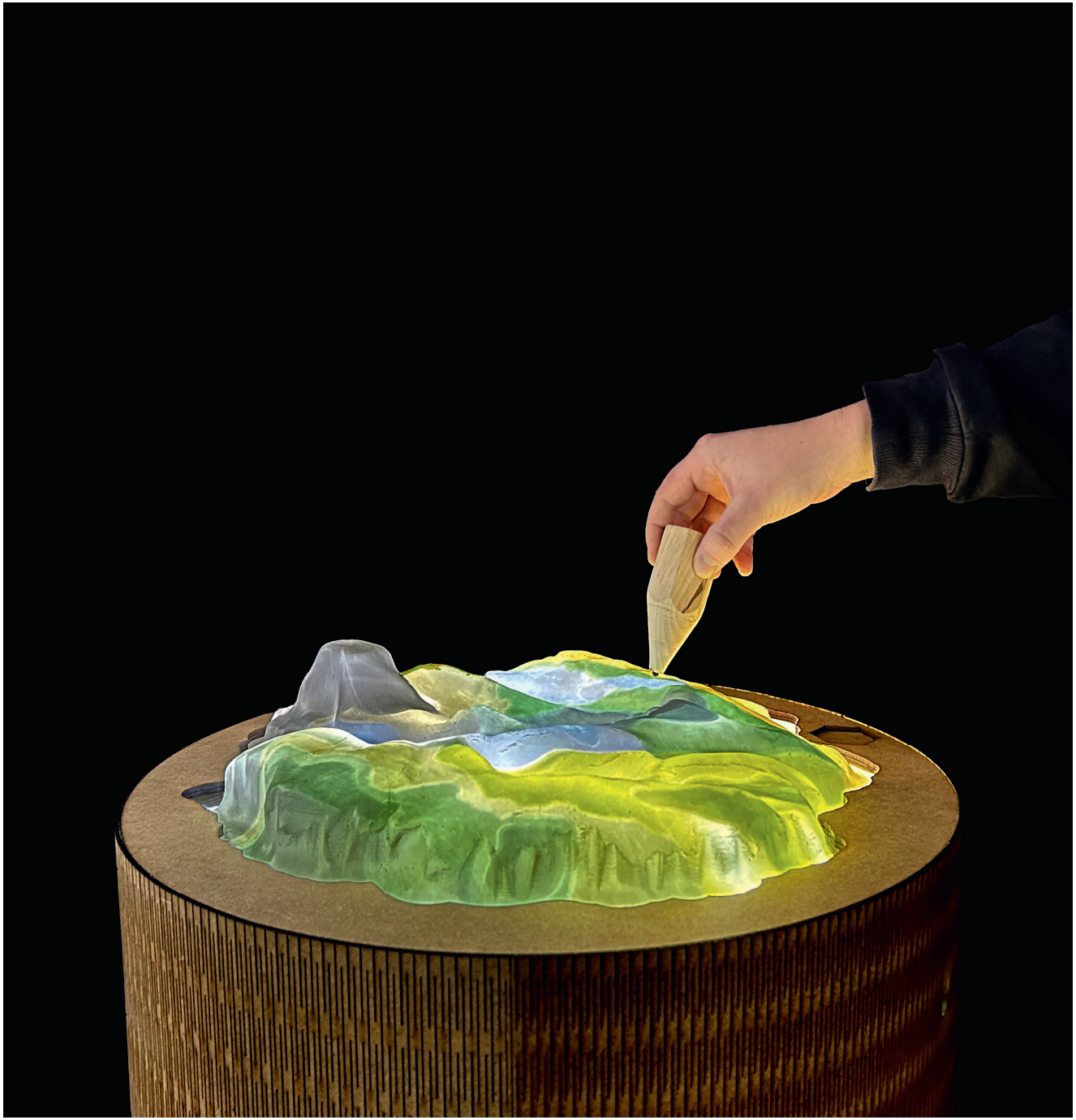
Project Description

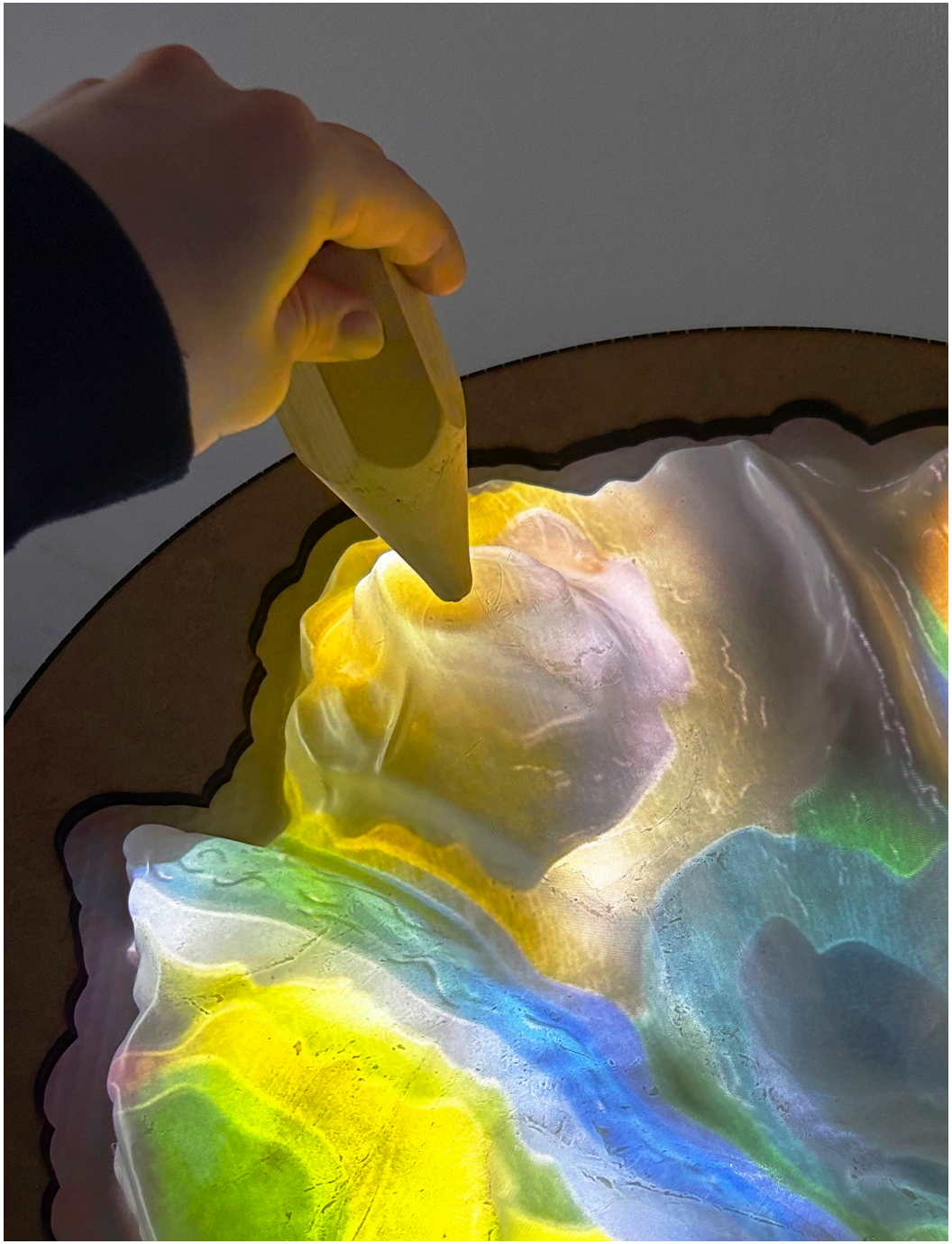
Topos, derived from ancient Greek meaning «places», refers to the elements a narrator employs to captivate an audience. This interactive tale focuses on observation, curiosity, and creativity.

In this contemplative game, participants accompagny a pencil, using their creative gestures to reveal both the drawing and the unfolding story. Set in an artist's workshop, the narrative begins as coffee is mysteriously spilled on her nearly finished masterpiece, causing it to vanish.

Players, holding a wooden pencil, explore the surface guided by the sounds of the landscape and the pencil's voice, seeking to uncover the lost tales hidden during the accident. The game operates as a loop, allowing each visitor to create their unique path through the island.

Topos aims to encourage beginners to observe and be curious without feeling pressured during the creative process.





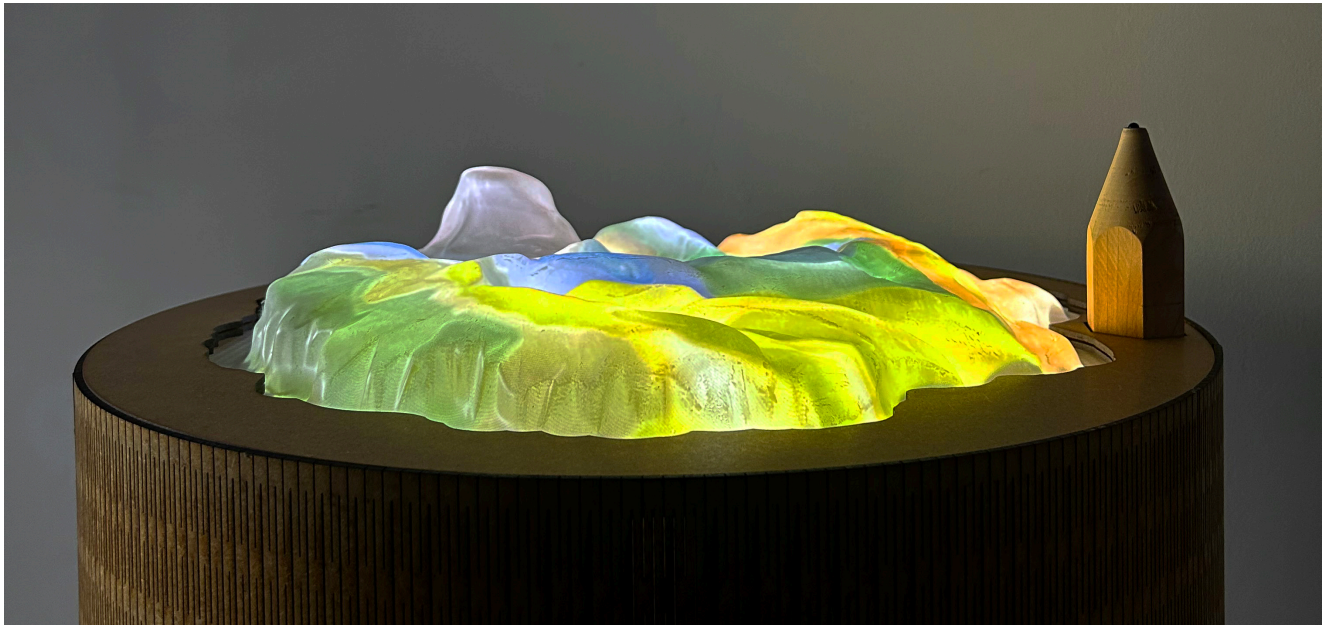
User Journey

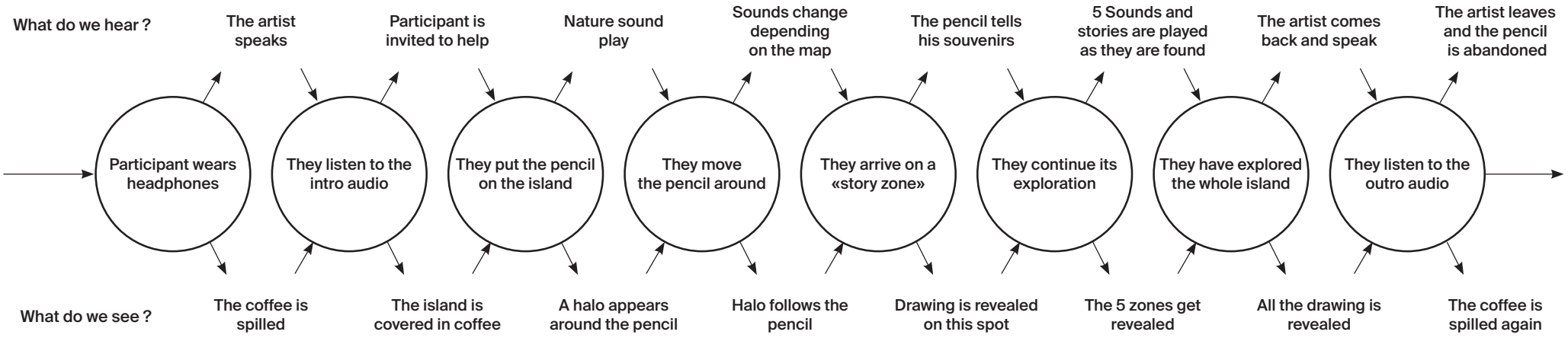
The story unfolds with the artist going out for inspiration. As she comes back in her studio, she is devastated by the coffee spill, yearning for the pencil to speak.

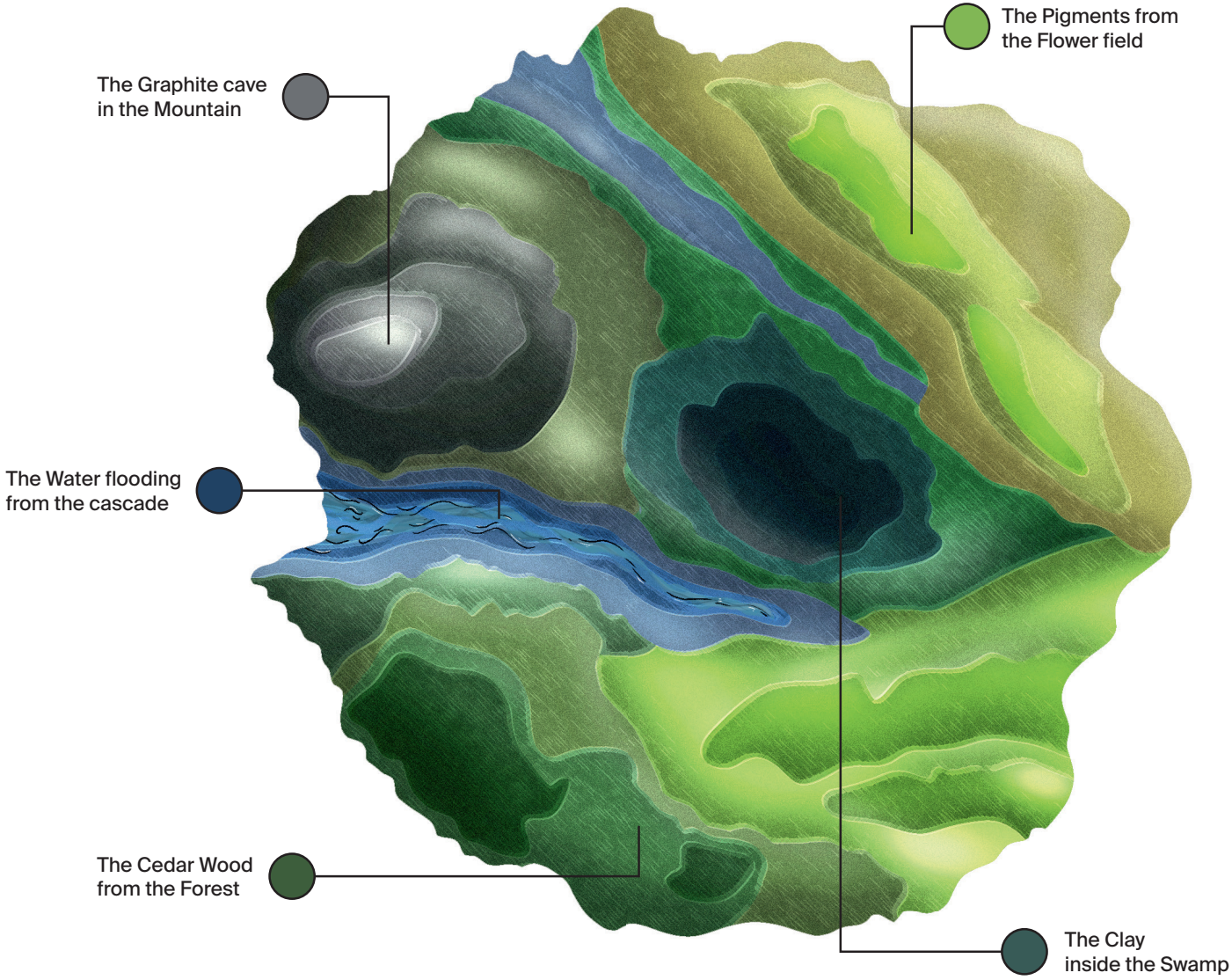
As participants grasp the pencil, sounds guide them through its stories. They listen to the pencil recounting memories of drawing with the artist, each tale representing a crucial element in the creation of a Caran d'Ache pencil.

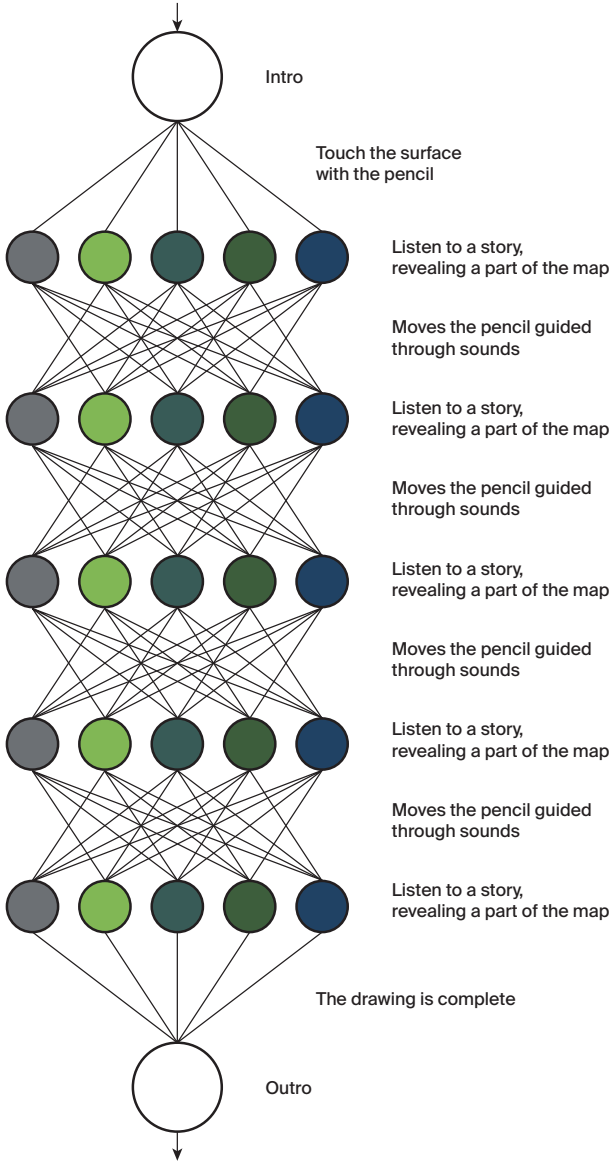
To achieve the game, the user must uncover and listen to all the stories on the map, and therefore dive into this universe created by the artist and her pencil.

In the end, the artist realizes that an artwork's beauty emerges from spectators' curiosity and the creativity it ignites. Ultimately, it's revealed that the pencil, afraid of becoming obsolete after completing the drawing, is responsible for the coffee spill. The philosophy behind this fear emphasizes the importance of the creative process over the result.





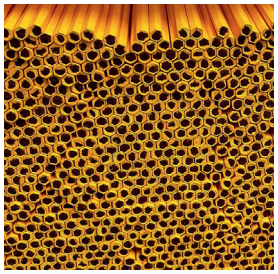

The Graphite cave
in the Mountain
The Pigments from
the Flower field
The Water flooding
from the cascade
The Cedar Wood
from the Forest
The Clay
inside the Swamp


Intro
Touch the surface
with the pencil
Listen to a story,
revealing a part of the map
Moves the pencil guided
through sounds
Listen to a story,
revealing a part of the map
Moves the pencil guided
through sounds
Listen to a story,
revealing a part of the map
Moves the pencil guided
through sounds
Listen to a story,
revealing a part of the map
Moves the pencil guided
through sounds
Listen to a story,
revealing a part of the map
The drawing is complete
Outro

Field observations

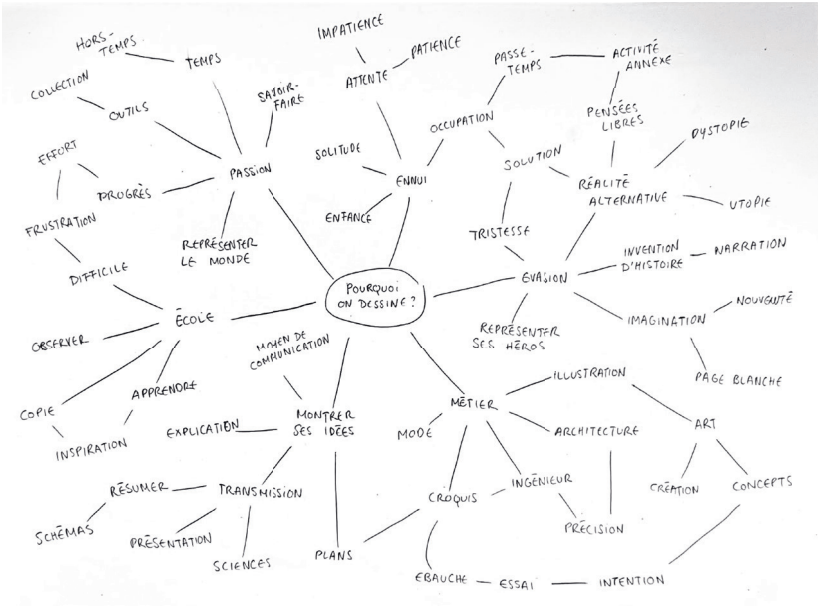
How are pencils made ?

visited Caran d'Ache pencils' factory



met teenagers during their art class

Why do people draw ?



« When you draw a universe, you dwell in that reality, and everything else becomes like a blur. »

What does an illustrator feels ?

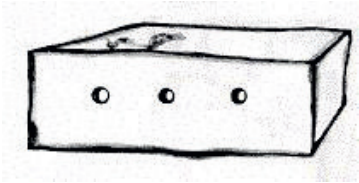
interviewed an artist in her studio

La théorie de la Fiction-Panier

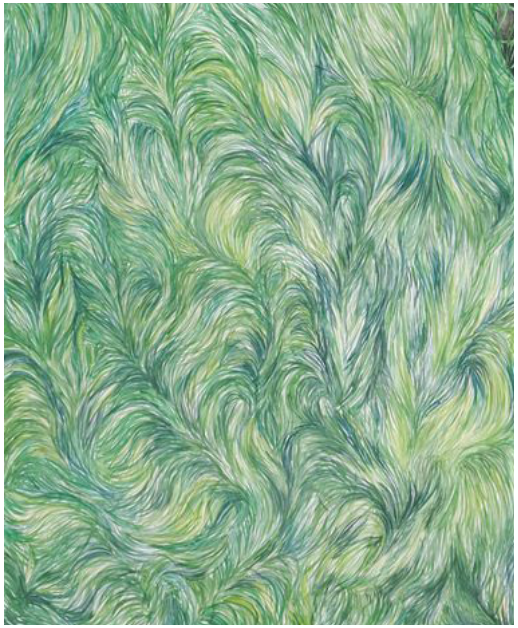
Ursula K. Le Guin
Traduit par Aurélien Gabriel Cohen
Paru sur Terrestre – Octobre 2018

How to tell a story ?

read books and listened to references



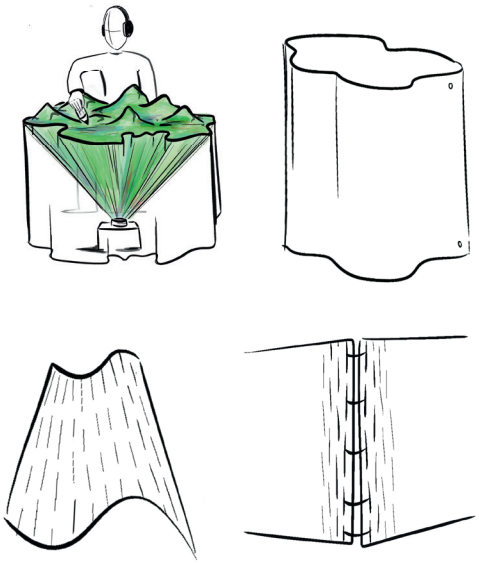
Visual and Material Moodboard

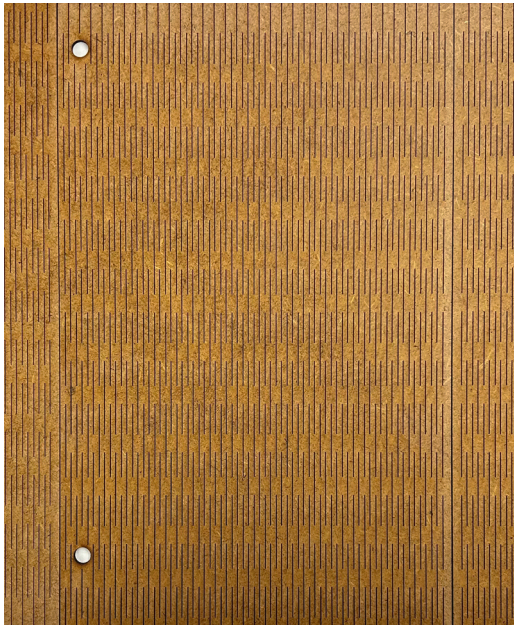


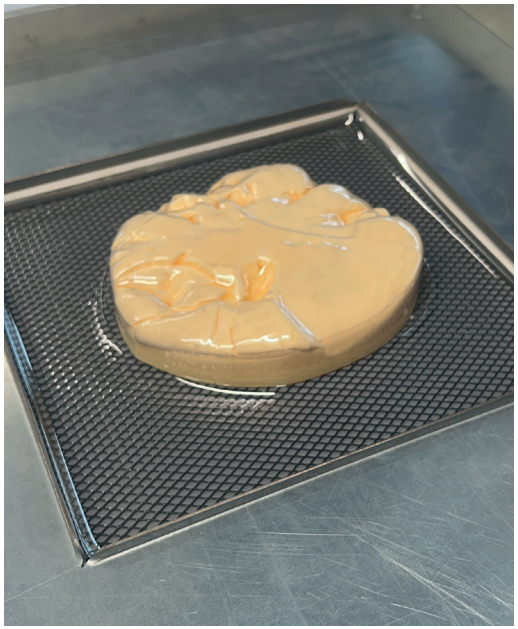




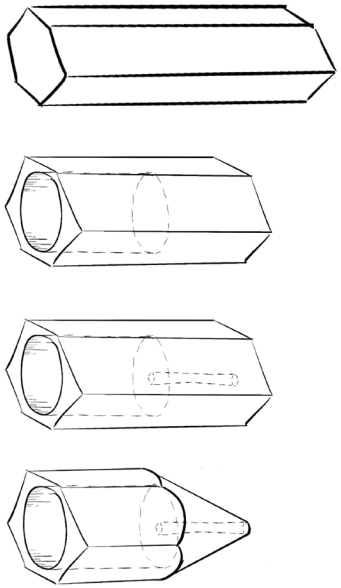

Shape research

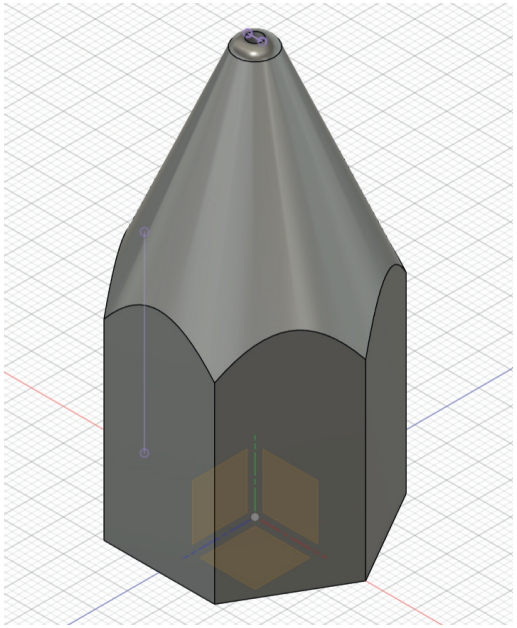


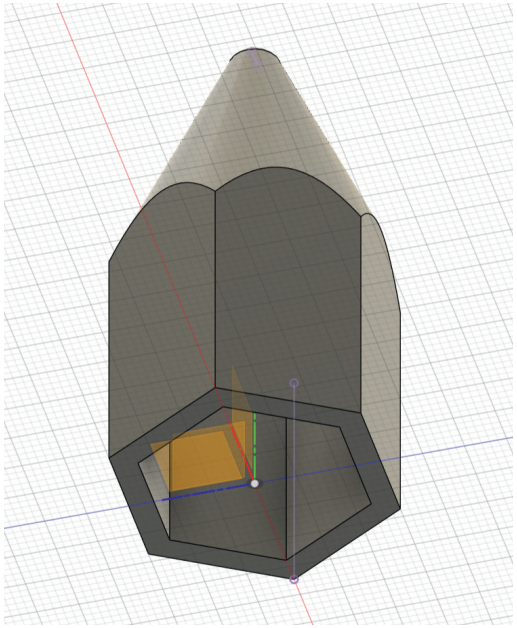


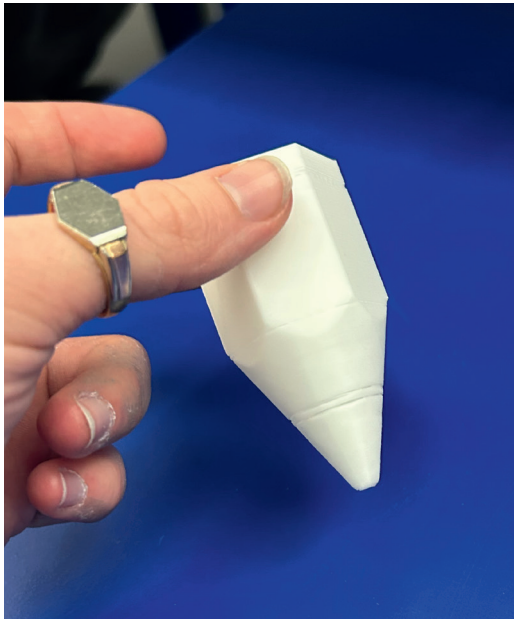


Shape research

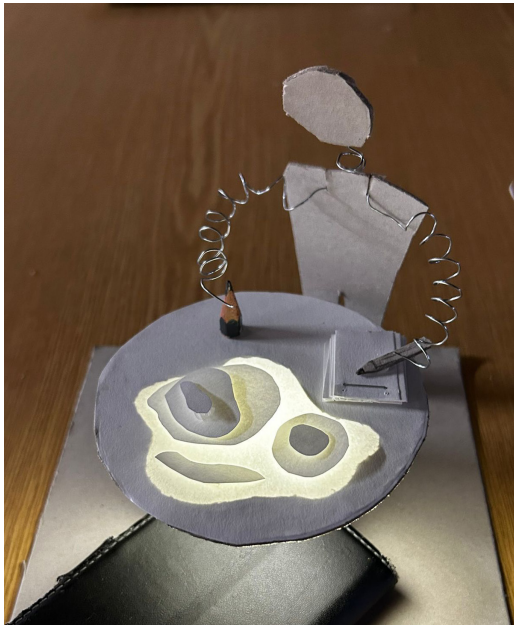


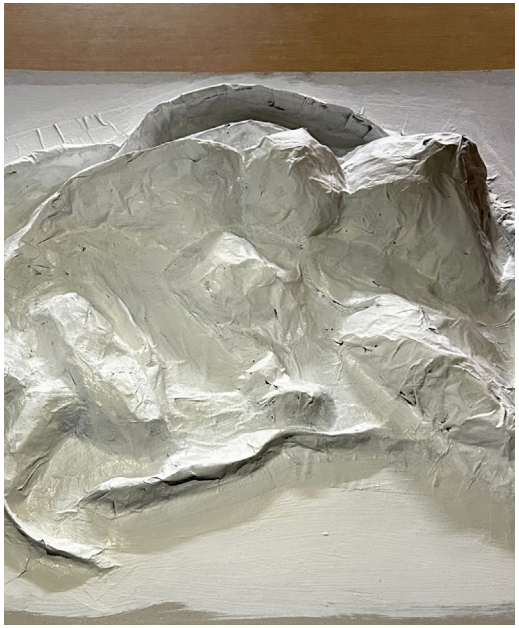
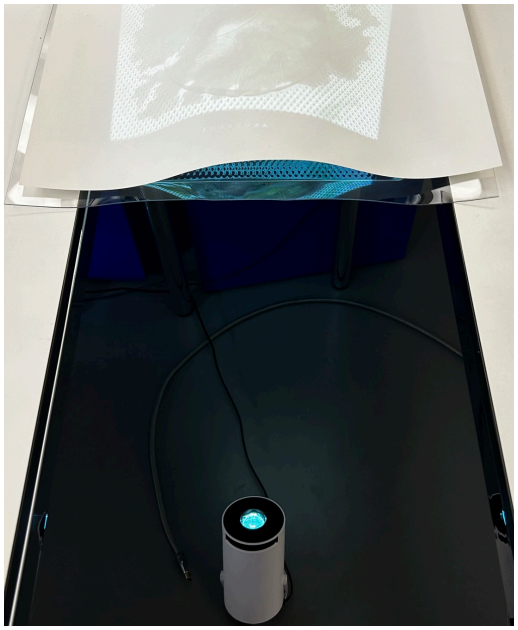


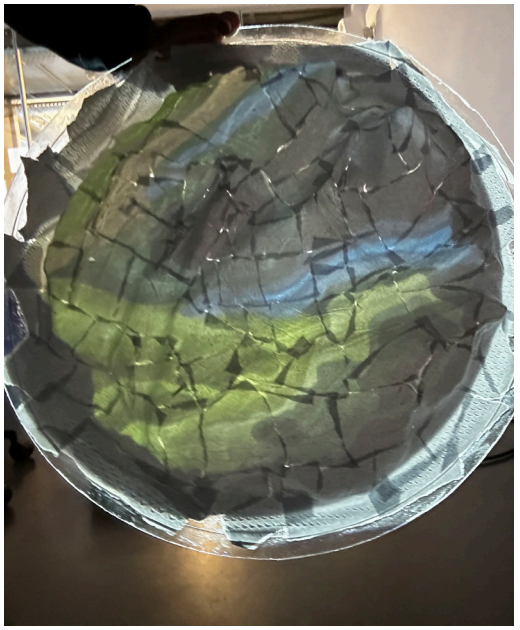
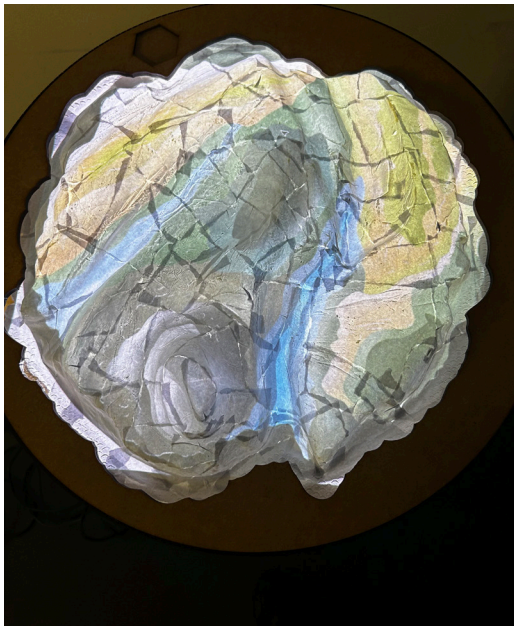




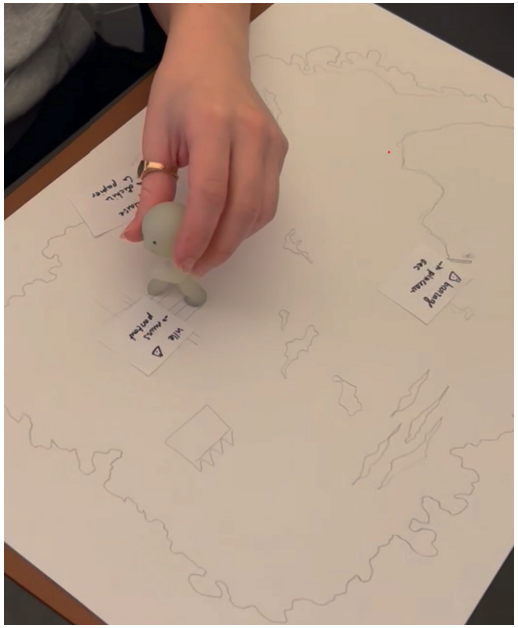
Paper Prototypes

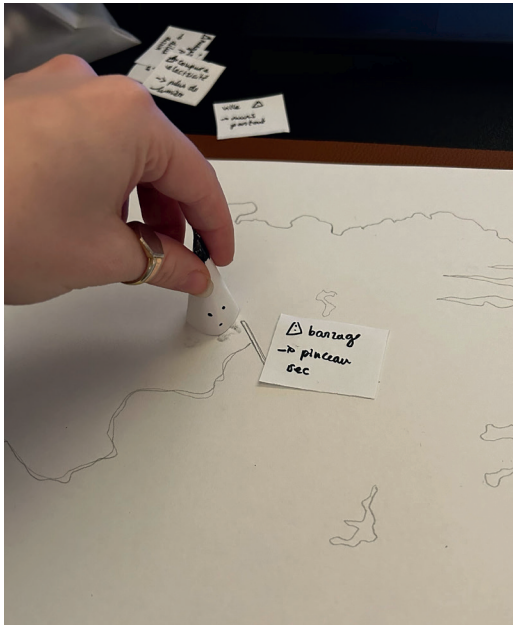


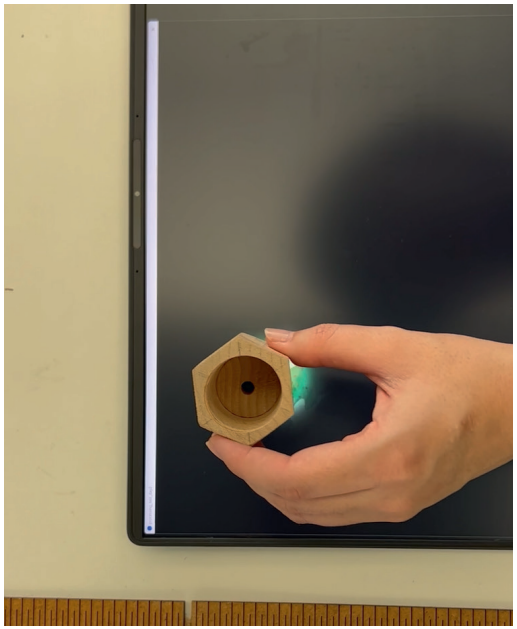




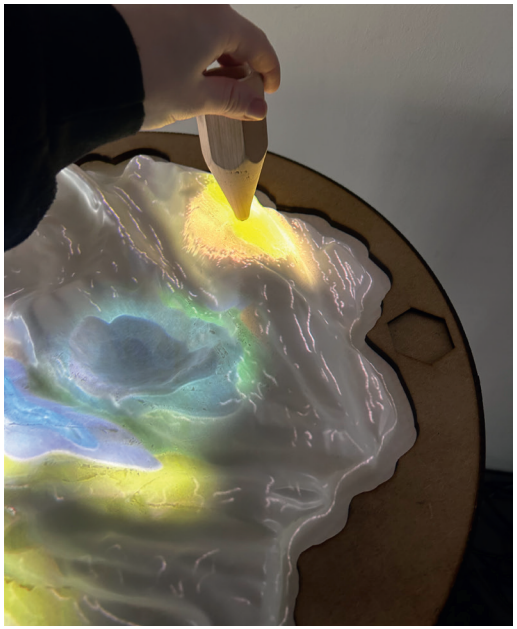



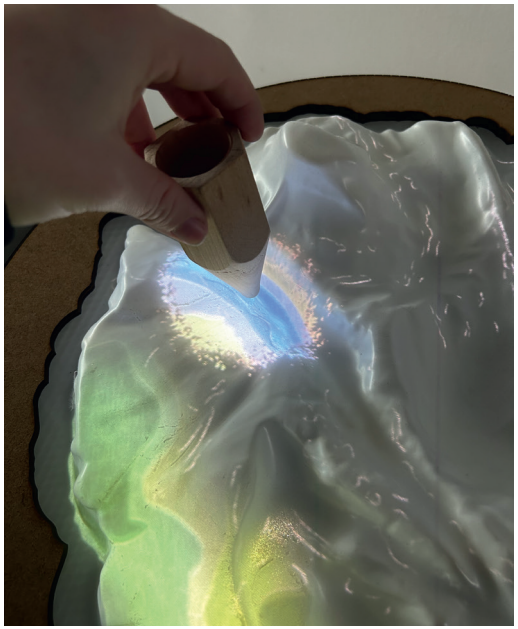
User Tests





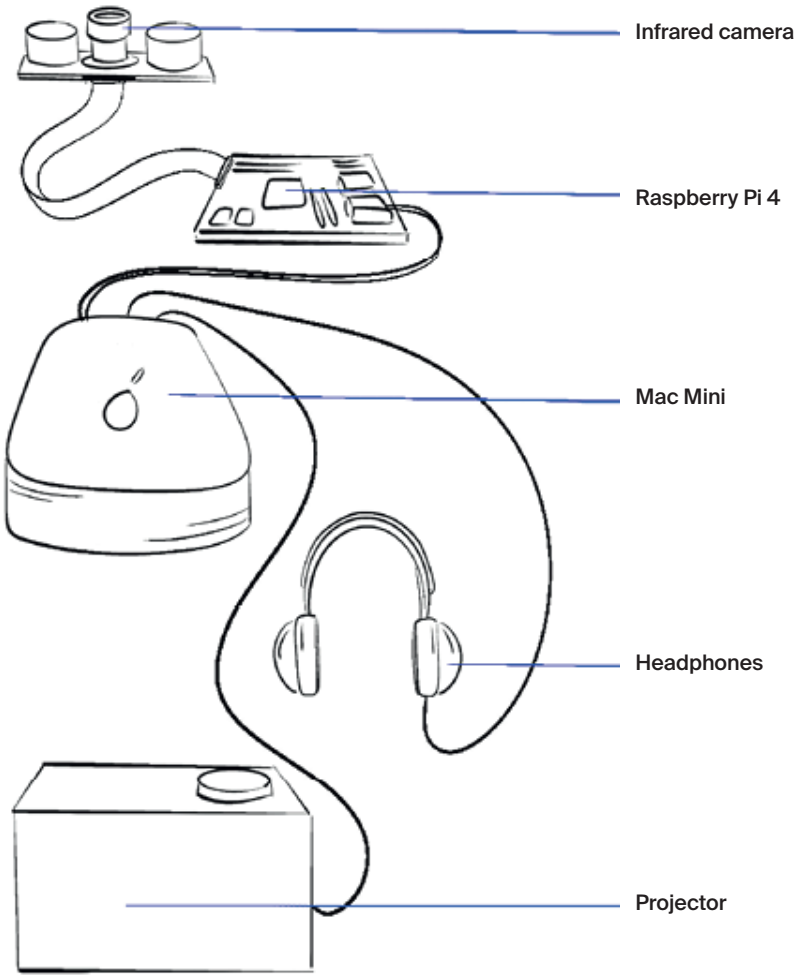




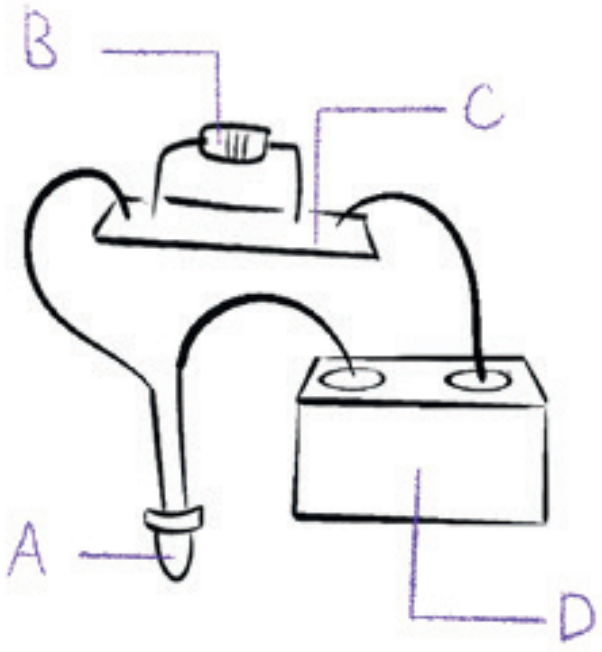


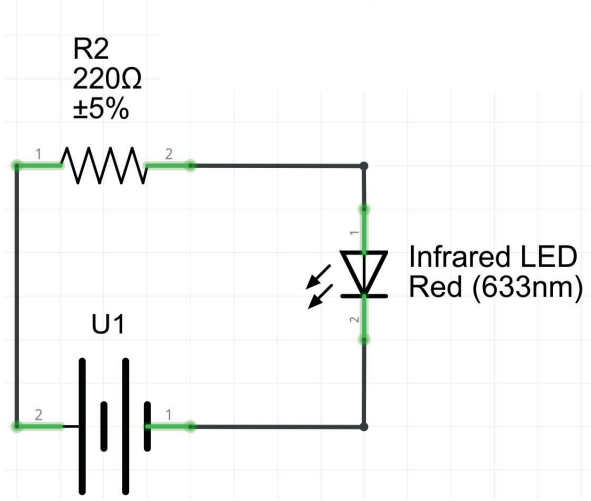
Electronics

Inside the Structure



Inside the Pencil



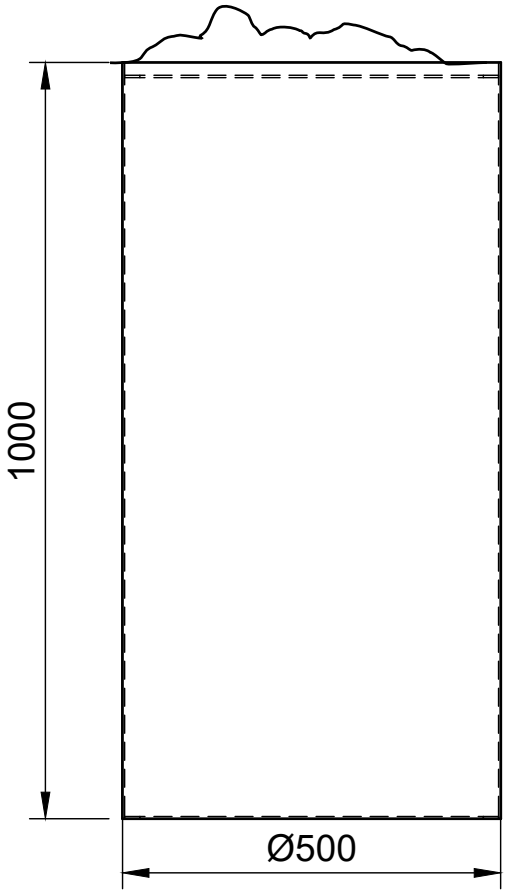


A	Infrared LED
B	Resistor 220 Ohm
C	Stripboard
D	Battery

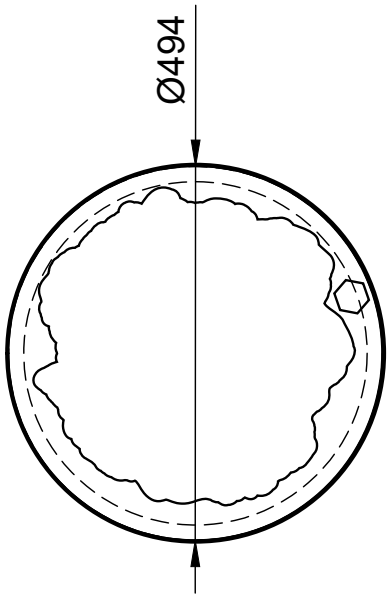
Plan Drawings

Structure

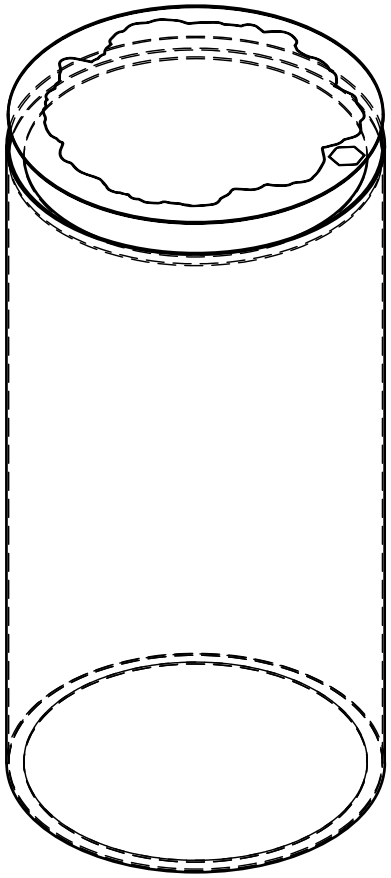
Materials: MDF 3mm / PET 1mm
Scale: 1:10 in mm



Front



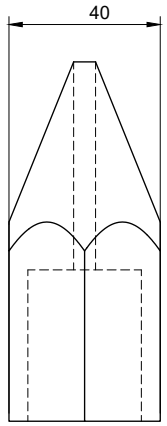
Top



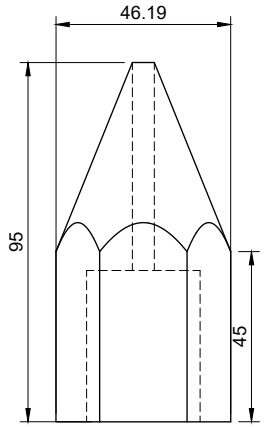
Perspective

Pencil

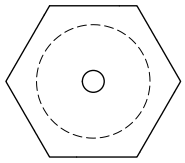
Materials: Wood (linden)
Scale: 1:2 in mm



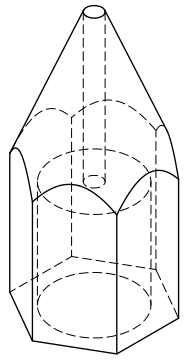
Right



Front



Top



Perspective

Tell’ink

Showing by talking

Project Description

Tell’ink is a passive interactive pin that listens to the person wearing it and displays personalized images based on what the user says and how they speak.

The goal is to create an evolutive personalized wearable that transforms our everyday life into an imaged storytelling.

User Journey

Starting point: A person wanting to passively incorporate a creative dimension into their daily life.

Situations of use: During a discussion, the microphone records what the person says and the badge transform it into a personnalised visual using their AI.

Scope of use: Personal wearable that follows you and can take place in various time of the day.

The user wear the badge like any wearable accessory

When the user speaks, the badge listen to it and transform it into new data

The badge then update the visual to stay updated to what the user says or what he is going through

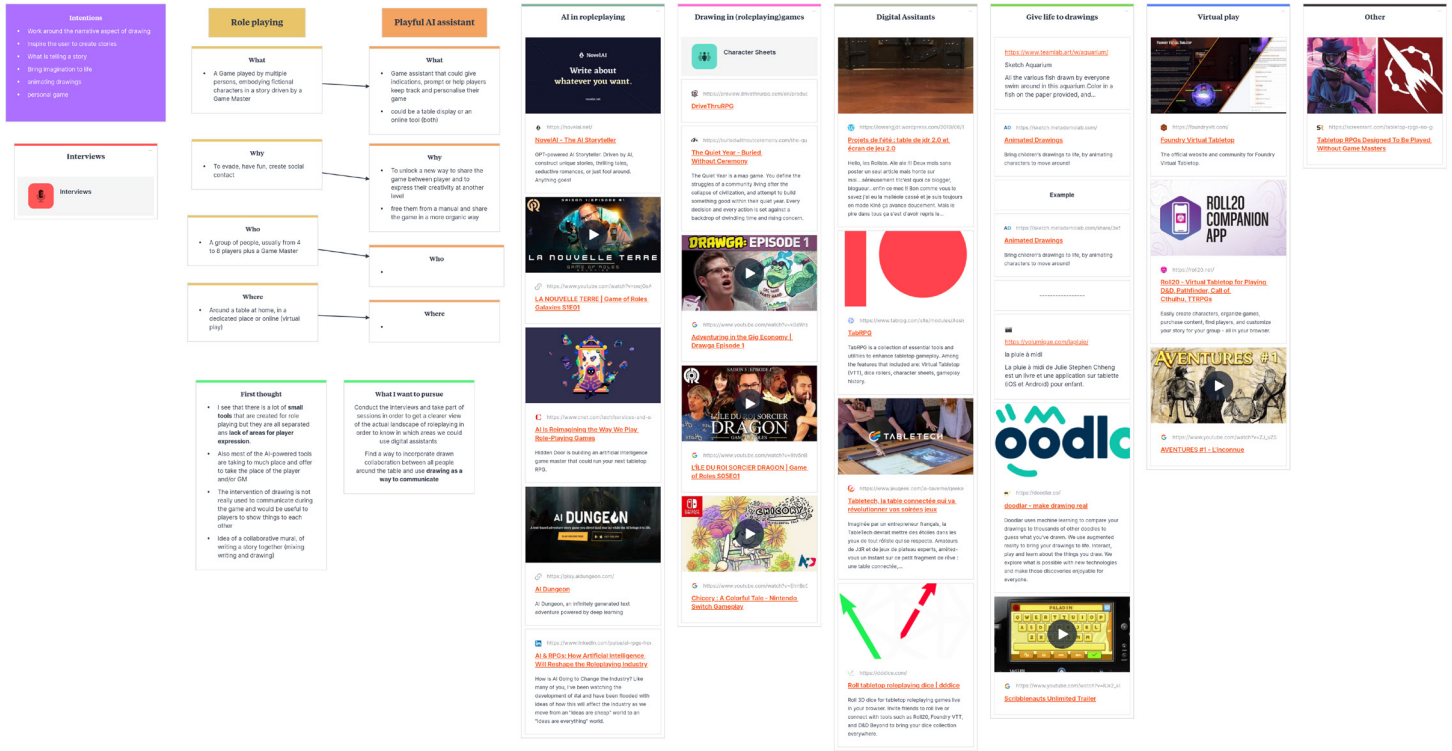
Field observations

Reluctant to use AI:

When asked about the place
AI could play in the creation of visual
the creation of visual and/or
or textual support for storytelling
narrative, people were rather reluctant
people were rather reluctant and not
and don't necessarily want to use
ia in this way.

Ease of interaction and legibility:

Tests have shown that it's hard to hold a conversation or read a text while paying attention to the generated signs. The two moments are therefore separated to enable the user to enjoy a more fluid and pleasant experience.



Collection à haute voix - Volumique

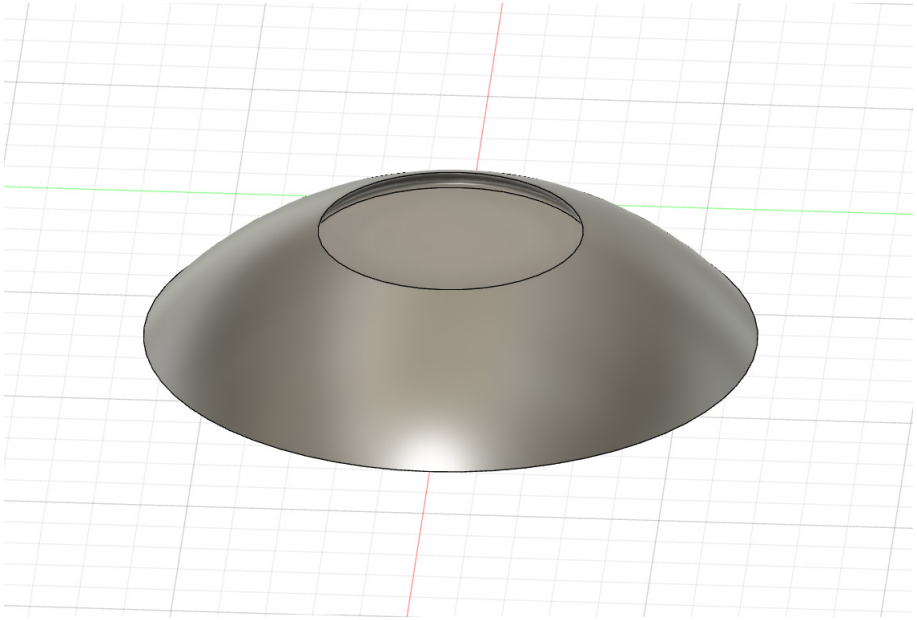
The Reading Lantern - Vincent Belet, Tamara Leites et Jiajun Zheng

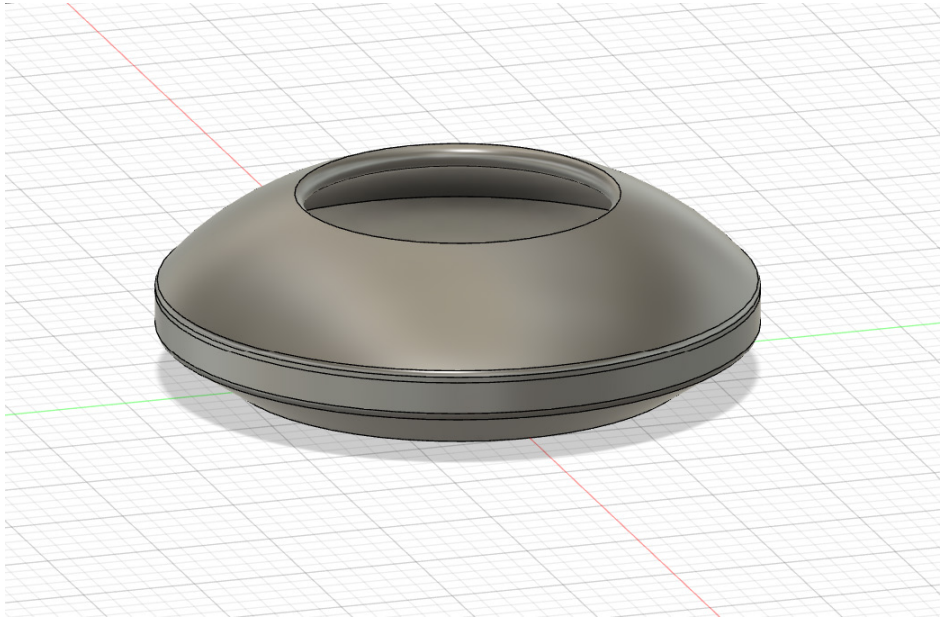
Visual and Material Moodboard

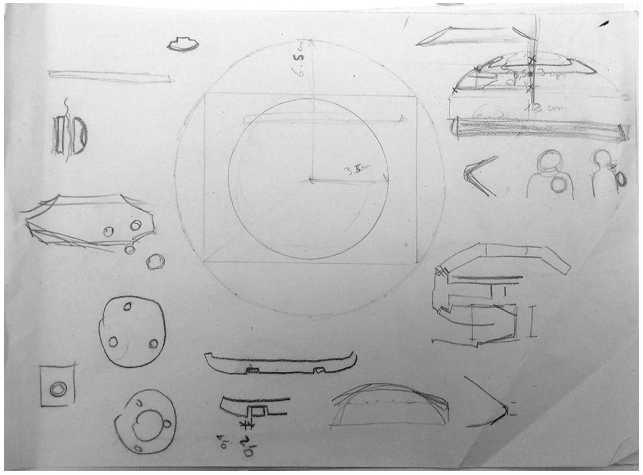
Spectrace, HEAD-Genève x EPFL LIPID - a-project studio

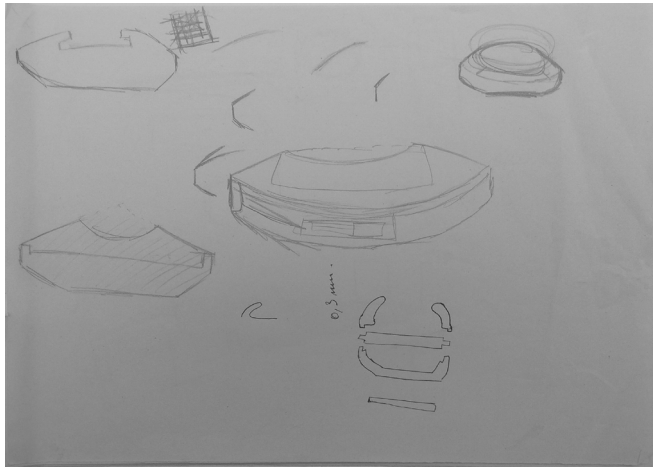
MIRROR ME-RROR - Nora Fatehi

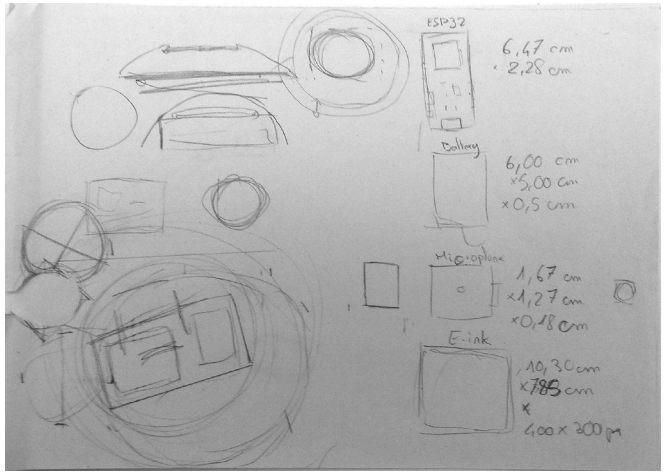
Shape research









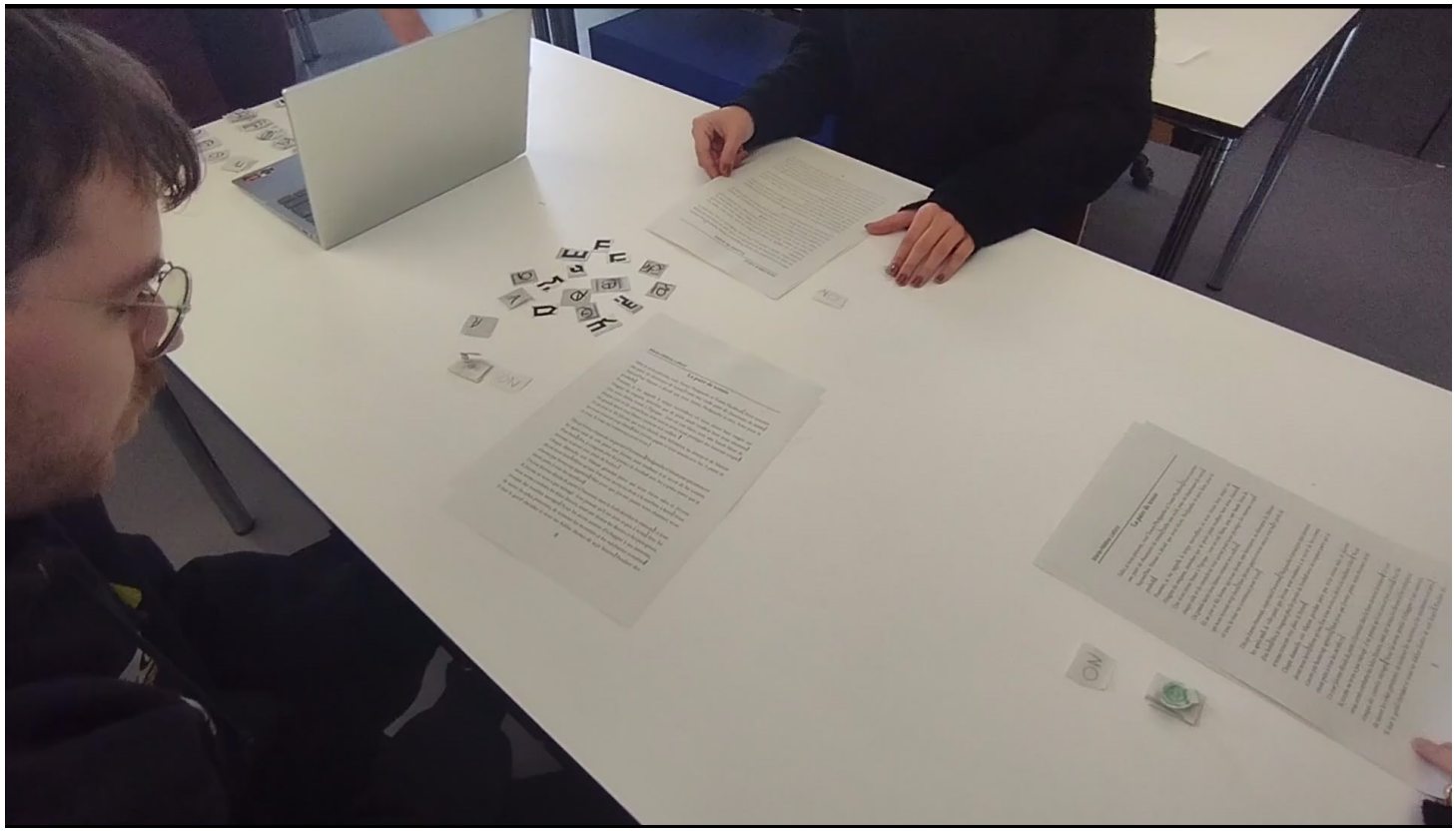


Paper Prototypes

My paper prototypes followed me for the different iterations and ideas for the project until I go with the wearable badge. It allowed me to test my ideas and see what worked and what did not. they were also very useful for user testing to give some concrete things for people testing the prototype to see and get better feedback.

User Tests

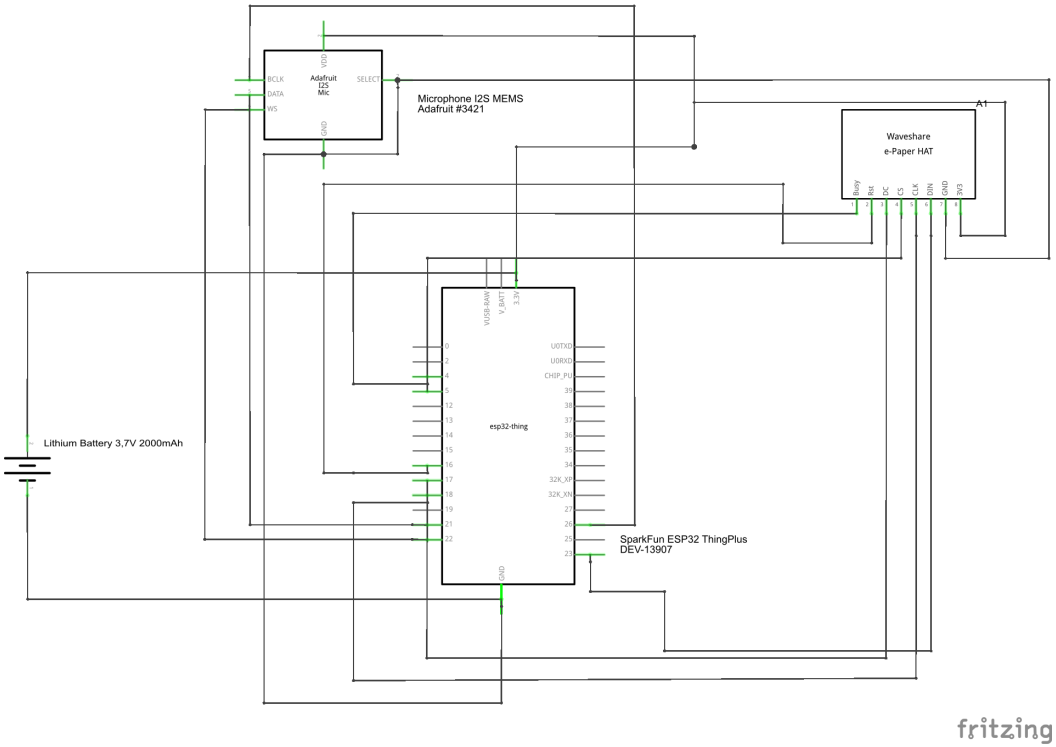
For user testing, I started by trying different scenarios of discussions with different amounts of people, with or without reading assistance, while simulating some shape generation to see the reactions and ask for feedback from people participating in the discussion. Then I did some experiments with different ways of generating images for the badge and asked for feedback on the readability and quality of the generated images.

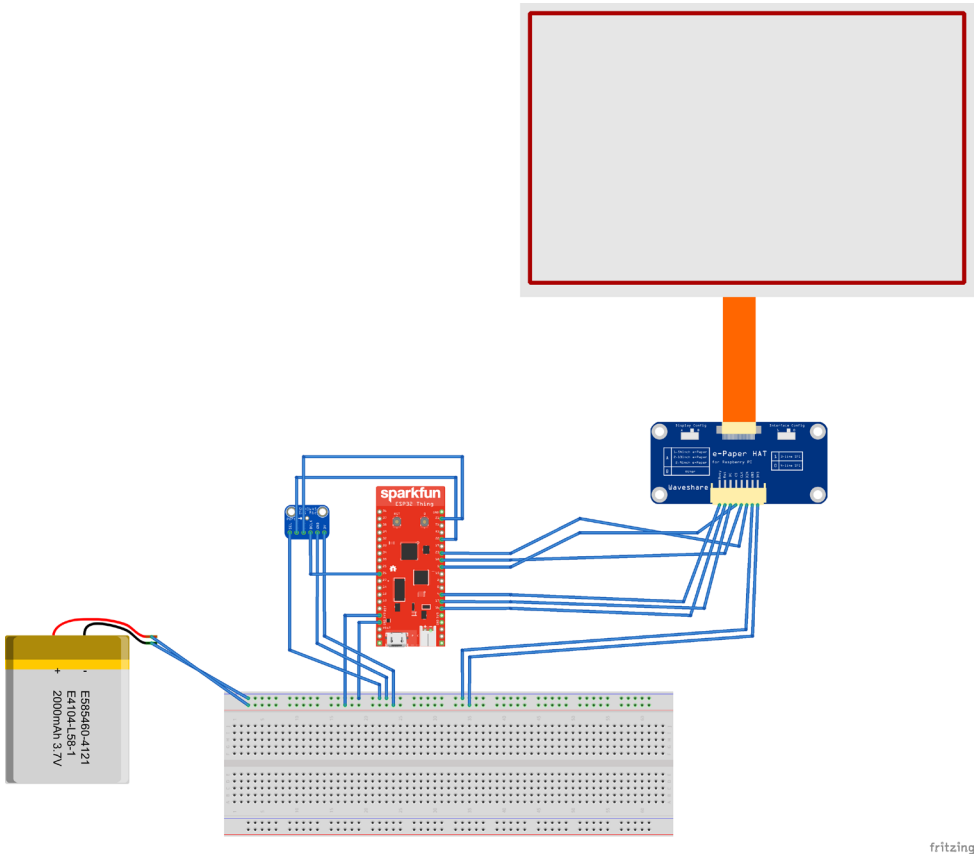


Exhibition Scenario

One idea for an exhibition scenario would be to have a large screen and place some of the badges in front of it. This way, people visiting the exhibit can try them out and then have the images generated on the badges also appear on the screen to see them change in real time from anywhere in the exhibit space.

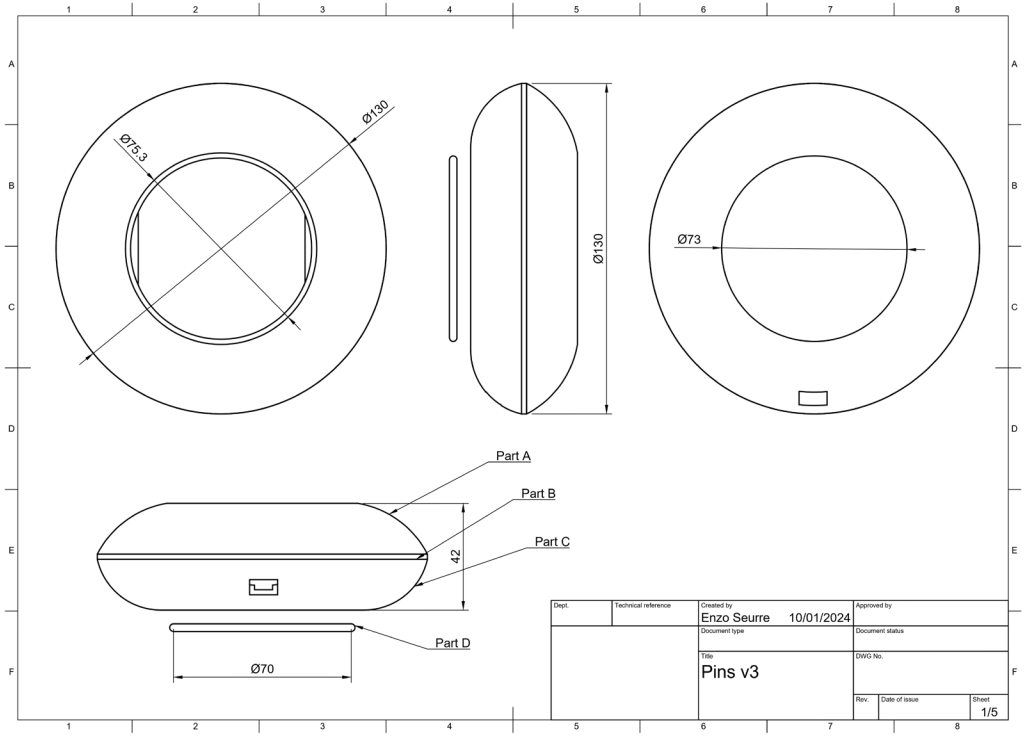
Electronics

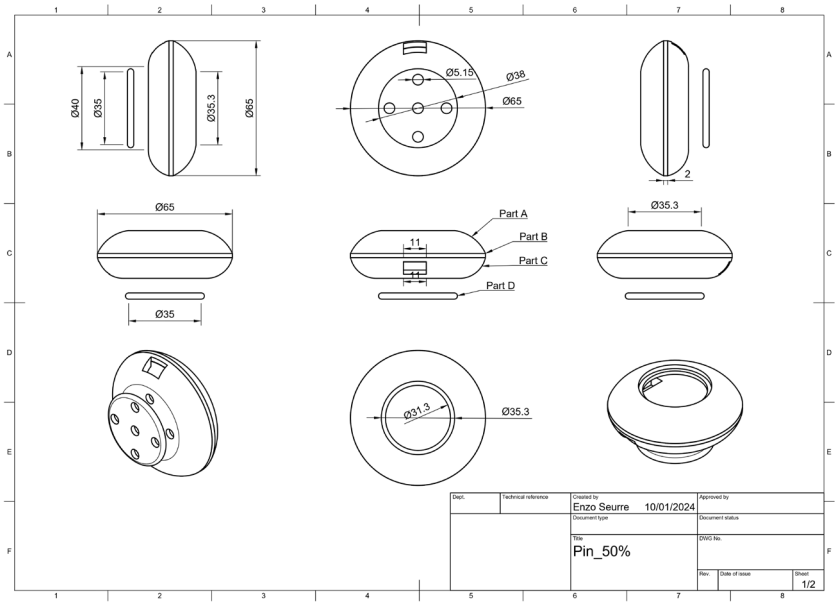


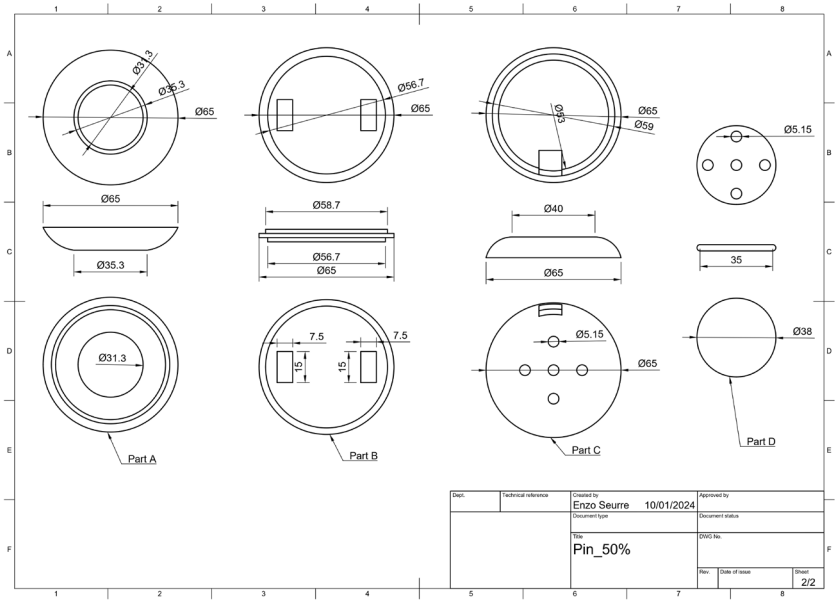


Plan Drawings

Materials: PLA
Scale: 1:1 in mm







Plan Drawings

Materials: PLA
Scale: 1:1 in mm