Projects ± Pursuits + Portfolio

Tomas Garcia

Work

June–Aug 2023
Berkeley, CA

Design Research Fellow
BMW x Jacobs Institute of Design Innovation

Compiled a database of industry and academic case studies identifying opportunities for sustainable behavior change in the consumer electronics space..

Co-authored a white paper for circulation within BMW evaluating motivation and engagement as tools for sustainable behavior among BMW customers.

2016–2022
Los Angeles, CA

Assistant Vice President, Technology and Digital
LACMA

Headed the design, development, and launch of the museum's public-facing platforms, including LACMA.org, Digital Ticketing, Online Collections.

Developed a unified media production strategy, resulting in a 500% increase in YouTube subscribers and the launch of digital music programming, driven by local and national music partnerships.

Oversaw LACMA's renowned Art + Technology Lab, driving program strategy, and external collaborations to maximize the program's influence.

2014–2016
Los Angeles, CA

Digital Product Developer
LACMA

Designed the LACMA app and pioneered location-aware multimedia narratives for the enhancement of the in-gallery visitor experience.

Spearheaded design research for the integration of emerging technologies into the visitor experience of the museum's physical campus.

Analyzed and enhanced the user experience of the museum's first digital publication platform.

Education

2022–2024
Berkeley, CA

Master of Design Engineering
College of Engineering
University of California, Berkeley

2009–2013
Boston, MA

B.A. History
College of Arts and Sciences
Boston University

Skills

Design
Rhino 3D
Grasshopper
Adobe
Fusion 360

Prototyping
Arduino
Raspberry Pi

Fabrication
3D Printing
Laser cutting
Woodwork
Metalwork
Neon

Development
Python
Unity
C#
Java
HTML
CSS

Language
Spanish

Moment Cube

An exploration into analogue controls for digital tools.

Designed as an alternative to conventional smart controllers that pit us against complex componentry. The Moment Cube seeks to simplify control of the connected home through basic form, natural materials, and simple interactions.
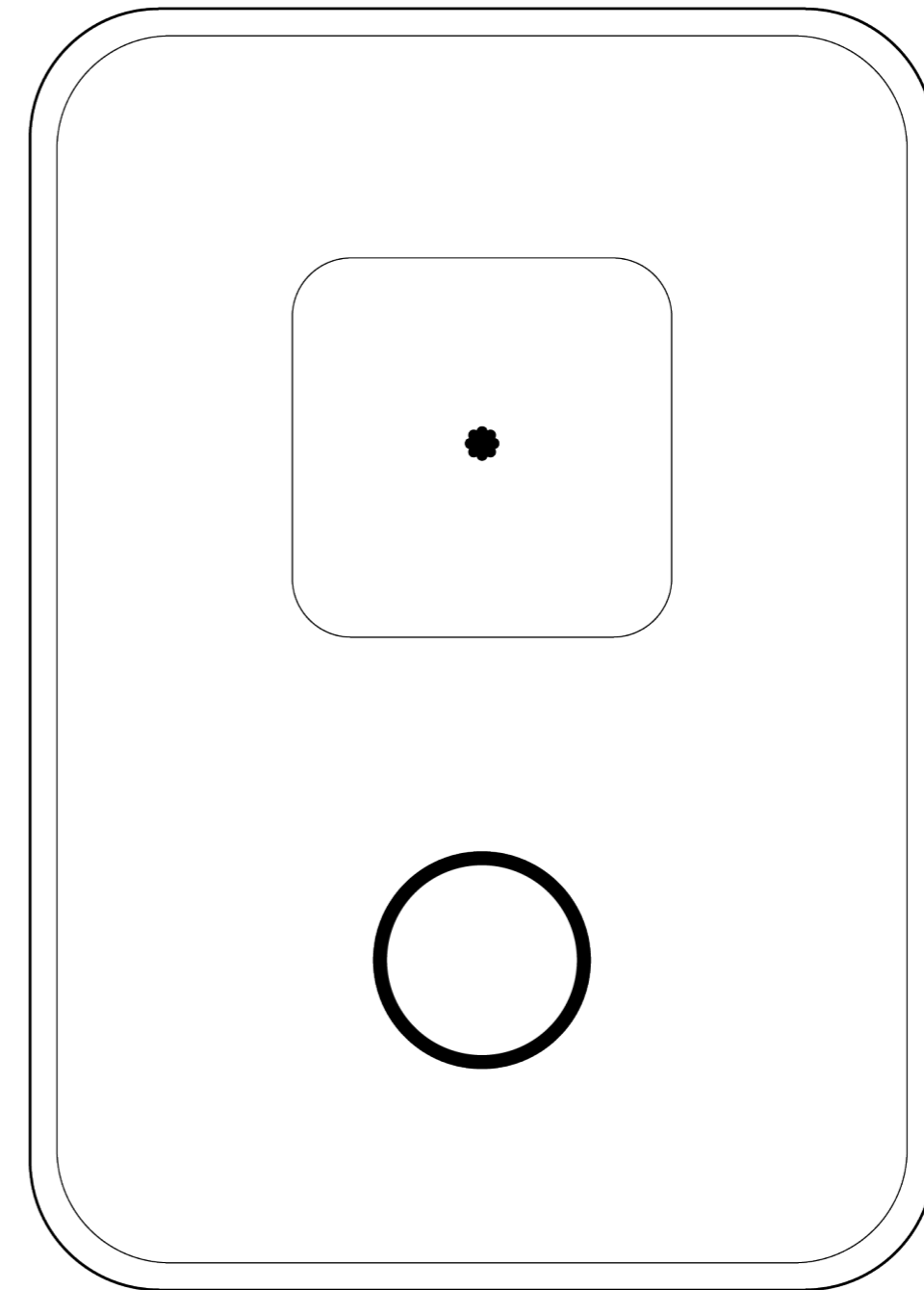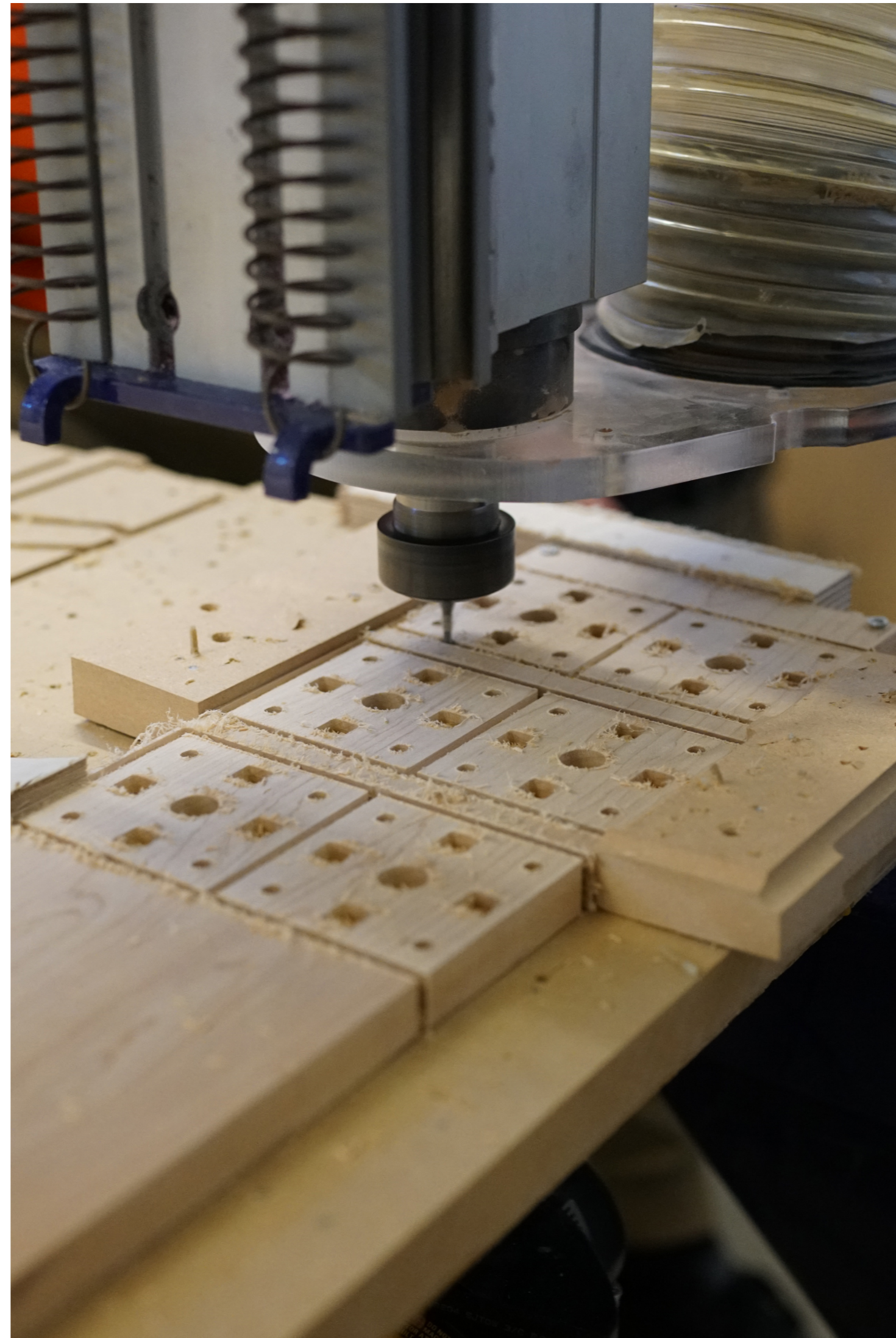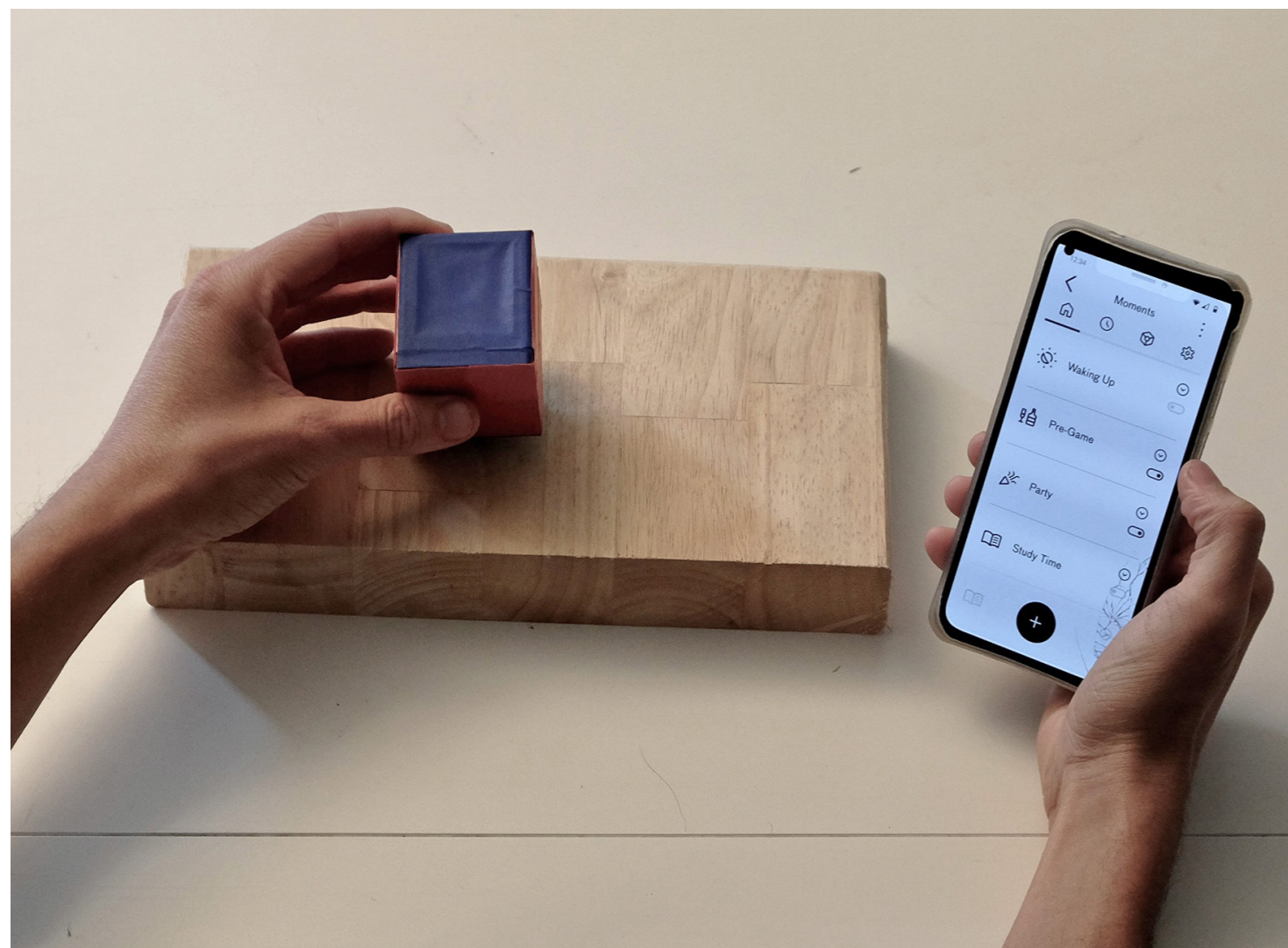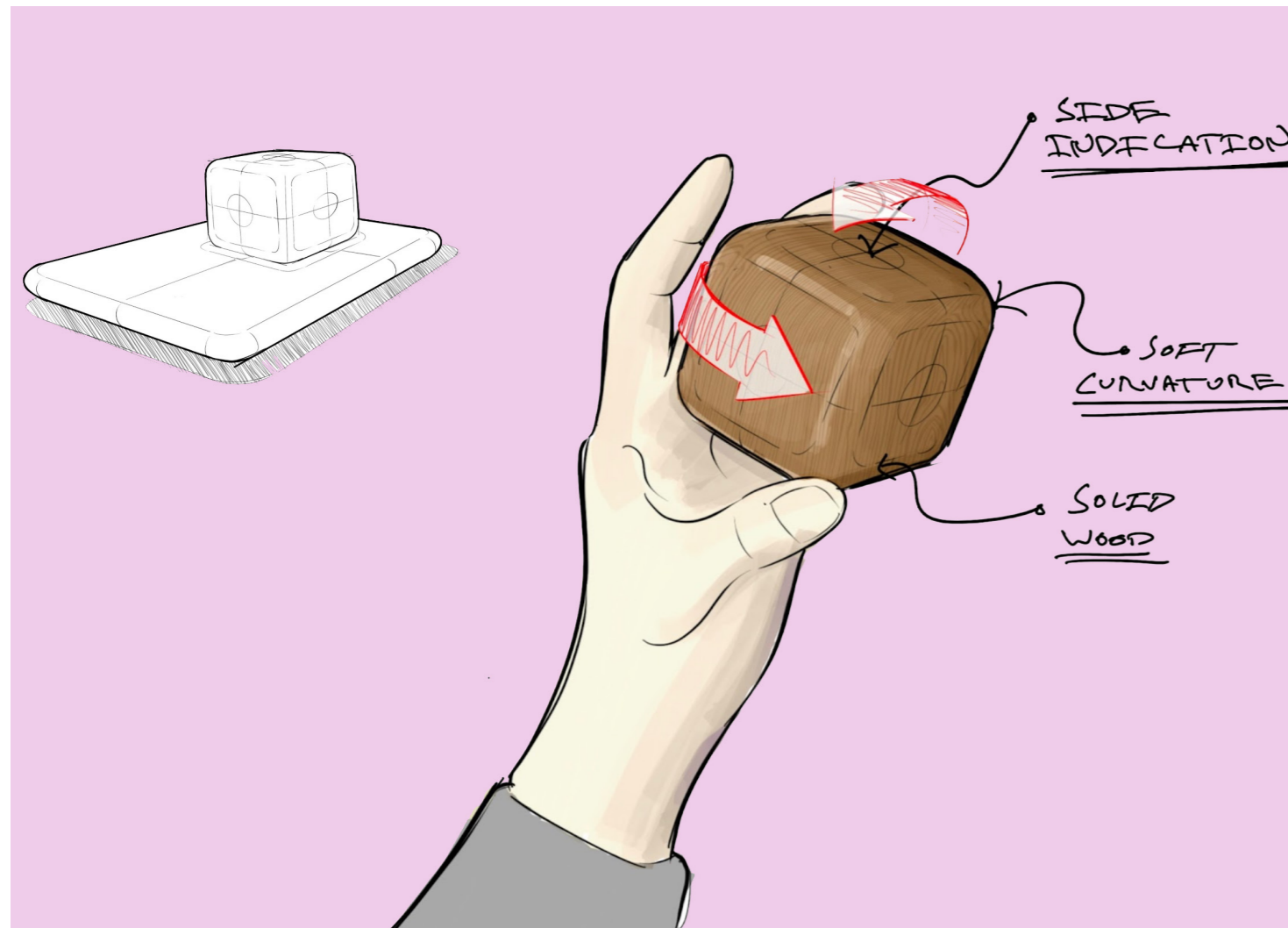
ROLE

Designer

DURATION

8 Weeks

DISCIPLINE

Product Design

Inspiration

As a simplification and abstraction of the idea of environmental control, the Cube enables the user to shift between assigned moods in the smart home, with each face offering customizable control of lighting configurations, audio integration, temperature, and more. Most importantly, when the device is not in use, it is designed to disappear into the background, providing an alternative to the screens, buttons, and sensors and that intrude on our homes and our privacy.
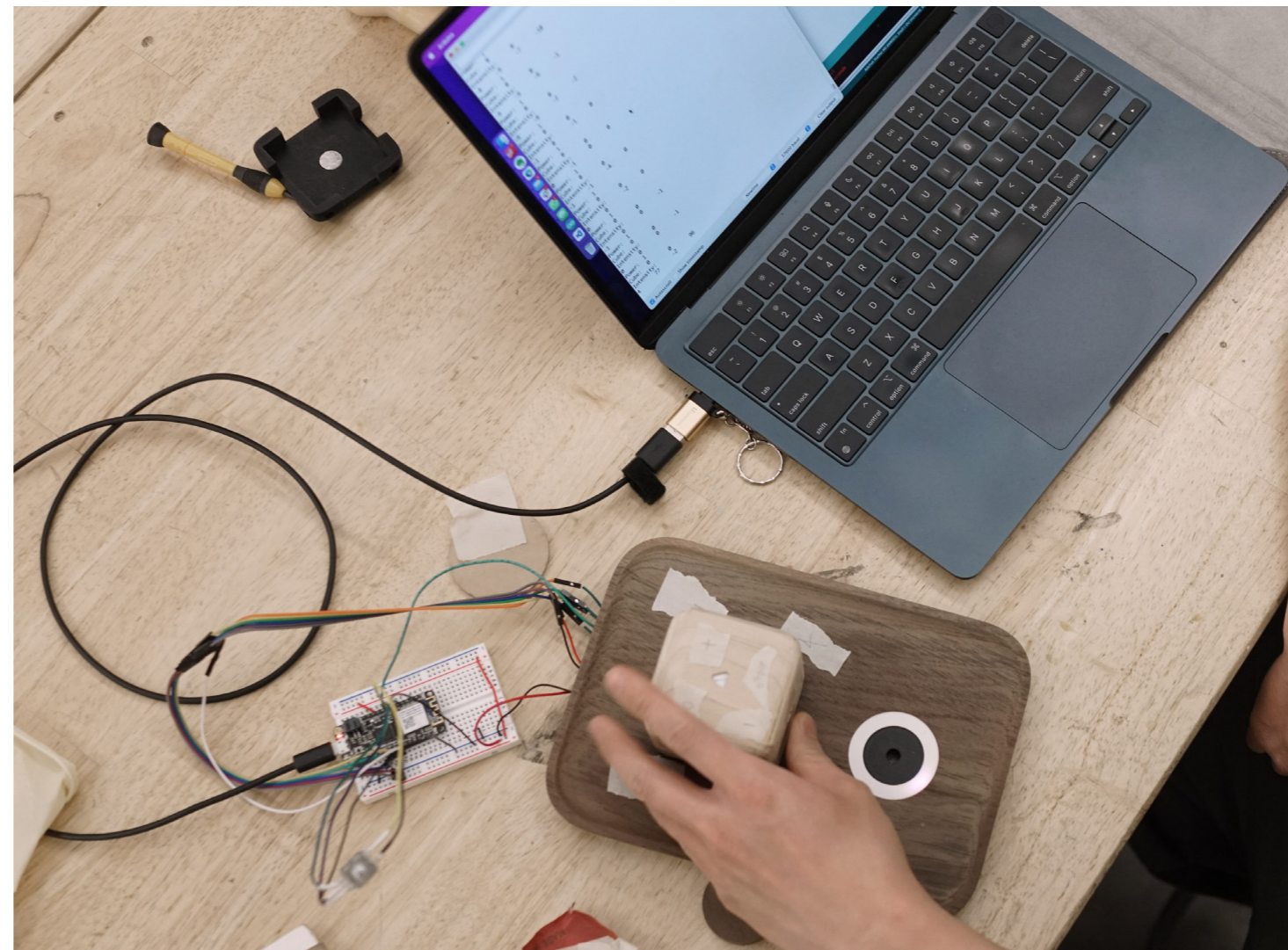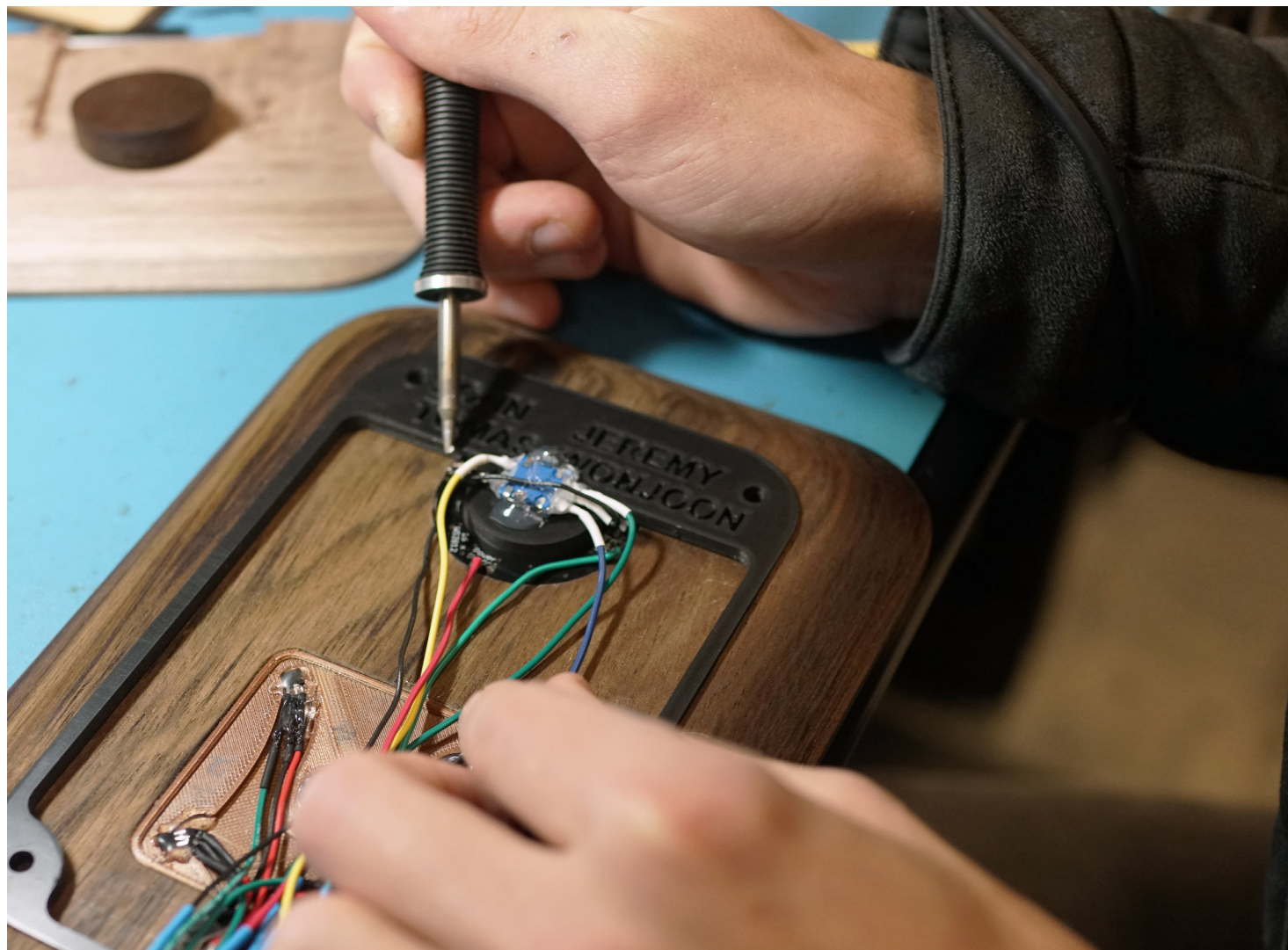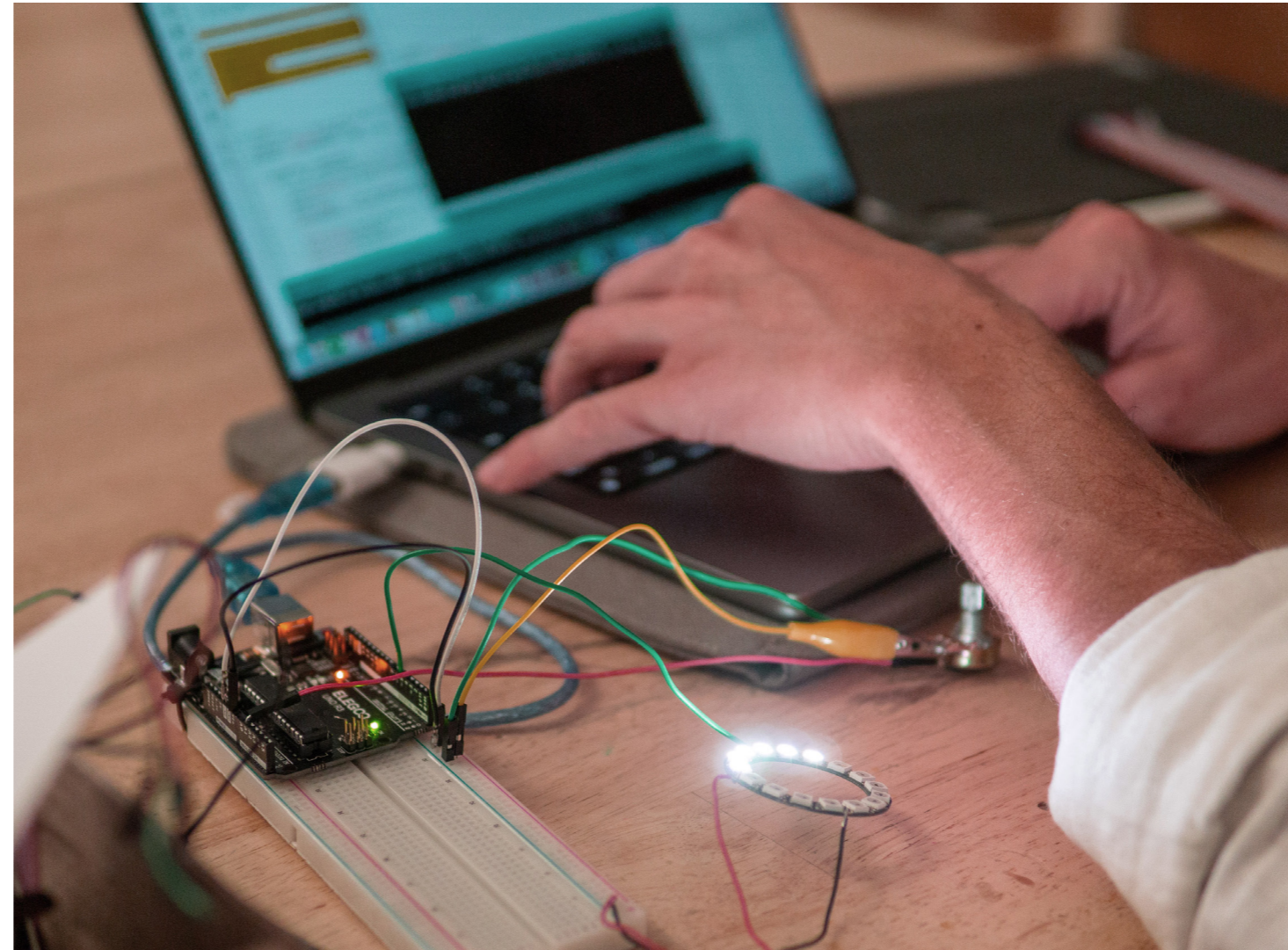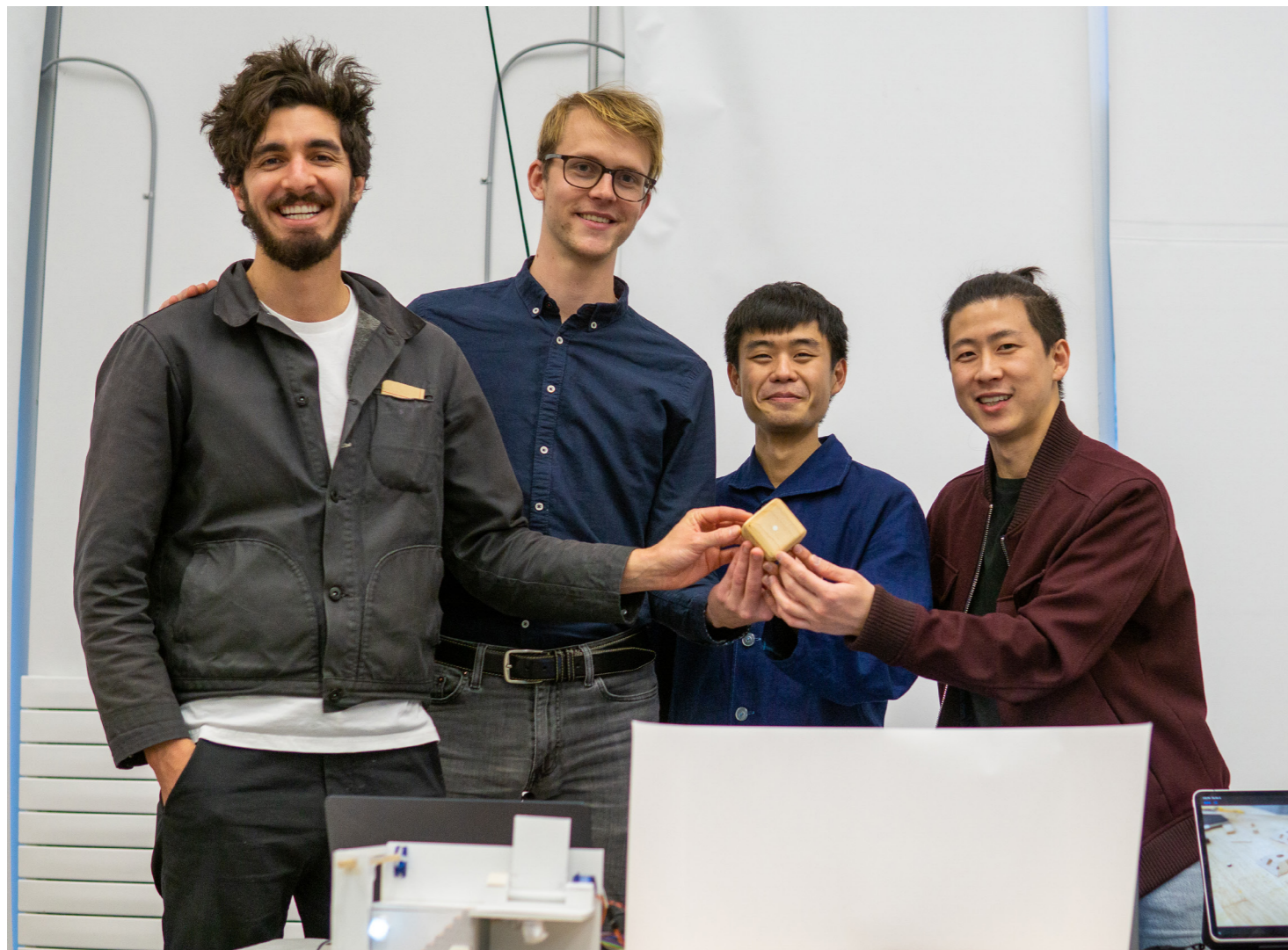
Process

The Cube contains magnets in varying polarity and strength that align with magnetic sensors in the base to ensure an accurate reading regardless of the Cube's orientation.

The soft organic forms were crafted through a multistep CNC process that hides the contained technical componentry behind carefully placed seams. The use of magnets not only eliminates the need for batteries, but also provides a satisfying tactile effect between Cube and Tray, ensuring consistent alignment and performance.

Output

The Cube contains magnets in varying polarity and strength that align with magnetic sensors in the base to ensure an accurate reading regardless of the Cube's orientation.

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Data Credits

🏠 dashboard

530 coin

Memory	Available Data	Auction	Offer
The Grove	Eyetracking	Accenture	30 coin
SFO Airport	Biometric		10 coin
Apple Store	Heartrate		50 coin
Grocery Store	Camera Fee		20 coin

🏠 dashboard

Mon, Nov 28 **10 : 57** am

📍 Jacobs Hall

TRAFFIC 0.8875

HUMAN 0.8875

HUMAN 0.8875

HUMAN 0.8875

HUMAN 0.8875

BICYCLE 0.8875

🔊 28 dB

🌡 18 °C

♨ 42% rh

👣 0.5 mile

Eye - D

A speculative design manifested through hardware, software, and video narratives that seeks to imagine the future of privacy. Research and interviews with a wide variety of potential users, including subjects of passive surveillance, advocates resisting surveillance, and companies tasked with data aggegration and sales, we found that contemporary relationships with privacy proved complicated.

Pivoting into a speculative narrative, our team imagined a future where consumers are included in the gathering and sale of their data, from start to finish. The outcomes of this project sought to provide a feasible conceptual alternative to today's economy of surveillance capitalism. This project captures a speculative narrative and accompanying artifacts for an XR headset that provides an alternative to today's economy of surveillance capitalism by giving users control over personal data commodification.

ROLE

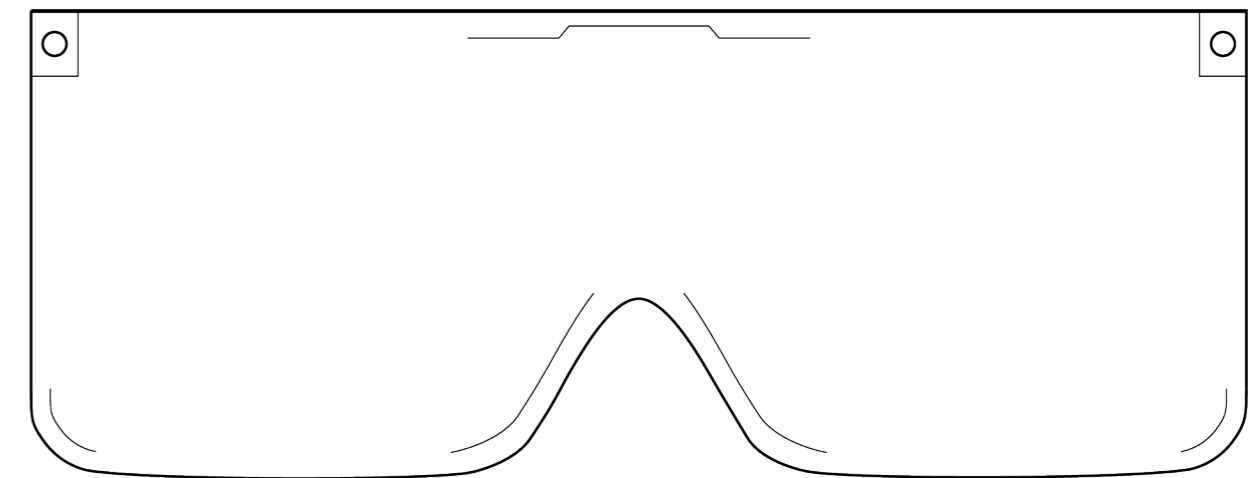Interaction Design, Prototyping, Production

DURATION

4 weeks

DISCIPLINE

Speculative Design

RECOGNITION

Student Selection: Berkeley Master of Design Winter Showcase

Interaction

A series of short films illustrate the interactions between the user, the platform, and their surroundings.

These films enabled us to capture the nuances that differentiate a platform designed around the concept of privacy from platforms designed around profiting from user data.
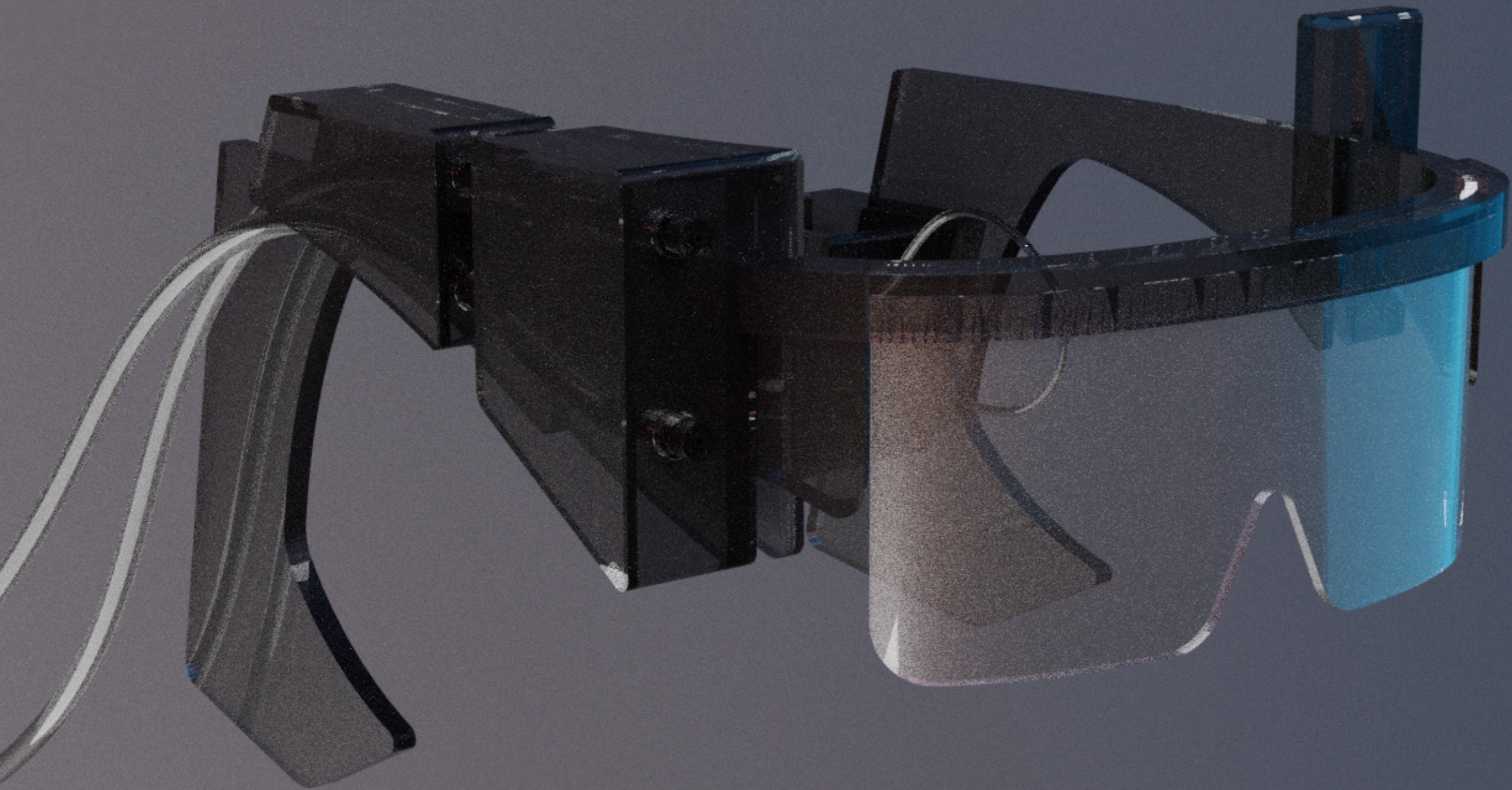
Hardware

While design of a physical headset was not the priority in this project, but the physical presence of a camera-enabled wearable that captured all of the user's experiences amplified awareness of the scope and scale of surveillance capitalism.

In anticipation of the increased visibility of technology companies into our daily private moments, privacy has come to the forefront of technology marketing, despite the industry's economic dependenc on the buying and selling of user data.

7m ago from 9eee
4.2 magnitude earthquake
detected.

meshtastic.org
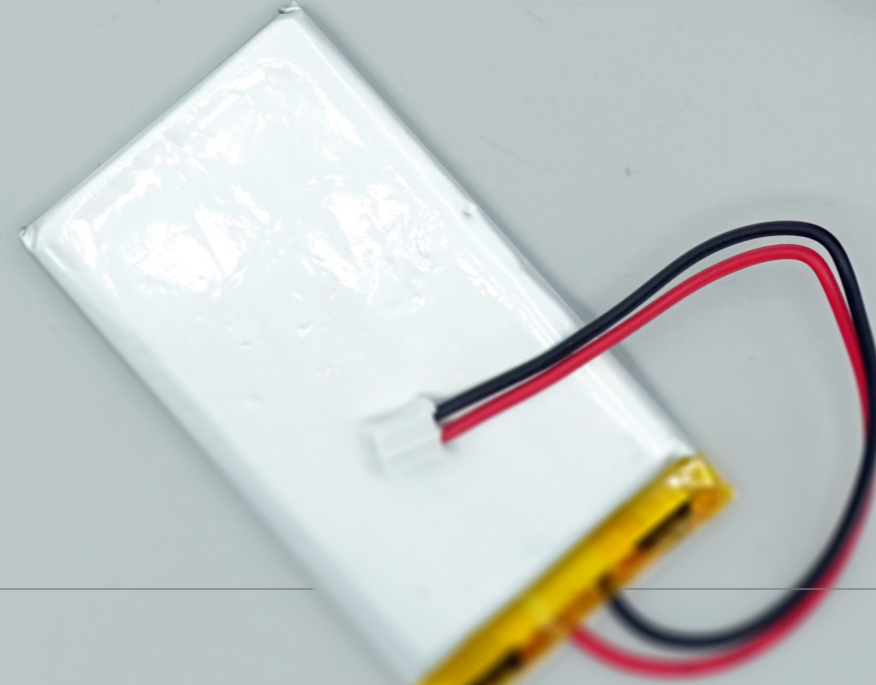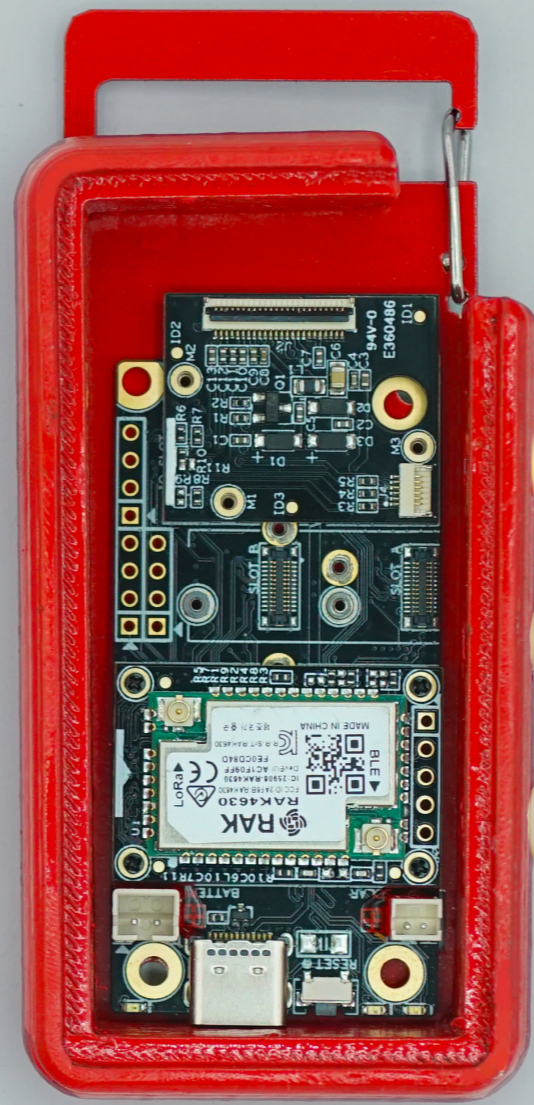
[Tech]tonic Toolkit

A DIY-kit designed for primary school students that assembles into a functional messenger device that leverages long-range, low-power mesh networks to enable communication between parent and child in the aftermath of high-magnitude earthquakes.

The United States has yet to experience a major earthquake since the invention and proliferation of the smartphone. The US Geological Survey warns that a major earthquake will likely disrupt cellular and internet connectivity for hours, days, or weeks. Our dependence on connected technology will magnify the emotional and physical impacts of these inevitable earthquakes. Strategically deployed Long Range radio networks provide the opportunity to create affordable, resilient, and scalable communication networks for our society's most vulnerable populations in the aftermath of a major earthquake. By introducing these tools through primary school curriculums and facilities, these municipal institutions have the power to provide a lifeline to an extensive socioeconomic spectrum. By addressing blind spots in civil infrastructure, this project intends to illustrate how thoughtful deployments of simple technology can enable communities to support each other.
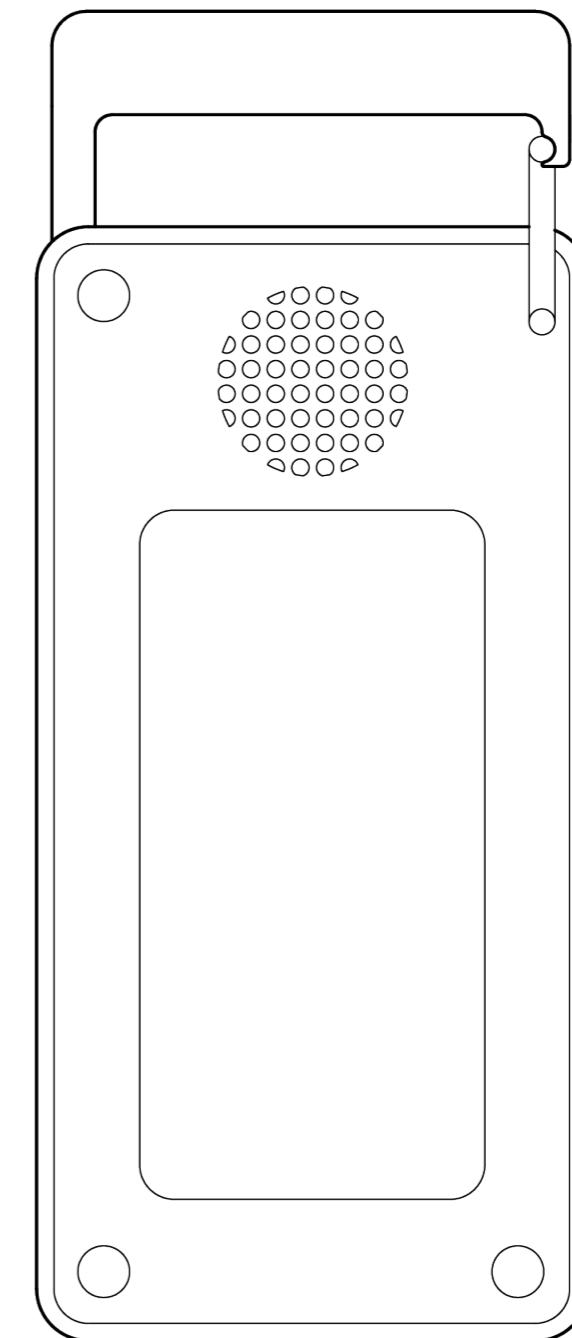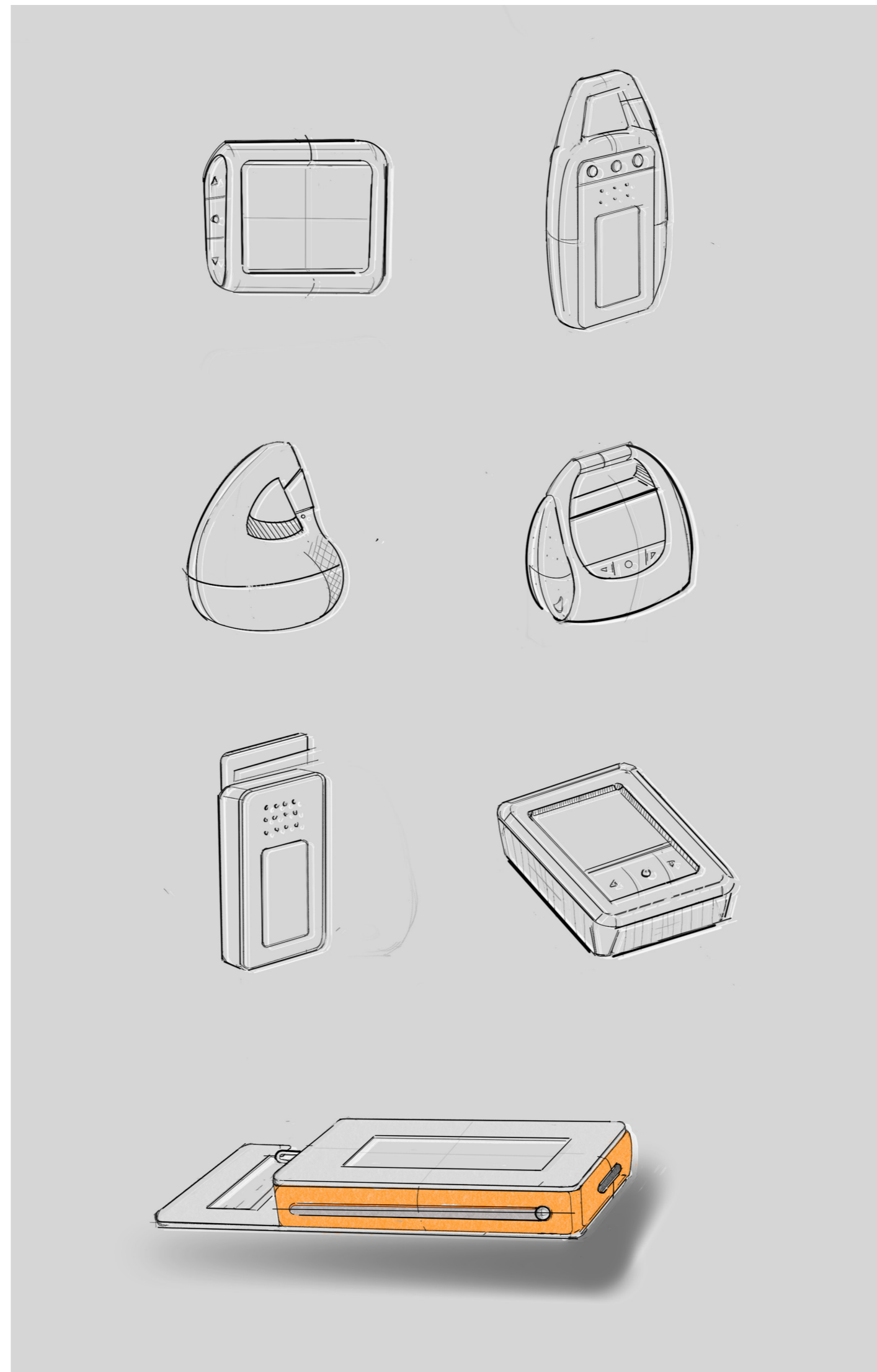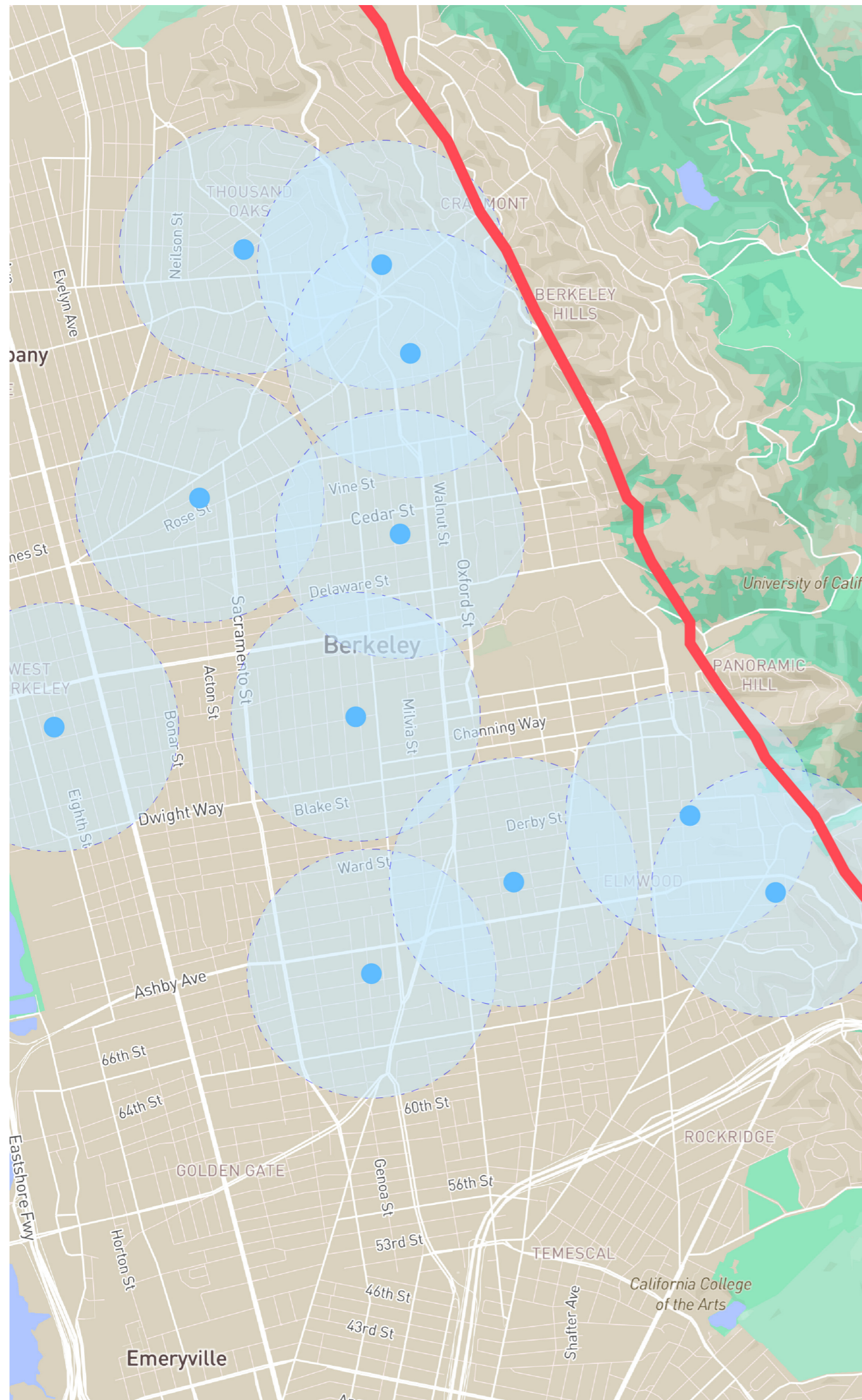
ROLE

Designer

DURATION

4 months

DISCIPLINE

Product Design

Motivation

People living in seismically active regions are often unaware that the impacts of a major earthquake will likely result in significant disruptions to traditional telecommunication systems, like voice and data.

This project sought to connect parents, schools, and children in the aftermath of a major earthquake while simultaneously establishing a resilient and distributed community-response network.

Process

While the distributed and infrastructure-free characteristics of mesh networks are benefits towards resilience during natural disasters, these benefits can undercut trust that the network will be there when it is most needed.

Once the technical requirements were successfully implemented, a challenged emerged in identifying and engaging a captive audience. Through principles of Community-Driven Disaster Response (CDDR) we identified primary schools and primary school students as compelling stewards for this system.
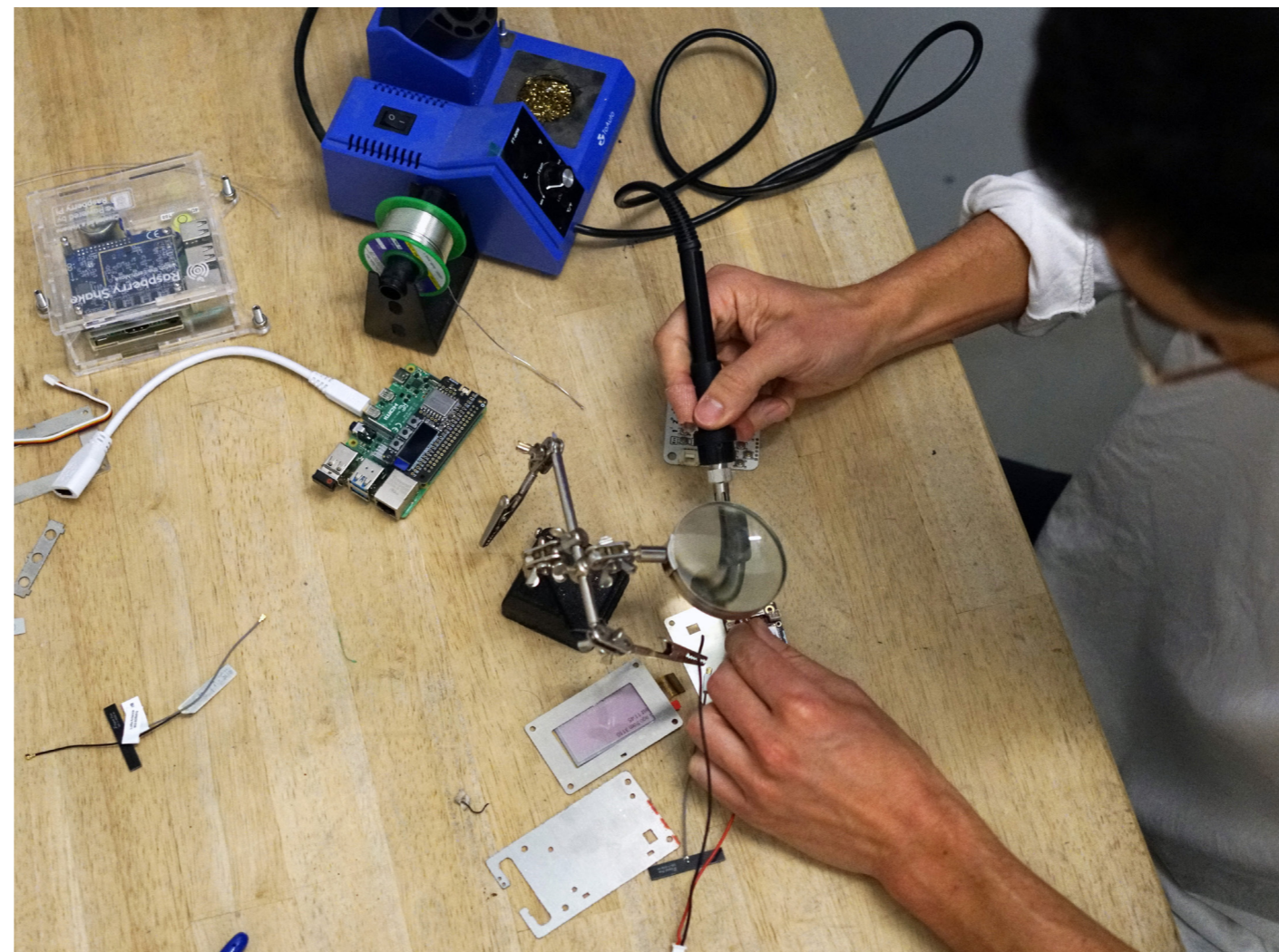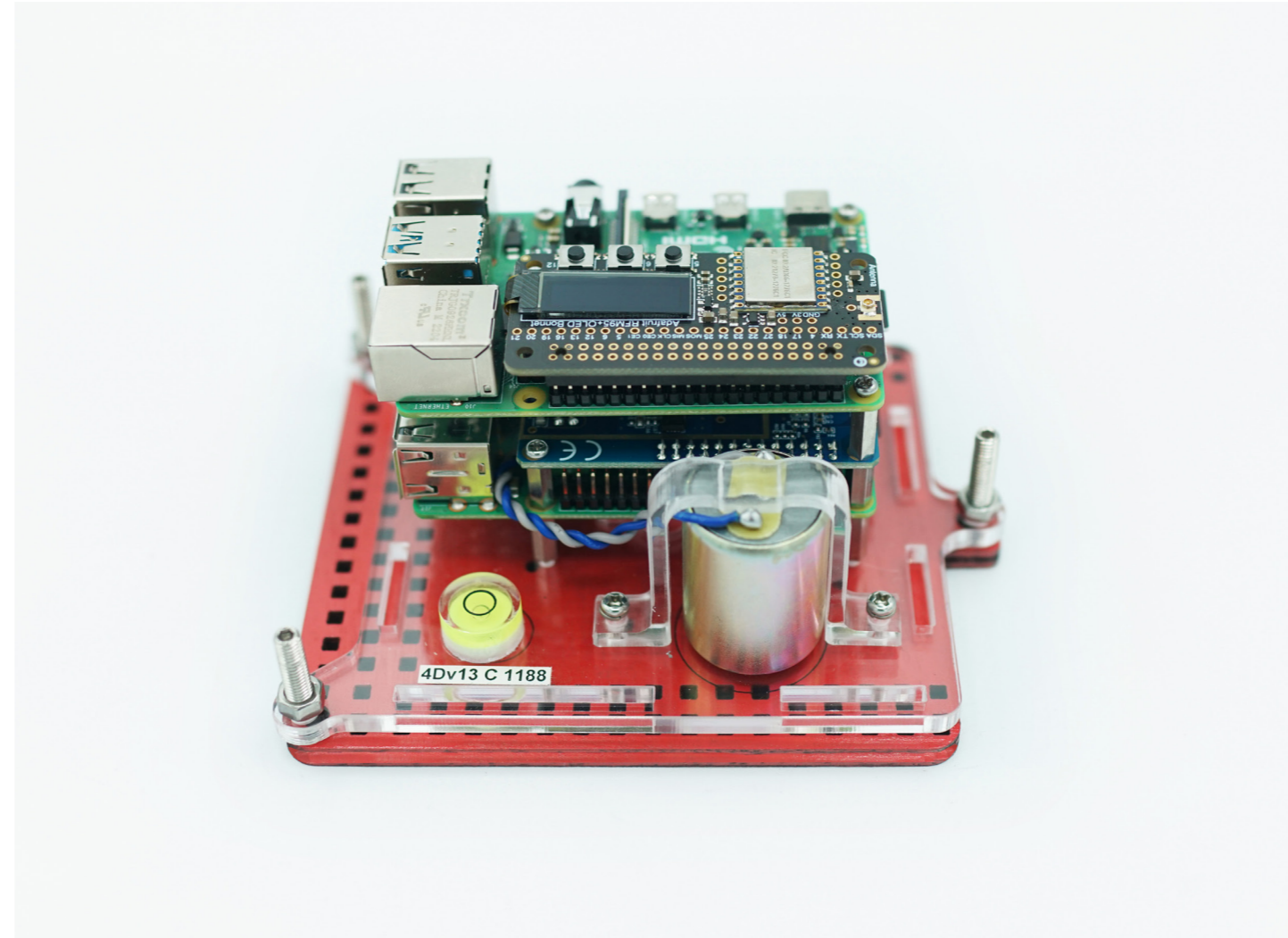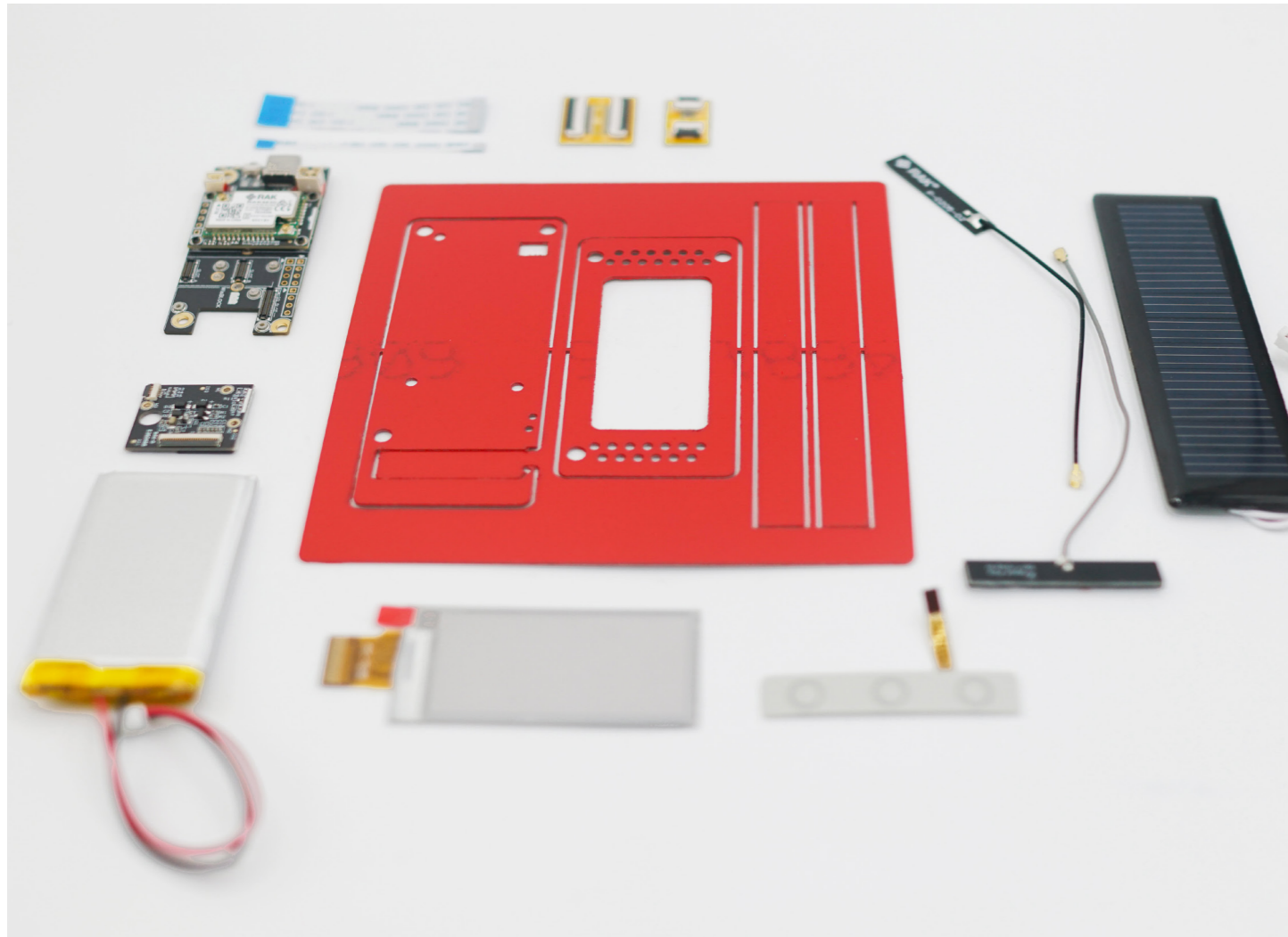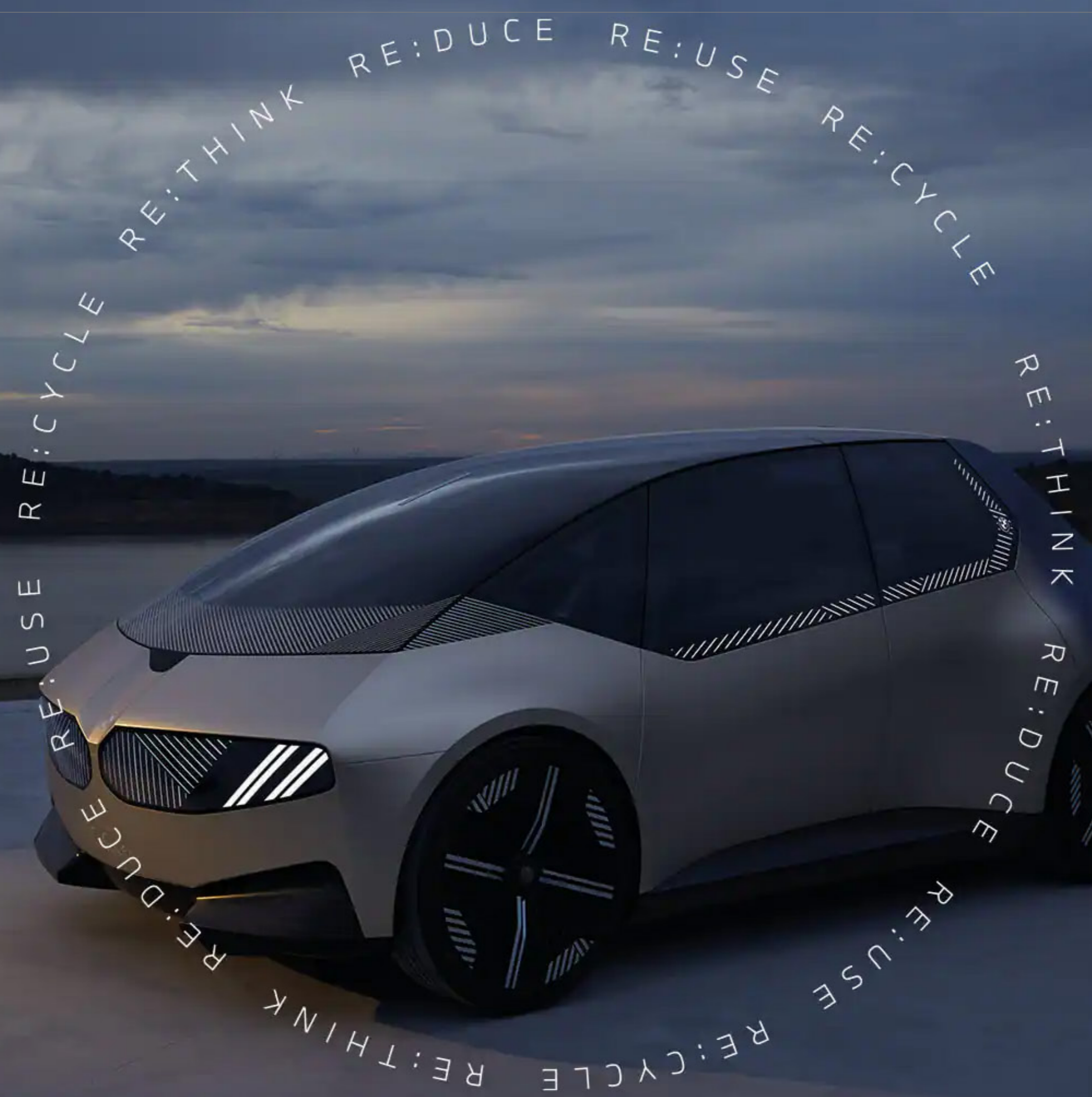
Toolkit

The [tech]tonic toolkit was designed as a 10-piece DIY kit that assembles into a functional mesh-network communication device. The kit is intended to be distributed to 4th and 5th grade students in seismically-active regions, teaching basic STEM skills alongside existing lessons in earth sciences and seismology.
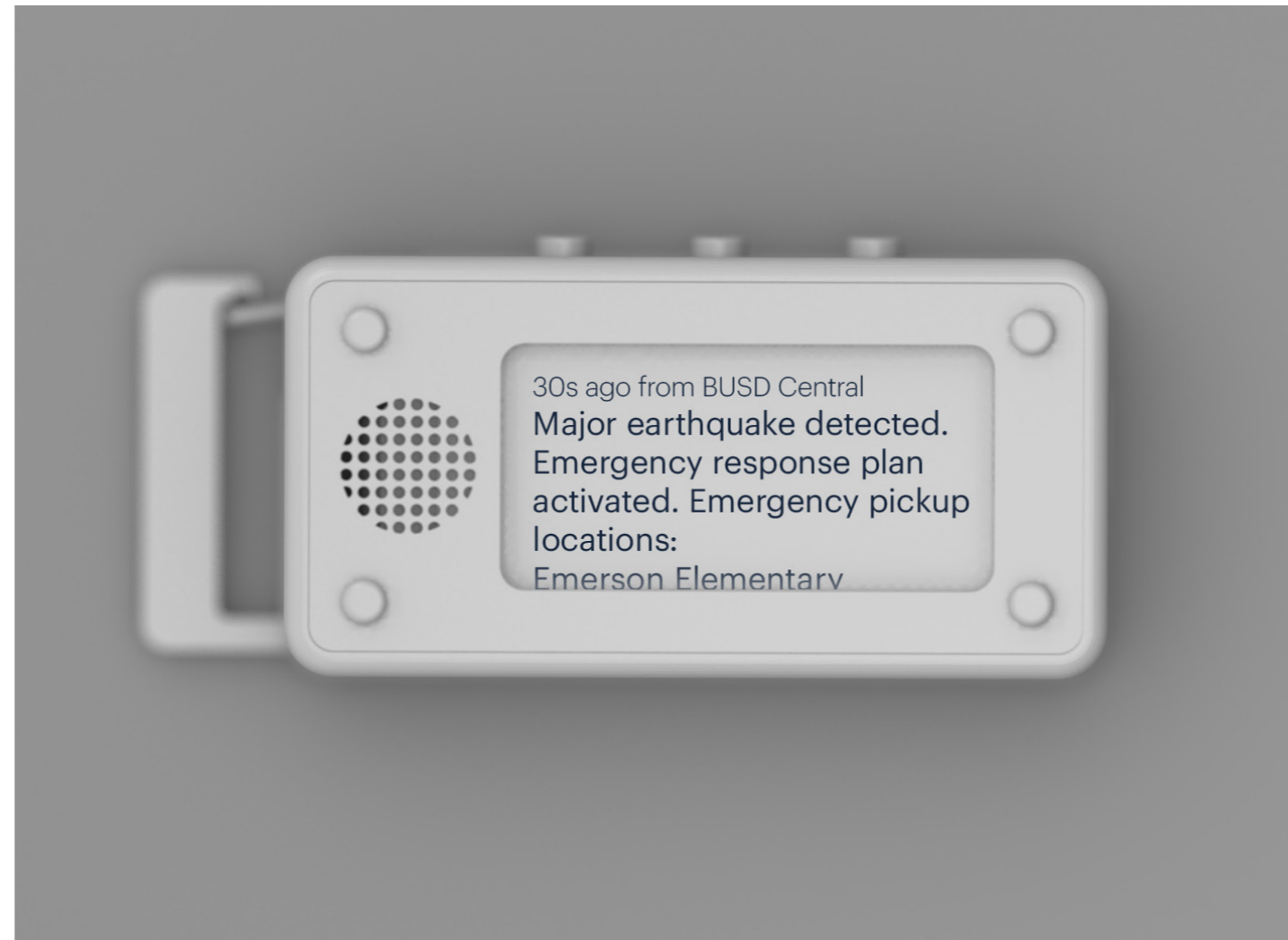
This device is complimented by a fixed-device deployed and maintained in public schools that monitors for seismic activity and activates a backbone mesh network, ensuring that the network will always be there when it's needed.

RE:THINK RE:DUCE RE:USE RE:CYCLE RE:THINK RE:DUCE RE:USE RE:CYCLE RE:THINK RE:DUCE RE:USE RE:CYCLE RE:THINK RE:DUCE RE:USE RE:CYCLE

BMW x JIDI

Image Credit: BMW Group

As a Design Research Fellow at BMW, I worked on a four-person team to compile, manage, and analyze a database of over 75 industry and academic case studies resulting in the identification of eight core behavioral drivers promoting climate-positive driver behavior.

The output of the 12-week design research position was a research document for circulation within the BMW Group on the use of digital tools for promoting driver sustainable behavior habits. This paper has also been adapted into a conference-ready presentation and publication, receiving positive reception and feedback from BMW Technology Office executive staff.

ROLE

Interaction Design, Prototyping, Production

DURATION

12 weeks

DISCIPLINE

Design Research