

ÖYKÜ CEREN KARAAAYAK
design portfolio
2024

● CONTENT

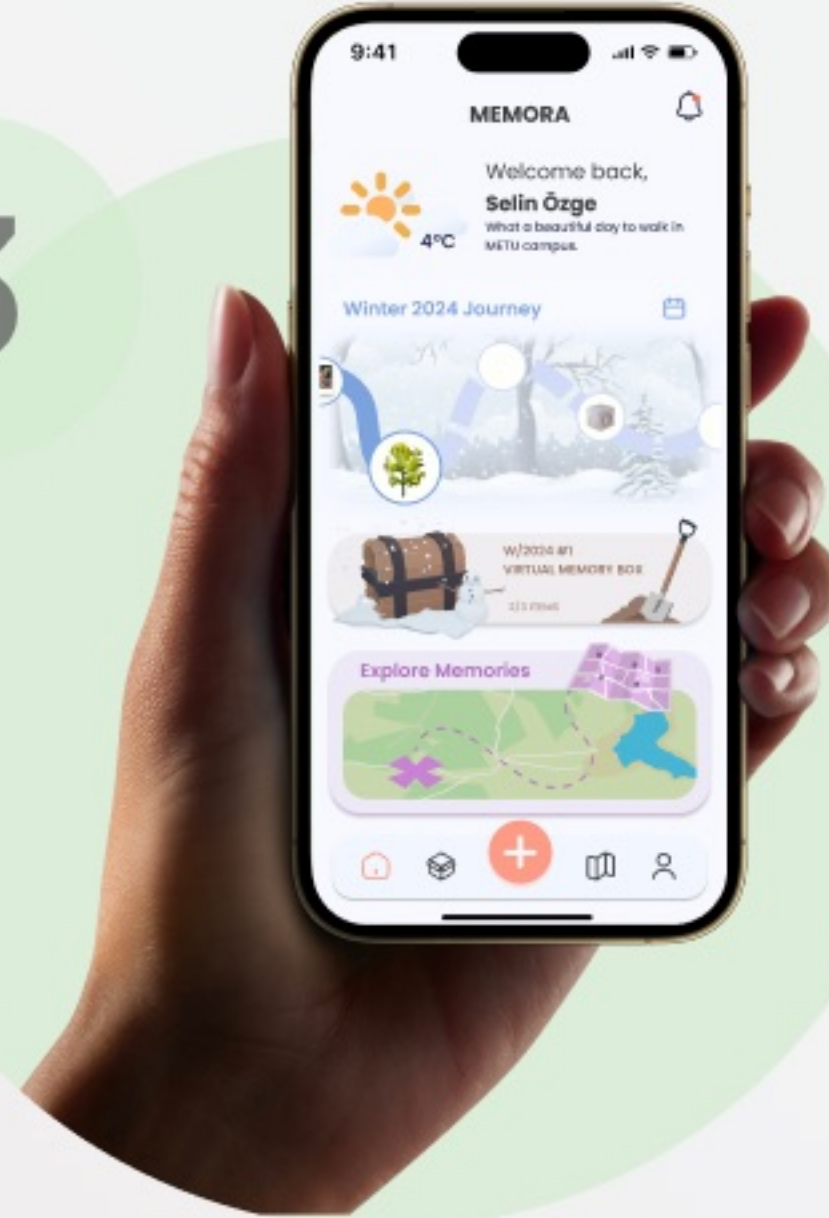
1



2



3



4



5





HI, I'M ÖYKÜ !

I'm passionate about industrial design and love creating innovative, user-centered, and sustainable products. I thrive in collaborative environments and enjoy bringing ideas to life with tools . I'm always eager to explore new trends and technologies to make a positive impact through my work. If you are interested, contact me !

Contact

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- [linkedin.com/in/oyku-ceren-karaayak](https://www.linkedin.com/in/oyku-ceren-karaayak)

Education

Middle East Technical University
Industrial Design
CGPA: 2.96

2020-Present

Experiences

Titan Makina Ltd. Şti.
Manufacturing Intern

Summer 2023 (4 week)

Middle East Technical University
Computer Aided Design and
Model Making Intern

Summer 2022 (4 week)

Languages

English
Turkish
German

B2
Native
A1

Computer Skills

Adobe Illustrator
Adobe Photoshop
Rhinoceros 3D

Figma
Autodesk Fusion360
Blender

Soft Skills

Creativity
Communication
Friendly
Critical Observation

Teamwork
Critical thinking
Self-motivated
Problem solving

Interests

Photography
Travelling
Badminton

Gastronomy
Volunteering
Solving Puzzle

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1

KIWI

KVC4085

hand vacuum cleaner

Re-design project

ID 301 - 2023
Team Project
Öykü C. Karaayak,
Ahmet Ö. Kasapçı, Doğa Tanrıverdi

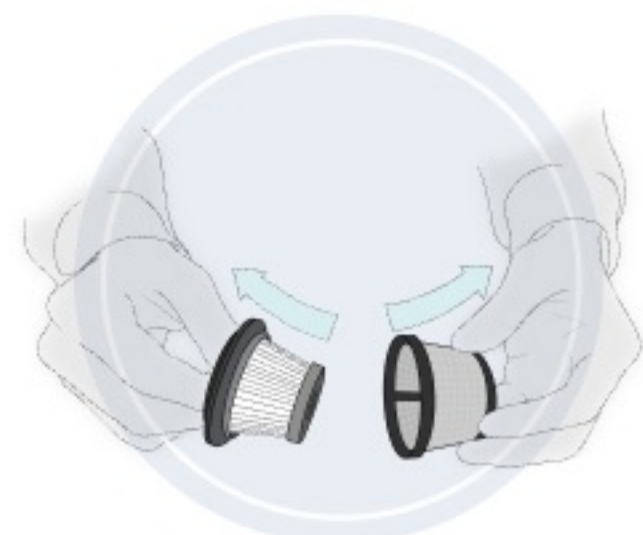


User research

Based on user test results, we identified some problematic aspects of the product. In these tests, which we carried out using criteria such as usability, usefulness, color, comfort, physical size, material quality and functionality, we tried to identify the areas where users did not understand, had difficulty or were confused while using the product. These tests guided us in identifying areas we needed to focus on and improvements in product design. These experiences provided us with ideas and guidance to provide a better user experience in our future designs.



%100 of the participants were confused while turning the product on.



%90 of the participants had a hard time separating the steel filter and the HEPA filter.



%80 of the participants did not find the suction power sufficient.



%80 of the participants struggled to put the dust bin back to its place.



%70 of the participants had a hard time taking the cover off.

Insights

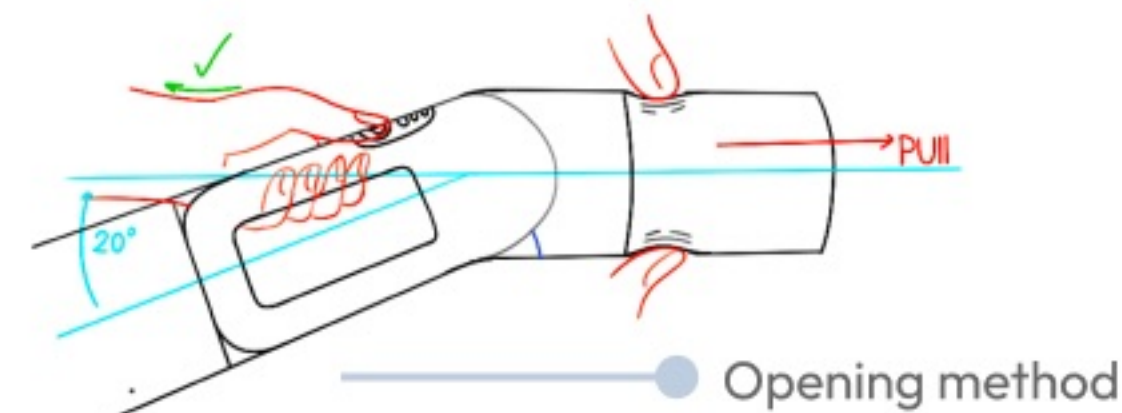
- The waiting time while turning the product on needs to be eliminated to prevent confusion.
- We should increase the motor's quality for more suction power.

- The handle needs to be more ergonomic by adjusting the angle.
- We should make users understand that the filters can be separated by color change and indication.

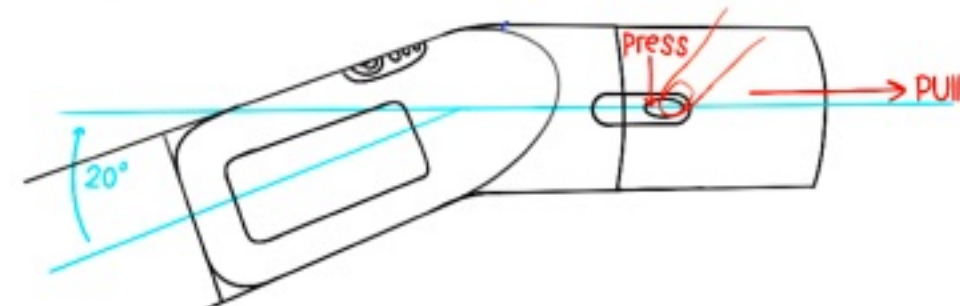
- The method of placing the dust bin back to its place should be easier to understand
- The colour of the product needs to be changed.

Ideation

Sketches



Opening method



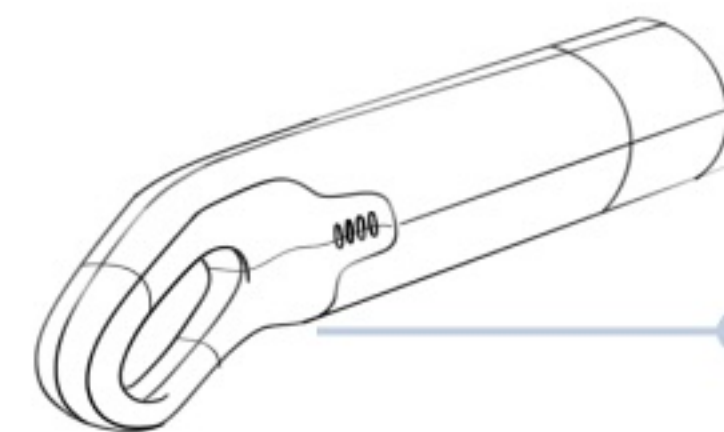
Finger rest for comfortable use

2 different colors to hint that there are 2 filters when closed



Placing the button within easy reach of the hand

Finger rest



Adding an angle to the handle for ergonomic use

Mock-ups



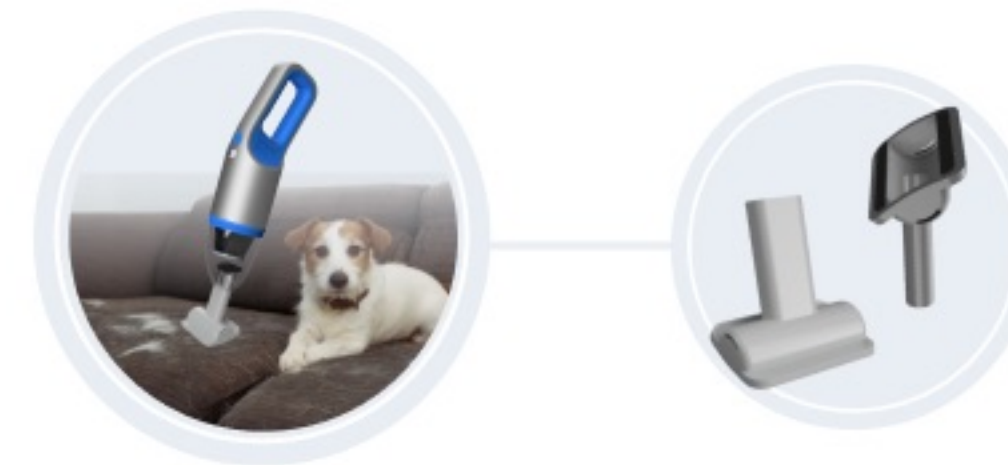
Finalization

KIWI
KVC4085

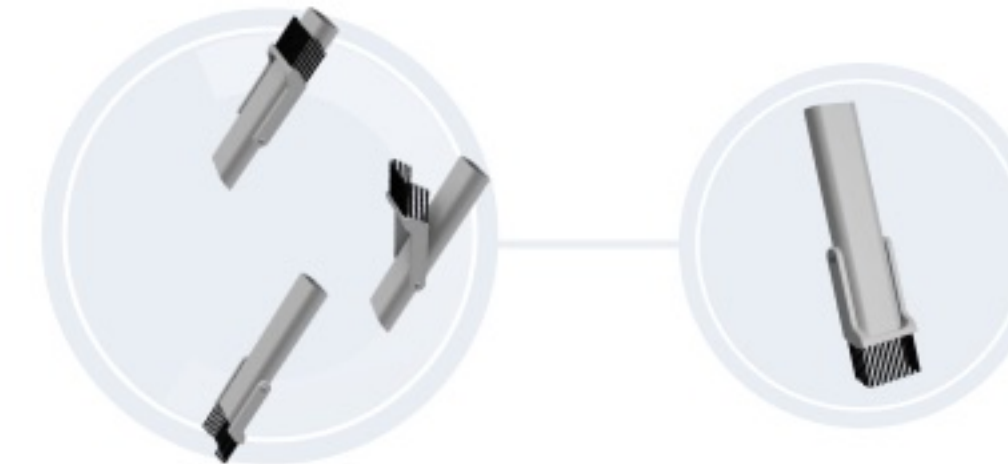


● Attachments

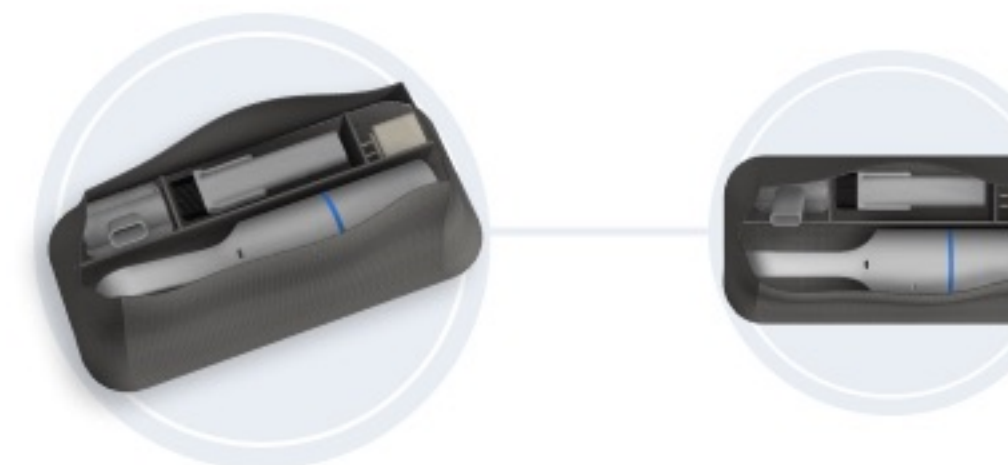
- Nozzle that's specified for pet hair - cambered base and soft strips for more effective hair collection



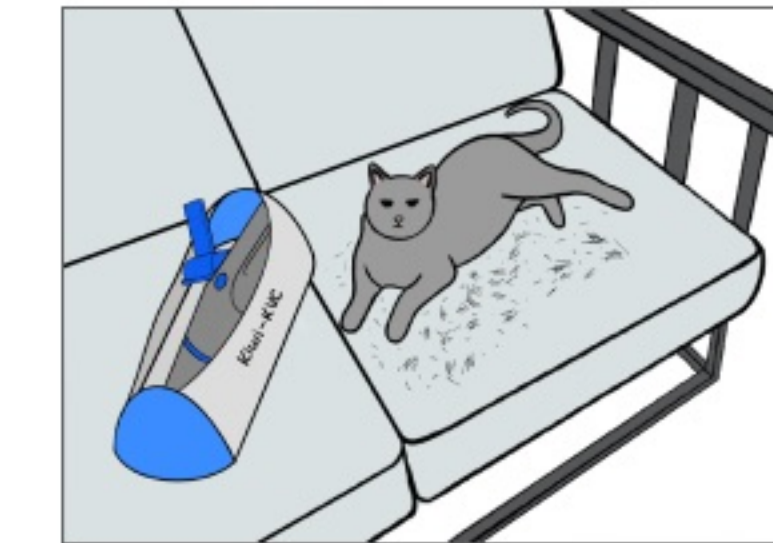
- Reversible 2 in 1 nozzle - provides extension, agitation and surface adaptability



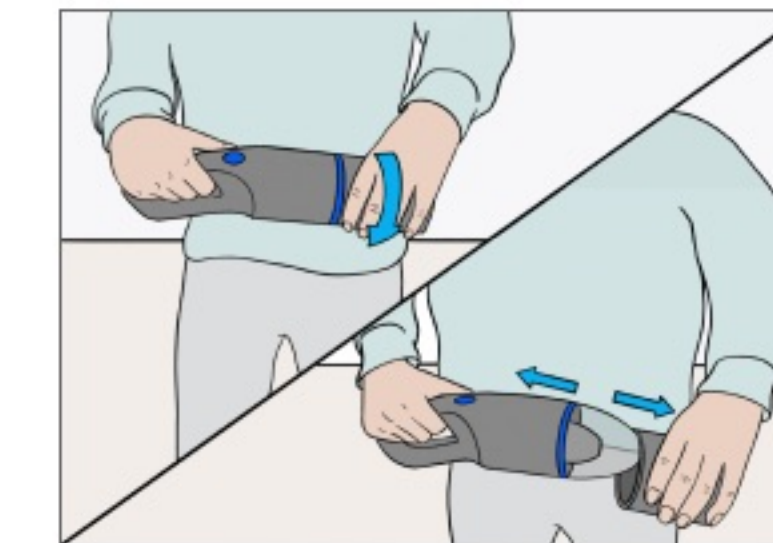
- Organized bag for easy carrying and storage



● Scenario



Efe saw that there are lots of pet hair on sofa, he decided to use the hand vacuum cleaner which has special nozzles for pet hair.



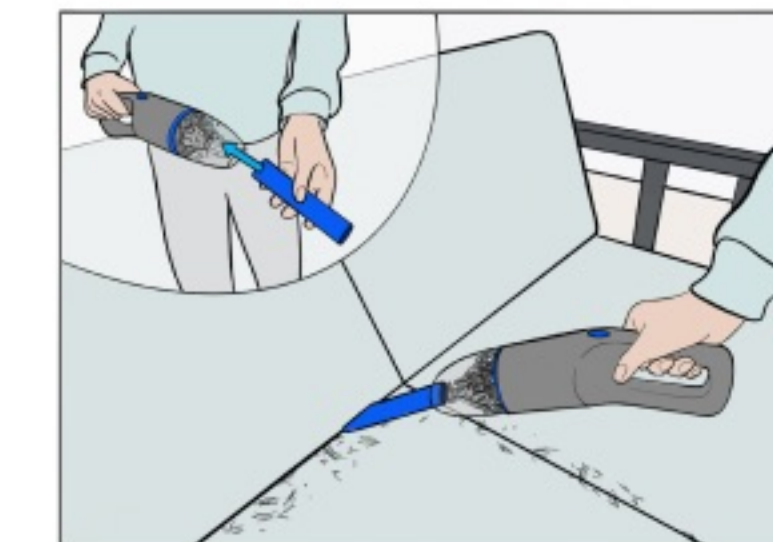
He took off the vacuum cleaner's lid before using.



He wanted to use nozzle which has special surface and shape for cleaning the pet hair.



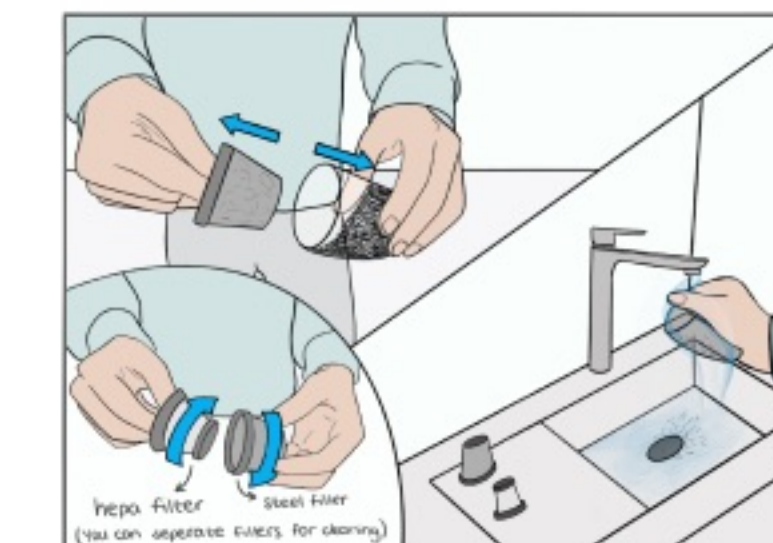
He turned on the vacuum cleaner by pressing the on-off button and cleaned the sofa.



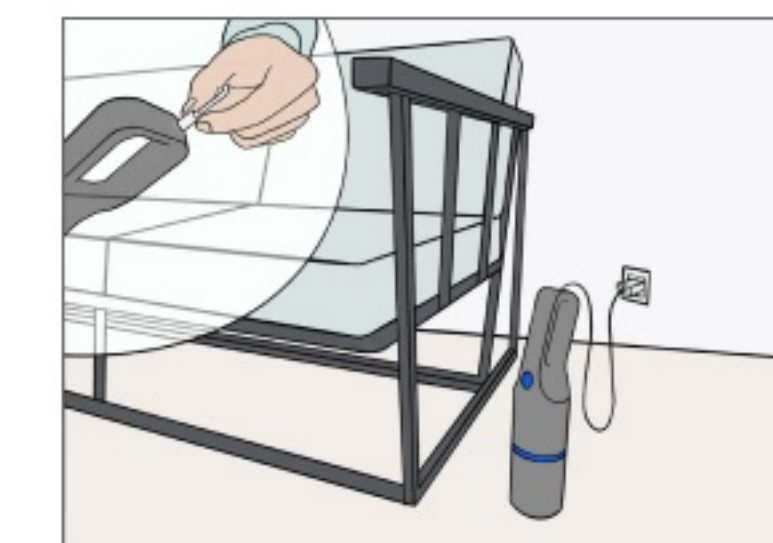
Then he changed the nozzle, he used to other nozzle for corners.



After using he took off the dust bin for cleaning the vacuum cleaner.



After dumping the dirt in the trash, he washed all the parts and let them dry.



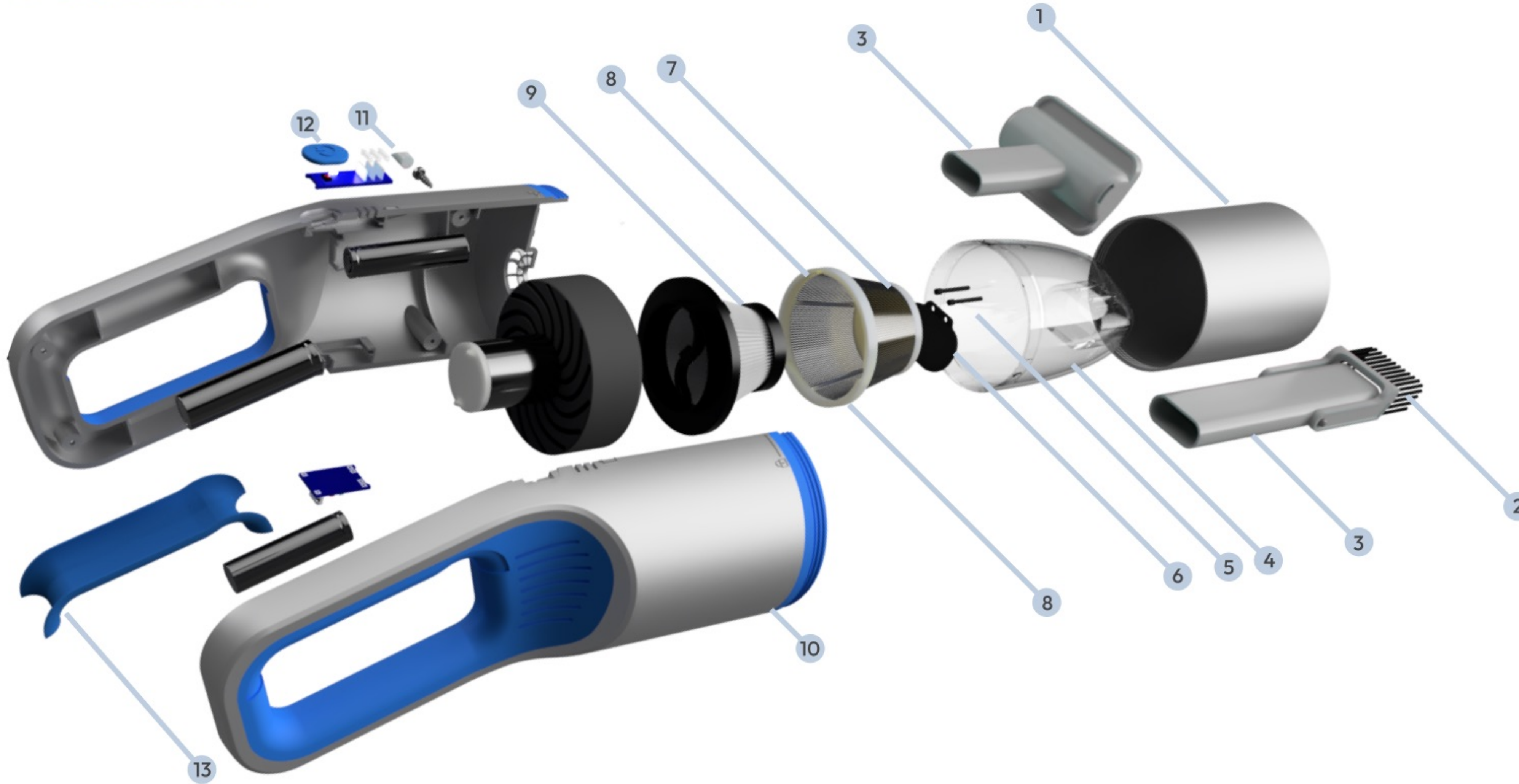
After all the parts dried, he assembled the parts and plugged the vacuum cleaner in to charge.

Technical Details

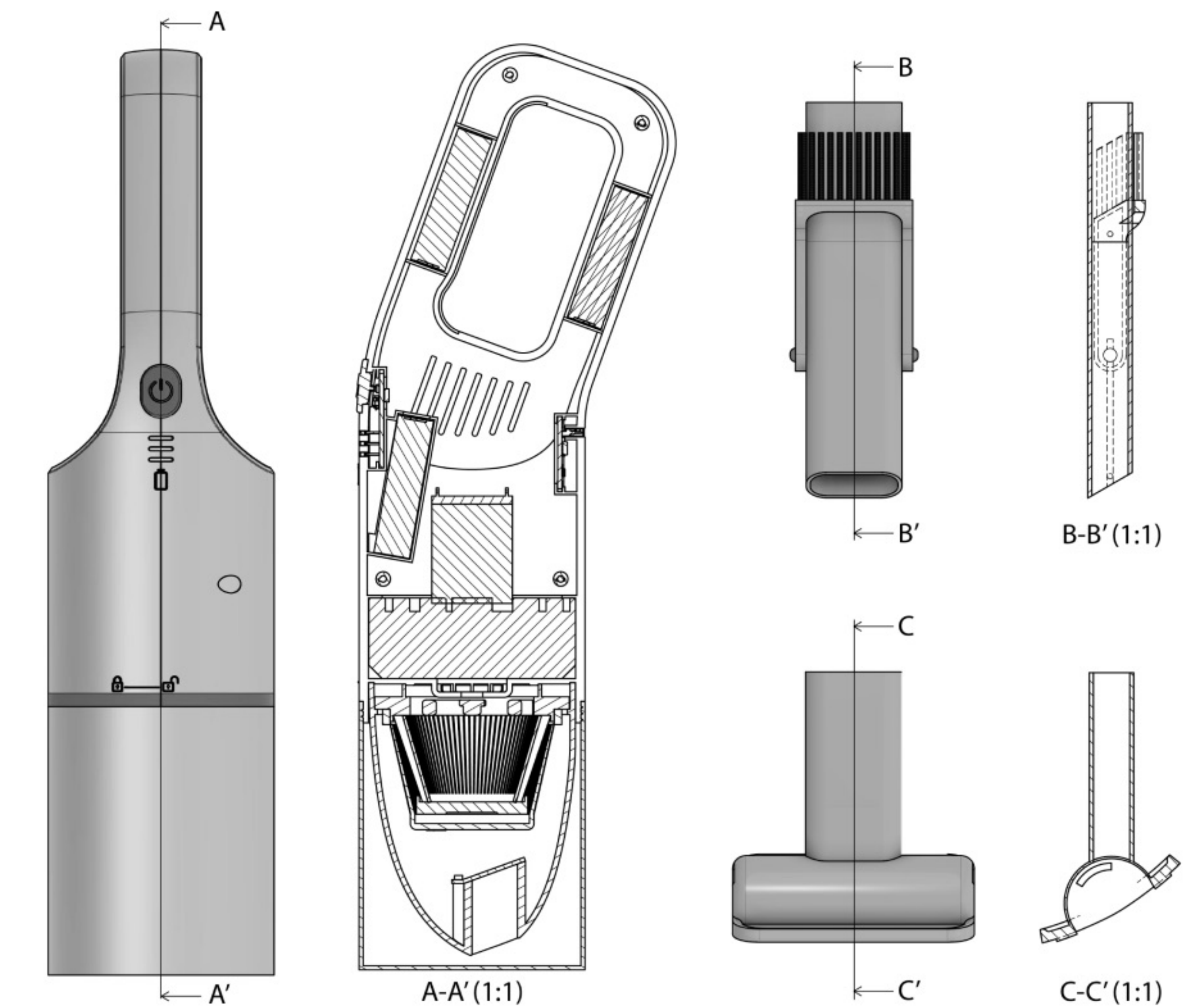
Component List

- 1 Cover
ABS
- 2 Brush
Nylon
- 3 Nozzle
ABS
- 4 Dust Bin
PC
- 5 Plastic Screws
ABS
- 6 Lid
Natural Rubber
- 7 Filter Screen
Steel
- 8 Filter Skeleton
ABS
- 9 Hepa Filter
Fiberglass
- 10 Main Body Part
ABS
- 11 Screw
Steel
- 12 Button
Natural Rubber
- 13 Handle Grip
Natural Rubber

Exploded View



Section View



2

LOOP

active-play equipment
for preschool children

Collobration with Mamatoyz

ID 202 - 2023
Team Project
Öykü C. Karaayak,
Sude Sürmen, Doğa Doğruoğlu,
Ümmehan N. Gökçe



User research



Children love running freely and engaging in active play.



Children are interested in sliding down the slide and playing different slide games.



Jumping over things and trying to balance improves gross motor skills.



The toys they play with are very important in terms of developing children's creativity.



Children love swinging and said it makes them feel free.



Field Research



Insights

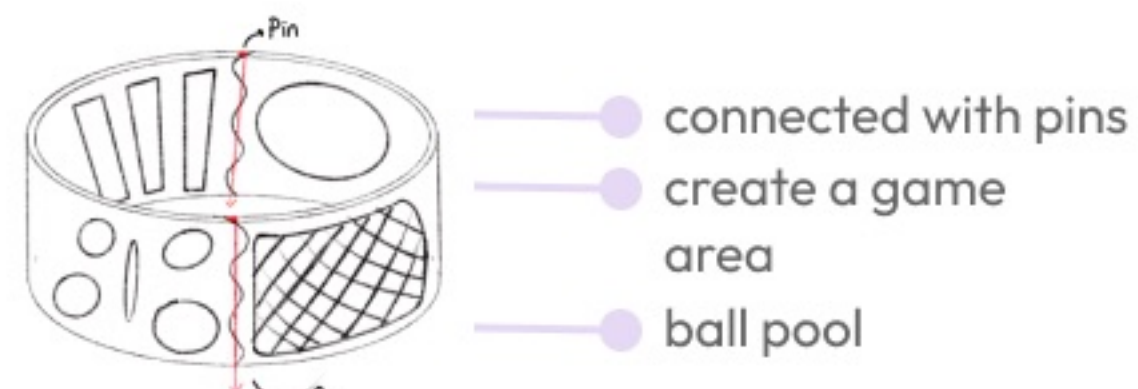
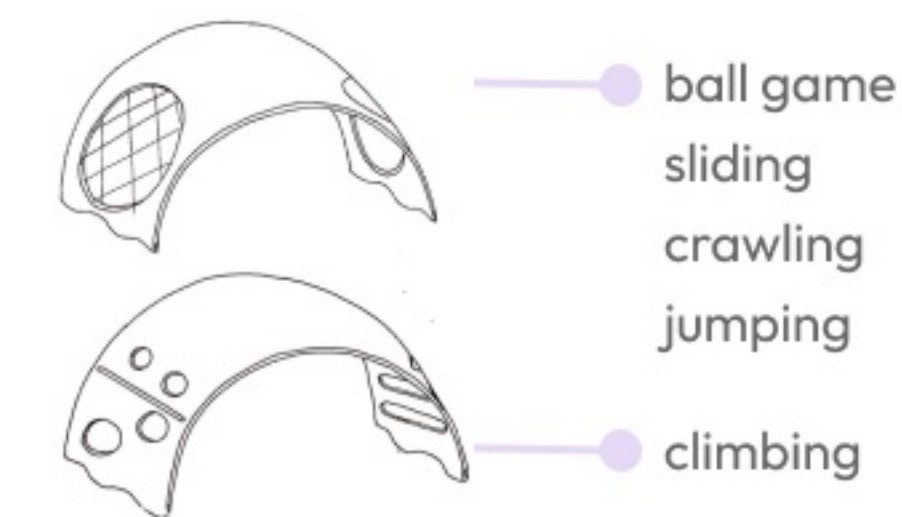
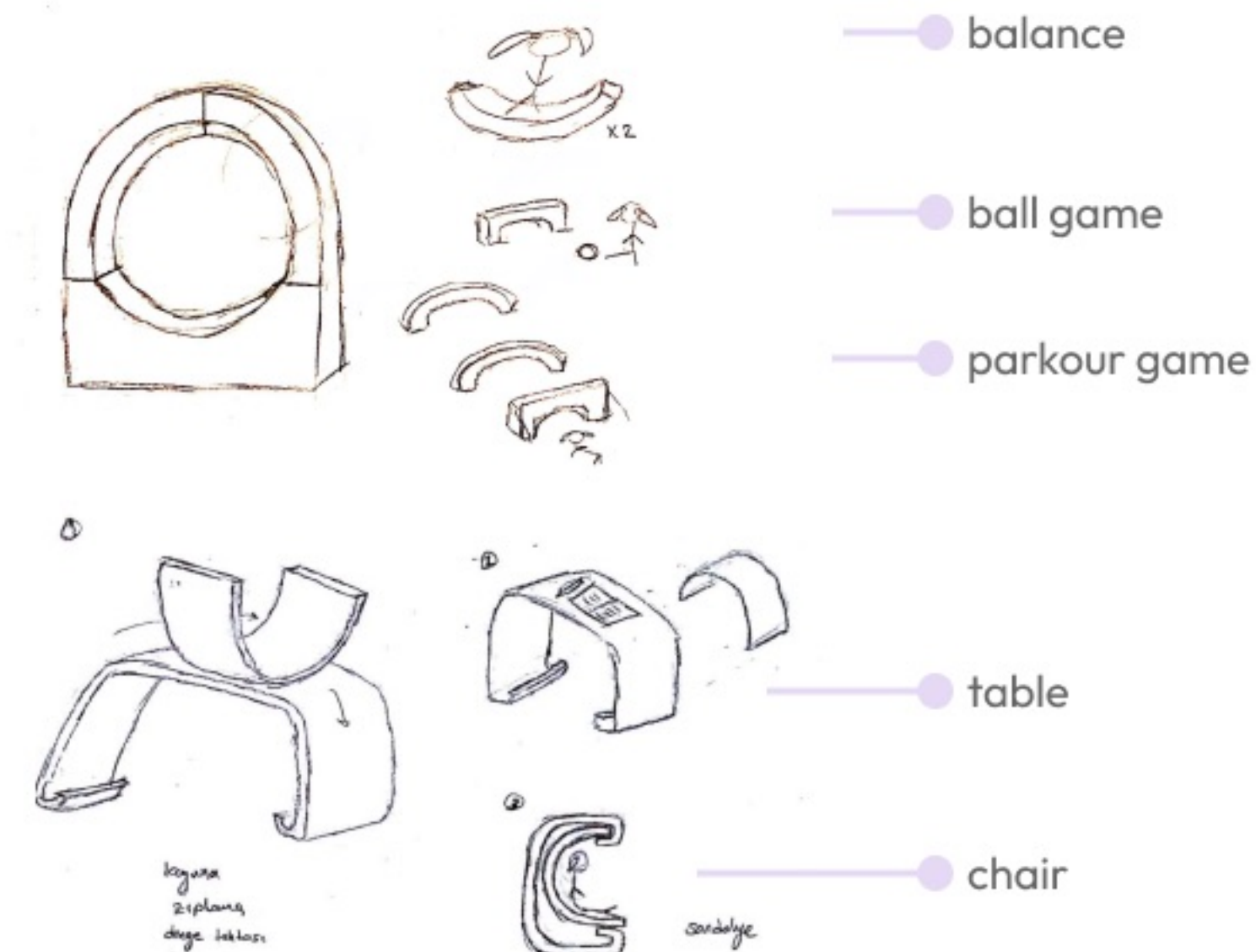
- Toys that will enable their physical development and strengthen their motor skills and balance
- Versatile toys so they can play for a long time without getting bored

- Developing their creativity by reinterpreting toys and creating new games on their own
- Smooth corners to prevent accidents and non-slip surfaces for climb-on toys

- Supporting activities such as swinging, climbing, sliding and balancing that support active play
- A toy with versatile uses (making different active play movements, containing different games, creating different areas)

Ideation

Sketches



Mock-ups

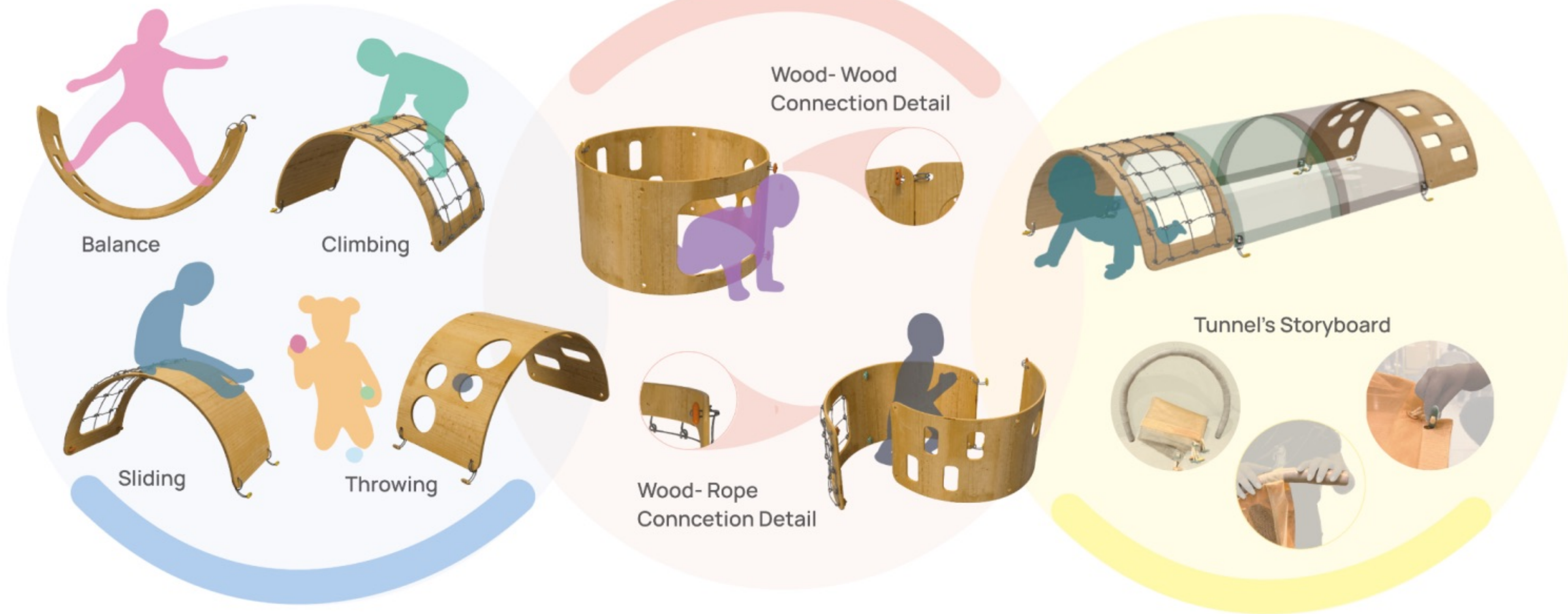


Finalization

Final Mock-ups



User Scenario & Details





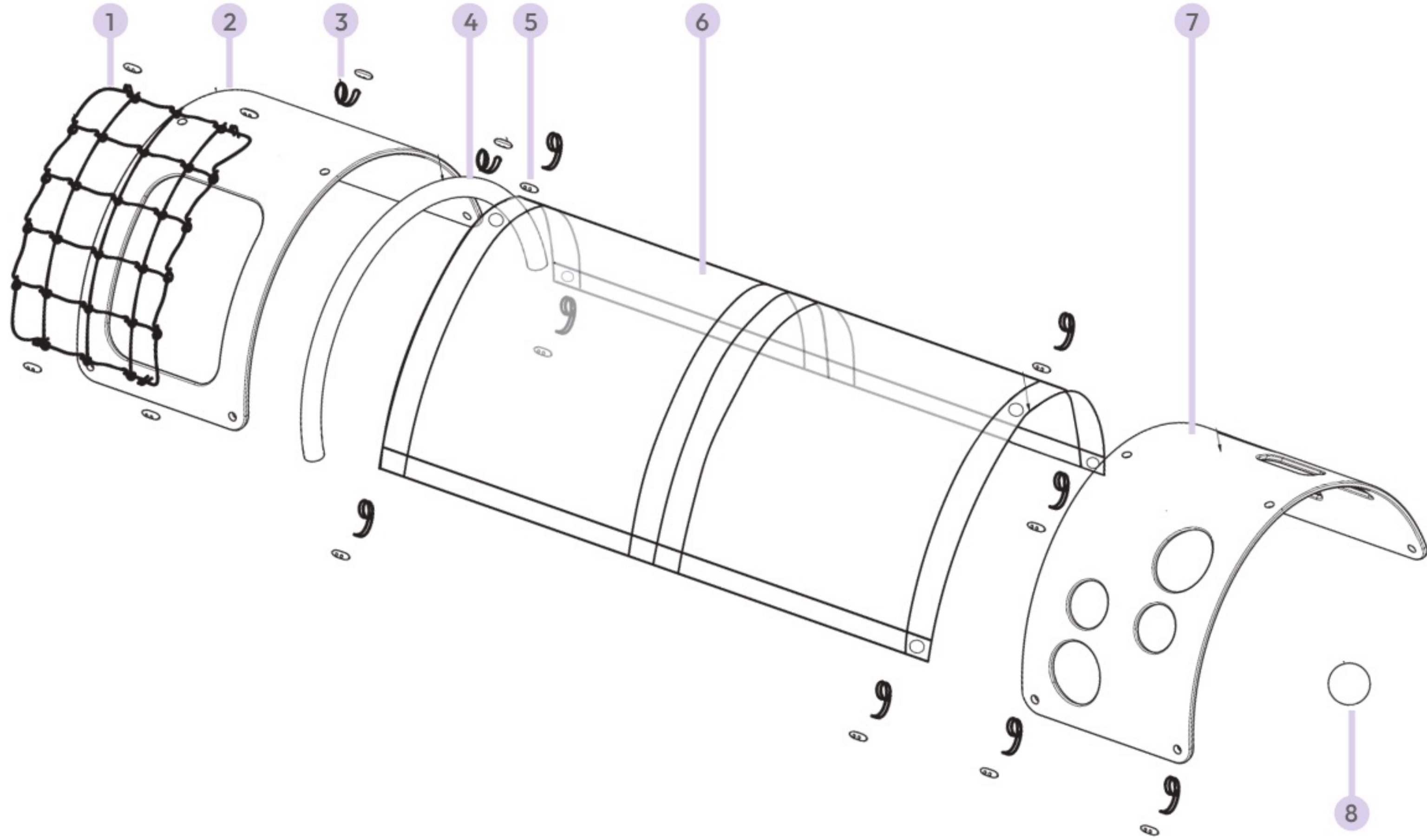
Technical Details



Component List

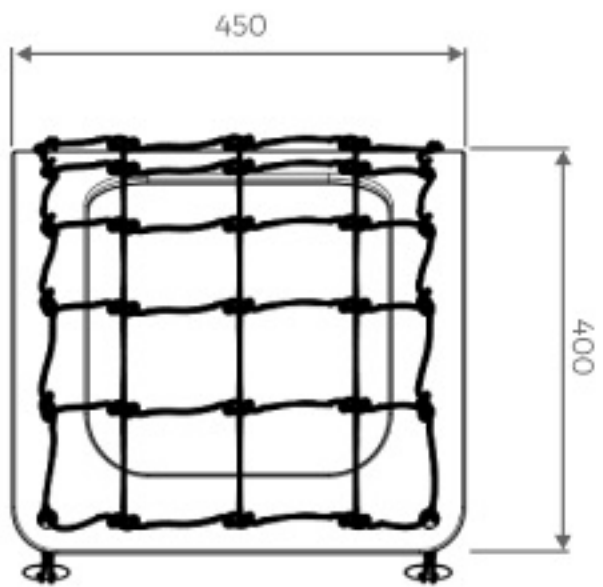
- 1 Rope Net
Cotton
- 2 Board
Plywood
- 3 Rope x 14
Cotton
- 4 Tunnel Structure
Polyurethane
- 5 Shepherd Button x 14
Wood
- 6 Tunnel
Fabric
- 7 Board
Plywood
- 8 Ball x 6
Plastic

Exploded View

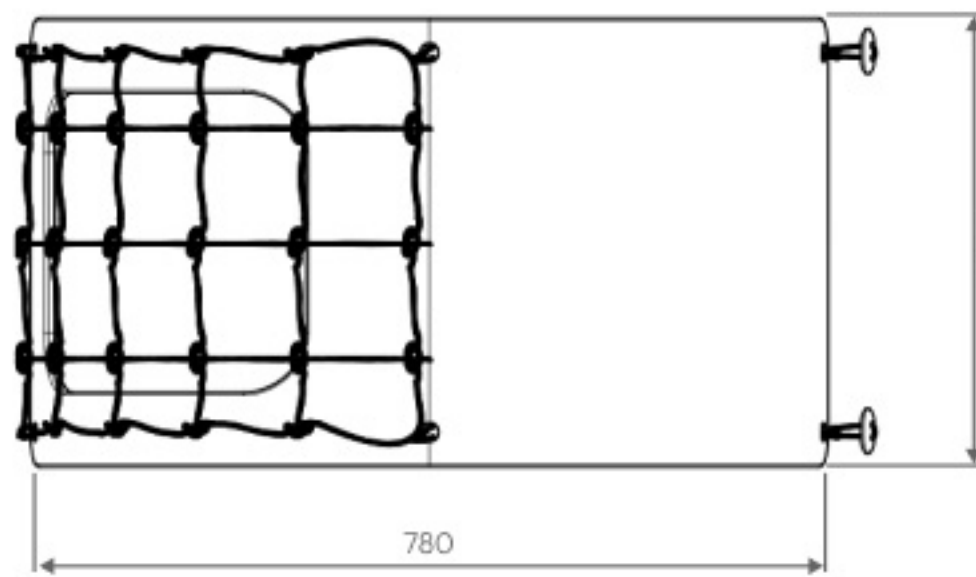


Ortographic View

2



Front

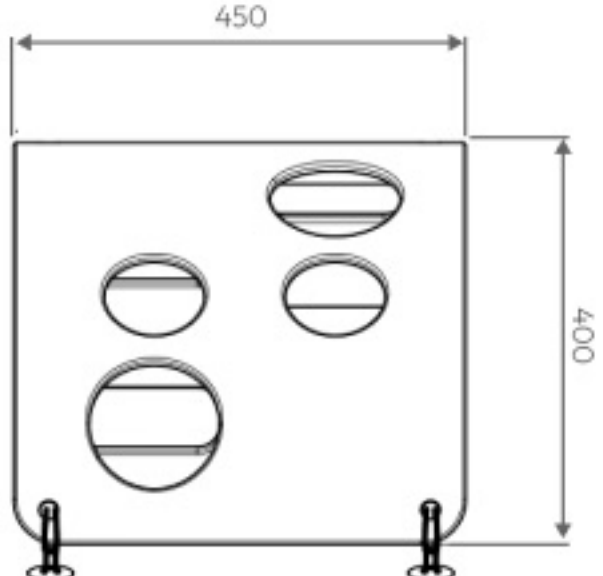


Top

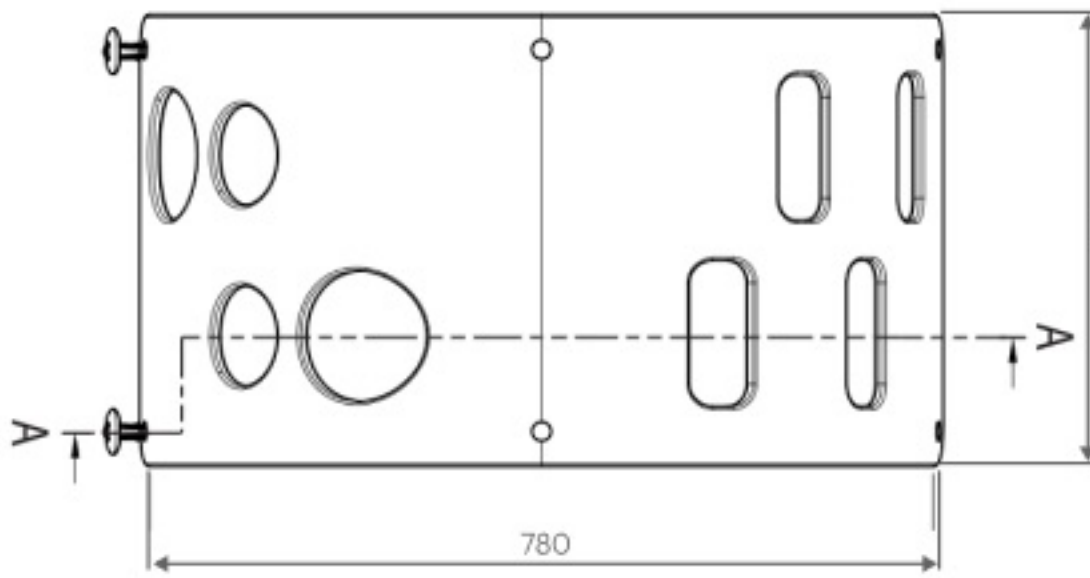


Side

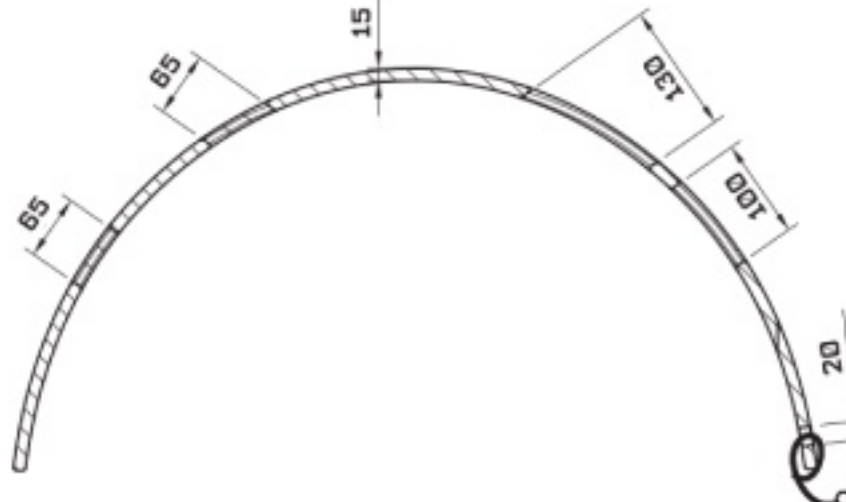
7



Front



Top



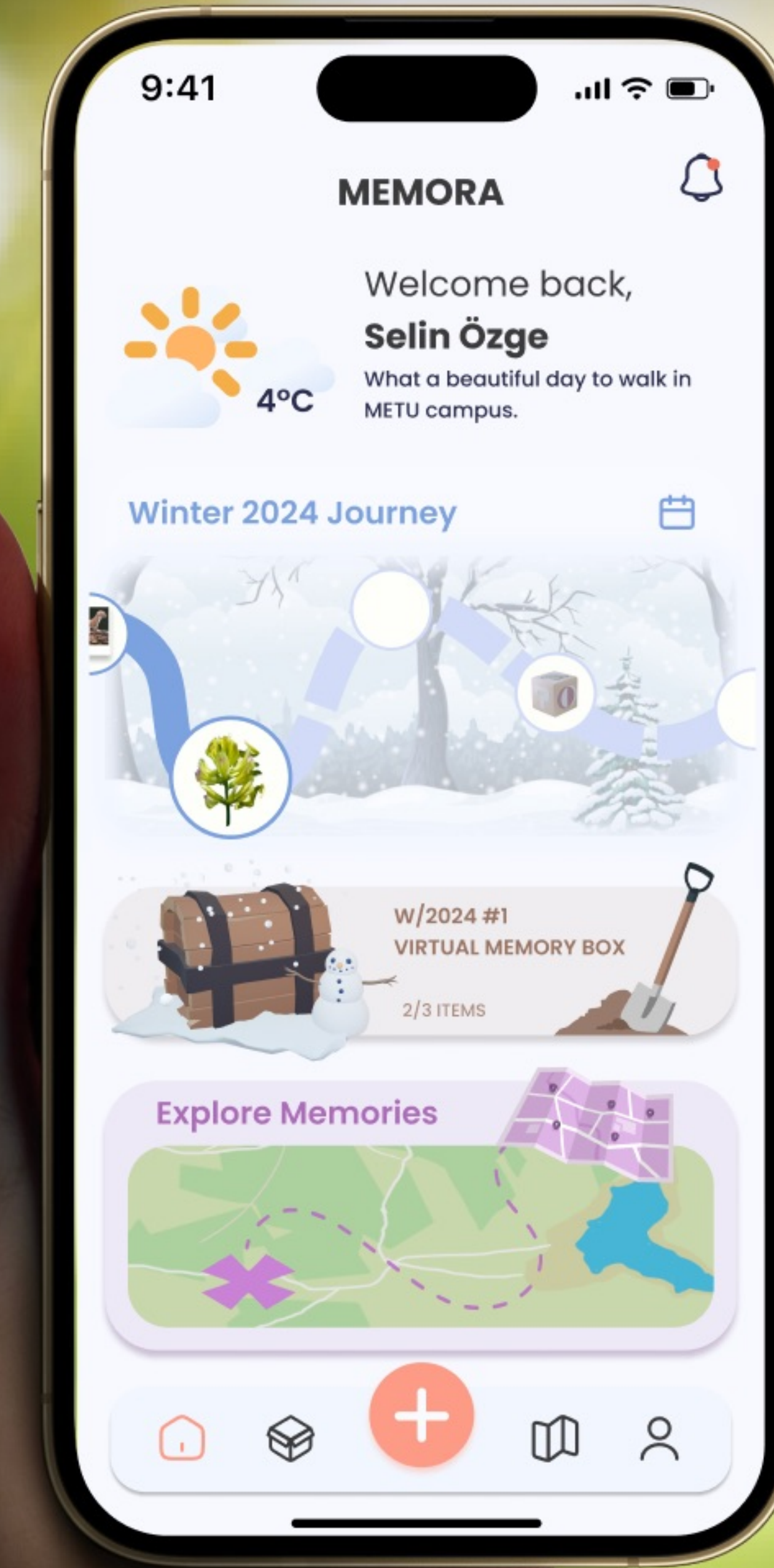
Section A-A

3

MEMORA

App designed to become aware of and be informed about the natural beauties of Metu.

ID 301 - 2023
Team Project
Öykü C. Karaayak,
Bilgesu Güvenç, Selin Ö. Serban
Kerem M. Saçkesen



Ideation

In this ideation part, after deciding what will be in the navigation bar, we gathered the things that came to our mind about the contents of our 4 main headings.

Homepage

- Hello...
- Notification
- Weather conditions
- Journey map
- Seasonal themes
- Tasks (daily facts, explore, find/burly boxes)

Collection

- Search bar
- Create memory (3D scan, record voice, take picture)
- My memory collection (3D objects, voice records, postcards)

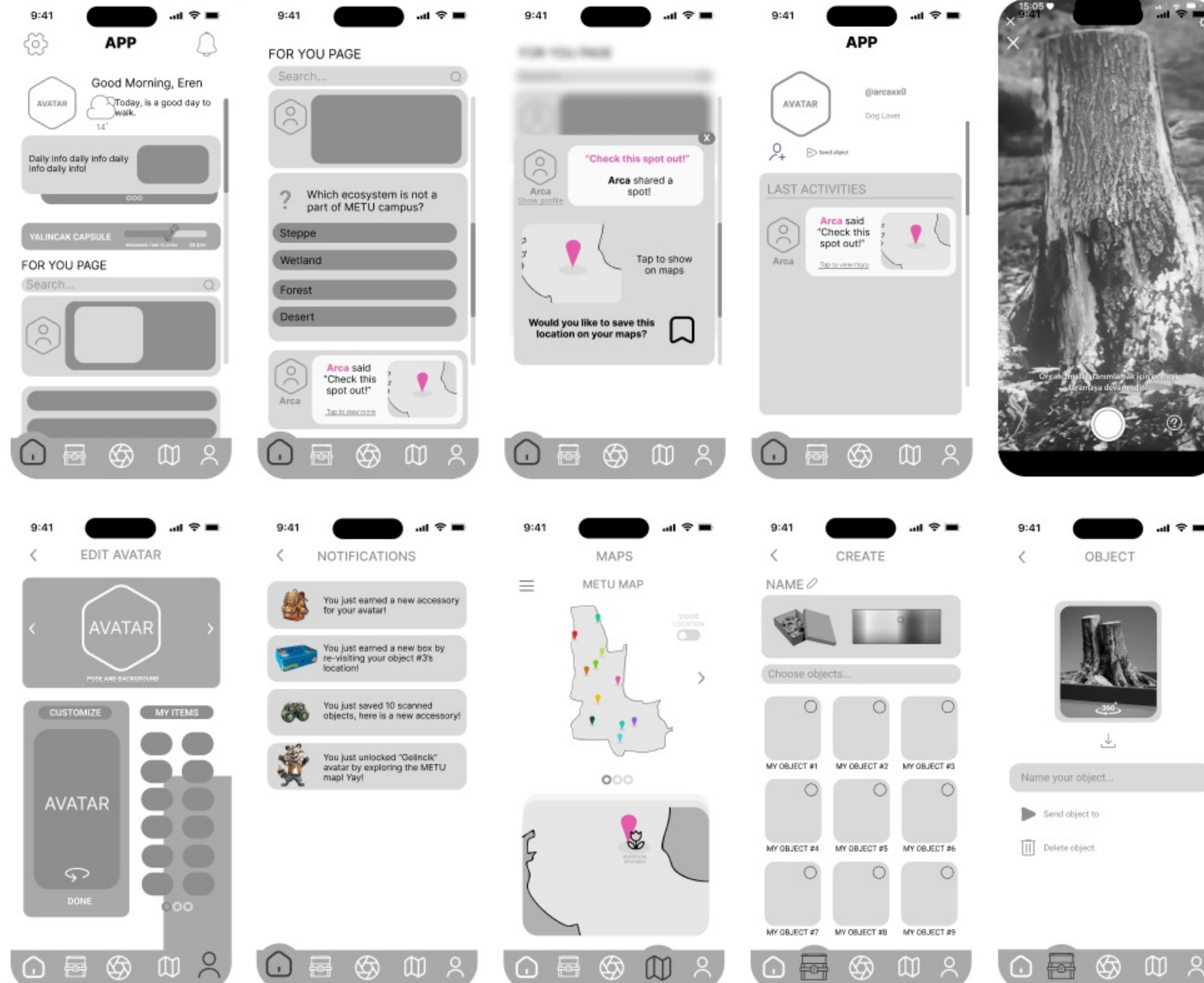
Profile

- Pinned objects map
- Profile photo
- Followers / Following
- Settings
- Share profile
- Edit profile
- My journey maps

Extra Ideas

- Journey map
- Pinned object map
- Search friends
- Game page
- Suggested activities
- Giving a route
- Educational informations

Low Fidelity Wireframes

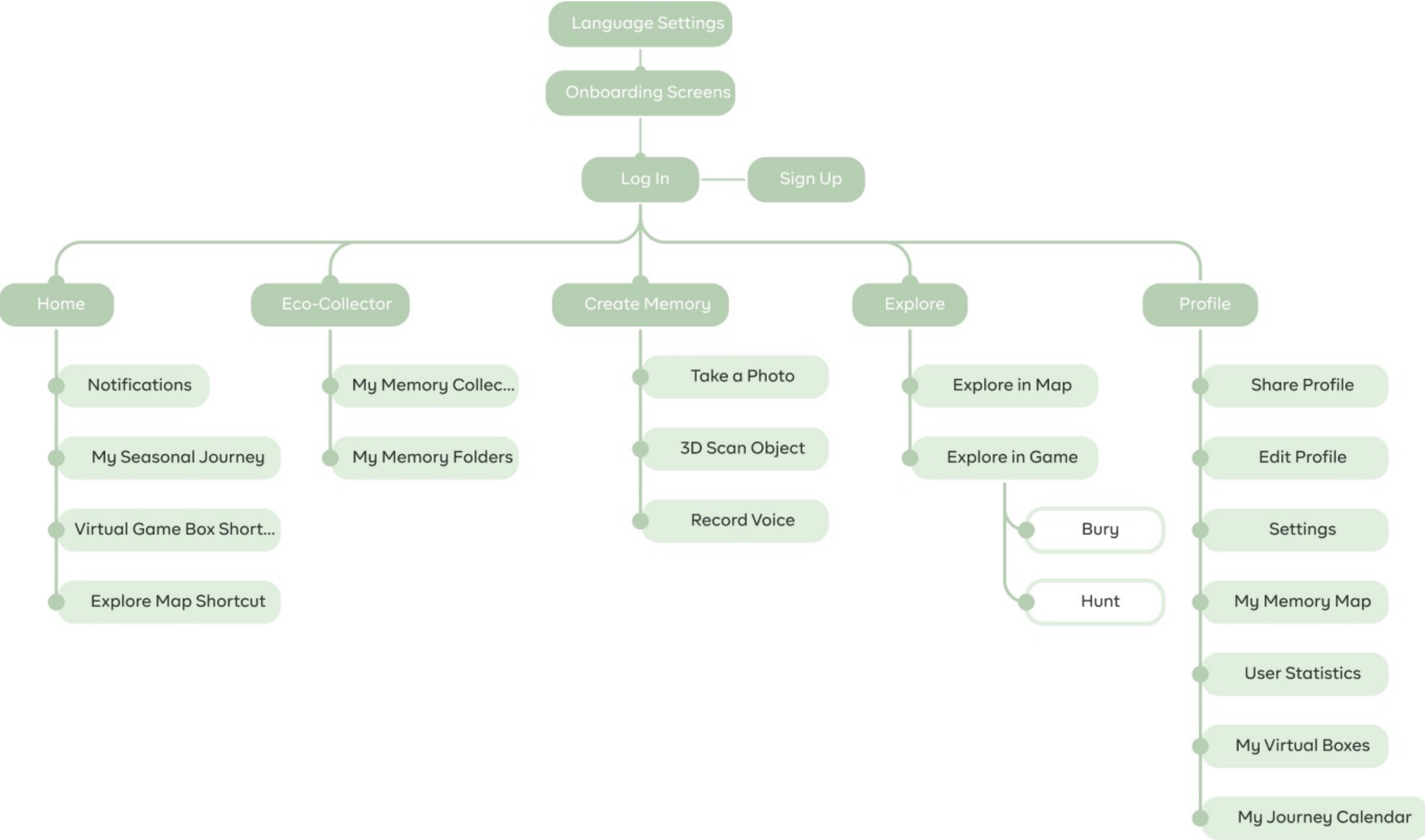


Paper prototype



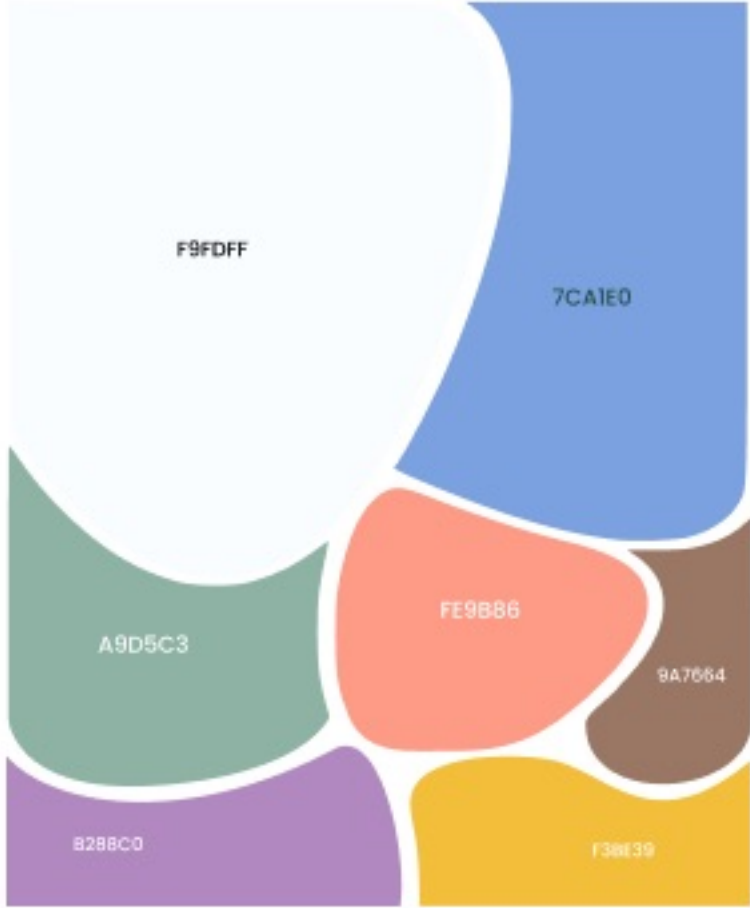
Finalization

● Information Architecture

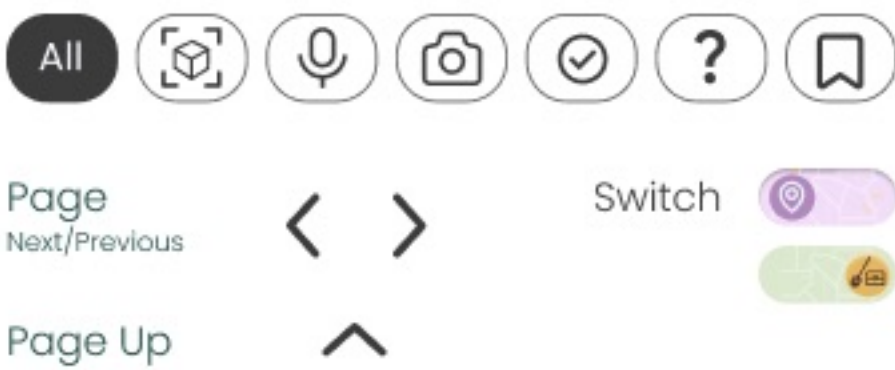


● UI Design System

Color Palette



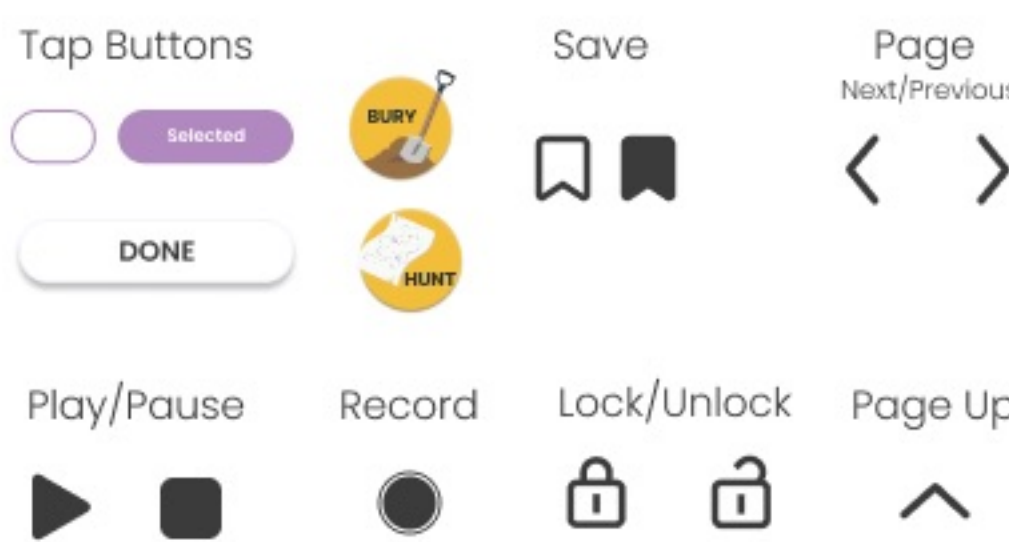
Transition



Themes



Buttons



Typography

Font Family
POPPINS

Bb Dd Gg Pp Rr Yy
Aa Ee Oo Uu Zz Tt

Aa Aa Aa
Poppins Light Poppins Regular Poppins Bold

Icons



Navigation Bar



Finalization



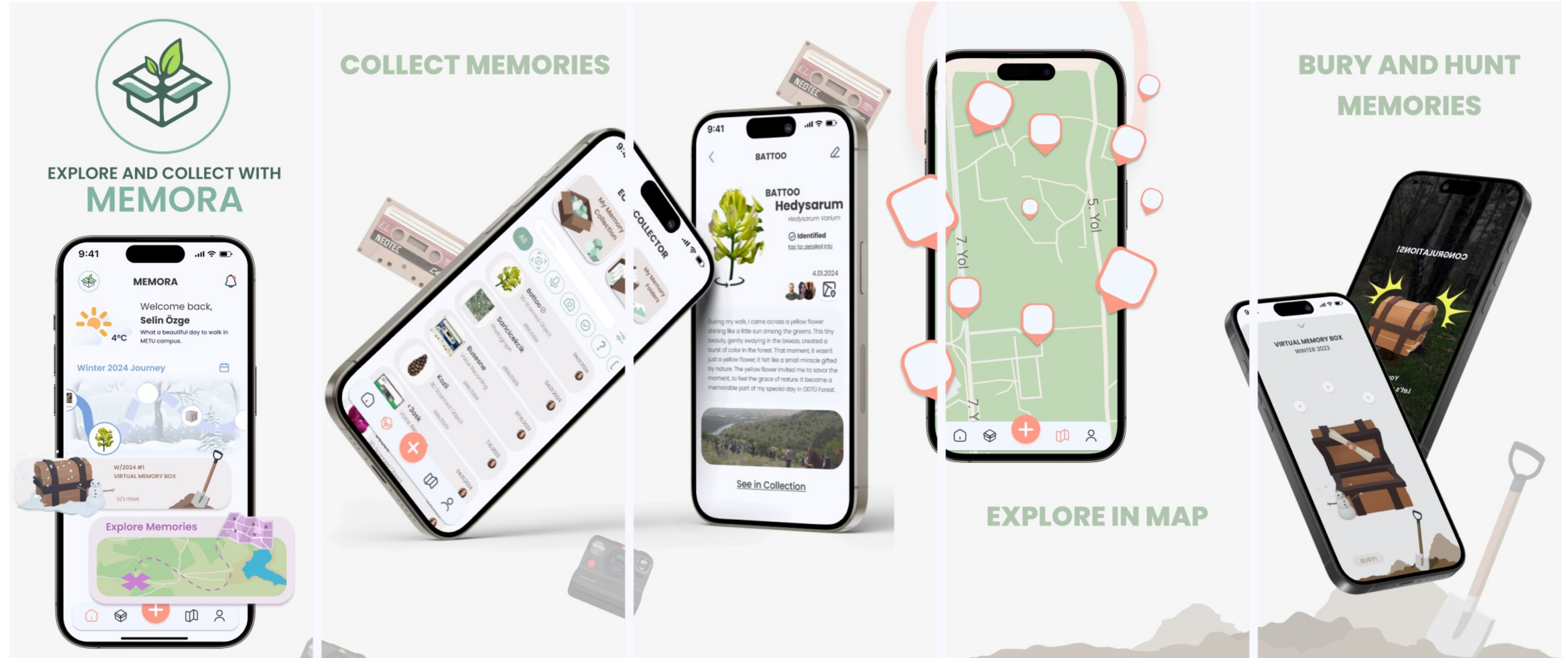
Memora

Explore and Collect Memories

GET

Entertainment & Education

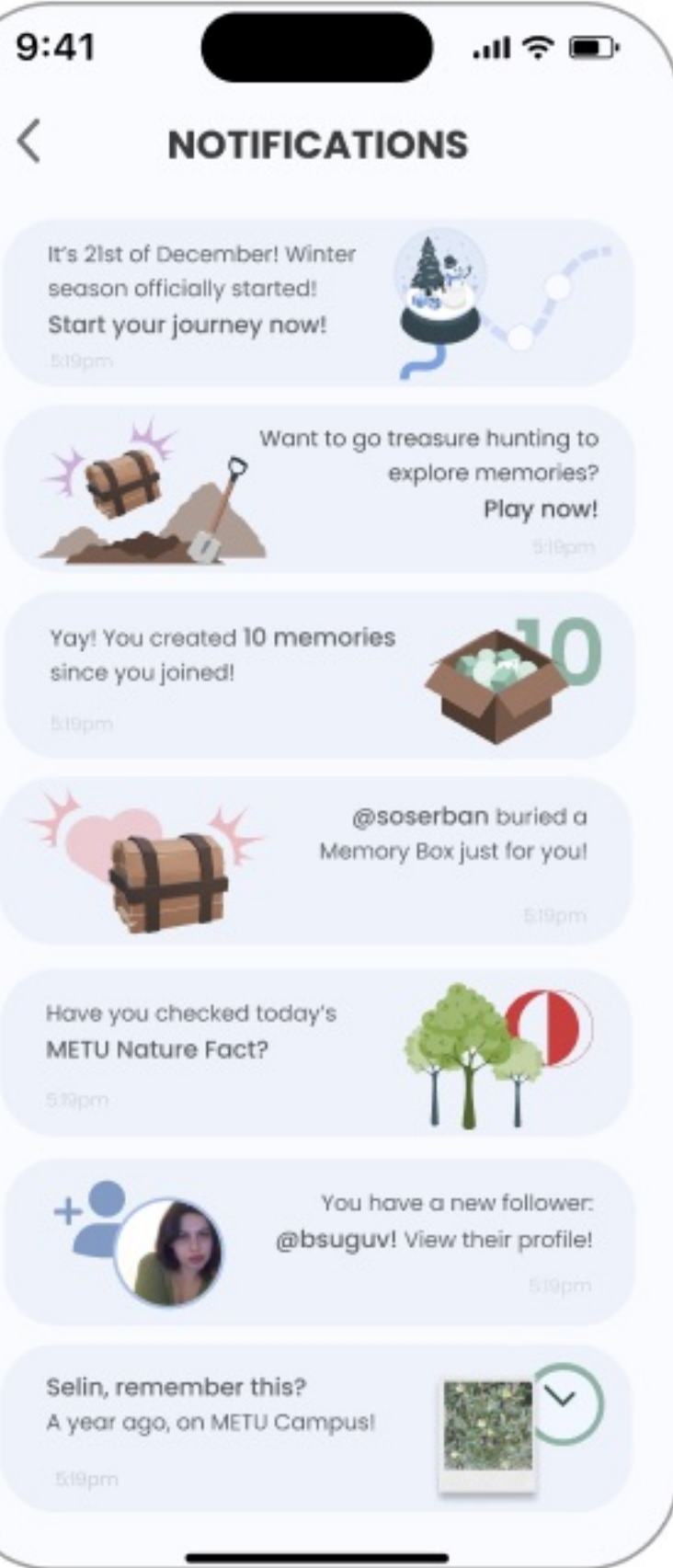
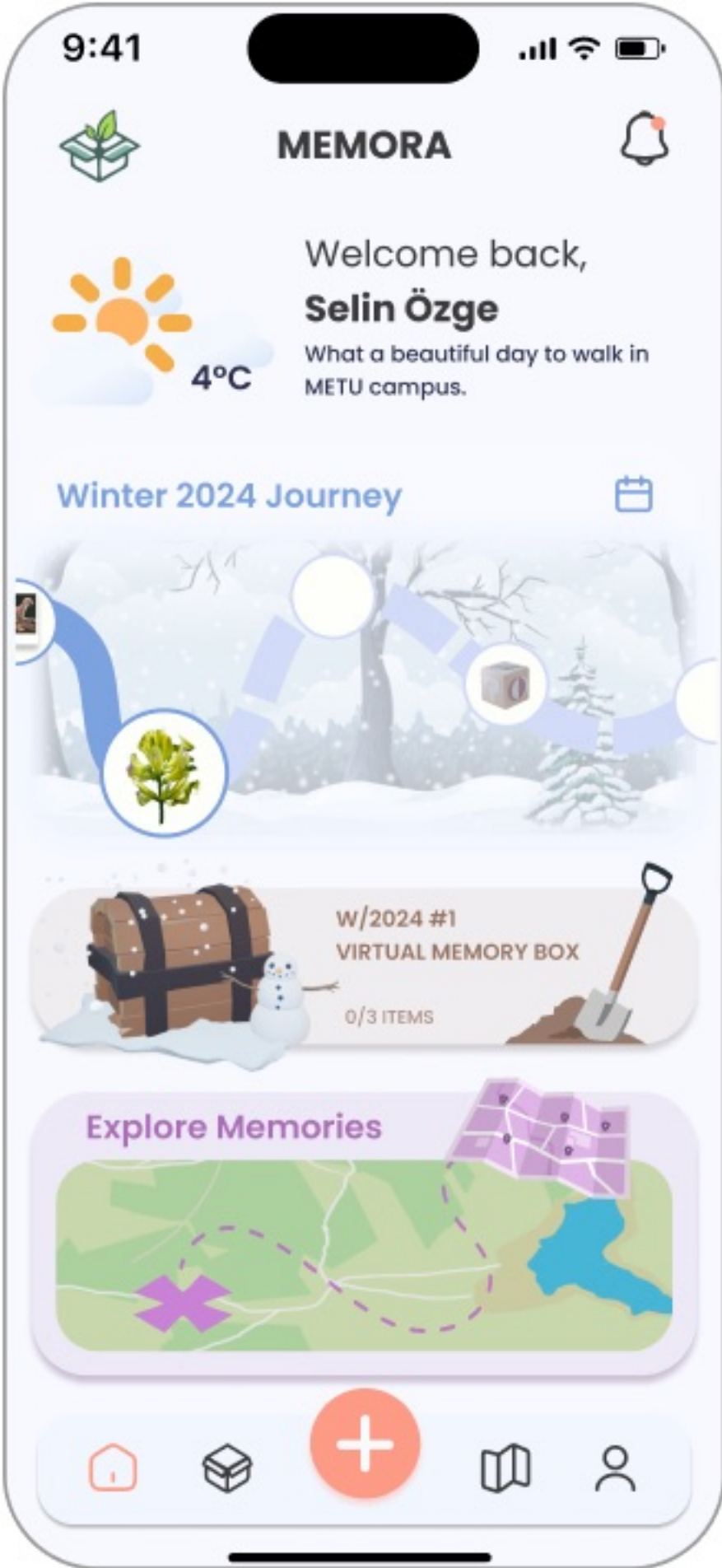
Memora app lets the user capture their memories at METU by 3D scanning objects, taking photos, and recording voices from the natural surroundings on the campus. Users can elaborate their memories on these captured visuals and create a collection of personal visual memories. Each memory is pinned on the METU map, and users can explore these memories both on the map and by virtual boxes in the game. Memora gives a unique way to preserve and share meaningful moments within the METU campus.



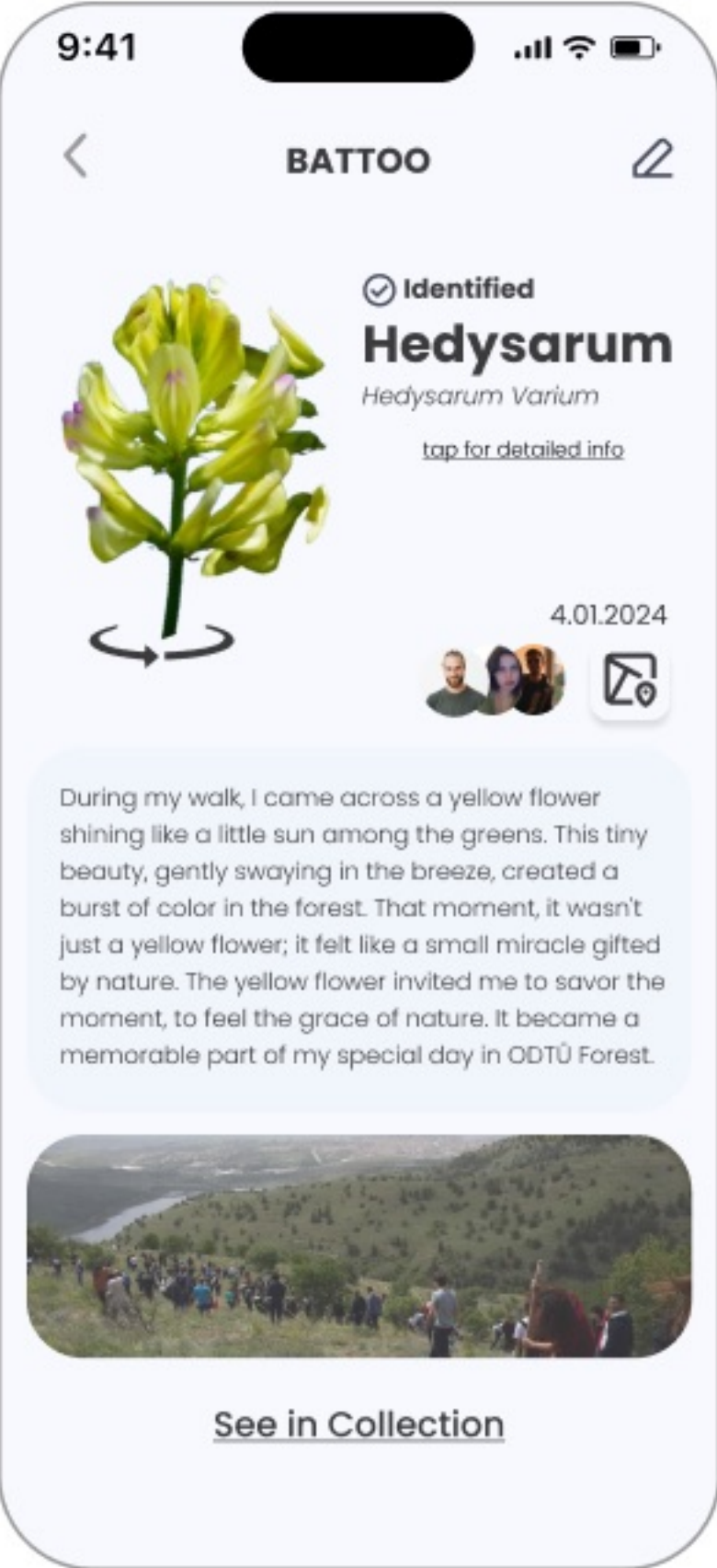
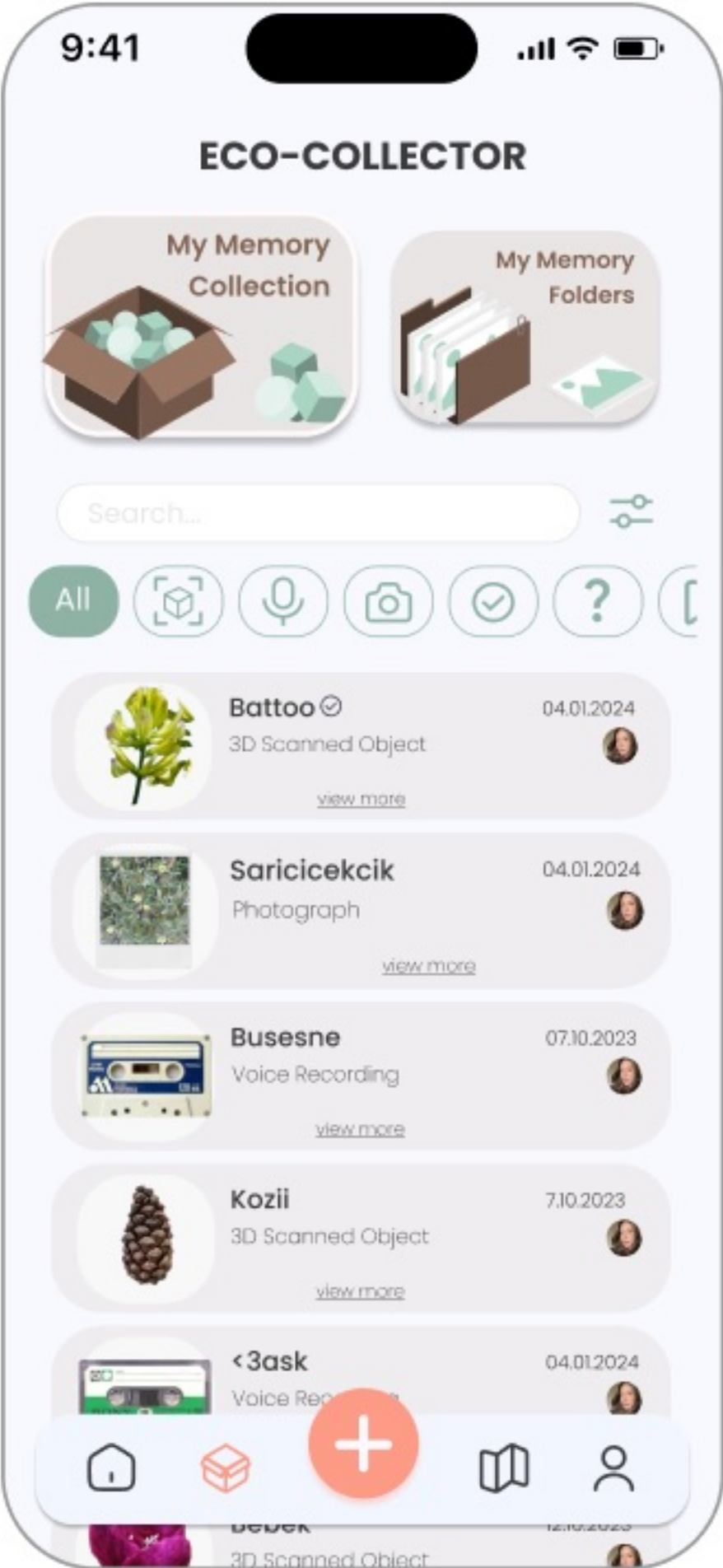
Finalization

Main Features

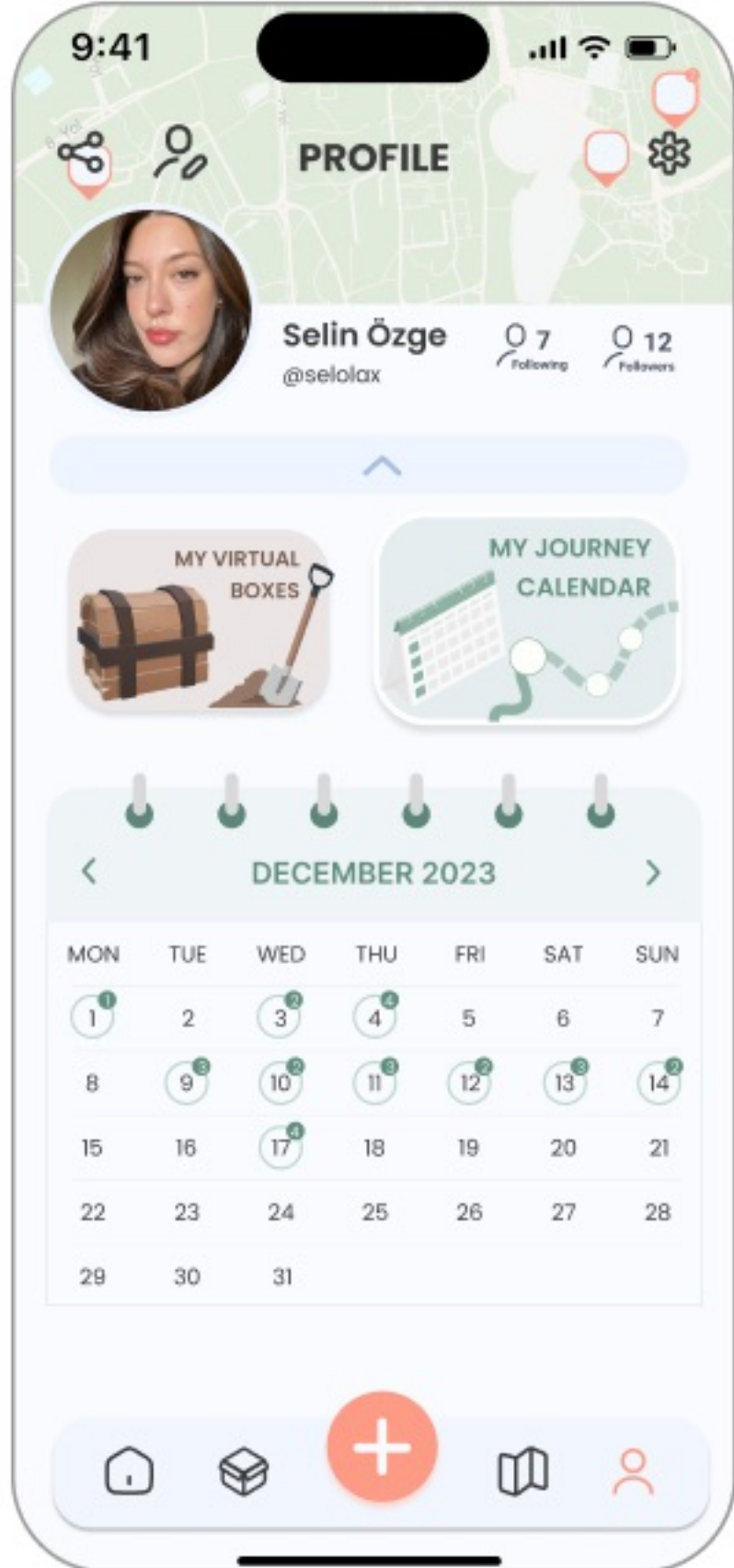
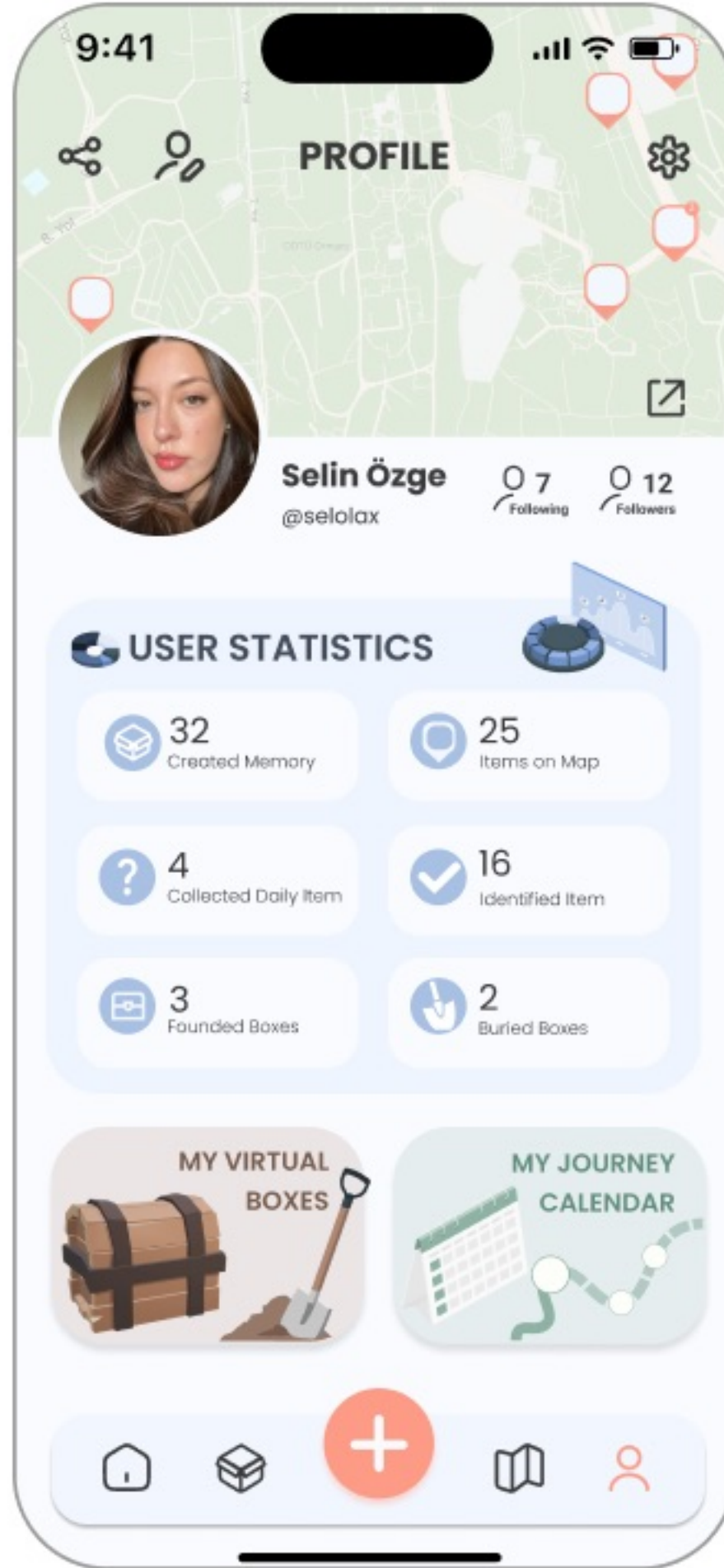
Homepage



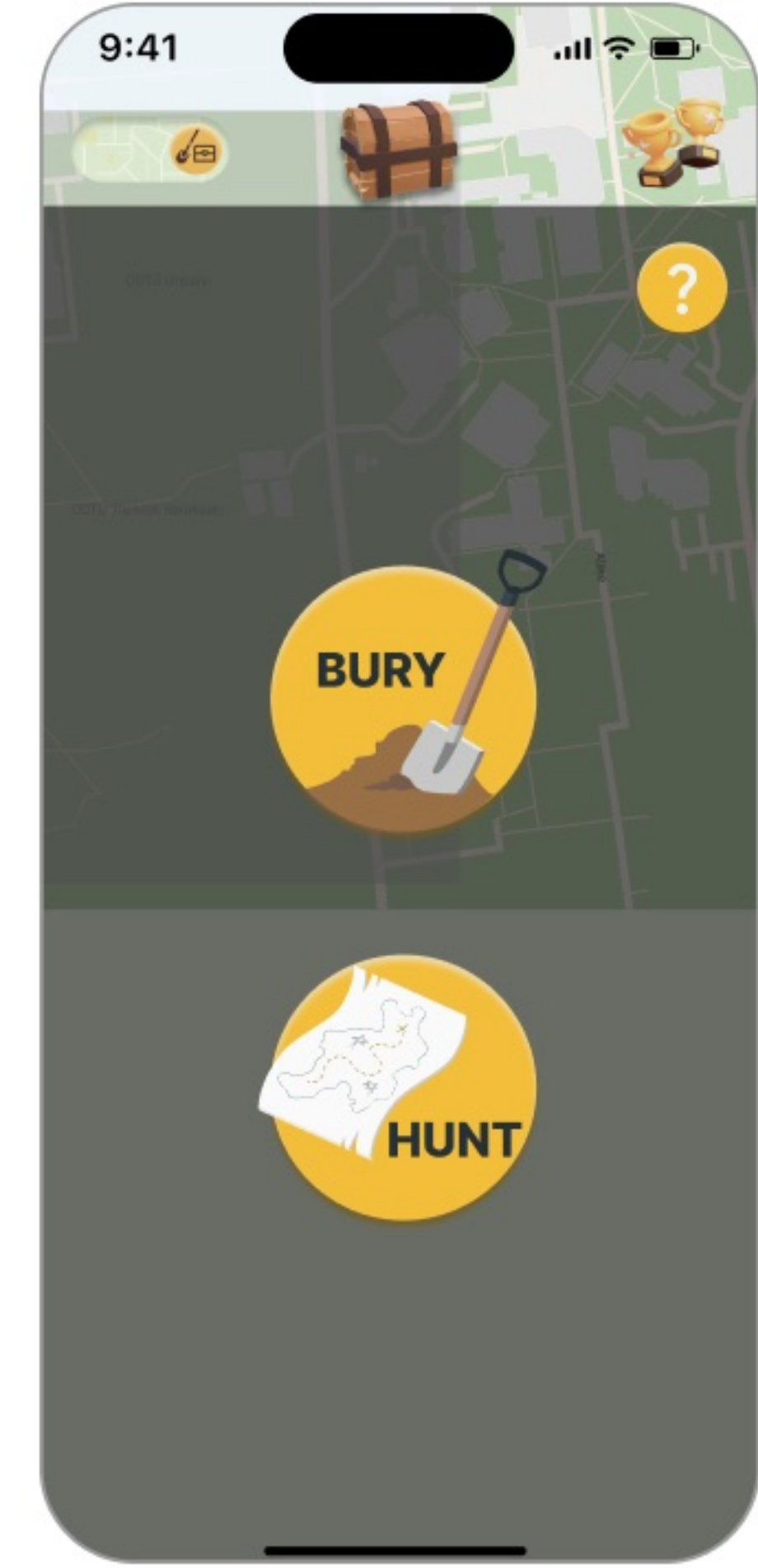
Eco-collector



Profile



Profile



4

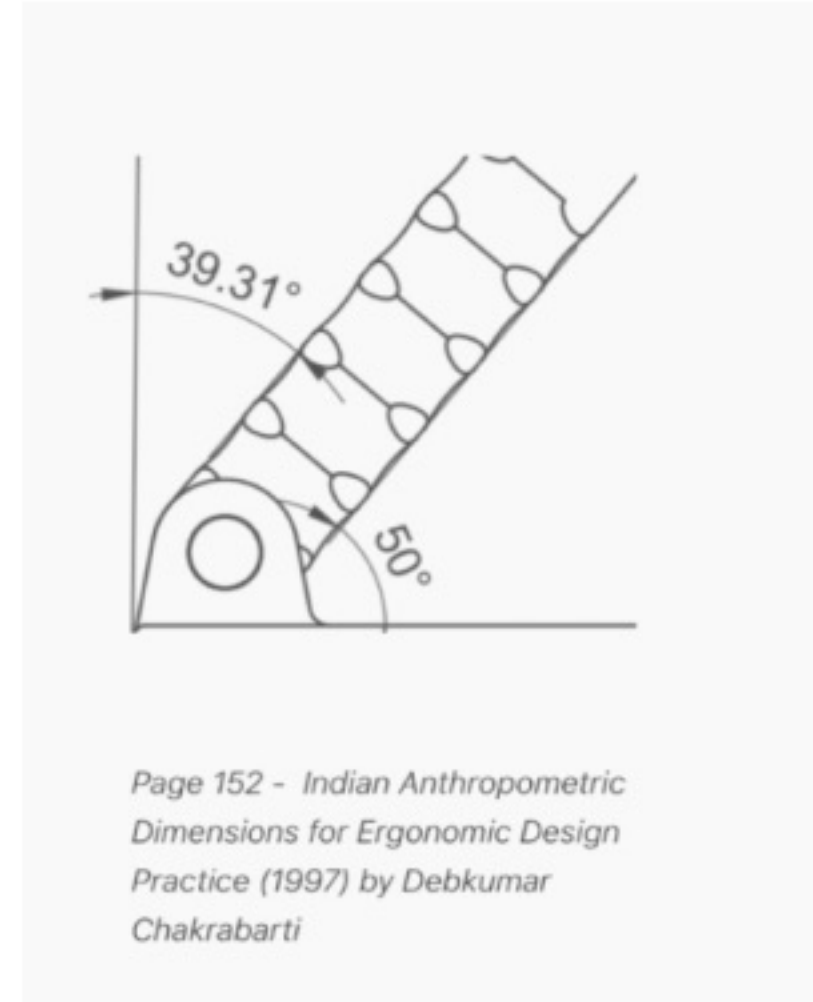
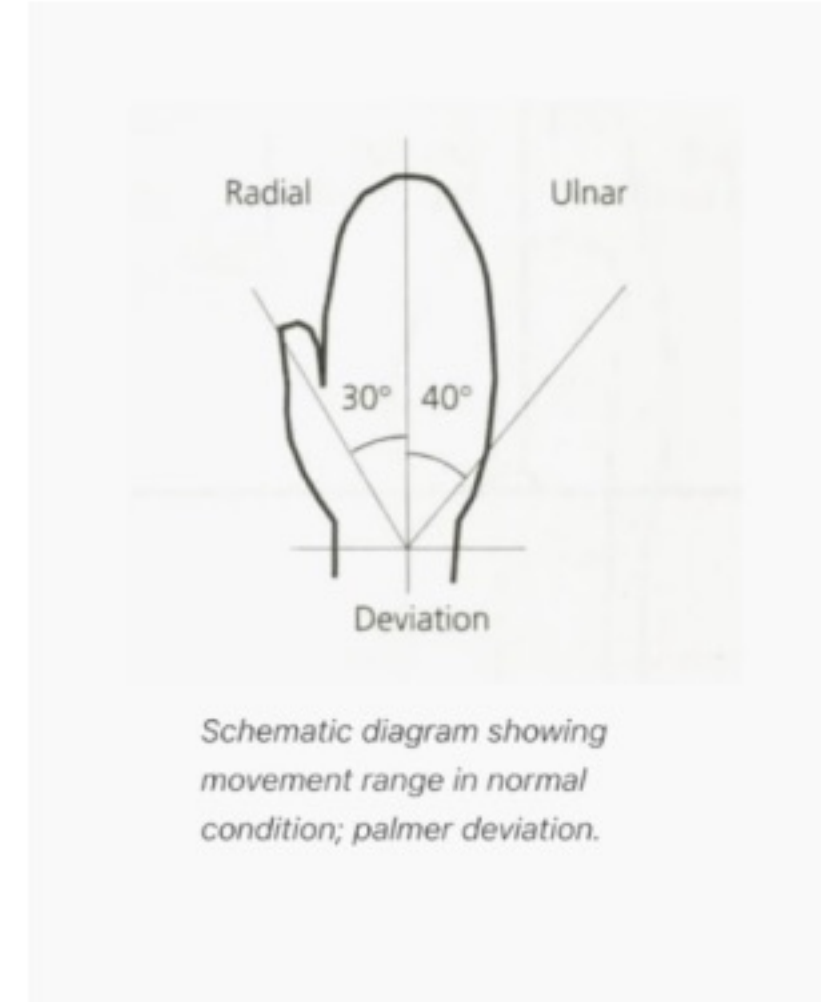
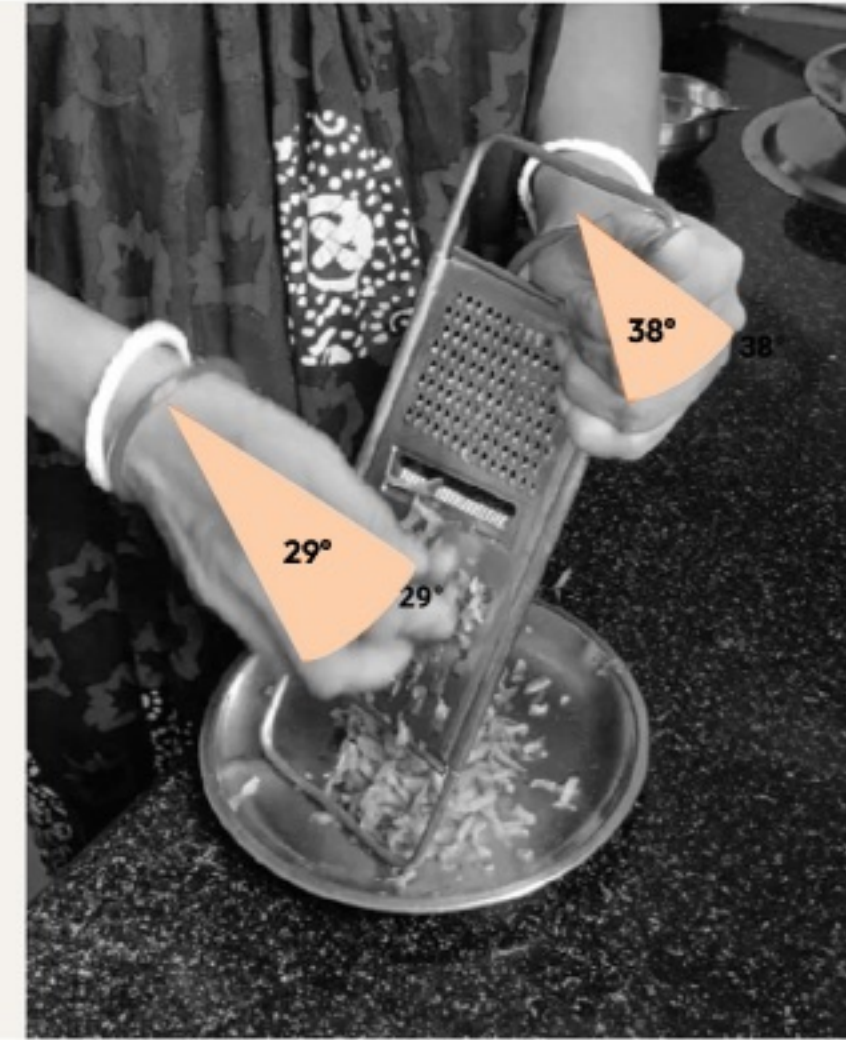
FLIDE

foldable slicer that provides ergonomic use and provides versatility to the user with its various bladders

ID 201 - 2022
Individual Project



User research



Pain Points

Due to repetitive and foreful motion



Holding handle tightly to avoid slipping



Harder to grip as the food item gets smaller, causing stress



Holding grater at an wrong angle and not ergonomic grips



Insights

- Most of the graters need to be balanced by holding them.
- Effort put in for holding the grater in place is huge for flat graters.
- Difficult to clean smaller protrusions.
- The left hand also has pain points due to awkward grips on the grater.
- Graters slip from surface.
- Box graters require more storage space and need to wash whole product every time

Ideation

3D Models



- Slice angle
- Chopping board



- Adjustable slice angle
- Chopping board

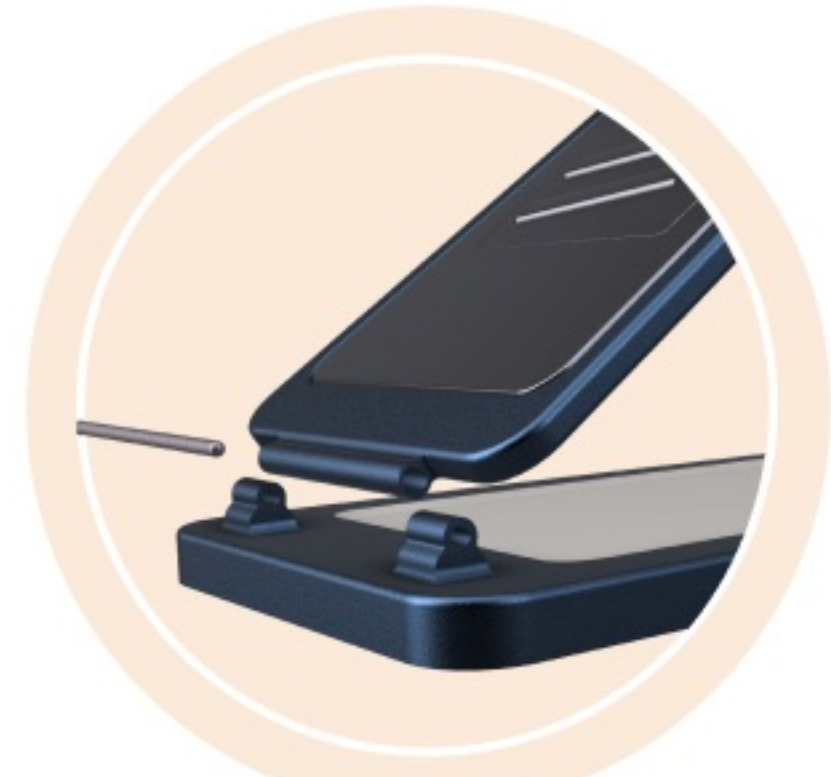


- Foldable

Finalization



Detachable Parts



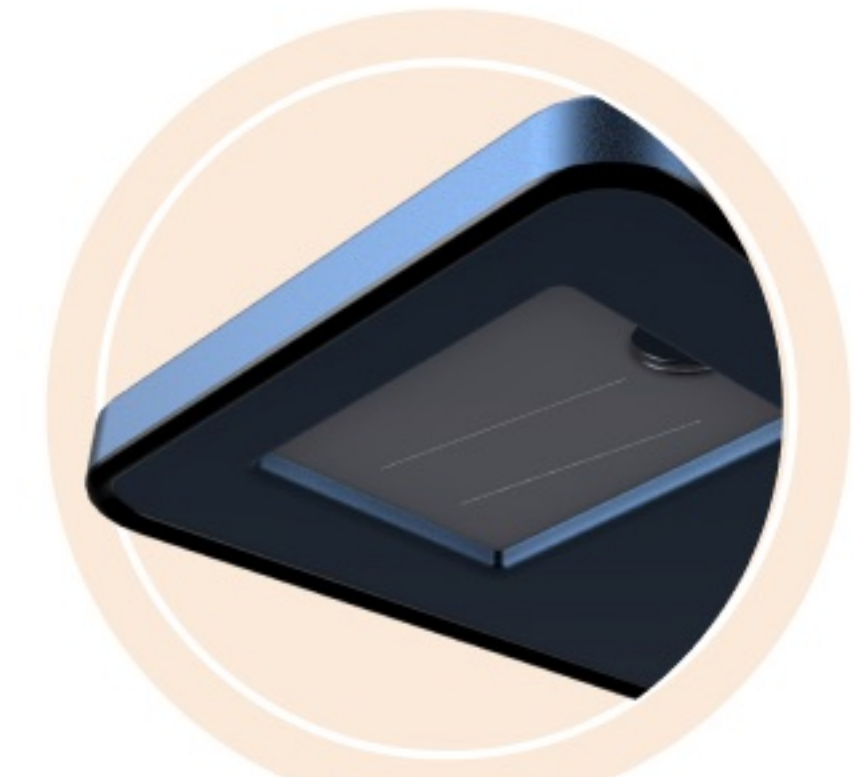
Detachable slicer section to be used as a cutting board



Removable body for ease of cleaning

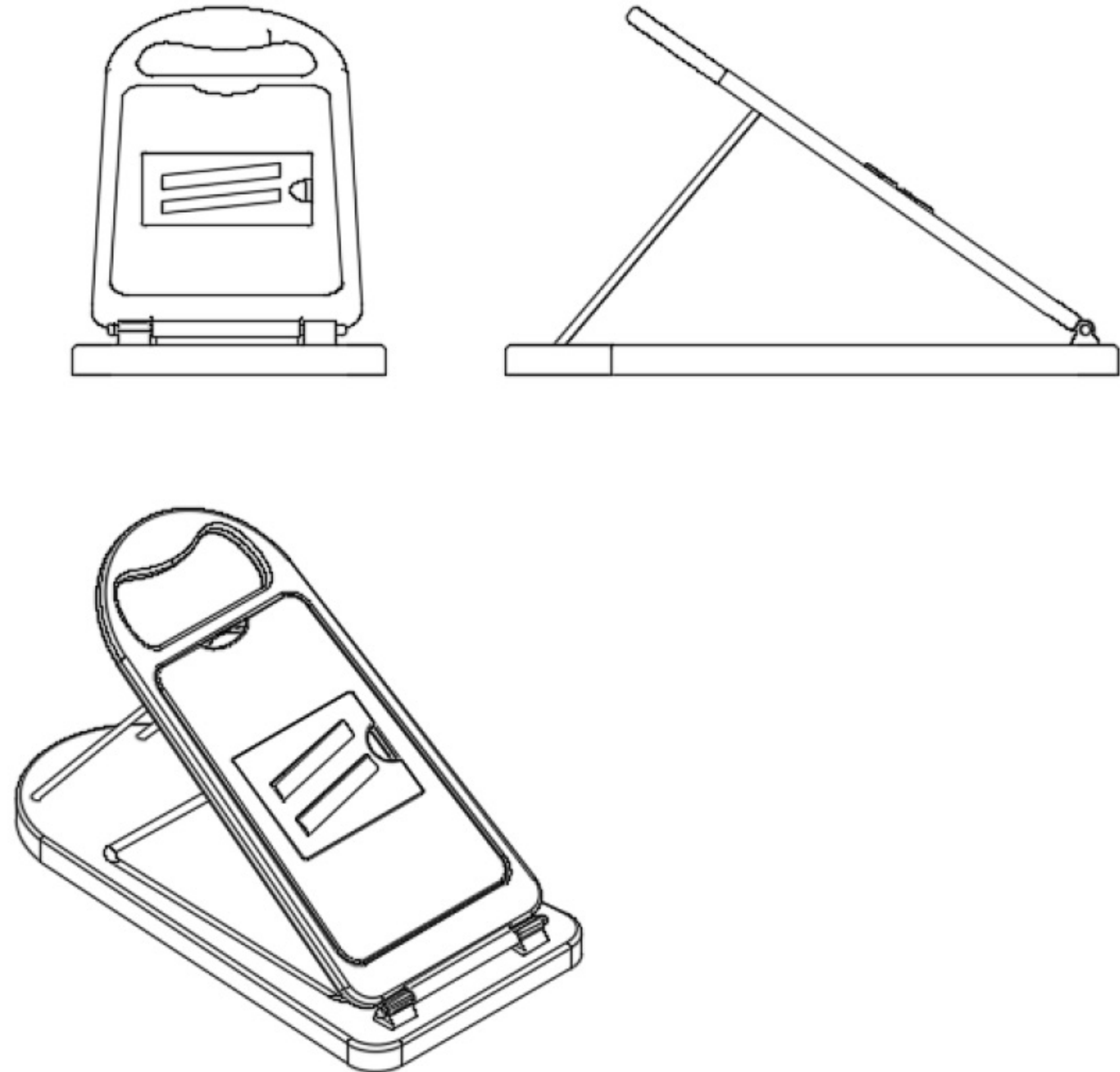


3 different blades for different uses



Compartment at the bottom to store spare blades

Technical Details



5

VALERIE

running vest designed for women
that supports the back and
provides a comfortable run

ID 302 - 2024
Team Project
Öykü C. Karaayak,
Buse Biber, Doğa Tanrıverdi,
Melisa Funda



User reseach



The Times article discusses how the activewear industry often prioritizes aesthetics over functionality for women's clothing. It highlights the limited size ranges and lack of styles that cater to different body types.



Since they only take a coat with them when they go jogging, they need to have enough storage space. It should also have a water carrying capacity of 500-2000ml depending on the running distance.



Color options or patterned fabrics to increase motivation.



Choosing the right materials for running vests is crucial for optimum comfort, performance and durability.



According to a recent Adidas [survey](#) of 9,000 runners across nine countries; more than half of the women surveyed said they were afraid of being physically attacked, while only 28 percent of men shared that fear.



Insights

While designing a vest for women, the differences of torso lenght, shoulder width, band size and cup size should be considered.

Compression wear helps deliver oxygen more efficiently to muscles during exercise, boosting performance and endurance.

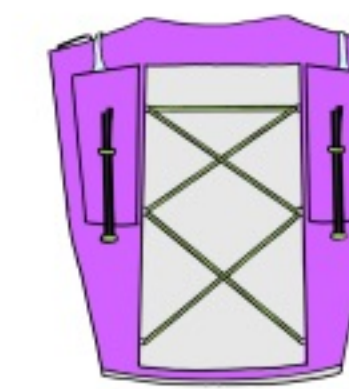
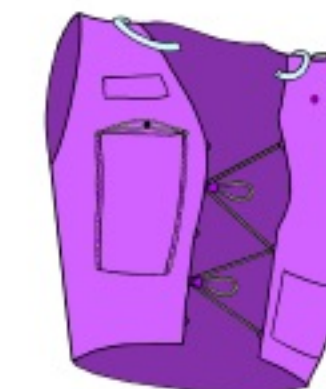
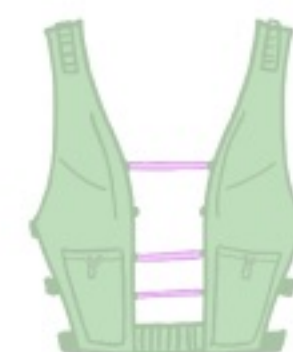
Incorporating design features to ensure the safety of women is crucial. Using reflective fabrics to increase visibility during low-light conditions; placing a detachable LED light, an easily accessible safety whistle and a safety button could be some of the solutions.

To aim the problem of poor posture while running, supporting the back and the shoulders is especially important for women.



Ideation

Sketches

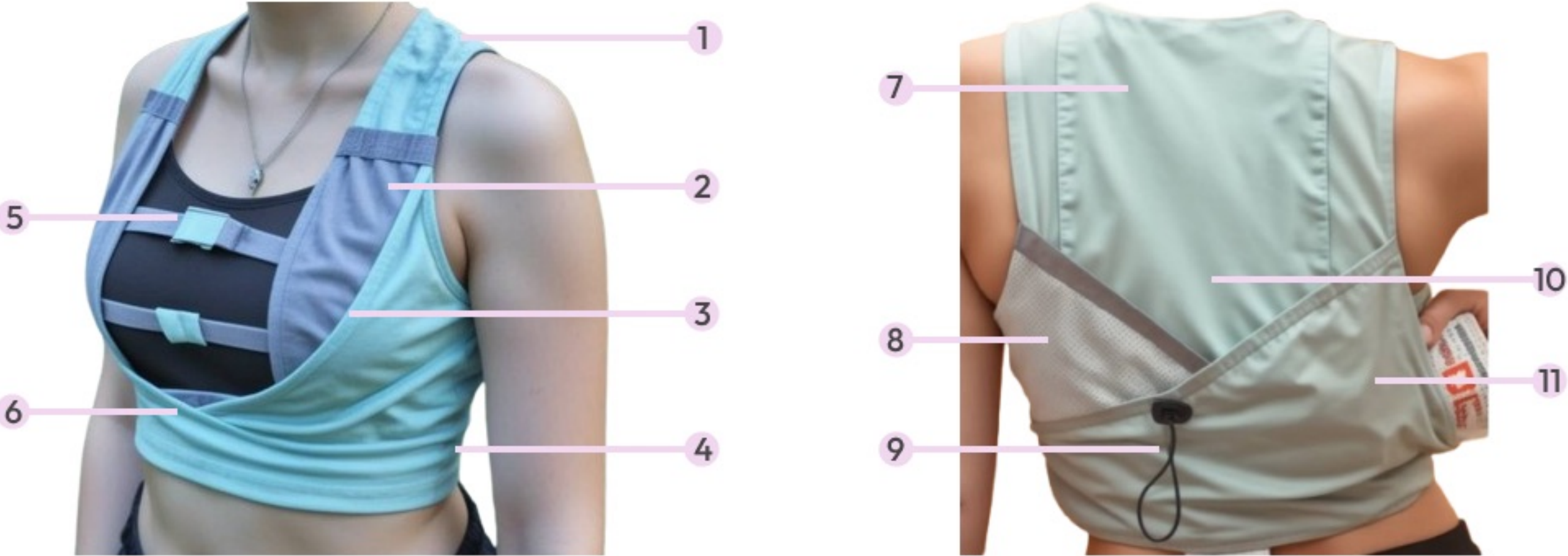


Mock-ups



Finalization

Compartments



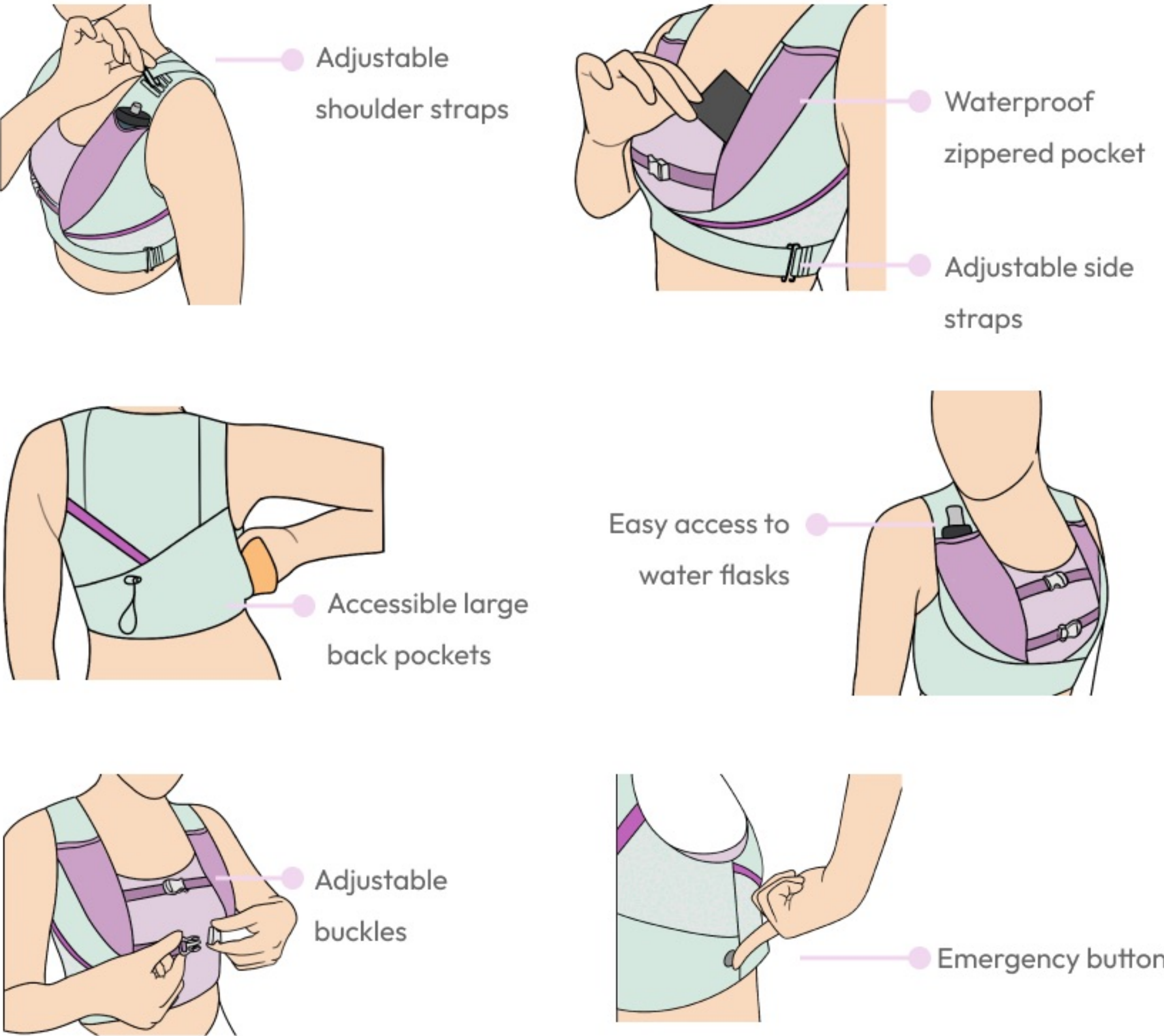
Color palettes



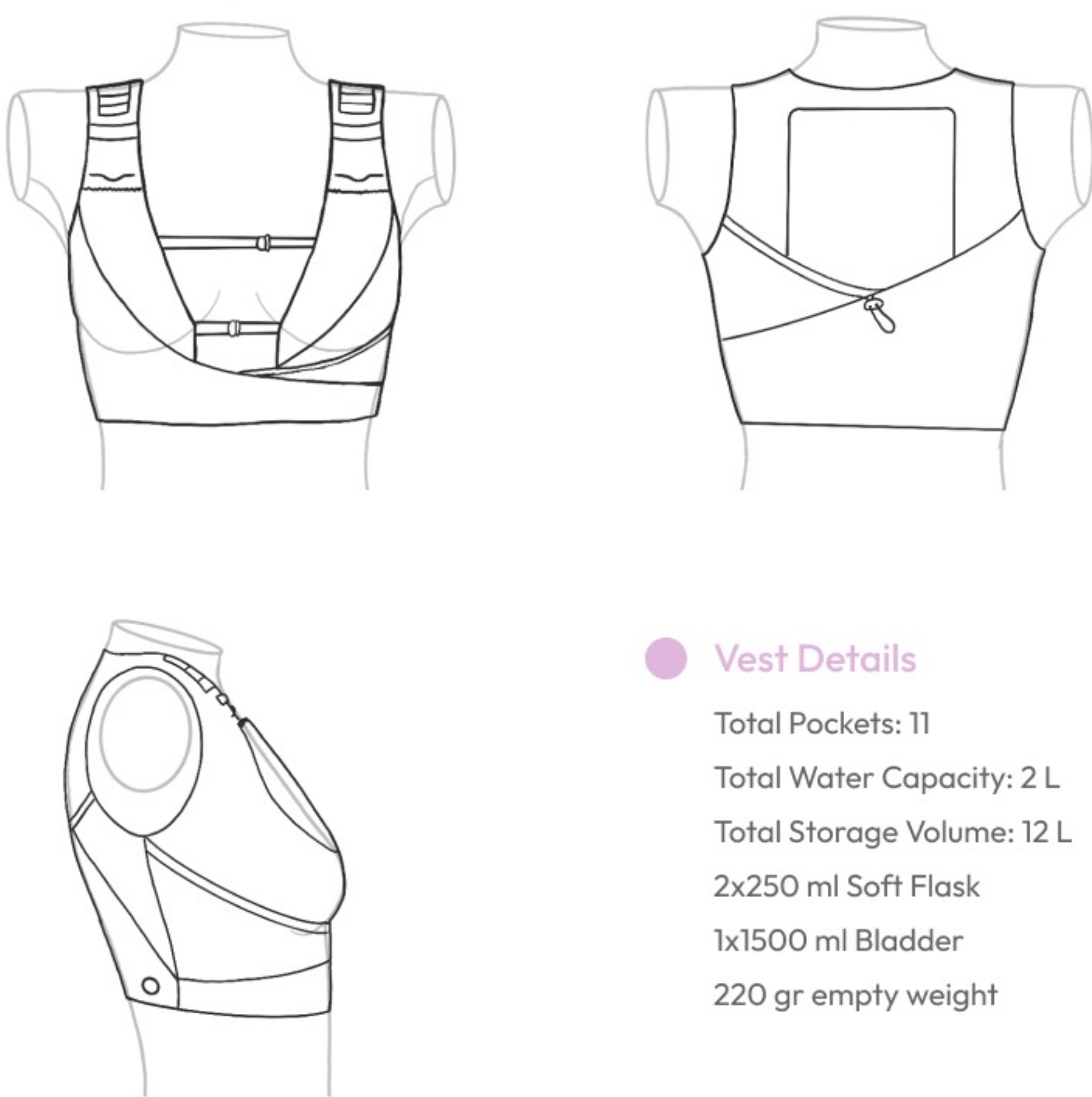
Materials



Usage Details



Technical Details



THANK YOU

For more, please contact me

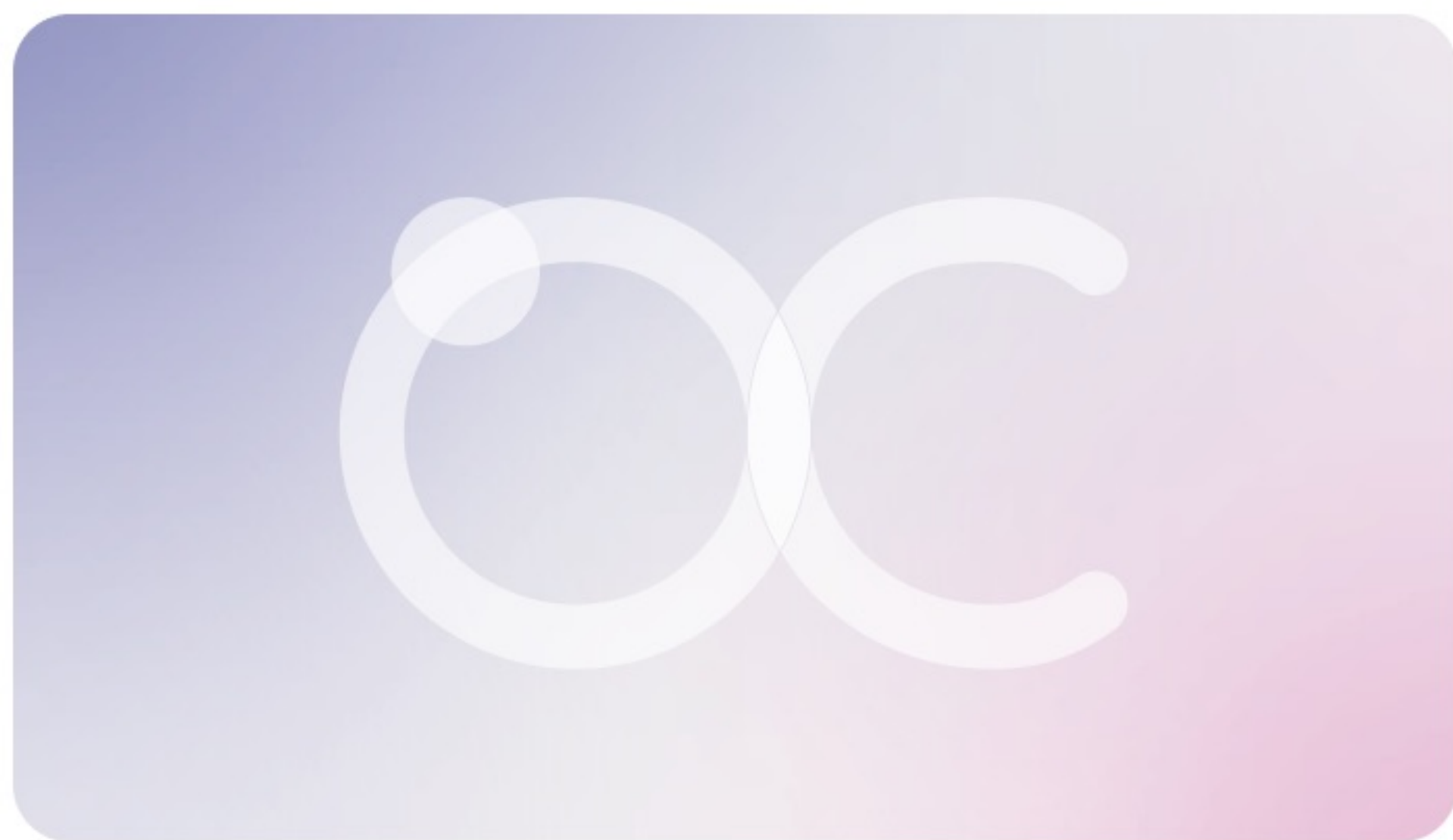
Contact

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Business Card



Öykü Ceren Karaayak

Industrial Designer

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Logo

