Ananth Nayak.

Product Design Portfolio

Me.

Hello

I am Ananth Nayak,

graduate student pursuing my Master's in Design at University of California, Berkeley. I believe a lot of problems can be solved using simple designs that are human-centered and inclusive. I like to question the status quo to try and come up with new solutions and ideas. Design, for me, is not all about the looks and the feels. It's about how the end product works and the impact it has on the real world.

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Ananth Nayak

Education

Masters of Design (MDes)
University of California - Berkeley, CA, US
2022 - Present

B.Tech in Mechanical Engineering
Manipal Institute of Technology, KA, India
2018 - 2022

Experience

Jacobs Institute of Design Innovation
CA, US
Aug 2022 - Present

Philips Innovation Center
MH, India
Feb 2022 - July 2022

Laboratory of Intelligent Manufacturing, Design and Automation (LIMDA)
AB, Canada
Jun 2021 - Dec 2021

Blackfrog Technologies
KA, India
Apr 2021 - Jul 2021

Digital Skills

SolidWorks, Fusion-360, Premeire Pro, Blender

Photoshop, Keyshot, Adobe XD, Figma

Ansys, Catia, Procreate, Raspberry Pi

Simens NX, Arduino, Illustrator

Analog Skills

Research | Prototyping | DFMA

Sketching | Visualization

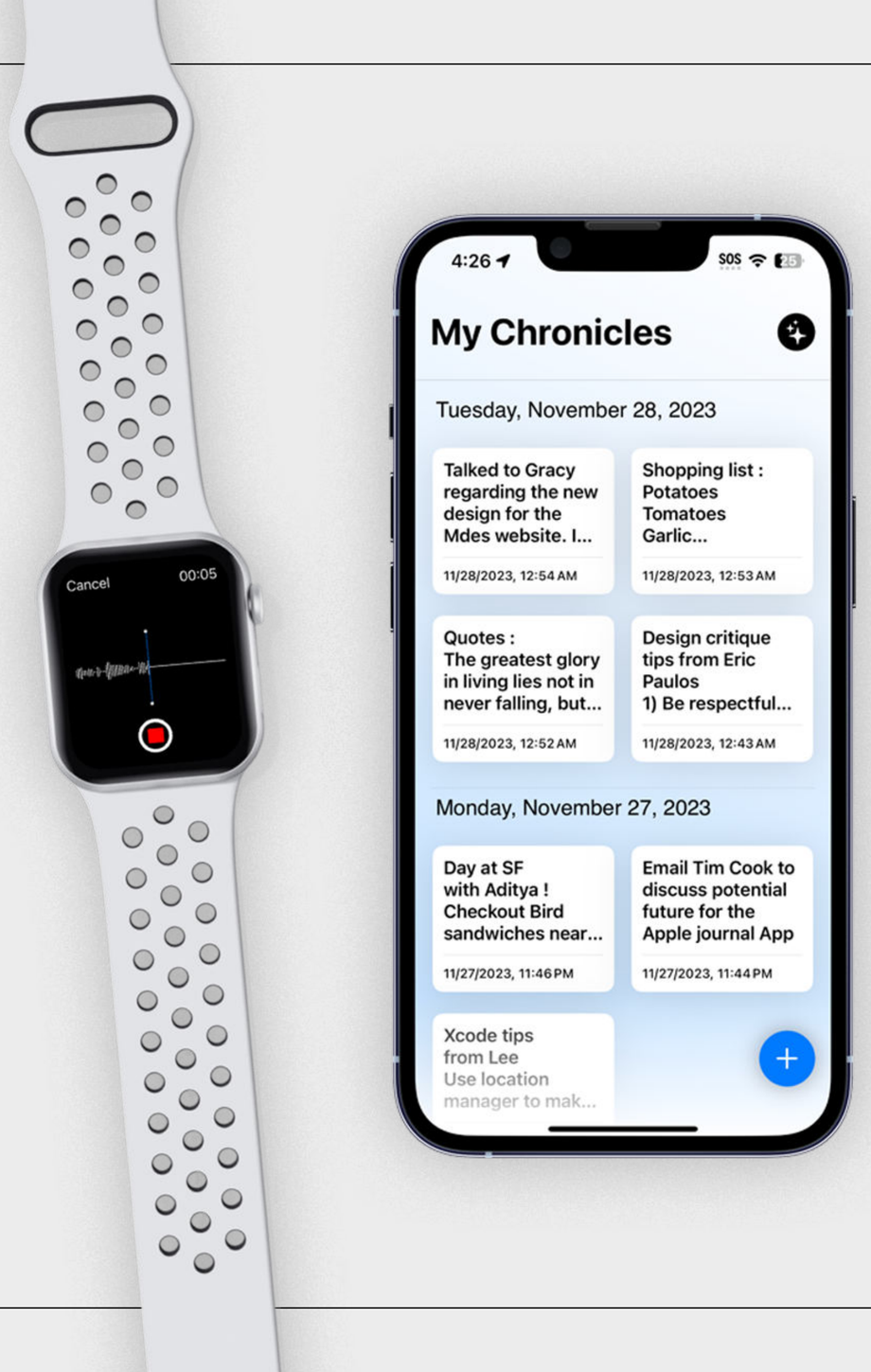
Material selection | GD&T drawing

Manufacturing | Concept Building

01

“Chronicle”

Exploring Novel Approaches to Capture & Retrieve Everyday Life Events

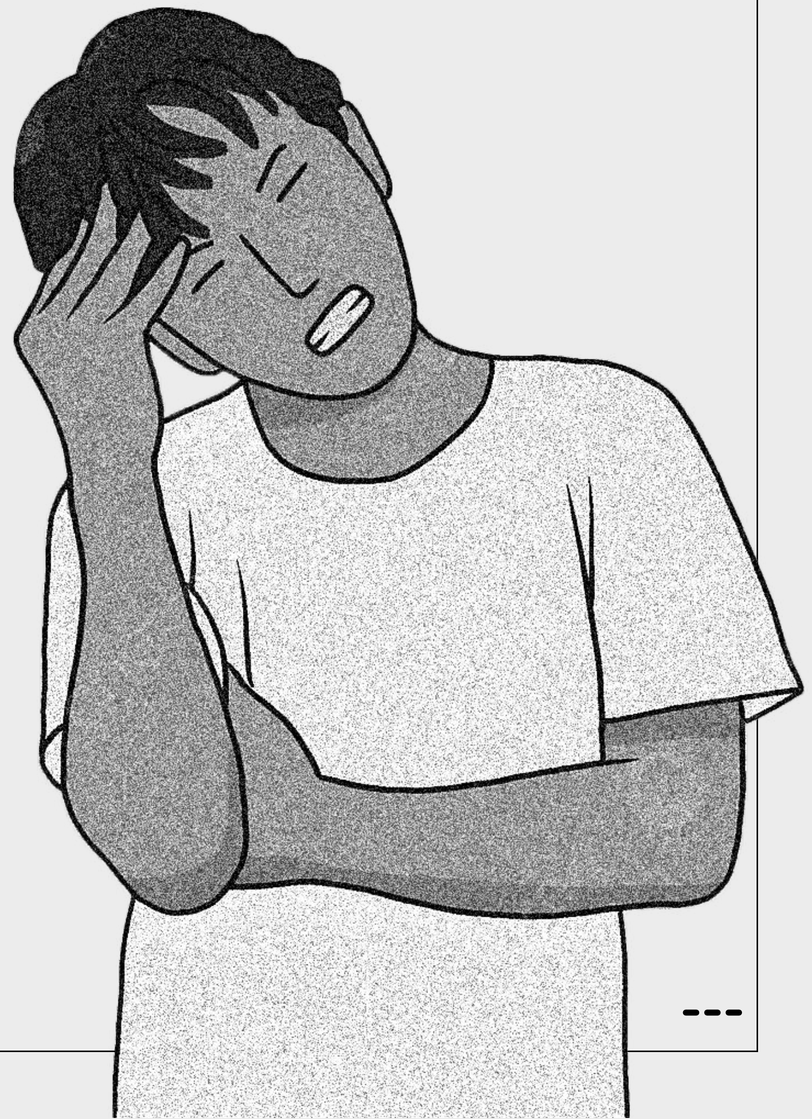


Concept


Jin Yuato
What was the name of that google guy who came to talk for TDF ?
Helena
What was that book Eric asked me to read during desk critique?
Tong
What did Phyllis ask m to get from the grocer store ?
Alana
What is Ken's second name ?
Yoon
Who is speaking at Design Field notes next Thursday ?
Zach
When is the Thesis journal due ?
David
Who is Gierad Laput ?
Justin
What's the name of that TV show John asked me to watch?
Gracy
What's Sam's Address ?
Clover
What was the conversation me and Winny had 4 days ago ?
Tomas
Who is Matt ?
Haesung
Where can I find information about Milestone 1 ?
Ash
When was Carmela's birthday ?
Jahnavi
What did Justin ask me to do for tomorrow ?

How can we tackle digital dementia ?

- How can we intuitively extract information of our past in the future ?
- How can we change the way in which life events are captured and stored ?
- How can we reduce short term memory loss ?



01

Product

Chronicle is a pioneering app designed to combat "digital dementia" by serving as a personal memory assistant. It seamlessly captures and organizes everyday memories and experiences through a user-friendly mobile application, synchronized with an Apple Watch. Users can effortlessly log audio recordings of conversations, meetings, or personal musings with a simple tap on their watch or phone, facilitating hands-free operation. The app also allows for note-taking and photo uploads, enriching the contextual recall of events.

Chronicle

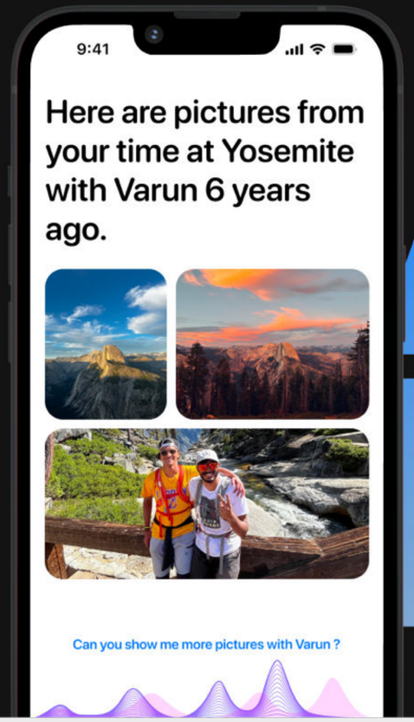
[RAG] Retrieval Augmented Generation

Enhanced
Text to Speech
Speech to Text

LLM

Intuitive
Logging

Text
Images
Docs
Voice



Alter Ego

Secure
Enclave

Up to
1.5X
faster than Alexa
*Yet to be confirmed

10X More relevant than Google
*Yet to be confirmed

Voice Log

Lang Chain

01

Final Product

Chronicle

02

SOFAR

“How might we create remote physical presence?”

We collectively brainstormed 100 ideas to explore a range of ways to accomplish our goal of creating remote physical presence. We then grouped our ideas into categories and voted on three favorite ideas to develop into concept prototypes.

02

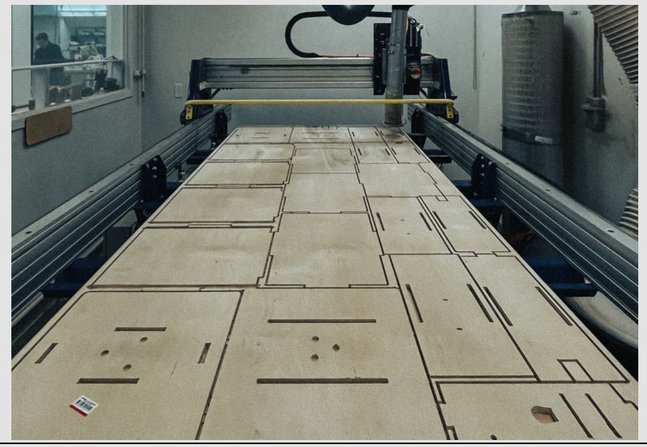
Prototype

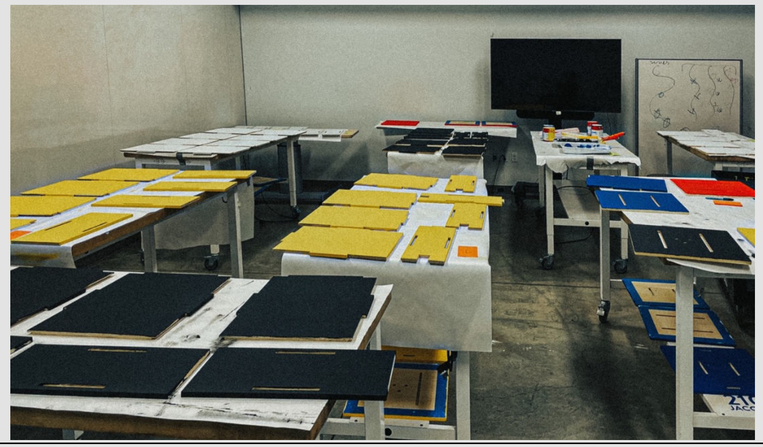
We then prototyped several approaches for conveying remote presence via interactive sofa. we created a matrix to plan how two identical sofas in each partners' living space might move:When one partner sits on the sofa, the other partner's sofa platform will rise in the identical location, and vice versa.We imagined this interaction would make it feel like the user was sitting next to their partner

SOFAR

02

Manufacture





We cut, primed, sanded and painted the plywood to create 8 modular seats that combine to form one set of sofa. Each seat was made of 2 parts that would slide over each other. Once the sofa platforms were assembled, we installed the linear actuators, batteries, and stepper motor driver to make it move.

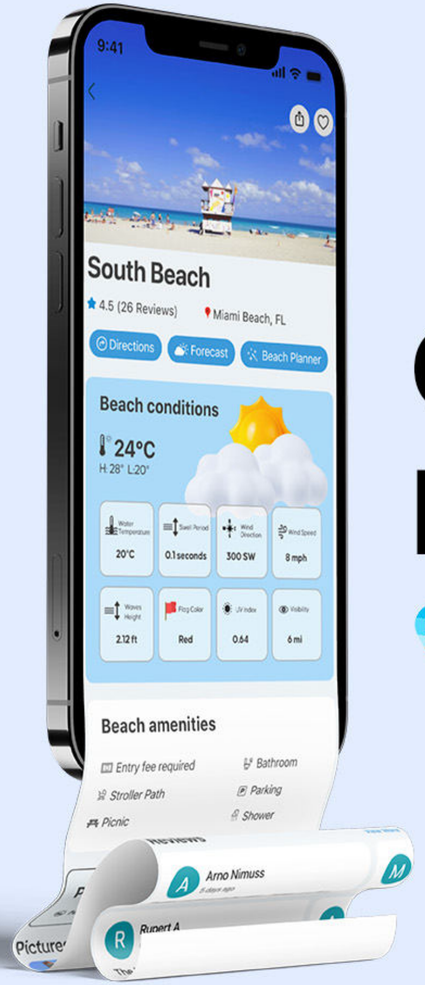
SOFAR

02

Final Product

SOFAR

03



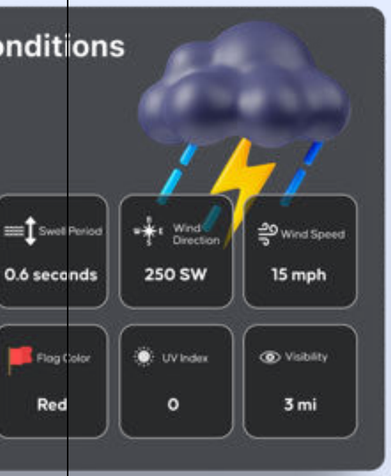
One App Everything Beaches 🏖️

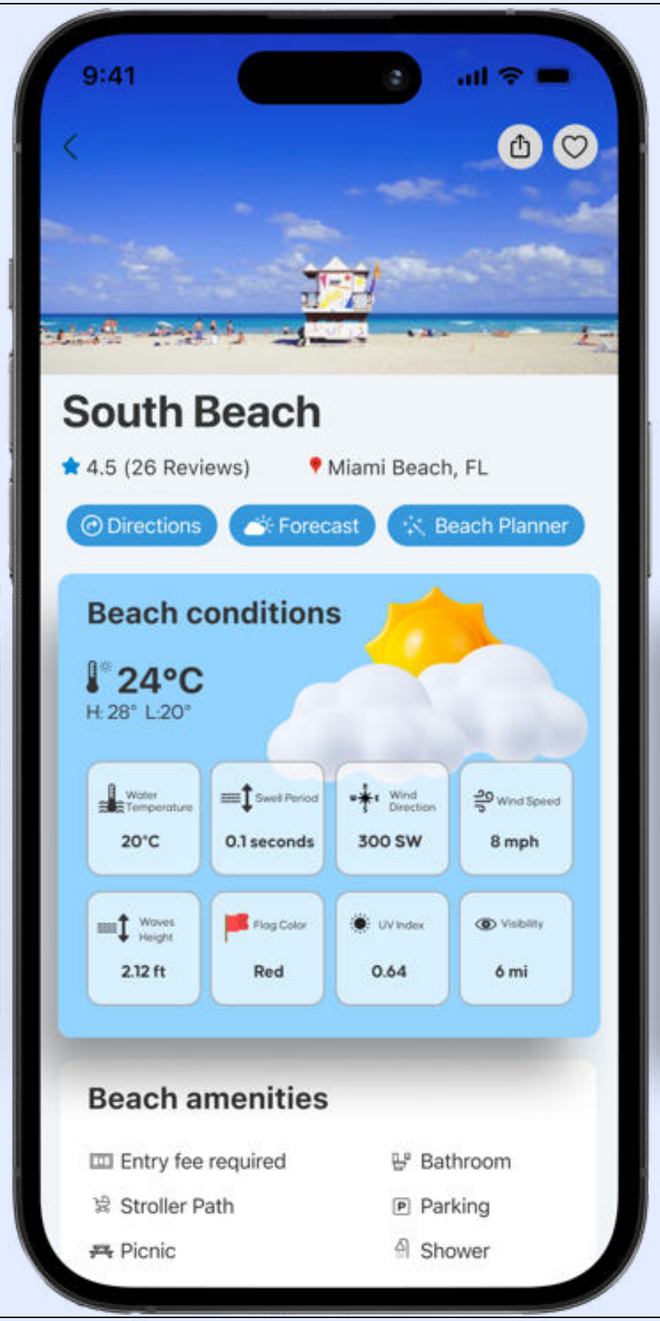
Beaches.app

03

Final Artifacts

Overhauled a 5-year-old UI, implementing a cohesive design system to replace the fragmented previous one, and modernized the brand in line with current trends. Transformed the app's Hebrew foundation to English through code adjustments. Designed and developed a review and rating feature incorporating google places API. Refined the product experience by restructuring the excessive user data into a logical, user-friendly hierarchy.

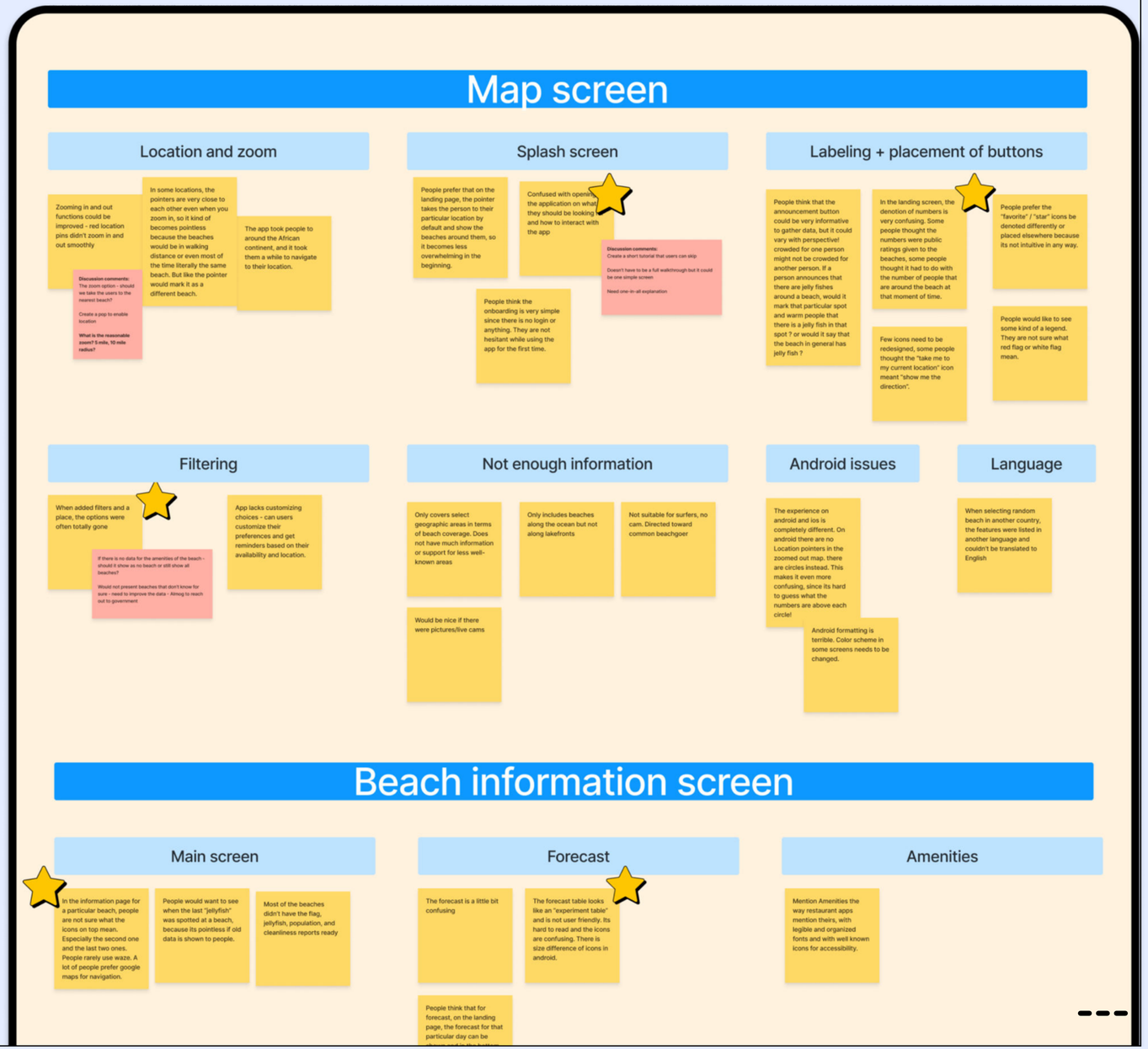




Beaches App

03

In a quest to unlock valuable insights, I engaged with a diverse array of 10 distinct people that could be categorized within the 2 main personas, spanning travelers, avid surfers, beach enthusiasts, students, and devoted dog owners. I closely observed the way they interacted with the app, asking them questions throughout the interview inorder to delve into the intricate fabric of their cognitive journeys. This helped me construct a detailed affinity map to understand user pain points and what features were required to be built out.

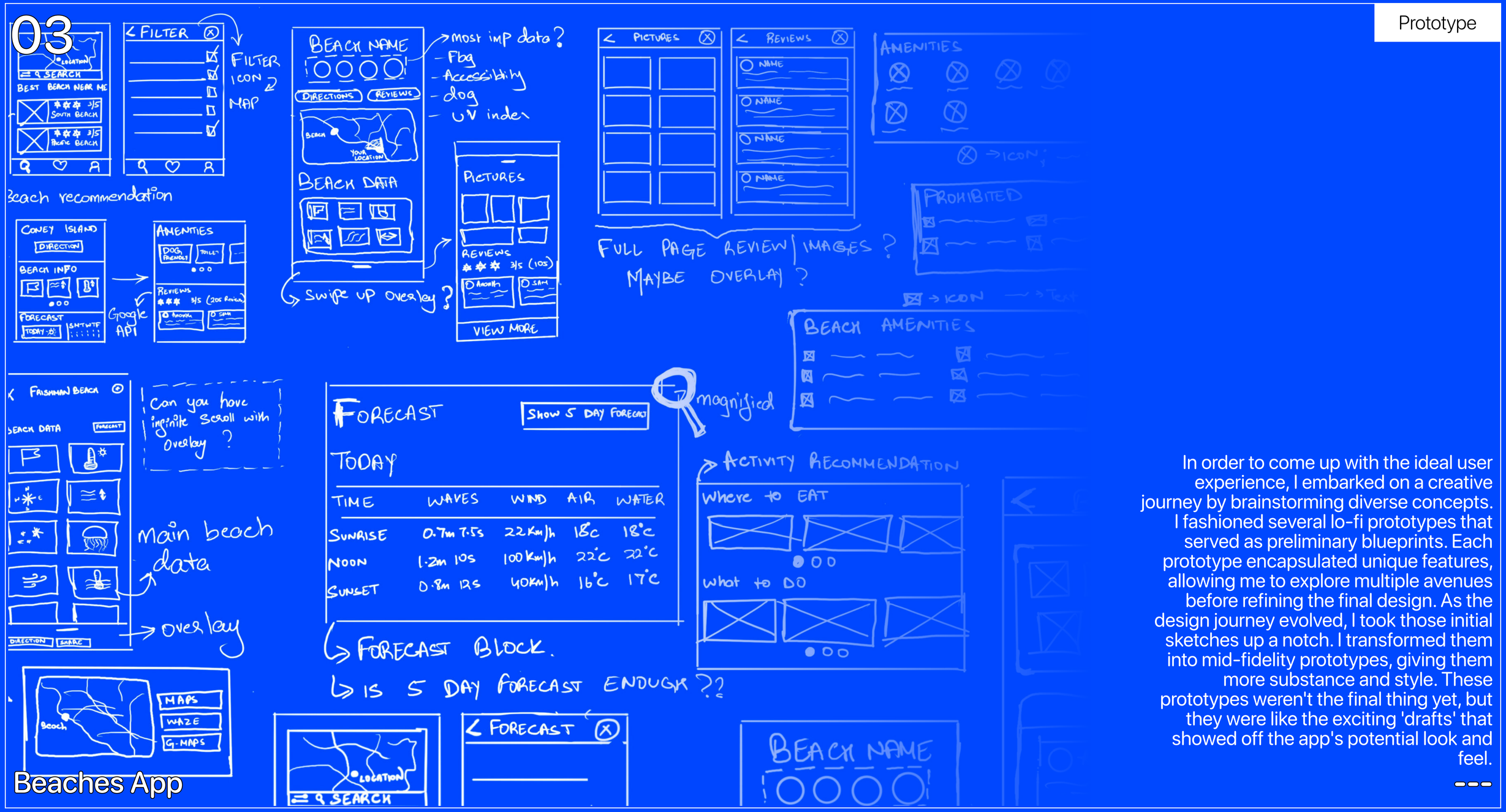


Beaches App

03

Beaches App

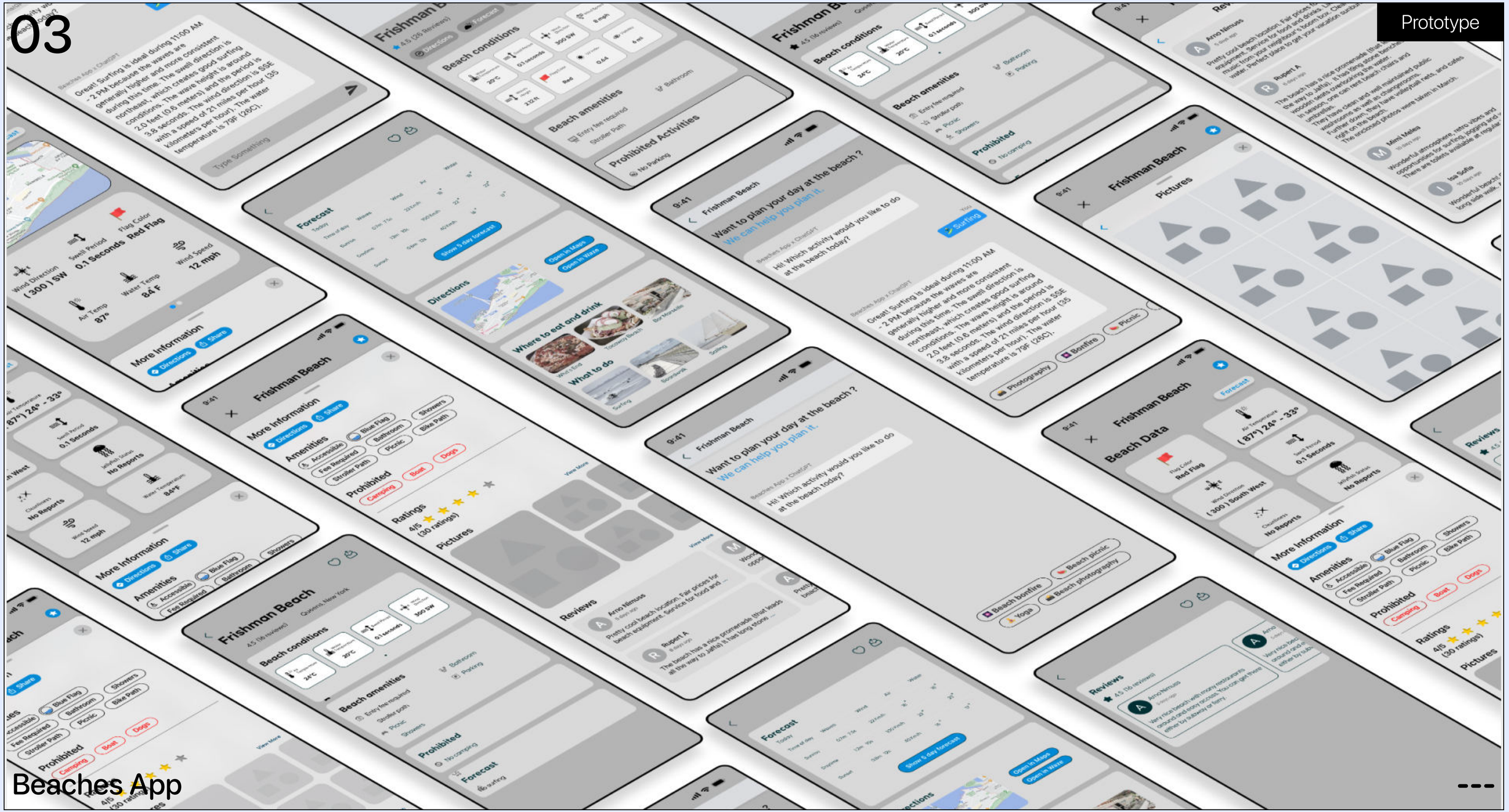
Prototype



In order to come up with the ideal user experience, I embarked on a creative journey by brainstorming diverse concepts. I fashioned several lo-fi prototypes that served as preliminary blueprints. Each prototype encapsulated unique features, allowing me to explore multiple avenues before refining the final design. As the design journey evolved, I took those initial sketches up a notch. I transformed them into mid-fidelity prototypes, giving them more substance and style. These prototypes weren't the final thing yet, but they were like the exciting 'drafts' that showed off the app's potential look and feel.

03

Prototype



Beaches App

03

Final Product

Beaches App

04

Emvólio

04

One of the biggest contributors to vaccine wastage is the disruption in the cold chain supply. This means that temperature-sensitive vaccines, which must be stored at 2-8 degrees Celsius to remain efficacious, often lose their effectiveness when exposed to inappropriate temperatures. Such disruptions can occur due to power failures, equipment malfunctions, or logistical challenges, leading to significant losses in vaccine viability and effectiveness.

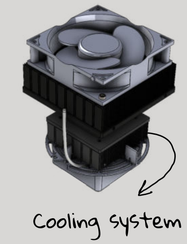
WHO estimates 50% of vaccines go to waste before they are administered.

Emvólio

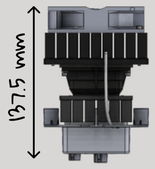
04

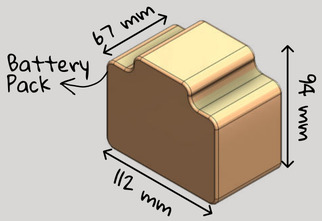
Concept

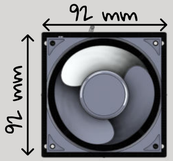
Old Emvólio design

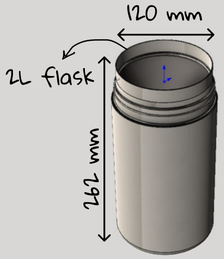


Cooling system



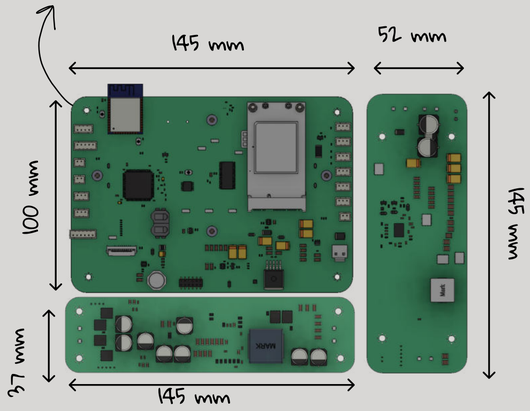






New components

PCB's



The task was to revamp the old emvolio design, bring about a new look to the product, and increase the product's functionality. The product had to be designed to have a capacity of 2 liters, an integrated IoT system, a whole new display, and a more compact design for easy transport. The overall aesthetics of the device was also to be worked on to make it look more appealing and make it easier to carry around the field during vaccine deployment.

Emvólio

1

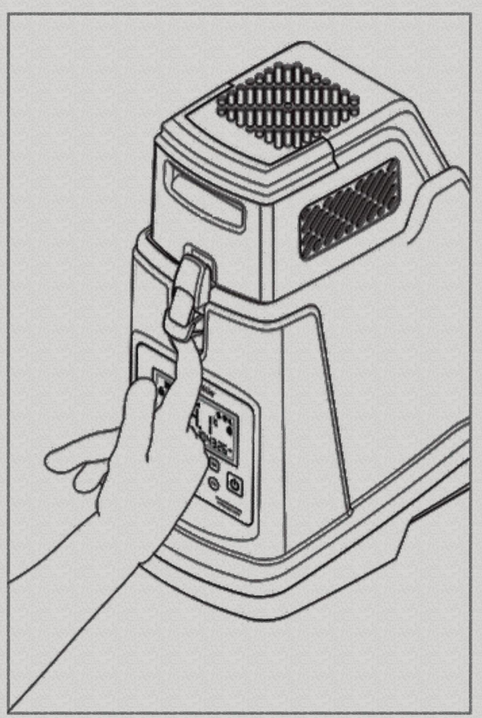
2

3

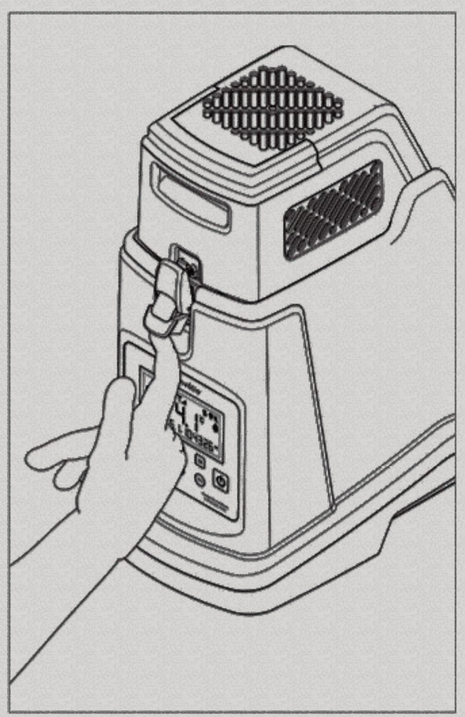
4

1. In-house 3-D printed (FDM) prototype of using PLA material.
2. CNC machined prototye using ABS material.
3. 3-D printed (SLA) prototype using ABS material.
4. Pilot production batch made using ABS material and silicon mould.

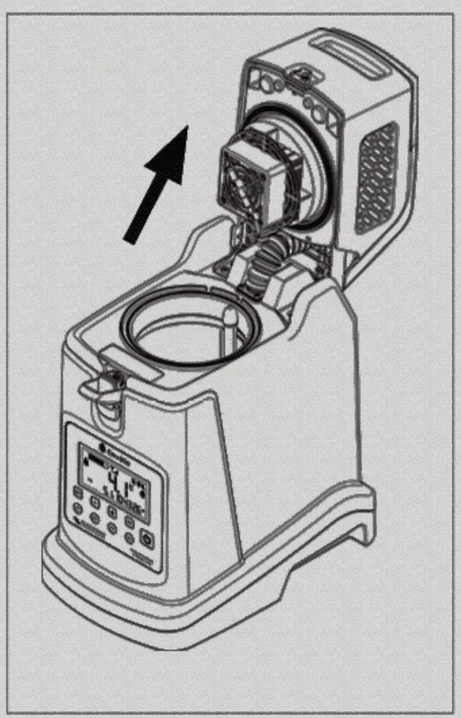
First, the optimal form factor and component placement were determined, followed by designing the lower body's flask and electronic housing. This was made in two halves for easy assembly and mounting. The design process was then applied to the upper half, the cooling system casing, and both halves were joined using 180-degree hinges and a locking latch. Subsequently, PCB routing and CMF were finalized. After in-house 3D printing of several prototypes, pilot productions were conducted in batches using silicone molds. The final products were manufactured through injection molding and assembled in-house.



Step a: Holding the lock



Step b: Lifting the lock



Step c: Lift Top Cap

04

Final Product

Emvólio
