



# Portfolio

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# Bravo

Bring Your Colleagues Closer During Remote Work



# BRAVO



Bravo is a **smart IoT device** designed for remote team members to have fun, **engaging, real-time interactions** with each other. It aims to foster the sense of **bonding and belonging** within the team in the virtual space.

# OVERVIEW

## Empathize

- Desktop Research
- Competitive Analysis
- Stakeholder Mapping
- Stakeholder Interviews
- Data Synthesis
- Persona Mapping
- Journey Mapping

## Define

- Problem Space
- Painpoints
- Design Opportunities

## Ideate

- Divergent Design Ideas
- Supporting Research

## Testing & Iterate

- Sketching
- Lo-fi Prototyping
- Hi-fi Prototyping
- User Testing
- Stakeholder Evaluation



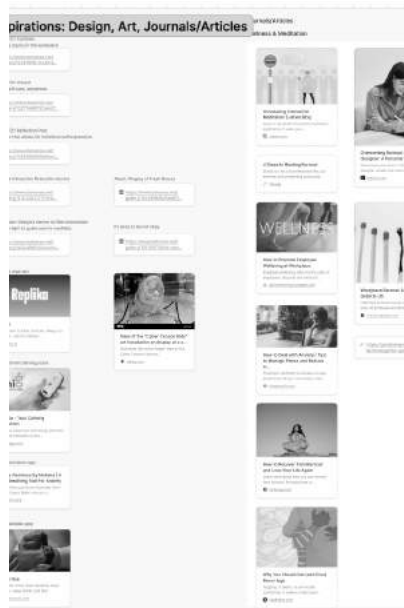
# Problem

86% of employees who wfh full-time experience **burnout**.

48% remote workers feel as though they have **no emotional support** from their employers.

67% remote workers report **feeling pressured** to be available all the time.

45% employees working remotely due to the pandemic report **working more hours than before**.

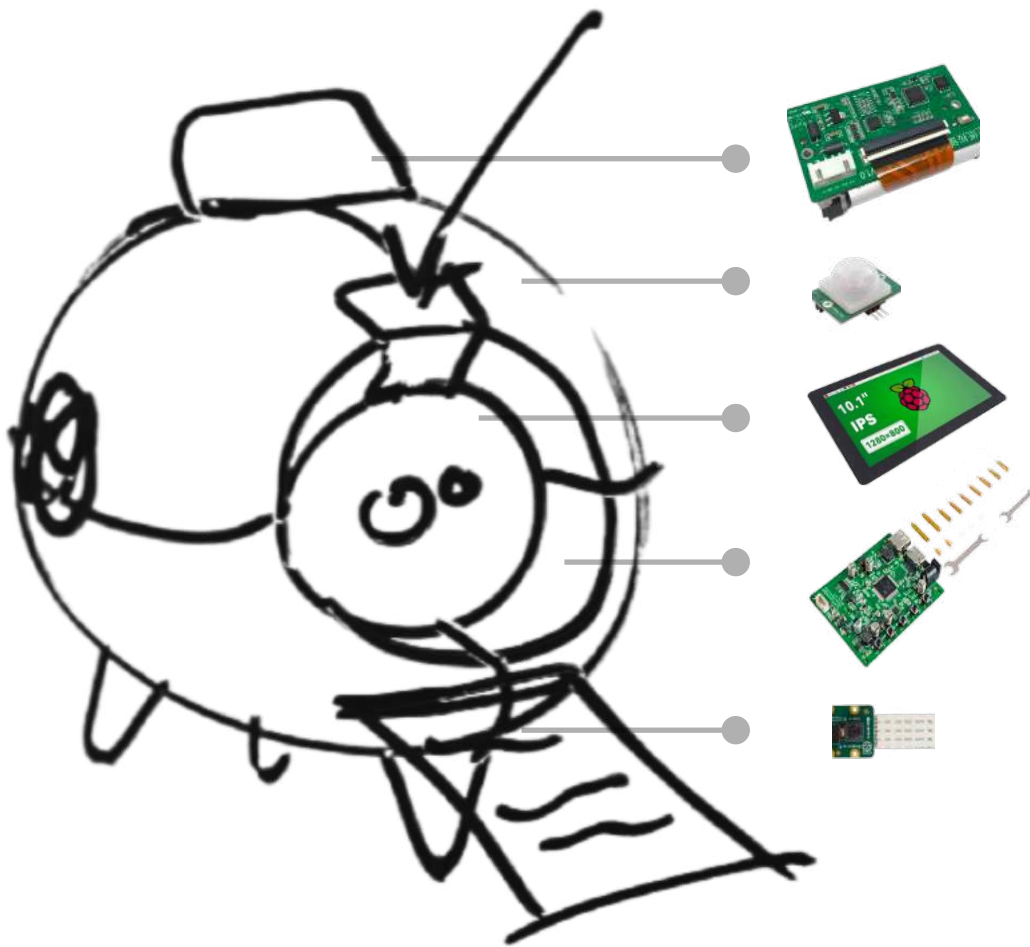


# Research

We conducted background research on remote work experiences, burnout, stress and wellbeing, as well as some existing projects that are related to our interest.

We interviewed 6 people from various industries to ask about their work situation and stress management.

# CONCEPT

**Thermal Printer**

print note from sender

**Motion Sensor**

motion detection

**Touch Screen**

user interface

**Raspberry Pi**

process

**Camera Module 2**

image input

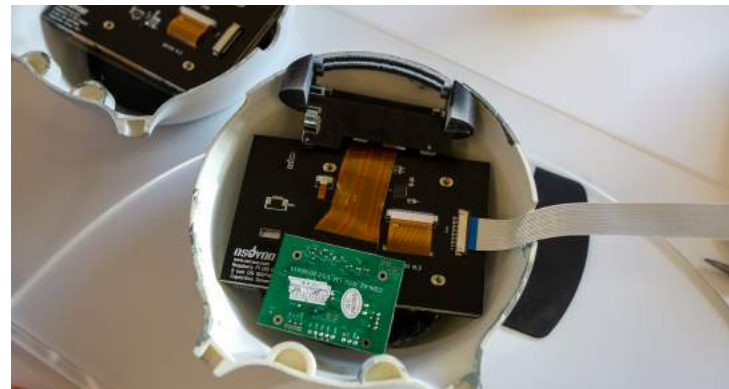
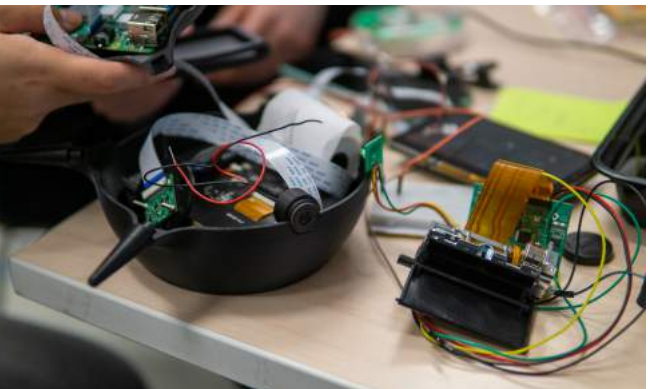
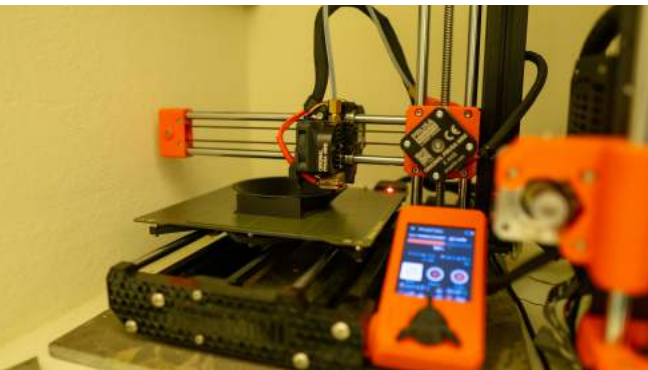
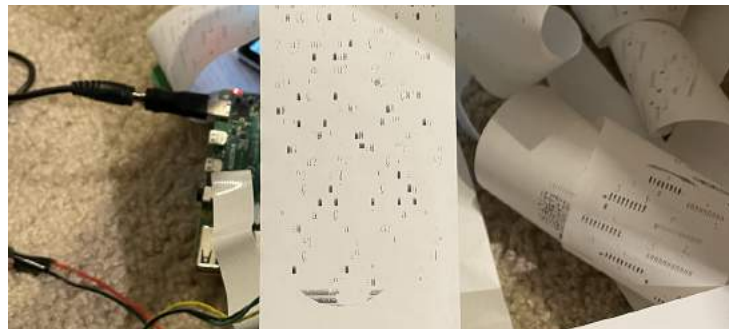
Grounded by the concept of calm technology and minimalism, we decided on using sphere as the form factor and keep the user interaction simple and intuitive. To minimize users' overwhelming experience given the fact that many people have multiple screens or devices, this IoT device emphasizes on making the user flow more automatic.

Users who work from home are encouraged to interact with their colleagues by sending positive notes to each other. In a scenario where user A wants to send kudos to user B, A will first select user B on the screen and insert his hand-written note into Bravo. Scanning and sending will then follow automatically.

User B will have the note from A automatically printed, and interaction among the team will be visualized on the display screen in real time.



# PROTOTYPING





FINAL PRODUCT



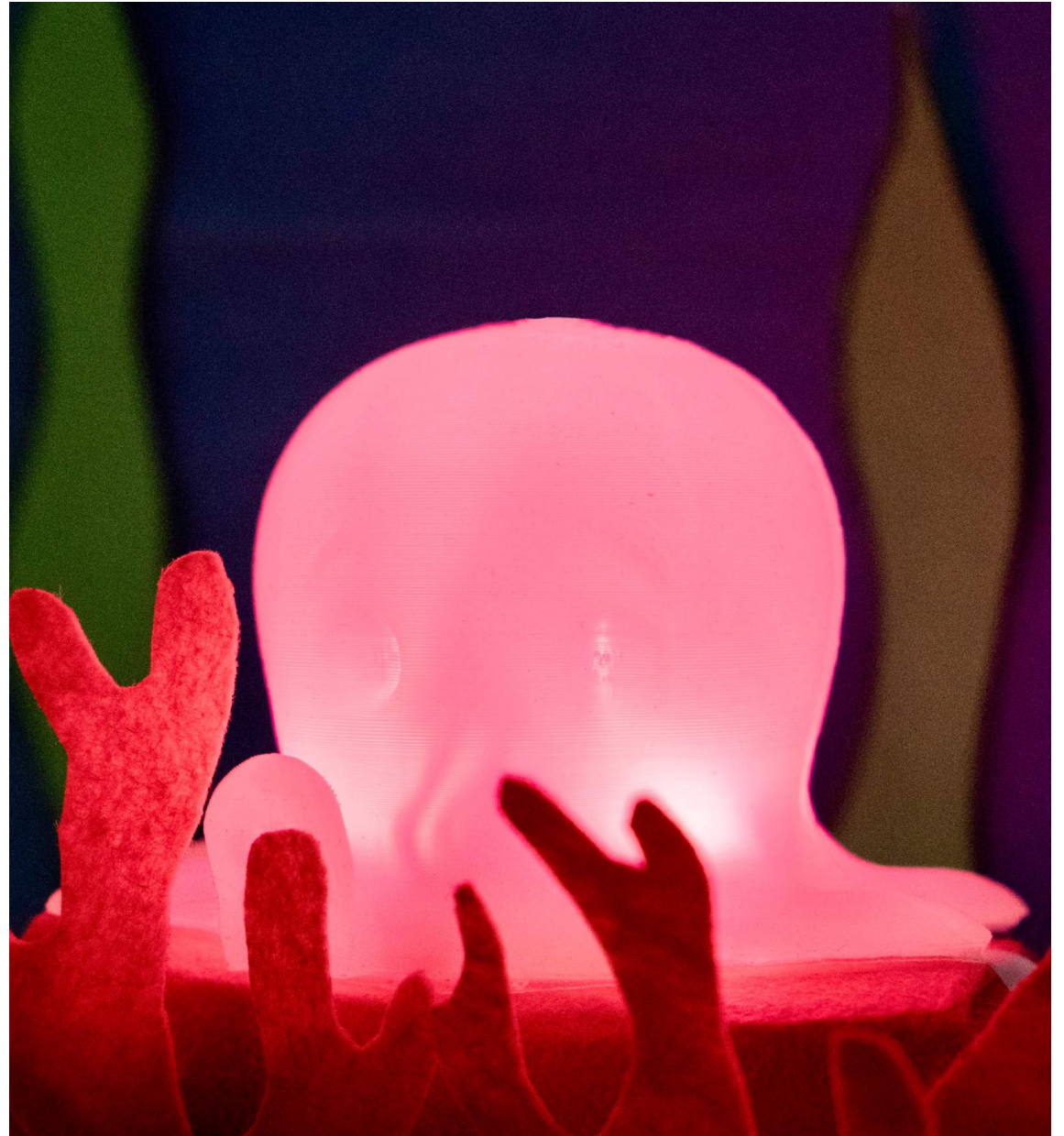


**Okto**

Octopus Camouflage Bionic

# OKTO

Okto is an octopus-shaped, camouflagic bionic robot. As soft robotics, Okto can simulate the way octopus camouflages as a response to danger as part of its resilient and persistent nature.



# RESEARCH

## Animal Camouflage

Camouflage is an example of an adaptation that helps an animal to survive in its environment. Animals utilize camouflage to avoid detection by both predator and prey species.



## Octopus Camouflage

Octopus can also camouflage itself by changing its skin texture from smooth to bumpy to bizarrely spiky.



## Octopus

An octopus is a soft-bodied, eight-limbed mollusc of the order Octopoda. They have squishy bodies that can squeeze through tiny cracks; eight sucker-covered arms that can be regrown;

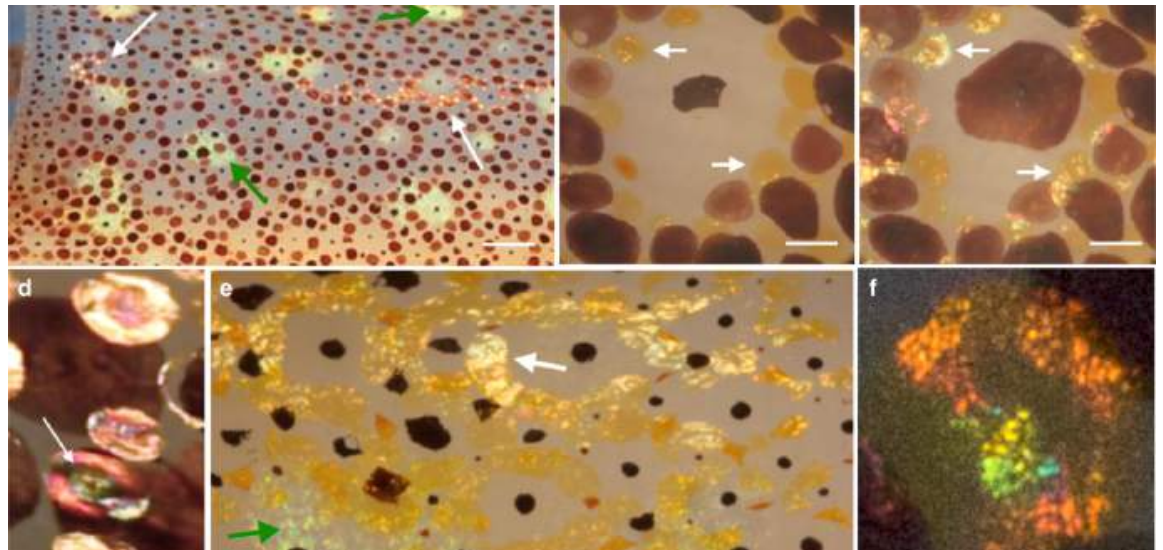




# BRAINSTORM

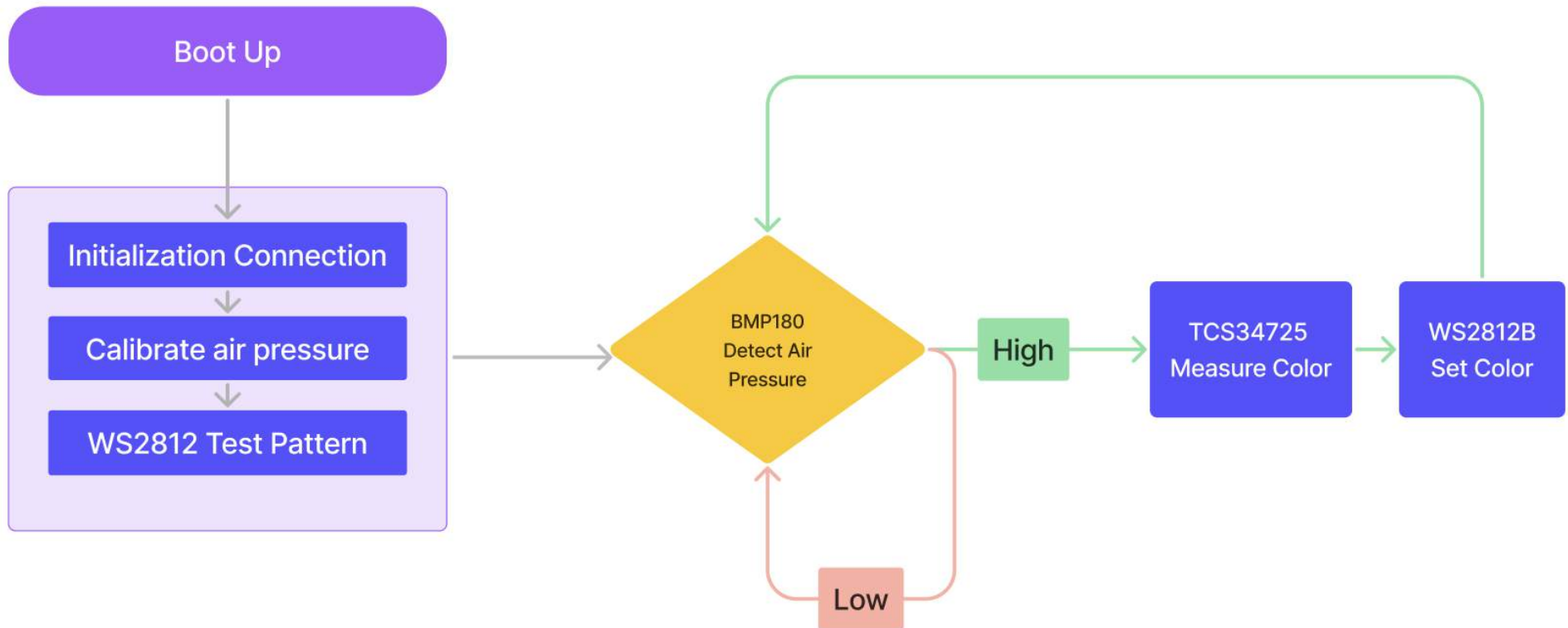
## How Octopus Camouflage

Octopuses can shift hues because they have chromatophores — tiny, color-changing organs that are dotted throughout an octopus's skin. At the heart of each chromatophore are tiny sacs filled with nanoparticles of a pigment called xanthommatin.

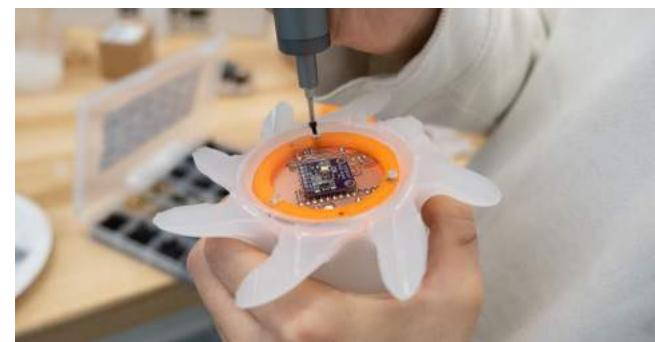
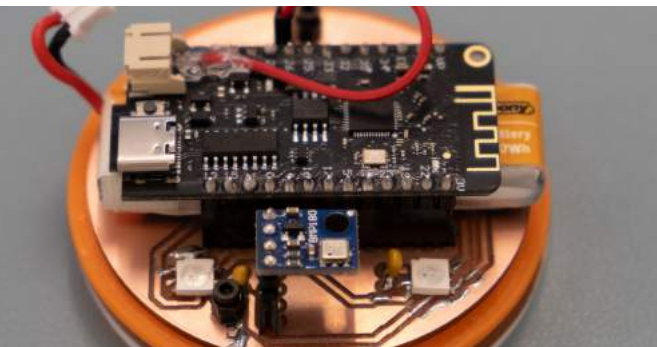
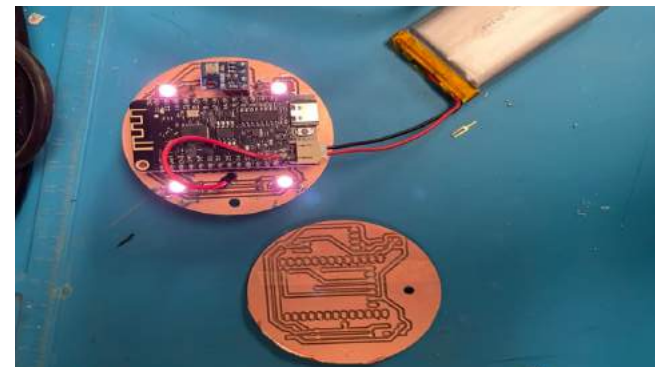
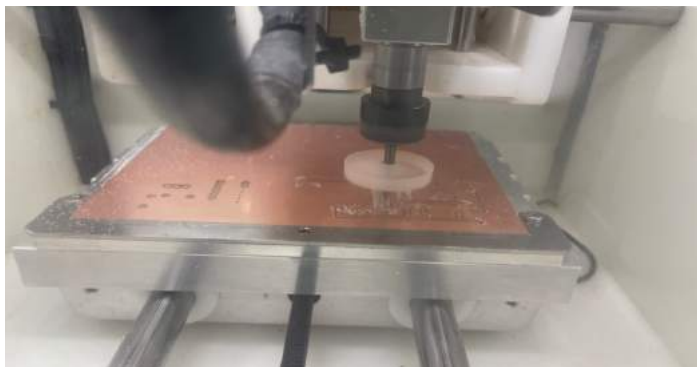
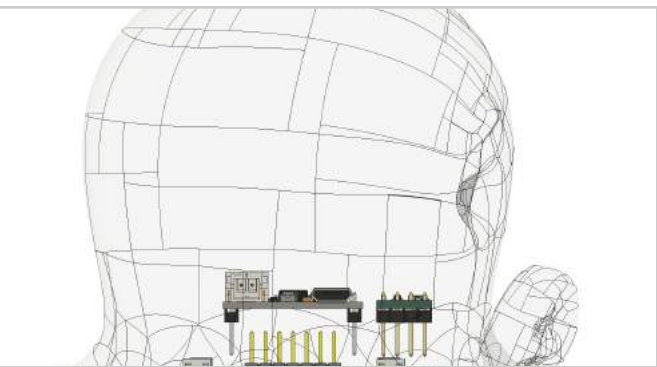


Inspired by the Chromatophores of octopi, we use RGB sensors to detect colors. To simulate the process of octopus detecting and changing color.

# SYSTEM



# PROTOTYPING





# FINAL PRODUCT





Event	Event Code	Detail	Time	Status
Over Primed	101	Ensure fluid is at the prime level ring.	00:00 07/22/2023 (EDT)	Warning
No Flow	490	Detected falling prime level, check IV set.	00:00 07/22/2023 (EDT)	Fixed
Low Flow	460	Cannot reach rate.	00:00 07/22/2023 (EDT)	Fixed
Low Battery	250	Connect AC Power.	00:00 07/22/2023 (EDT)	Fixed
Infusion Stopped	416	Ensure fluid is at the prime level ring.	00:00 07/22/2023 (EDT)	Fixed
Fluid Not Allowed	427	Opaque fluid cannot be used with the controller.	00:00 07/22/2023 (EDT)	Fixed
Excessive Shake	472	Stabilize controller.	00:00 07/22/2023 (EDT)	Fixed

Event Analysis  
Events in record 7 days

2.0 Patients/Follower Homepage

1.0 Darkmode-Homepage-Overview

REO

Home My AGP Follows About Support

Welcome back, Amy!  
You've achieved 90% of your goals!  
Keep it up to improve your report result!

Jun 1, 2023 - Jun 14, 2023 | Manchester, NH (EDT)

Time in Range

- 20% Very High
- 20% High
- 40% Target
- 10% Low
- 1% Very Low

Ambulatory Glucose Profile (AGP)

Glucose Metrics

- Average Glucose: 181 mg/dL
- Glucose Management Indicator (GMI): 8%
- Glucose Variability: 44%

Sensor Usage: 86% Days with CGM data

My Healthcare Provider

- Dr. Carolina Miller
- Cynthia Raven

My Followers

- John Thompson
- George Thompson

My Follows

George Thompson

NEXRESSO

Home Device

Dashboard Overview

You are now tracking the device # 721762

Jun 1, 2023

Device Information

- Device: Volumetric Infusion Controller
- Serial ID: #721762
- Year Made: 2023
- Status: Active
- Battery: 100% charged

Infusion Tracking

- 300 mL/hr Infusion Rate
- 12.3 mL Volume Infused
- 100.5 mL Volume To Be Infused

Time Elapsed: 123456.0 sec

Time Remaining: 123456.0 sec

User Event Center

Event	Event Code	Detail	Time	Status
Over Primed	101	Ensure fluid is at the prime level ring.	00:00 07/22/2023 (EDT)	Warning
No Flow	490	Detected falling prime level, check IV set.	00:00 07/22/2023 (EDT)	Fixed
Low Flow	460	Cannot reach rate. Check clamps and controller height.	00:00 07/22/2023 (EDT)	Fixed
Low Battery	250	Connect AC Power.	00:00 07/22/2023 (EDT)	Fixed
Infusion Stopped	416	Ensure fluid is at the prime level ring.	00:00 07/22/2023 (EDT)	Fixed

3.0 My AGP

2.0 Dark Mode - Device-Changed

REO

Home My AGP Follows About Support

My AGP Overview

Overview 14 Days

Jun 1, 2023 - Jun 14, 2023 | Manchester, NH (EDT)

Time in Range

- 20% Very High
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Glucose Metrics

- Average Glucose: 181 mg/dL
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- Glucose Variability: 44%

Ambulatory Glucose Profile (AGP)

NEXRESSO

Home Device

Device-Changed

Device	Serial ID	Year Made	Status
Volumetric Infusion Controller	721762	2023	Warning
Volumetric Infusion Controller	721763	2023	Disconnected
Volumetric Infusion Controller	721764	2023	Disconnected
Volumetric Infusion Controller	721765	2023	Disconnected
Volumetric Infusion Controller	721766	2023	Disconnected

# Design @ Large

DEKA Summer Internship



# DEKA INTERN

## About

During the summer of 2023, I undertook an on-site internship in UI/UX Design at a MedTech company - DEKA Research & Development. My primary role encompassed the formulation of dashboard UI/UX designs for the diabetes AGP report and volume infusion controller. During this internship, I executed comprehensive market and user research initiatives, contributing to an enriched understanding of these domains. This experience notably augmented my aptitude for collaborative work. I extend my profound gratitude to all my colleagues at DEKA for their invaluable support and guidance throughout this endeavor.

Due to the NDA, more detailed content has been protected. Thank you for your understanding.







# APO (Thesis)

Streamlining Data Tasks to Boost Child-Therapist Interaction in Naturalistic Teaching

# RESEARCH

Autism spectrum disorder (ASD) is a neurological and developmental **disorder that affects how people interact with others, communicate, learn, and behave.**

## Observation

The behavior and interactions between autistic children and adults (family, caregivers, teachers)



## Interview

Pain points and design opportunities in the flow of child-therapist interactions.



## Related Work

Current solutions are mainly used in labs, with little research adapting them to a therapist's typical workflow.



## Future Research

Making design decisions based on insights and data from the therapists.

Future Work

# PROBLEM

Current ways of documenting data during therapy sessions can interrupt the flow of child-therapist interaction, as therapists frequently pause their engagement in the naturalistic teaching to capture vital data, either on paper or a tablet, causing distractions for both the autistic child and the therapist. The constant need to look at datasheets and immediately note down behavioral data can greatly burden the therapist, diminishing the quality of the therapy session.

The screenshot shows a web application interface for therapy session tracking. The interface is divided into several sections:

- Header:** "Greg's Wonderful Therapy Company" with navigation icons for home, users, mail, and a notification badge with "21".
- Session Information:** "Barry's Pilot data sheet updated 1.3.18" with a "Restart Session" button and a timer showing "00 : 07 : 32" (Hours, Minutes, Seconds).
- Navigation:** "Index View" and "Tree View" tabs.
- Sidebar (Left):** A list of data sheets and logs, including "Team Communication Log", "Client Summary Sheet", "duration of tantrum", "frequency of spitting", "partial interval: hands down", "Rate per hour of stereotypy episodes (verbal stim)", "STG. Replacement Behaviors FCR 'I need help'", "rating scale - noncompliance", "math facts - 1-10 - 1 min", "i want him to wait one min at mcdonalds", "street crossing TA - total task", "Client Preference Sheet", and "% correct out of 10 opportunities: Common".
- Main Panel (Right):**
  - Session Summary:** "Started: 11/29/2018 By: G. Therapy Company" and "Ended: 11/29/2018 By: G. Therapy Company".
  - Comments:** "Comments by Greg's Wonderful Therapy Company on street crossing TA - total task".
  - Data Table:**

Branch Name	Current Data Point	Current P
FCR "I need help"	50.00%	Interventio
math facts - 1-10 - 1 min	25.00	Interventio
i want him to wait one min at mcdon...	0.00%	Maintenan
street crossing TA - total task	50.00%	Maintenan
waiting 10 seconds	60.00%	Interventio
% correct out of 10 opportunities: Co...	42.86%	Maintenan
duration of tantrum	2.50 min	Interventio
frequency of spitting	6.00	Interventio
partial interval: hands down	100.00%	Interventio
Rate per hour of stereotypy episode...	0.54	Interventio
  - Session History:** "Started" and "Ended" columns with "Nov 29 1:38 pm" and "Nov 29 1:45 pm".
  - Users Tracking Data:** "Greg's Wonderful Therapy Company".
  - Branches not run:** "Show".



# Solution

APO aim is to create an augmented reality (AR) product tailored for data recording in naturalistic teaching. This product is intended to streamline the tasks of therapists and enhance the overall efficiency and engagement of the treatment process.



## Before Information preparation BCBA-Driven App

- Client information
- Goals
- Prompt



## During Completing the goals AR Glasses

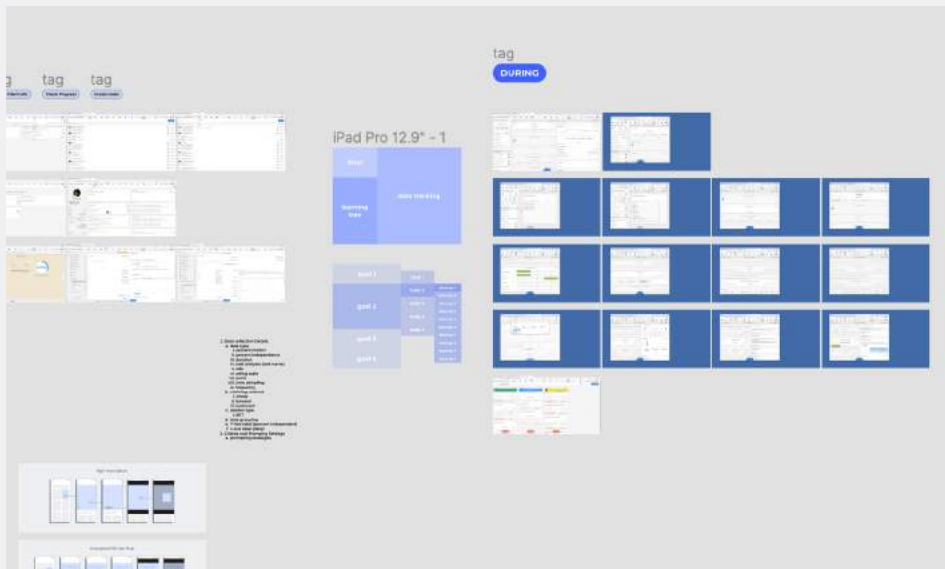
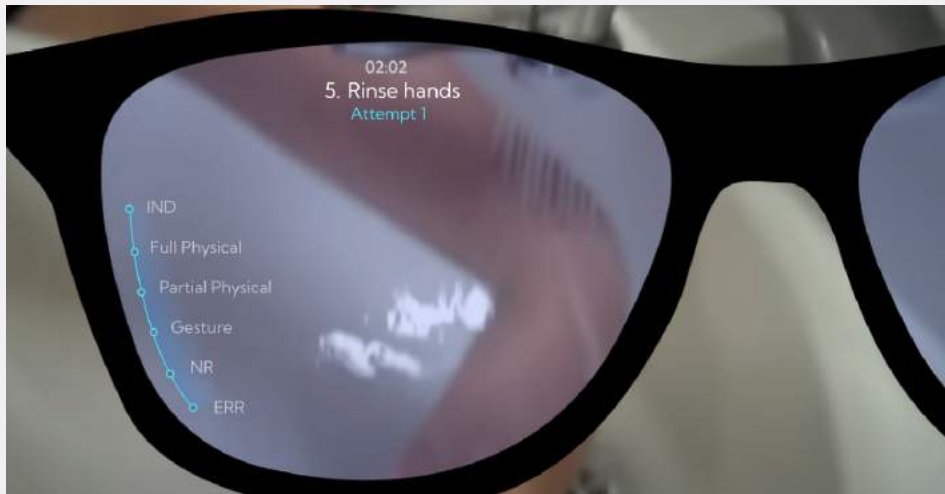
- Goal steps
- Prompt
- Time
- Attempt



## After View therapy feedback BCBA-Driven App

- Client information
- Goal status
- Time
- Attempt
- notes
- Summary

# PROTOTYPING





# APO

**Streamlining Data Tasks to Boost  
Child-Therapist Interaction in  
Naturalistic Teaching**



## EXPERIENCE

### UI/UX Design Internship | DEKA Research & Development

(05/2023 - 08/2023) Manchester, Boston Metropolitan Area, NH, United States

- Led the design of the **AGP (Ambulatory Glucose Profile) dashboard website and mobile UI prototypes**, user flows, **UI design system guidelines** conducted over 50+ user testing, catering specifically to diabetic patients and their healthcare providers. Collaborated closely with **cross-functional teams** at Deka's **AWS Cloud**, including Software Engineers and Product Managers, to effectively align design objectives with business goals and technical feasibility.
- Designed the **dashboard UI for the Volume Infusion Controller** on web and mobile platforms. Utilized **anima tools** to **rapidly package front-end HTML&CSS code** for delivery to engineers, resulting in a **2X** increase in project speed.

### UI/UX Design Internship | Capgemini

(07/2022 - 09/2022) Remote

- Designed the UI of the **logistics management** project for Capgemini's customer "Easyhome". Led 10+ features **across different platforms (website, mobile)**. Resulting in the release of **70+** design processes, UI prototypes, and visual effects optimization.
- Created the **UI design system guideline**, 30+ prototypes and visual mockups which can be applied across different internal products.

### Product Design Internship | Antai Financial

(06/2021 - 08/2021) Arcadia, Los Angeles metropolitan area, CA, United States

- **Increased product sales 15%** by designing the **website UI prototypes** of the company's investment products.
- Conducted a usability test with 20+ interviews to validate the proposed design and had fast iterations with the teams. Implemented competitive analysis and user research to **improve user retention rate by 35%** after redesigning the user flow.

## EDUCATION

### University of California, Berkeley

(08/2022 - 12/2023), Berkeley, CA, United States

Master of Design in Human Computer Interaction (STEM)

### ArtCenter College of Design

(09/2018 - 04/2022), Pasadena, CA, United States

Bachelor of Science in Interaction Design (STEM)

## CONTACT

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