

# BORK

*PROJECT PORTFOLIO 2022 BY SALIH BERK DINCER*

# 01 KUBE

TECH TOY DESIGN  
UC BERKELEY MDES



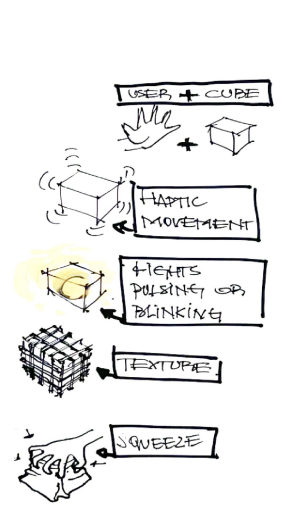
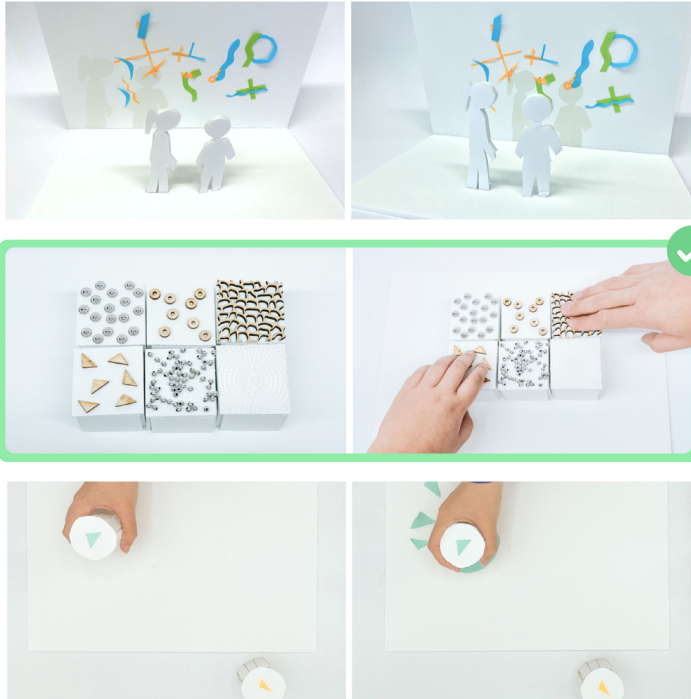
**Kube is a sensory toy created for autistic children to overcome anxiety during collaborative play and learning.**

Autistic children often play solitarily, whereas cooperative play can be more difficult to engage in organically. Cooperative play may cause anxiety in many instances. Kube is a soft cube shaped tech toy that first engages autistic children in solitary play and subsequently fosters cooperative play can ease them through that transition and improve their social skills. The user can send and receive haptic, visual feedbacks or messages by interacting with the cube. In that sense, it provides an alternative way for the communication between peers or to the therapist.

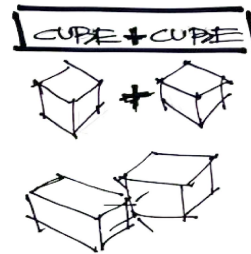
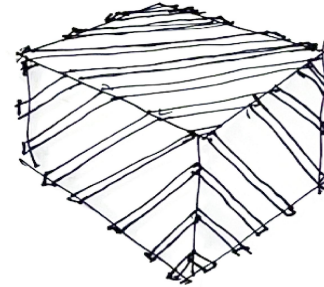


# ALTERNATIVE SOLUTIONS

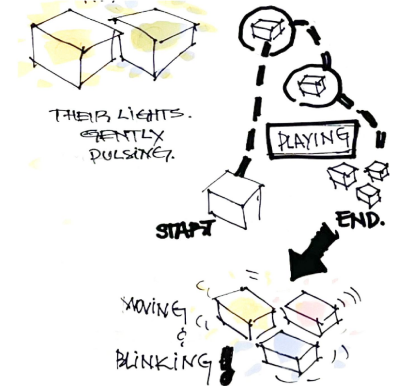
Our team brainstormed three different low-fidelity products to user test to determine which one is the best fit solution for us. The images below are the three different prototypes that we tested with five interviewees to see which one is working better.



ALL LIGHT UP & PLAY A TUNE.



TOUCHING OR PROXIMITY.  
THEIR LIGHTS. GENTLY PULSING.



# TEXTURES

Our group considered how creating pronounced textures could encourage repetitive action as an outlet for self stimulatory behavior. The outer shell is printed with the material called Agilus30 - PolyJet Elastic Photopolymer.



## USER INTERACTION

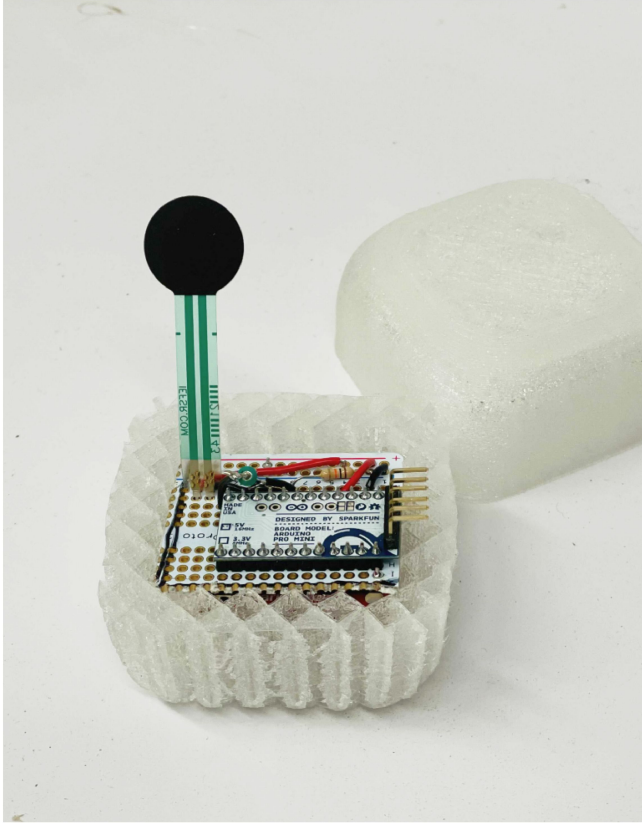
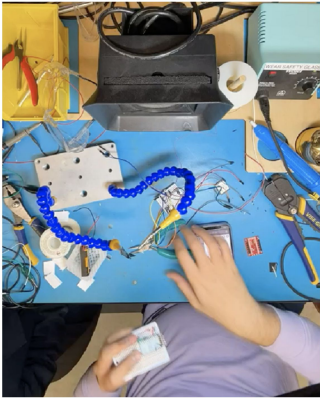
**Individual Play:** When the child is in a moment of duress, they can feel the textures and mimic the rhythm of the light with their breathing.



**Cooperative Play:** When each child holds the cube, tilting or shaking one cube will make another one vibrate; squeezing one will make the other light up accordingly.



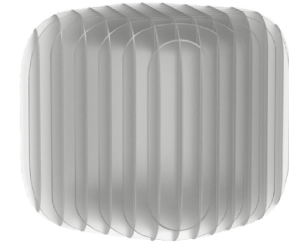
# TECHNOLOGY AND ASSEMBLY



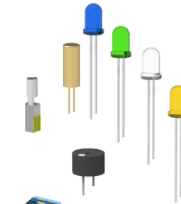
3D PRINTED EXTERIOR



PLASTIC CORE



TILT SENSOR & VIBRATION MOTOR  
& LED & PIEZOELECTRIC SPEAKER



ARDUINO PRO MINI & XBEE  
COMMUNICATION MODULE





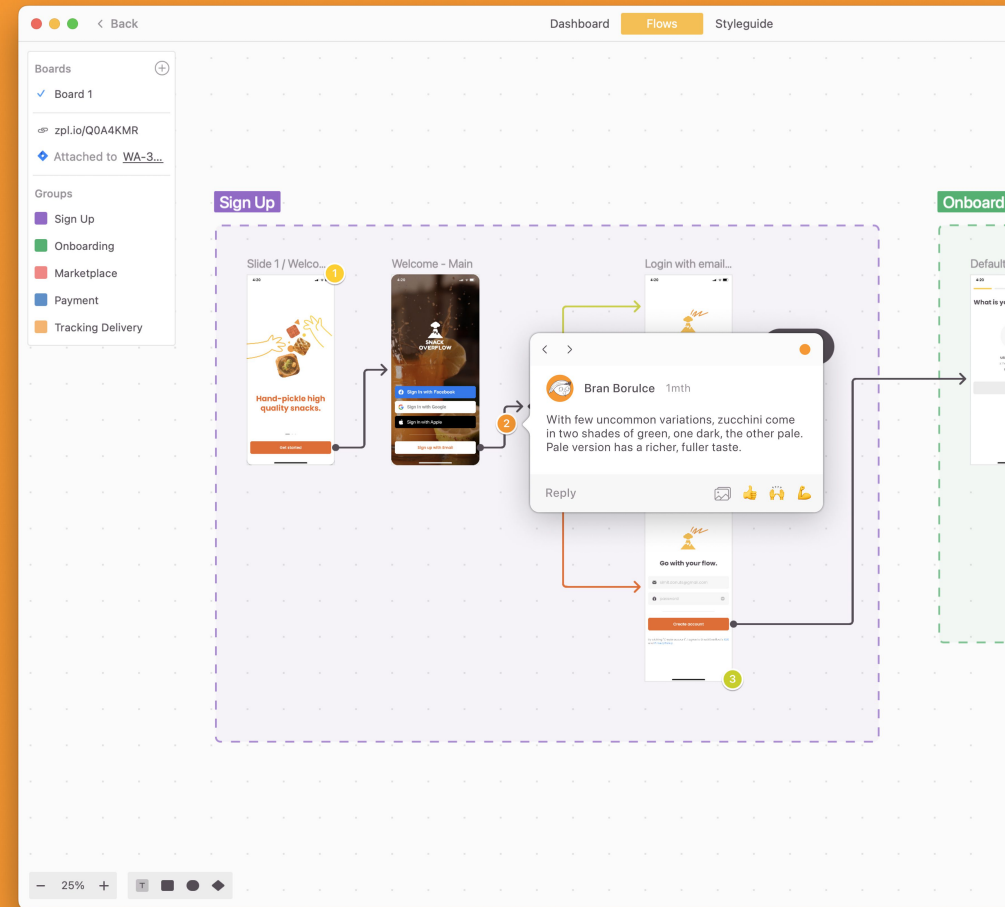


## Creating a better communication between designers and developers by enabling them to add comments

Zeplin released their 'Flows' feature on January 2022 where designers can use Flows to connect screens and map complete user journeys with the ultimate goal of helping developers to gain clarity on the overall design and not just the happy path, but all possible paths and behaviors.

One request Zeplin released from the users was to be able to comment directly on Flows, rather than having to click into individual screens to ask a question or leave feedback.

I was the design lead for the project which made me involved in analyzing users' need, creating the user experience and designing the user interface for the feature.



# LISTENING THE USERS

We got lots of feedbacks about the need of this feature. Connecting back to the users that need this feature and analyzing what exactly they need was the main challenge of this project.



“ I think flexibility of **adding comments** and ... would be nice new features.”  
- A. Berial

“ Is there a way we could add comments/ annotations in the Flow view? **Helpful during walkthroughs**. If I know I'm heading into a **feedback** meeting...”  
- S. Verion

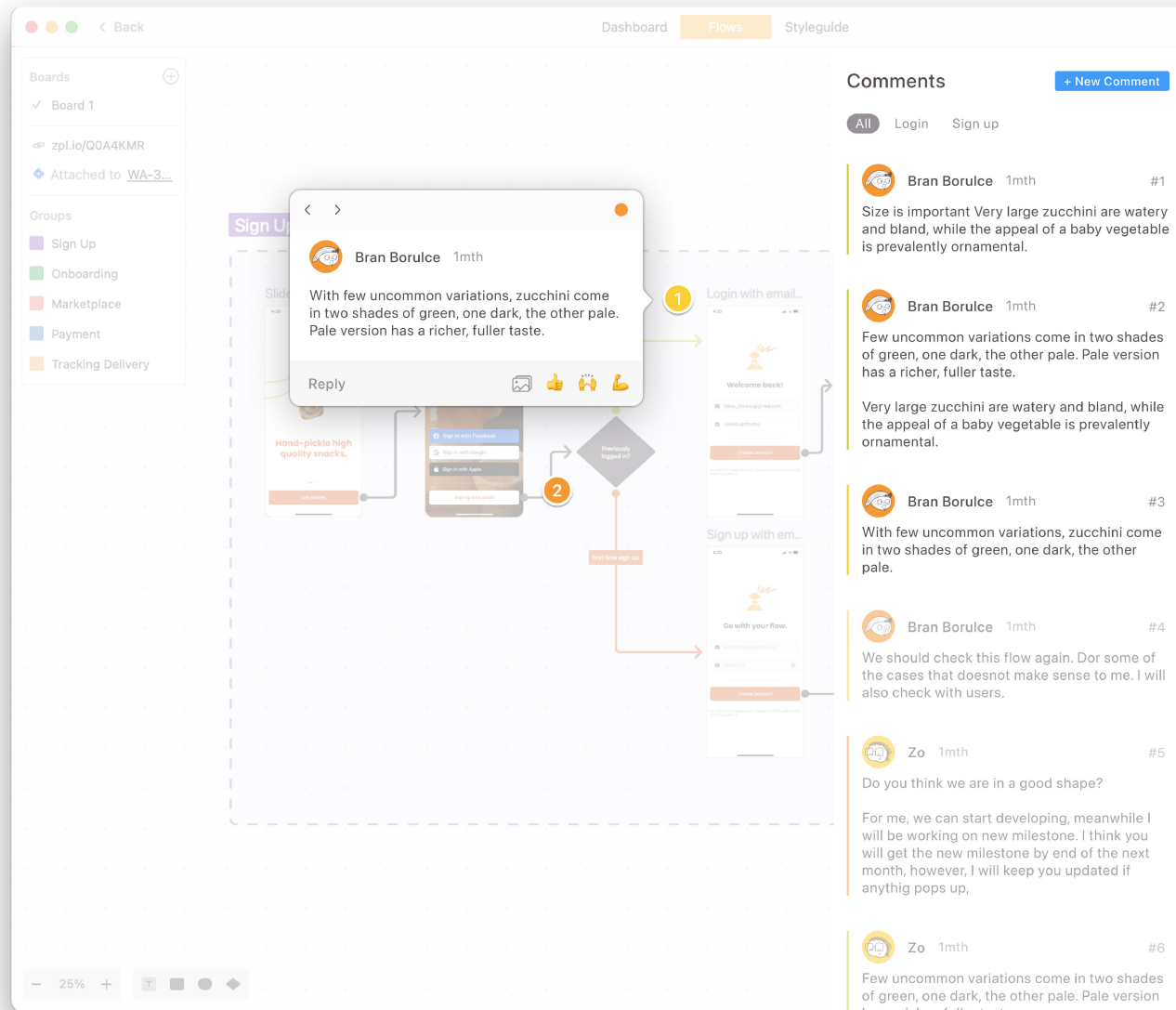


“ ... we use Labels on connectors to **add clarity** ... but that can be messy when needed to link to additional external documentation”  
- V. Vitor

The image displays a mobile application interface. On the left, a 'Comments' section shows a list of user comments. The second comment, by 'Bran Borulce', is highlighted with a yellow dashed line and a '2' in a circle. This comment discusses zucchini variations. On the right, a product page for 'Roasted Sheet-Pan Ratatouille' is shown, with a yellow arrow pointing from the highlighted comment to the product page. The product page includes a price of \$12.99 and a 'Save to wishlist' button. The interface also shows a navigation bar at the bottom with icons for Home, Market, Create, Wishlist, and Account.

Flows can be highly comment based, in that sense a user can feel overwhelmed with the comments on the screen. In order to solve this problem I came up with filters and a feature called highlight where only the comments on the screen will be highlighted on the panel and other will be faded out.

I also designed a comments panel where users can see the all comments created for the flows.



# 03 GLOVE

TANGIBLE USER INTERFACES

EMOTION VISUALIZER

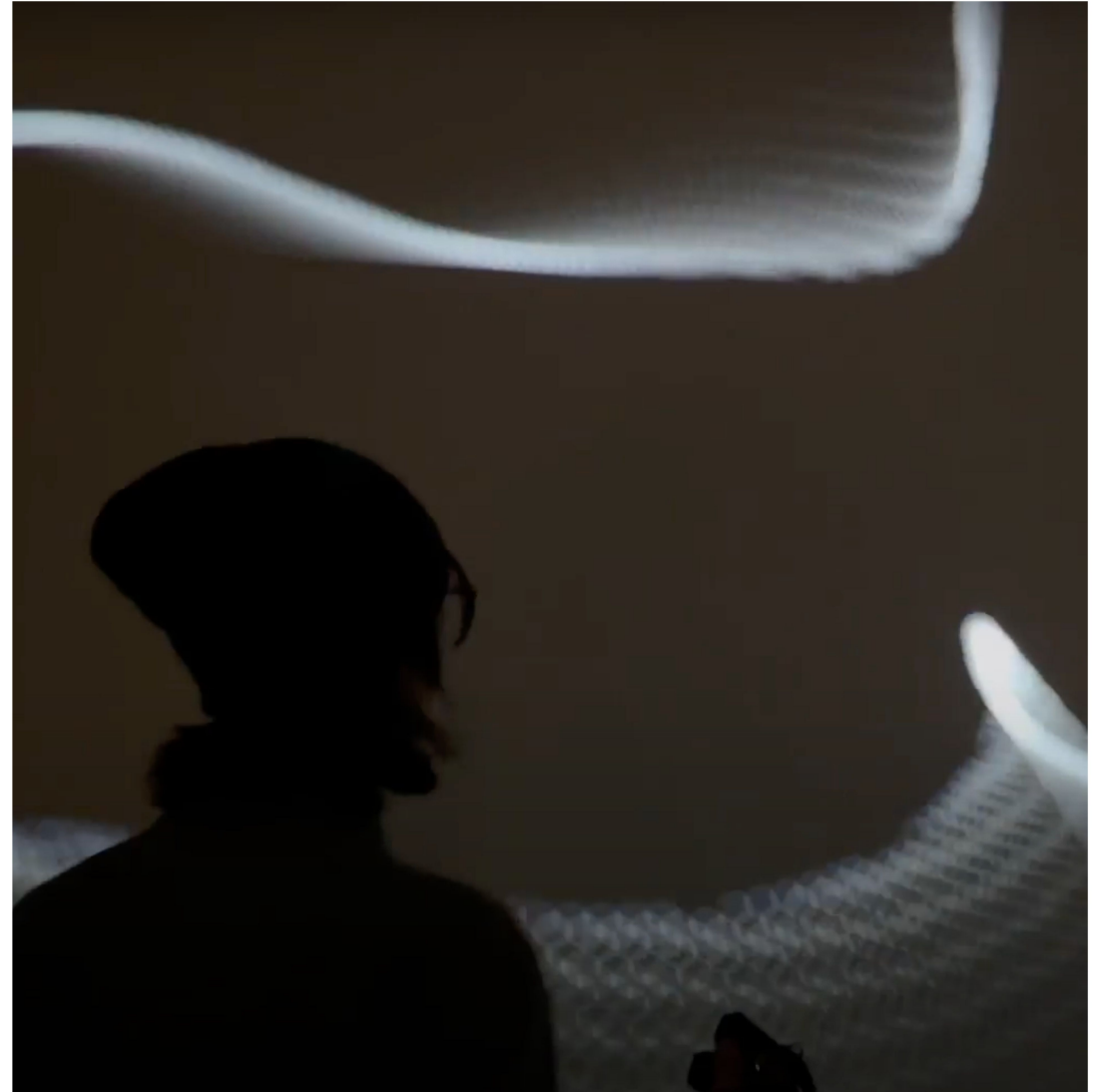


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CHI'22**

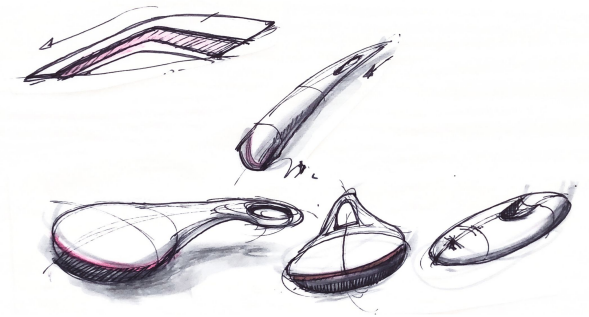
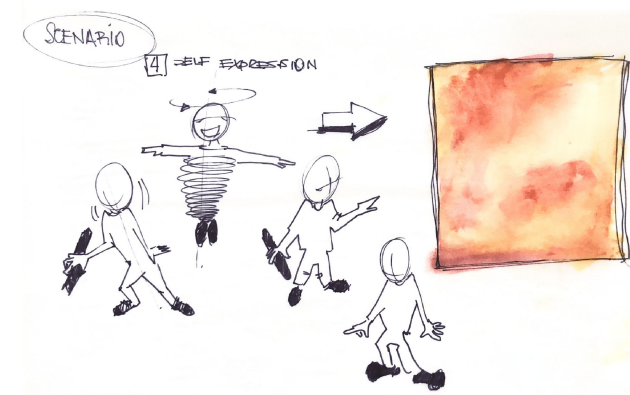
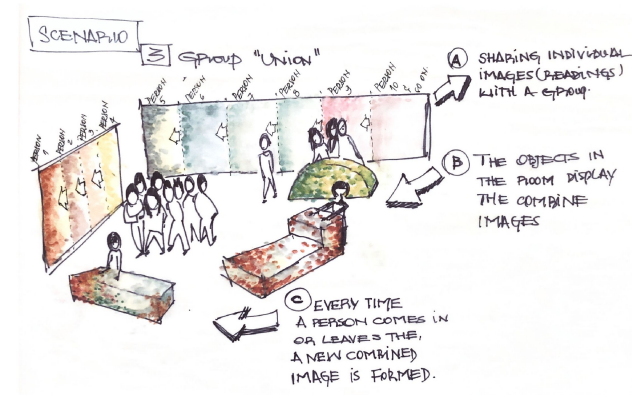
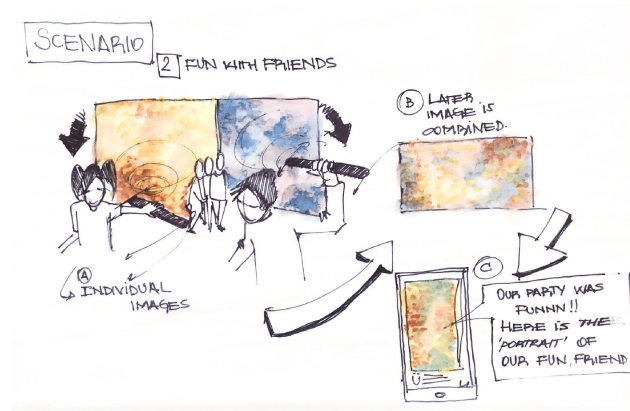
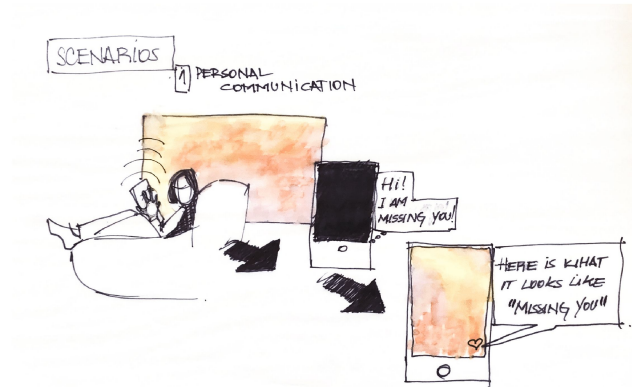
**Emotions conveyed through a direct method greatly contribute to smooth communication with the others person and mental stability by expressing what they intend to.**

But not everyone is good at expressing their feelings. They may not know how to express themselves at certain times, and may even find it difficult to know what their emotional state is right now. There are a number of different bio-metric sensors such as heartbeat and temperature that can help to know people's bio-medical status even if they cannot tell others. Thus, we researched how to help people express their emotions, using both body movements and bio-metric readings to visualize their emotions through a tangible object and camera that takes in readings from the user and translates them into a visual representation of emotion.



# EXPLORATION

Exploration of different use cases and the form to create a tangible object that captures the emotion of the user and translate it into visual data.



# MAPPING EMOTIONS

We established rules to visualize the collected information. First, based on the body theory and four body poses, we matched these to emotion with assigned colors as shown below.

Color	Body Movement	Emotion
Blue	Still movements with arms wide	Calm
Orange	Arms above the head	Happy
Red	Arms and shoulders tense	Angry
Violet	Hands clasped together; Shoulders facing in	Sad, Timid

Measured biometrics also follow a set of rules.

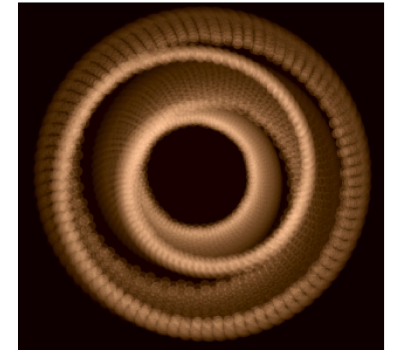
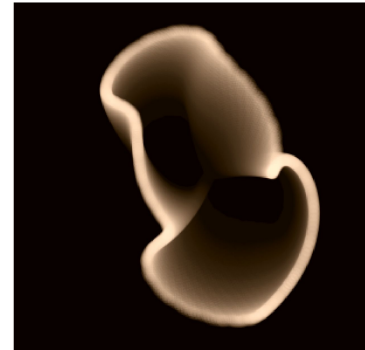
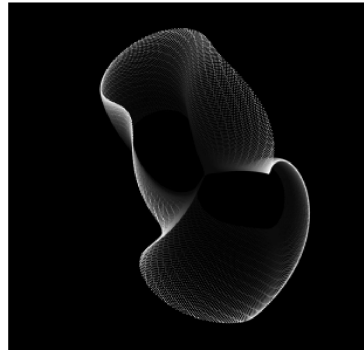
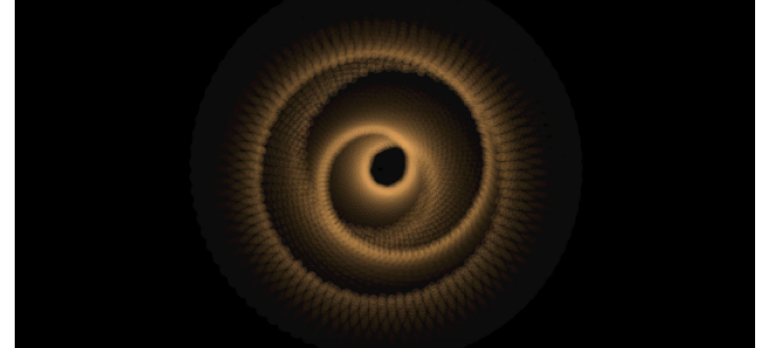
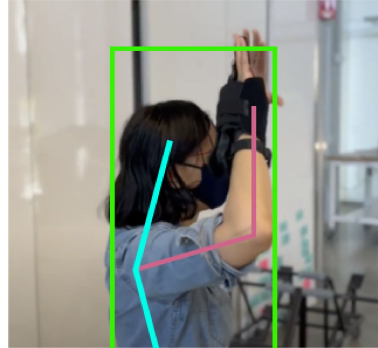
**Temperature:** The size of particles changes according to the temperature. Higher temperatures correlate to larger particles sizes

**Galvanic Skin Response:** The number of particles is based on the conductance reading of the user's skin. The higher the reading, the more particles.

**Accelerometer:** The shape of the visualization is determined by speed. The quicker the movements the more circular the form will take and the more still, the less circular it will be.

**Heart Beat:** The pulse sensor corresponds to the pulsing nature of the visualization. The pulse of the visualization maps to the pulse of the user.

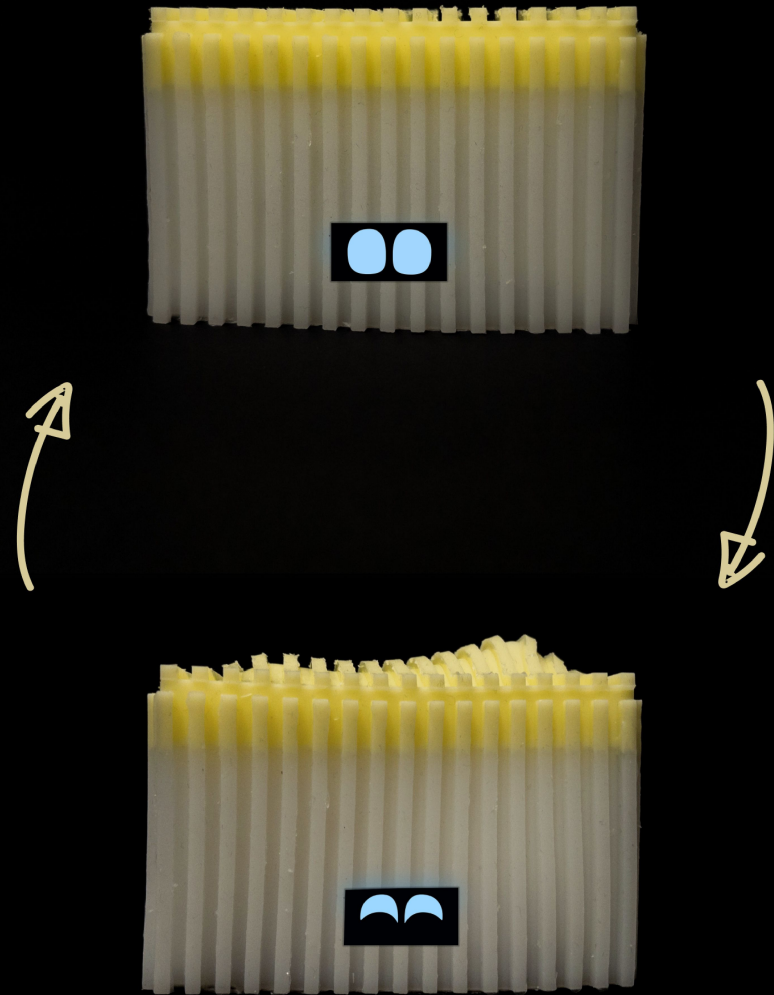
**Body Movement:** The color of the visualization is determined by each different body movement.



# 04 PEBBLES

EXPRESSIVE NATURAL TANGIBLE INTERFACES

FUNNY COMPANIONS





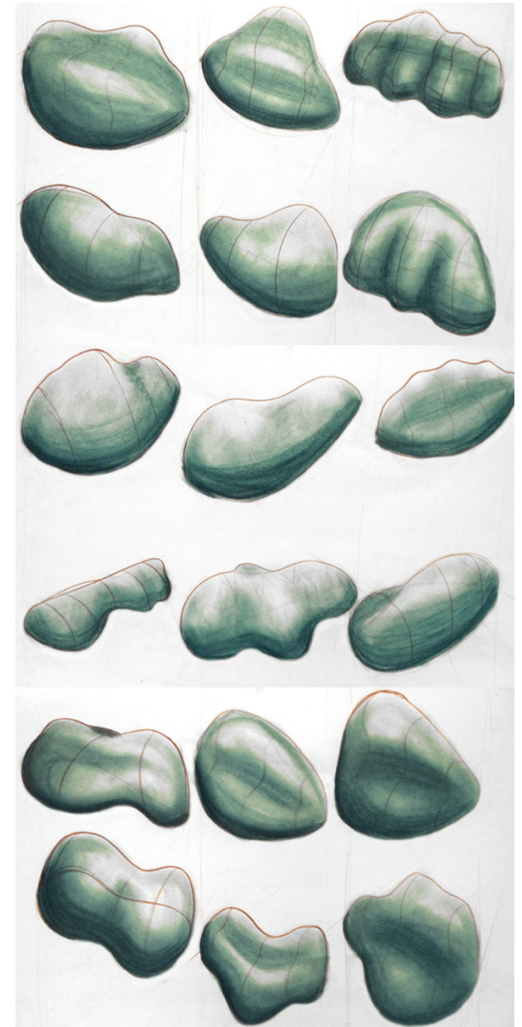
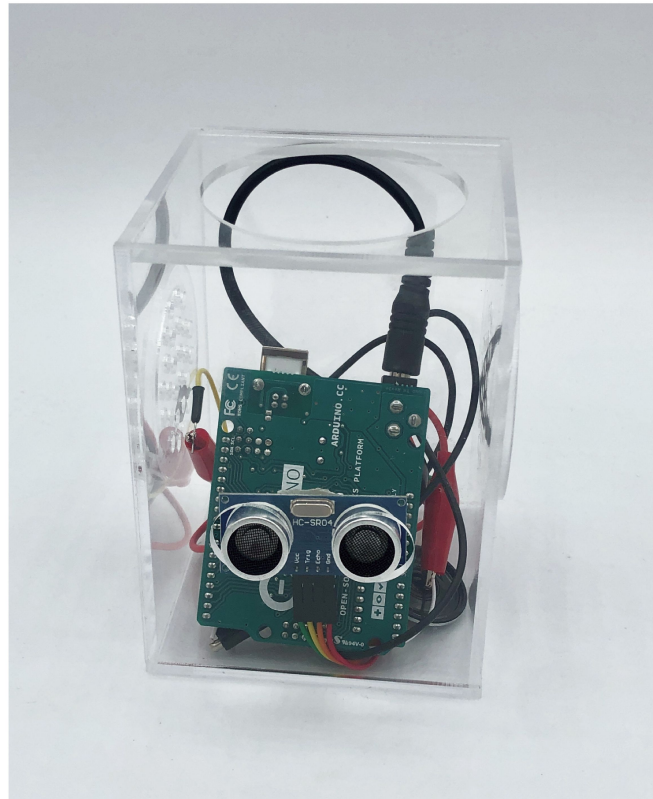
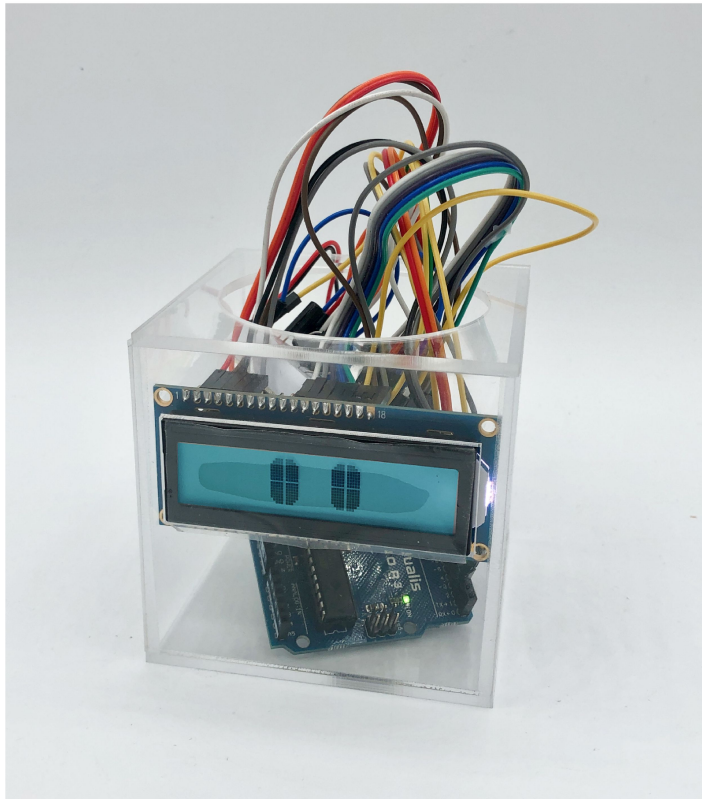
## Designing expressive companion toys that make you smile

Pebbles are a set of tools meant to be modular artifacts to attend a goal one-to-one interaction with the user and, in a second moment, be taken away with the user and work a start conversation and playgroup with others. Each Pebble has its unique ability, function, and personality, which make the interaction between the user and the artifact more natural. Pebbles can interact with each other and can be used in the case of solitary and collaborative play.



# FORM EXPLORATION

Different versions of Pebbles with different visual attributes and functions were prototyped. Below you see Chillpill (with the ability to change its expression according to actions) and Fanfan (a theremin that enables its user to create own song).



BRANDING

pebbles



PEBBLES

# S. BERK DINCER

INTERACTION EXPERIENCE DESIGNER

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## EDUCATION

### UC BERKELEY / MDES, MASTER OF DESIGN

AUG 2021 - DEC 2022, BERKELEY

**Awards:** Distinguished Scholar Award, 3 x Design Excellence Award

**Fall 21 & Fall 22:** Graduate Student Instructor for the Digital Prototyping and Fabrication Class

**Spring 22:** Graduate Student Instructor for the Creative Coding and Electronics Class

**Summer 22:** Reader for the Interface Design and Development Class

**Cum GPA:** 4.0 / 4.0

Exchange Fall 2019 - York University / Canada

### UC BERKELEY CENTER OF NEW MEDIA / FELLOW

JAN 2022 - PRESENT, BERKELEY

### KOC UNIVERSITY / BA, MEDIA AND VISUAL ARTS

2018-2021, TURKEY

Specialized in User Experience Design

**Awards:** Vehbi Koc Honour Award / Dean's Honour Roll

**Area GPA:** 3.96 / 4.0

Exchange Fall 2019 - York University / Canada

### KOC UNIVERSITY / BSC, ELECTRICAL AND ELECTRONICS ENG.

2015-2021, TURKEY

Specialized in Human Computer Interaction

**Cum GPA:** 3.73 / 4.0

Exchange Spring 2020 - Technical University of Munich / Germany

## SKILLS

**Digital:** Figma, Sketch, Adobe Xd, Miro, Photoshop, Illustrator, InDesign, Maya, Premiere Pro, Processing, Fusion 360, Unity, Blender

**Tangible:** Arduino, Raspberry Pi, Prototyping, 3D Printing, Laser Cutting, Digital Fabrication

## EXPERIENCE

### ZEPLIN / PRODUCT DESIGNER

MAY 2022 - AUG 2022, SAN FRANCISCO

Designing User Experiences and Software with high customer impact for each release and iterating on fixes, maintaining design standards across the company's digital applications, website, and marketing visuals by creating a design library and analyzing usage data and perform user research to generate user insights.

### VAGON.IO / USER EXPERIENCE DESIGNER

AUG 2020 - AUG 2021, REMOTE

Designing the whole user experience flows, application interface and landing pages according to the user data and behaviour. Ensuring smooth implementation of design plans by coordinating developers and product teams.

### COMMENCIS / UI-UX DESIGNER INTERN

JAN 2020 - JULY 2021, TURKEY

Designed user interfaces and user experience flows for web and mobile applications of Bundle News, Turkey Is Bankasi, Atlassian Engineering Intelligence and Pegasus based on current users' expectations, market benchmark and user needs.

### KUAR IXD DESIGN LAB / INTERACTION RESEARCHER

OCT 2018 - AUG 2021, TURKEY

**Projects Involved:** Enhanced Storytelling with Interactive Wooden Blocks, Designing an Arm-Worn Device and an interactive dice that will enhance TTRPG experience (WEARPG), a wearable sports glove designed to assess the pressure applied during exercise (GLOWE)

**Publications:** GROW: A Smart Bottle that Uses its Surface as an Ambient Display to Motivate Daily Water Intake. In Extended Abstracts of the 2018 CHI Conference on Human Factors in Computing Systems (CHI EA '18).

**DOI:** <https://doi.org/10.1145/3170427.3188521>