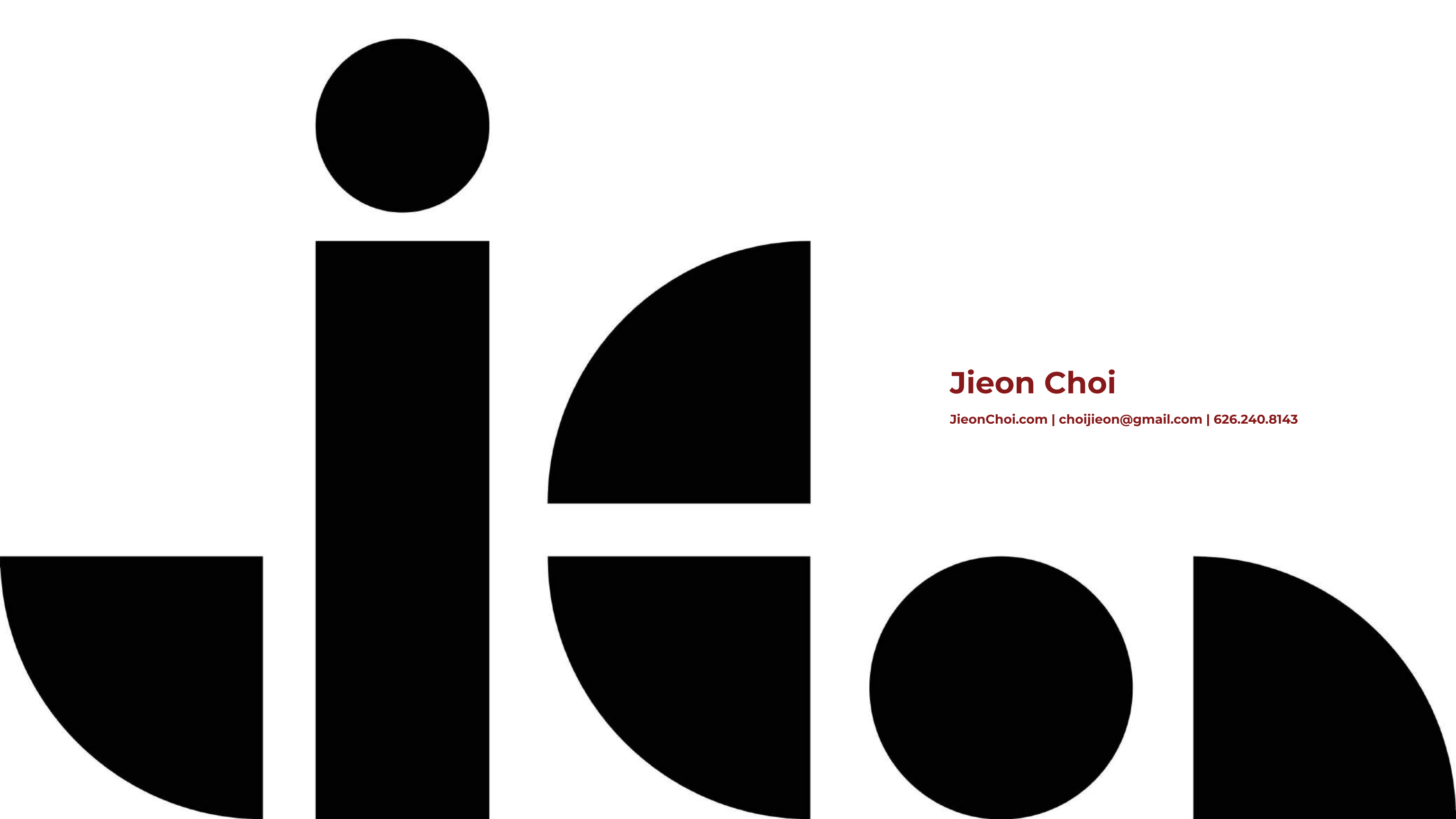




Jieon Choi

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hello!

Jieon Choi is an **industrial designer who connects technology, sustainability, and the human experience** by bridging the gap between functionality and emotion. His work takes an unexpected approach to problem solving, making complex ideas more accessible and sparking conversations that lead to real change. He believes the **best solutions and the most meaningful innovations come from building bridges**, connecting people, systems, and disciplines.

That mindset is rooted in his personal journey. Growing up between Seoul and Seattle, **Jieon learned to navigate different languages, cultures, and perspectives**. Later, as an engineer and interpreter in the Army, he quite literally built bridges, supporting collaboration between teams working toward a common mission. Today, that same instinct to connect and translate ideas continues to shape his design practice.



OneVision



More than what meets the eye

OneVision is the world's first vision-based AI assistant designed to learn your life and make it easier.

Overview

- Capstone project (ArtCenter)
- 12 week timeline (2days/week)
- Summer 2024 (May~Aug)

Tools

- Solidworks
- Keyshot
- 3D printing (FDM,SLA,PolyJet)

Keywords

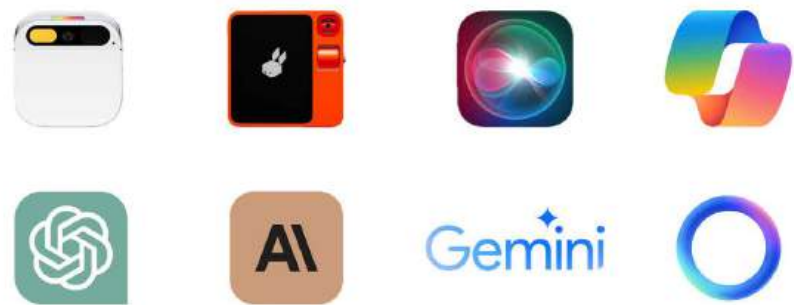
- AI vision
- Human-computer interaction
- Assistive technology

I learned

- AI tools
- AI system thinking
- Ergonomic prototyping

Disclaimer
This project is a speculative design exploration created for academic and conceptual purposes. It is not affiliated with or endorsed by Anthropic.

What



*AI assistant products

Anthropic One Vision is a AI glasses that explores **how AI will shape the future of personal technology**. As the AI assistant market rapidly expands, every major tech company and emerging startup is racing to define the next essential tool for daily life. I approached this challenge through the lens of Anthropic, an AI research company backed by Amazon, and imagined how they might translate their values into a physical product.

The result is a vision-focused wearable assistant designed to deliver thoughtful, **context-aware support** through intelligent sensing and minimal interaction.



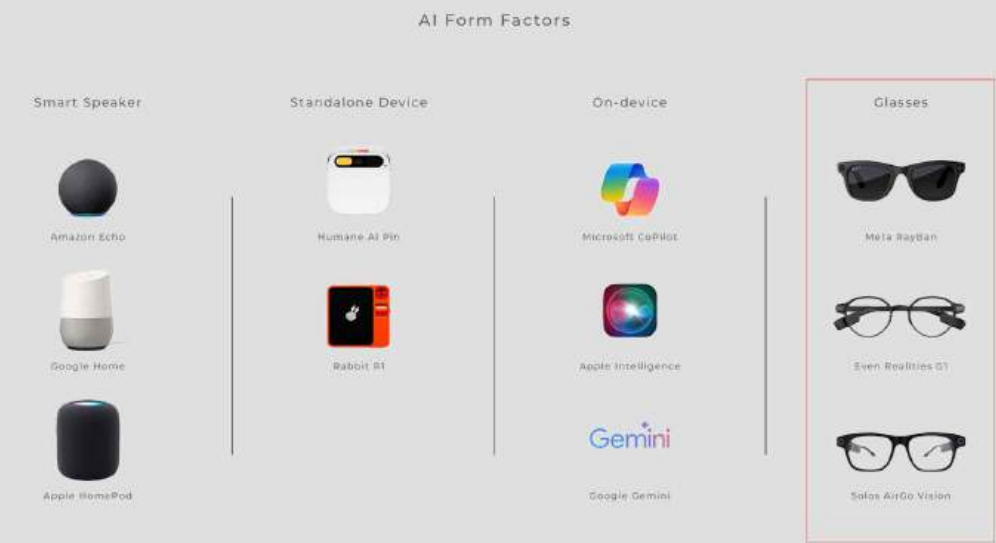
It features:

- **Context-aware AI assistant** that adapts to daily routines
- Real-time **language translation**, including **sign language**
- Active camera indicator for enhanced **privacy awareness**
- **Monochrome AR** display for subtle visual prompts
- **Eye tracking** and gesture input for intuitive interaction
- Fitness equipment recognition and **auto-logging**

Why

Why AI glasses?

The AI assistant space is quickly evolving, and smart **AI glasses are becoming the new frontier**. As AI shifts from **screen-based responses to presence-based support**. AI glasses offer a natural way to bring AI closer to the senses, enabling real-time awareness and subtle interaction. One Vision explores how this form factor can move beyond novelty to become a calm, **helpful companion in daily life**.



Why Anthropic?

Anthropic is an AI research company known for advancing language models with a focus on safety and alignment. Backed by Amazon, it is well positioned to expand into physical products that complement Amazon's ecosystem. One Vision imagines how Anthropic could make that move, translating thoughtful AI into a wearable experience that feels personal, useful, and ready for the real world.

How

Market research

The project began with research into the current smart glasses landscape, including both AI-powered devices and traditional eyewear. I analyzed products from companies like Meta, Tobii, and Even labs, along with conventional eyewear brands, to **understand the balance between function, comfort, and personal expression**.



Design ideation

Given that glasses sit at the center of a person's visual identity, I placed equal weight on aesthetics and interaction. Through competitive analysis and form studies, I explored how to integrate sensors, cameras, and displays **without compromising comfort or style**.



Arriving at the Final Design

The final design of Anthropic One Vision balances advanced technology with everyday usability. The glasses integrate AI vision, eye tracking, stereo audio, and a monochrome AR display into a lightweight, approachable form. A privacy-focused camera indicator, context-aware feedback, and subtle interaction design make the **product feel intelligent without being intrusive**. For users, it offers hands-free assistance, real-time translation, memory recall, and environmental awareness that **supports both convenience and safety**.

For Amazon, One Vision opens the **door to a new category of AI-powered consumer hardware**, bridging Anthropic's language models with Amazon's retail and device ecosystem. This creates new opportunities for **personalized services, ambient commerce**, and a stronger presence in the future of wearable computing.



Specifications



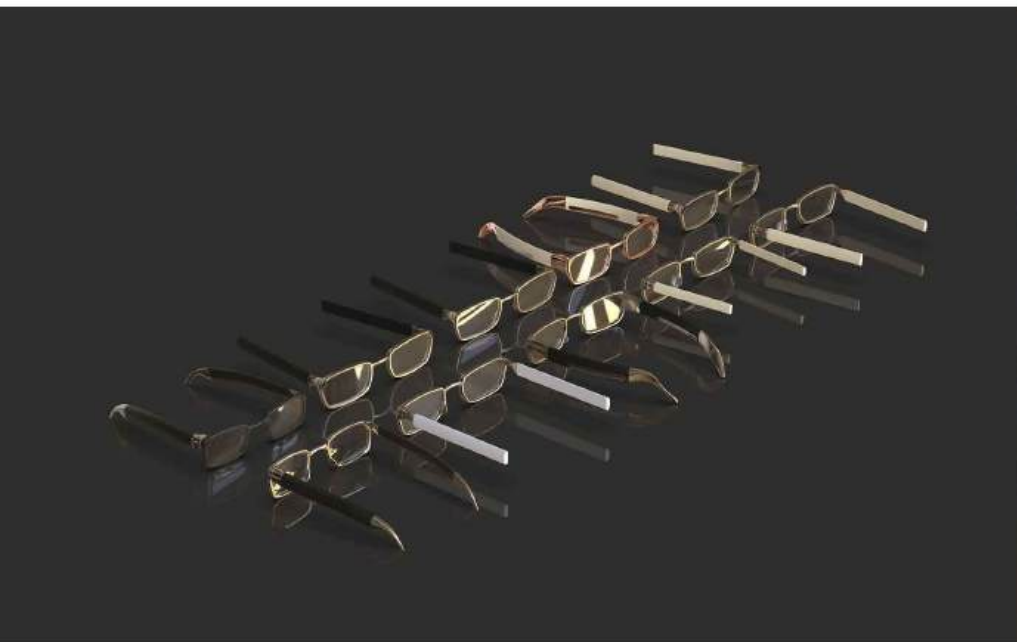
Processor: Snapdragon wearable SoC
Vision: Stereo World Facing Cameras
Sensors: Eye-tracking, Touch
Audio: Stereo Built-in Speakers

Connectivity: Wifi 6, BT 5.2
OS Compatibility: IOS 15.3 / ANDROID 11
Battery: 6 Hours of active use
Memory: 128GB Flash Storage



AR display used for notification

Digital Model



Exploring Form and Visual Balance

Before moving into physical prototyping, I explored multiple frame variations through digital modeling. This stage allowed me to **evaluate proportions, lens shape, arm angles**, and overall silhouette across a wide range of options. The goal was to find a **balance between technical integration and visual neutrality**, creating a form that feels both intelligent and approachable. This step also helped prepare for downstream detailing, including sensor placement and UI zone alignment.

Mockups



Bridging Design and Production

Using 3D-printed mockups in PLA and resin, **I tested form, fit, and structural thickness. These models allowed me to assess comfort, styling, and visual presence on the face.** Alongside the physical studies, I created a full tech pack outlining material choices, finish treatments, lens specifications, and mechanical detailing that would guide real-world production. This phase was essential in bridging the gap between concept and manufacturability.

Final Presentation



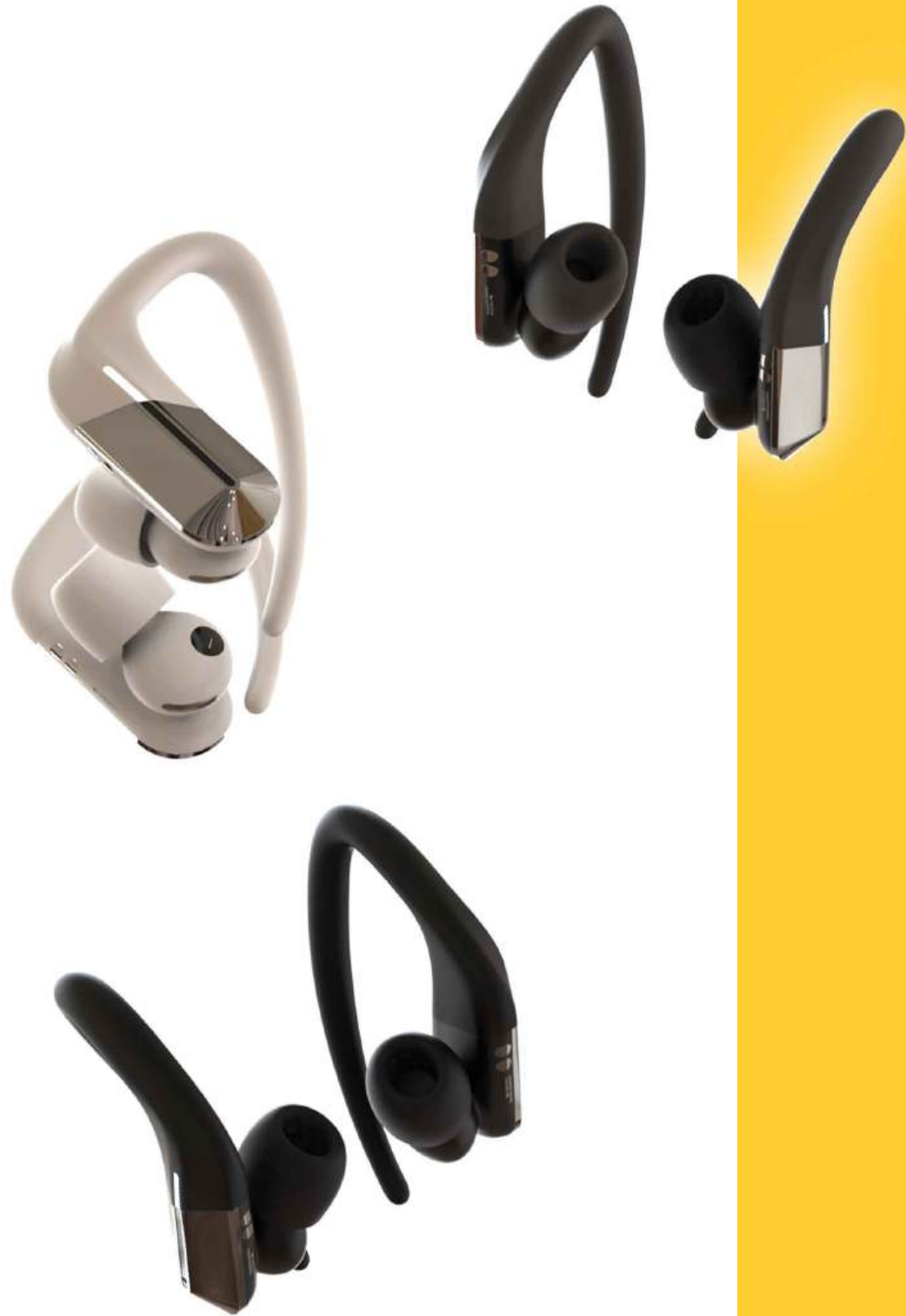
Bringing the Vision to Life

The final model reflects the complete design vision, **blending smart functionality with subtle aesthetics.** The frame houses all major components in a clean, well-proportioned form, finished with texture, paint, and branding for presentation. **display layout were designed to highlight both the hardware and its potential** as a thoughtful, consumer ready product.





One Vision is a glimpse into how AI can enhance perception without demanding attention. It's not just about what we build, but how it blends into people's lives.



Buds Ultra

More than a heartbeat

Buds Ultra is an AI wearable from TechnoGym in the form of active lifestyle earbuds.

Overview

- Sponsored project (Samsung Electronics)
- 14 week timeline (2days/week)
- Summer 2024 (May~Aug)

Tools

- Solidworks
- Keyshot
- 3D printing (FDM,SLA,PolyJet)

Keywords

- Gym ecosystem
- AI powered workout
- Ergonomics

I learned

- Conflict management
- Figma
- Ergonomic prototyping

Disclaimer

This project was developed as part of a sponsored studio in collaboration with Samsung Electronics. It was initially conducted under a non-disclosure agreement, which has since been lifted. The concepts and designs presented are speculative and were created for academic purposes.

What



Buds Ultra is a concept for intelligent, active lifestyle earbuds designed in a Samsung sponsored studio hosted by ArtCenter College of Design, where we were challenged to envision a future collaboration for the Galaxy brand.

I proposed a strategic partnership with TechnoGym, a premium fitness equipment brand, to create a connected gym ecosystem where Samsung's smart devices could seamlessly integrate with Technogym's hardware and digital services.



As a flagship product in this speculative ecosystem, Buds Ultra is more than just an earbud, it's a workout companion that senses, adapts, and responds.

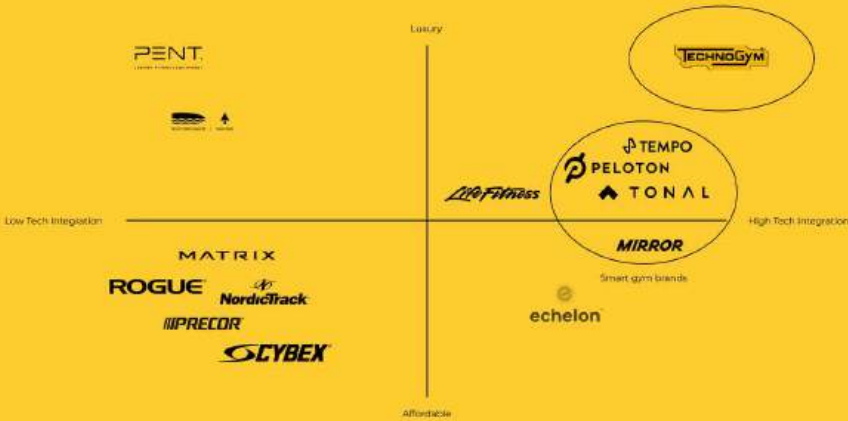
It features:

- **AI-generated music extensions** that match the duration of your workout, syncing music to your final steps.
- **Heart-rate-responsive tempo control** to keep the energy just right.
- **Ultra-wideband (UWB) detection** to identify the gym equipment you're using and switch workout modes automatically.

Why

Why health & wellness space?

Samsung offers a wide range of smart devices but still faces challenges in delivering a seamless and cohesive ecosystem. In this project, I identified **connected health and wellness as a space where no major tech brand has created an integrated experience** across wearables, phones, and equipment.



Why TechnoGym?

Through market research and competitive mapping, I found that while brands like Peloton, Tonal, and Mirror focus on smart fitness hardware, they remain limited to domestic or app-based ecosystems. **Technogym stands apart as the only smart gym brand with a strong presence in over 100 international markets and deep integration across commercial fitness environments.**

This made Technogym an ideal partner for Samsung. A collaboration would **allow Samsung to expand its Galaxy ecosystem into a new space** while offering users a unified, intelligent gym experience.

How

User research

This project was approached as both a product and ecosystem design challenge. I began by mapping the user journey inside a gym, identifying friction points in how wearables, machines, and music interact. I also studied the structure of Technogym's digital system to align with its connectivity potential.

Feature ideation

I designed Buds Ultra to act as an intelligent companion that adapts in real time. Using heart rate and core temperature sensors, it **adjusts music tempo based on intensity and extends track duration through AI-generated transitions to match your workout** rhythm from start to finish. This creates a seamless audio experience that feels personal and motivating.

Session duration

Music playlist

Song 1 AI Bridge Song 2 AI Extension

Thinking beyond performance

The sensor integration also opens up new opportunities for health tracking and **safety**. In activities like open water swimming, where conditions can shift quickly, **real-time monitoring of temperature and exertion can offer early warnings for heat exhaustion or hypothermia.**

Arriving at the Final Design

The final concept for Buds Ultra was shaped by a **balance of system thinking and human insight**. Early research revealed a clear need for fitness tech that responds intuitively to users, without requiring constant setup or input. I explored how Samsung's existing **ecosystem could extend into physical gym** environments through smart, responsive audio experiences.

By focusing on biometric inputs like heart rate and core temperature, I saw an opportunity to create a product that not only motivates through music but also supports real-time health awareness. The design evolved around the idea of seamless adaptation, **earbuds that extend or adjust tracks through AI, shift workout modes automatically, and alert users when physical conditions become potentially unsafe**.

Every detail in the final design reflects this intent: lightweight materials, intuitive touchpoints, and a UI that fades into the background, **letting users stay focused on movement, rhythm, and performance**.



qi2 Wireless charging case

Sensors & Specifications

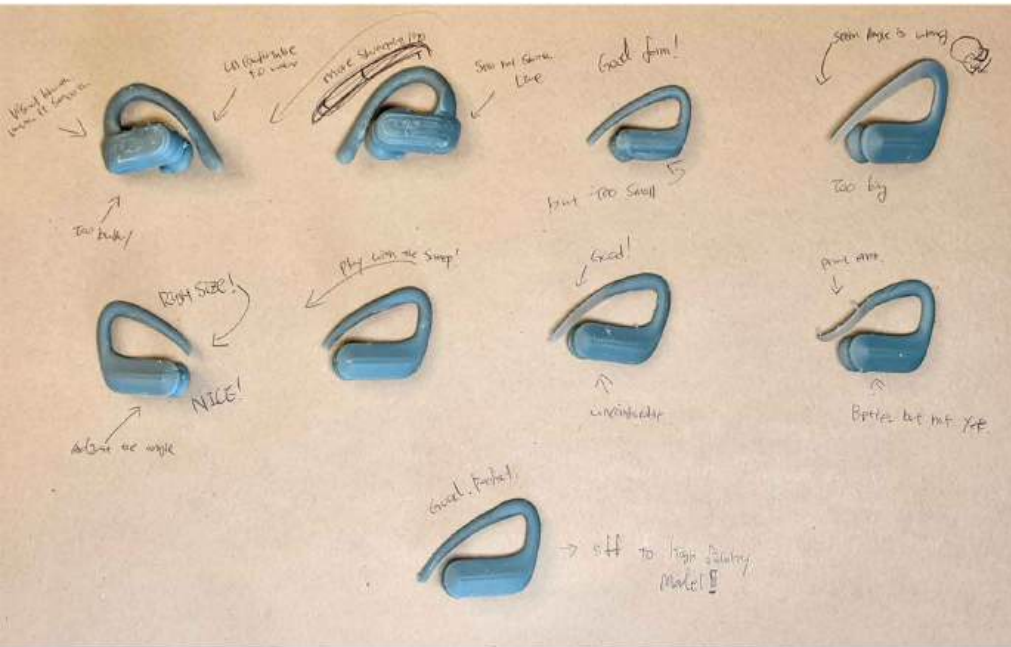


Buds Ultra integrates biometric sensing, gesture control, and environmental awareness into a seamless system that adapts in real time. Each feature works together to enhance focus, safety, and flow throughout the workout experience.



Seamless experience with TechnoGym's smart gym ecosystem

Shape and Fit Study



Exploring Fit and Form

Initial form studies **focused on fit, comfort, and gesture usability**. Through rapid iterations using resin print models, I explored variations in hook and stem angle, thickness, and ergonomics.

Notes from user testing and self-evaluation helped identify what felt intuitive and what disrupted natural movement. This stage was about **defining the physical language of Buds Ultra through hands on exploration.**

Mockups



Refining Design and Detail

Once the form direction was established, I transitioned into high fidelity modeling to **capture the product's final intent**. Materials, texture, and precise proportions were refined through 3D printing and finishing techniques. I also designed a custom charging case that aligned with the ecosystem vision, highlighting the relationship between the earbuds and their environment.

Final Presentation



Bringing the Vision to Life

The final build emphasized presentation and realism. Each model was polished, painted, and assembled to **communicate the full product experience**. From the fit and finish of the case to the custom display board, every detail was considered to **concept, premium, purposeful, and connected**.





Buds Ultra explores how intelligent wearables can do more than track. They guide, adapt, and motivate. By blending biometric sensing, AI generated audio, and seamless gym integration, this project reimagines earbuds as active partners in wellness. It is a reminder that great design does not just respond to motion. It moves with you.

SurfaceBook SE

Designed for our future

Rethinking the Future of Learning Experience with Microsoft

Overview

Sustainability

12 week timeline (2days/week)

Summer 2023 (May~Aug)

Keywords

Modular design

Human-computer interaction

Carbon footprint

Tools

Sustainable minds

Impact matrix

Process tree

I learned

Life Cycle Analysis

Impact measuring

Sustainable design process

Disclaimer
This project is a speculative design exploration created for academic and conceptual purposes. It is not affiliated with or endorsed by Microsoft.



What

SurfaceBook SE (Student Edition) is a modular, student-focused laptop designed to **support sustainable, flexible, and engaging learning experiences**. Featuring a mini LED main display and a secondary **e-ink display for note-taking, reading, or battery-efficient use**, the device supports both productivity and mindfulness in screen time.

Built with recycled and bio-based materials, and **designed for easy repair and personalization**, SurfaceBook SE challenges the throwaway culture of tech in education.



It features:

- Dual-display setup with a primary mini LED display and an e-ink display
- Swappable, modular components for easy repair and upgrade
- Up to 80% recycled or seaweed-based bioplastics
- Prioritizes durability and long-term product ownership



Why

The irony of Chromebooks

Every year, **millions of students receive Chromebooks**, an affordable, lightweight laptops meant to support learning. But within just a few years, many of these devices end up in landfills. **They're difficult to repair, often locked down by proprietary systems, and built with short lifespans**. What's worse, their software support expires long before their hardware fails.



*Electronic waste

The result? Thousands of tons of e-waste. Devices designed to empower the next generation, now polluting the world they're supposed to inherit.

It's a quiet irony: **tools meant to prepare students for the future are, quite literally, harming that very future.**

We can do better. And we must, with SurfaceBook SE

How

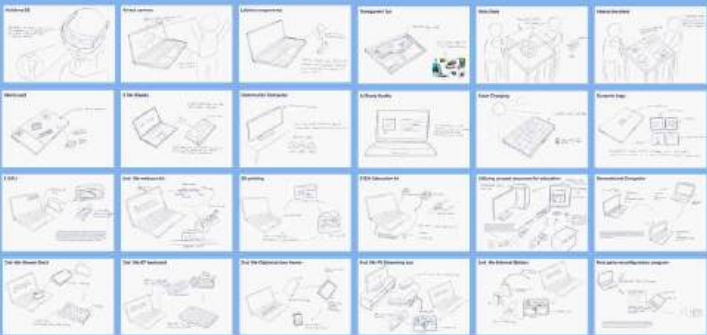
Market research

I looked into education focused devices, and screen time research to better understand how educational laptop could support both productivity and well-being. Insights revealed a **growing need for intentional design that supports focused learning and long-term ownership**.



Design ideation

I began by exploring how student laptops could better support **sustainability and usability**. I wanted the device to be easily repairable by students themselves. That led to a modular design, both externally and internally.



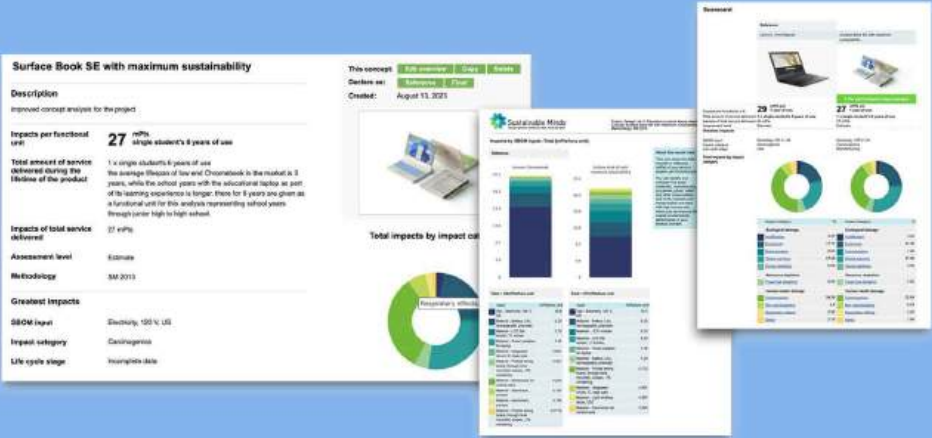
Arriving at the Final Design

SurfaceBook SE is an education-focused laptop designed for the next generation and the future of the planet. It features two energy-efficient displays: a mini LED main screen and a color e-ink display that uses up to 99 percent less power and is significantly better for eye health.

The modular design supports swappable input modules, like a keyboard or MIDI controller, along with stylus compatibility and accessory support. Internally, the components are clearly labeled and semi-modular, making repairs easy for non-professionals.



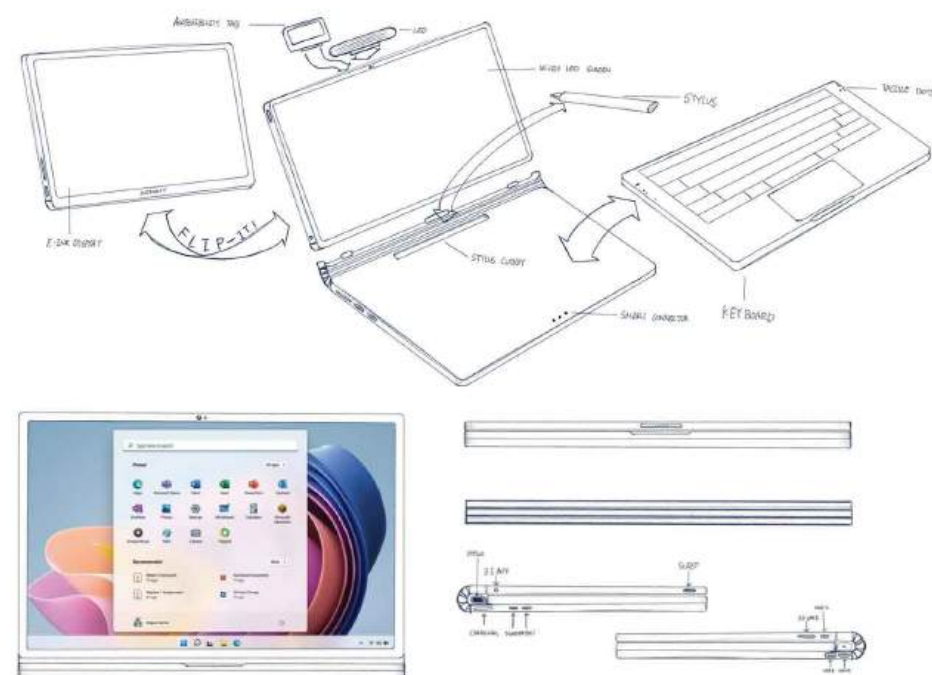
Evaluation



A sustainability analysis using Sustainable Minds showed lower environmental impact compared to a standard Chromebook.



Final Features



Idea to reality

The ideation phase define the key features that would set SurfaceBook SE apart, **modularity, dual displays, and student-focused usability**. Through sketching, I explored how these features could be integrated into a cohesive form, balancing function and approachability. These refined sketches became the blueprint for both my digital 3D models and physical mockups, guiding everything from proportions to component layout. **that every design decision was intentional and grounded in the original vision.**

Mockups



Getting physical

I created a series of physical prototypes that **explored scale, interaction, and visual detail**. I used a combination of PLA and high-precision PolyJet 3D printing to fabricate parts, especially those requiring tighter tolerances. To simulate product behavior, I embedded LED strips in key areas to represent where lighting would appear in the final design. The models were then carefully finished with spray paint techniques to match the look and feel of a real production device. **This hands-on phase was essential in bridging the gap between digital design and a believable, functional prototype.**

Final Presentation



Cherry on top

To complete the project, I showcased the finished SurfaceBook SE prototype alongside a feature poster that visually communicates its key specifications and design intentions. **This final presentation brought together all aspects of the project, from concept and functionality to form and storytelling.** By pairing the physical mock-up with clear, intentional graphics, I aimed to create a cohesive and compelling display that **SurfaceBook SE.**



SurfaceBook SE reimagines the student laptop as a tool for empowerment.
modular, sustainable, and built to shape both minds and a better future.



SCP

(Sustainability Curriculum Project)

Design Today For Tomorrow

SCP, Sustainability Curriculum Project, is a combined effort by ArtCenter, The Lemelson Foundation, and Pasadena City College to bring a sustainable design process to our education systems.

Overview

- Grant funded project
- 3 year timeline (2024 ~2026)
- Year 1 ambassador

Tools

- Public speaking
- Survey
- Workshops

Keywords

- UN SDG
- Educational content
- Focus group

I learned

- Project management
- Advocacy skills
- Systems thinking

Disclaimer
This project is a collaborative effort led by ArtCenter's product design department in association with PCC, funded by The Lemelson Foundation.

What



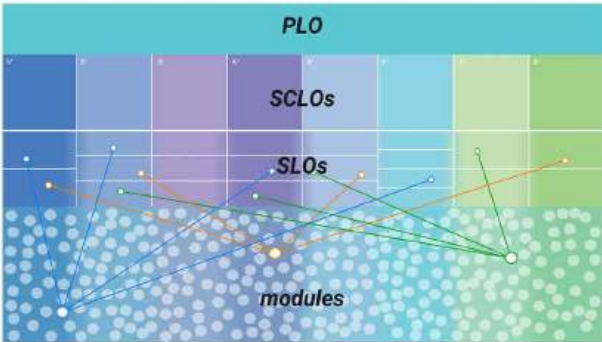
History

The Sustainability Curriculum Project (SCP) is a multi year education initiative that **embeds sustainability as a core design skill in design education.**

Originally launched through a mini grant **sponsored by the Lemelson Foundation and EOP initiative,** it evolved into a full scale curriculum building effort connecting ArtCenter, Pasadena City College, and other institutions.

My role

As the student ambassador and research contributor, I collaborated with faculty to develop scalable, modular learning tools (called “Modules”) that help instructors easily integrate sustainable thinking into any design course.



Why

Sustainability in design education?

As an educational institution, we believe it's our **responsibility to prepare students with the skills and mindset required for the future of design.** And in today's evolving landscape, **sustainability is no longer optional,** it's becoming a core competency in product development, systems thinking, and business strategy.



Why SCP?

To improve sustainability education, **we must first understand where students stand.** By establishing a baseline of their perspectives and involving **all stakeholders including students, instructors, leadership, and the local community.** With this, we can create a more relevant, inclusive, and effective curriculum.



The Lemelson Foundation Board

How

1. Understanding Needs

We started by conducting student surveys and focus groups to **understand their perceptions of sustainability,** and meeting with instructors to identify challenges they face in teaching it. This helped us **build a clear baseline to guide our approach.**

2. Developing the Curriculum

We collaborated with faculty through workshops and interviews to **develop flexible, plug-and-play Modules** aligned with sustainability learning outcomes. **Student Ambassadors** played a key role in shaping the content to **reflect real student experiences.**

3. Expanding Access

To share the project beyond our institution, we're building a public website where **educators, students, and the local community can easily access and adapt the Modules.** This ensures the tools we've created are **open, scalable, and impactful across diverse learning environments.**



First focus group interview



SCP's impacts

This project has shaped my understanding of sustainability and design education in a lasting way. It not only deepened my view of how sustainability should be taught but also gave me **hands-on experience working with diverse stakeholders**, managing timelines, and communicating ideas publicly. **The range of skills I gained, both strategic and interpersonal, will stay with me throughout my career.**

More importantly, this experience has permanently shifted how I see the role of sustainability and education, not just as topics, but as **powerful tools for shaping the future.**

I hope the work we have done **inspires the same perspective shift for every student at ArtCenter and across the broader design education community.** I am genuinely grateful for this experience and everything it has taught me.

My public roles

1. The Lemelson Foundation Board Meeting Presentation

Presented my Surface Book SE concept to the Lemelson Foundation board and trustees, highlighting how sustainability can be meaningfully integrated into student design work.

2. AICAD 2024 Speaker

Spoke at AICAD 2024 to represent the Sustainability Curriculum Project and share the importance of embedding sustainability within design education.

3. Seaweed Stories (2024) Moderator

Moderated the screening and discussion of Seaweed Stories, facilitating dialogue around seaweed as a future of sustainable material.

4. ABET 2025 Panelist

Joined the ABET Symposium panel to advocate for deeper collaboration between engineers and designers, emphasizing the value of cross-disciplinary sustainability efforts.



The Sustainability Curriculum Project empowers the next generation of designers to see sustainability not as a constraint, but as a creative tool for shaping a more thoughtful, resilient, and responsible future.

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