

PEIXUAN LI

peixli@outlook.com

Make change, not stuff.

AN INDUSTRIAL DESIGNER

AT

peixli@outlook.com

<http://peixli.com>

...

I AM ALSO

AN INNOVATOR

A PROJECT CHALLENGER

A LIFE CURATOR

AN ACTIVE THINKER

LI

PEI

-XUAN



2024. @LONDON/ANTWERP/BEIJING

ABOUT ME

A designer who is passionate about addressing challenges and discovering opportunities across disciplines through keen observation, tech exploration, and systematic design thinking.

•Key Skills: Adobe Creative Suit, Figma, Rhino, Solidworks, Keyshot, 3D printing, design thinking & research methods, Python data processing, drawing, woodworking, printmaking, Proficient English & Chinese, etc.

2021-2023

MA/MSc @ RCA/IC
Global Innovation Design

Exchanging with Tsinghua & NTU

2020-2021

Designer @ CAMERICH
Furniture Designer & Researcher

2016-2020

BID @ Pratt Institute
Industrial Design



Product System

03

Removision

To improve physical product design communication in a hybrid work environment.

Hufu

That offers interactive fashion development services, featuring understandable design languages and prototyping tools.

#ServiceDesign
#ResearchMethods
#Tech Development
#ImageTraining
#UIDesign

09

User Experience

Vibe Check

Card game for children emotional language learning.

Circles in a circle

An interactive educational installation for museum.

Fizz

An mobile app that enhances the solo eating experience through food sound.

#UserExperienment
#SoundDesign
#Adobe
#Figma
#UIDesign

Furniture Development

17

Camerich

Furniture design work experiences with research and furniture development projects.

American Heirloom

Product design intern on kitchenware.

Personal Projects

Furniture wood-working projects.

#FurnitureDesign
#FurnitureResearches
#ProductDevelopment
#WoodWorking
#Manufacture

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Product Design

Laputa Lipstick

Tu-light

Sanitation Lander

Ne-net, etc.

Personal and team projects working on various products with design methods.

#ProductDesign
#Sketches
#CAD
#Prototyping
#Arduino
#3DPrinting

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PRODUCT SYSTEM

Removision system

to improve design communication in a hybrid work environment by enabling remote participants to view physical products.

Hufu system

that offers interactive fashion development services, featuring understandable design languages and prototyping tools.

#ServiceDesign #ResearchMethods #Tech Development #ImageTraining #UIDesign

REMOVISION

Research with --- **COACH ZOOM DTEN**

A multi camera system that enables remote participants to view physical products and participate in discussions efficiently in a hybrid working environment.



Research Method

Literature Review, online survey, semi-structured user interview, structured stockholder interview, market and tech research, journey mapping, etc.

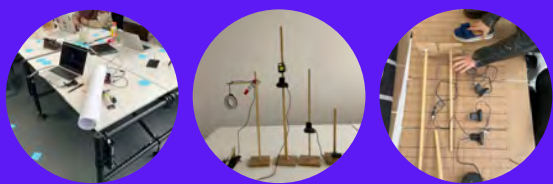
Pain Point

1. Need of additional camera holders.
2. Frequent view switching during comparsion.
3. Difficult to cover both broad views and details.
4. Online group left behind during discussions.
5. Unclear and unconsistant recap.

Improvements

Showcasing

Designed the hardware for offline participants to organize and showcase products towards online teams.



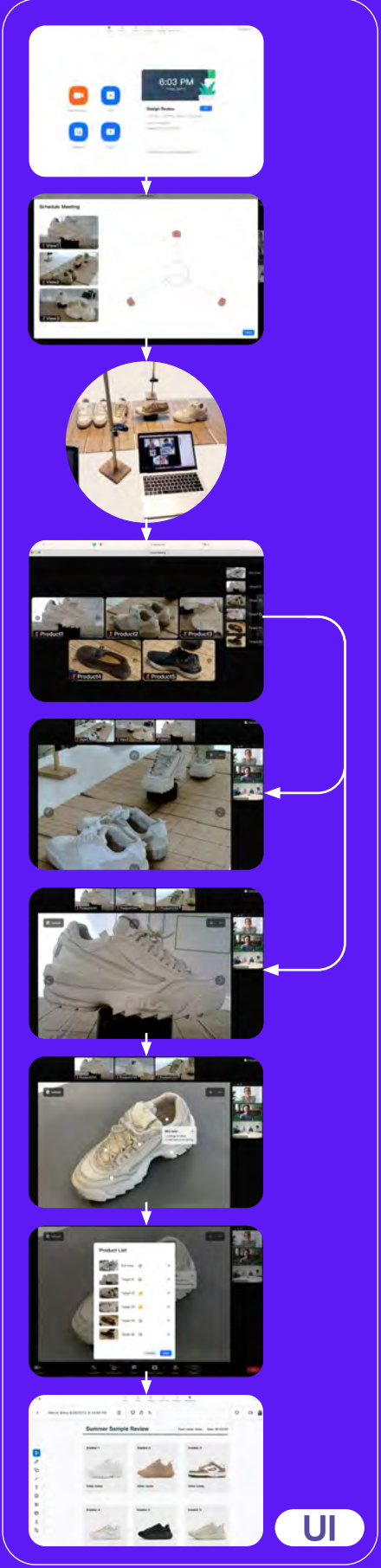
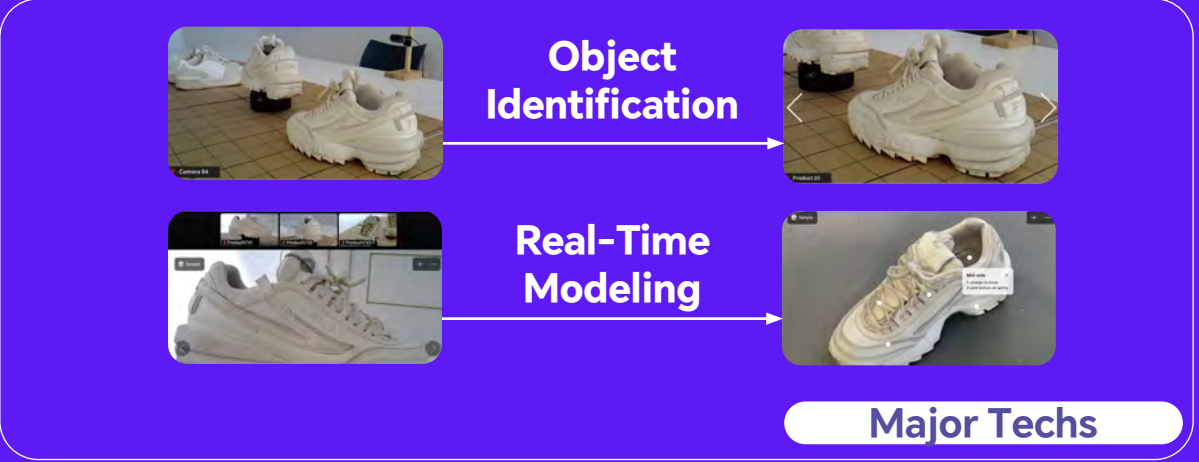
Info Comprehension

Developed the software that translates physical settings into interfaces that helps online participants to see.



Documentation

Designed the UI that allows online participants to control their perspectives and make better annotations.



A system that offers interactive apparel development services, featuring understandable design languages and prototyping tools, enabling creation and experimentation in interactive fashion industry.

Methods

Q Your idea is?



You can ask me:

- Give me design inspiration (generation)
- Give me design inspiration for research (specific examples)
- Provide hardware list
- Map of hardware connection methods
- Generate a program
- Make notes in the program on parameters that can be adjusted



Metrics

Aesthetic
Experimental
Functional

Languages

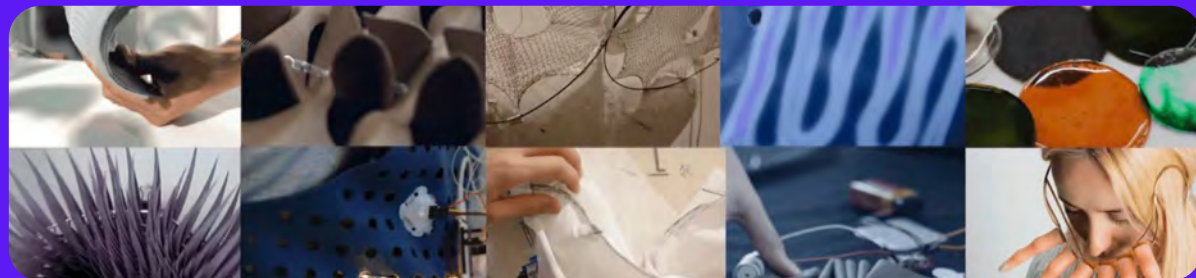
Shape Change
Human Sensory
Fabric Tech

Stockholders

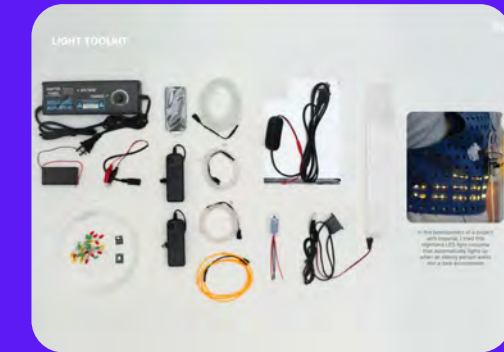
Fashion Designer
Tech Engineer
Educator

Services

Prototyping Kits
TechCloth Service
HUFU Community



STILL ON GOING...



30 Vocabs



Collaboration

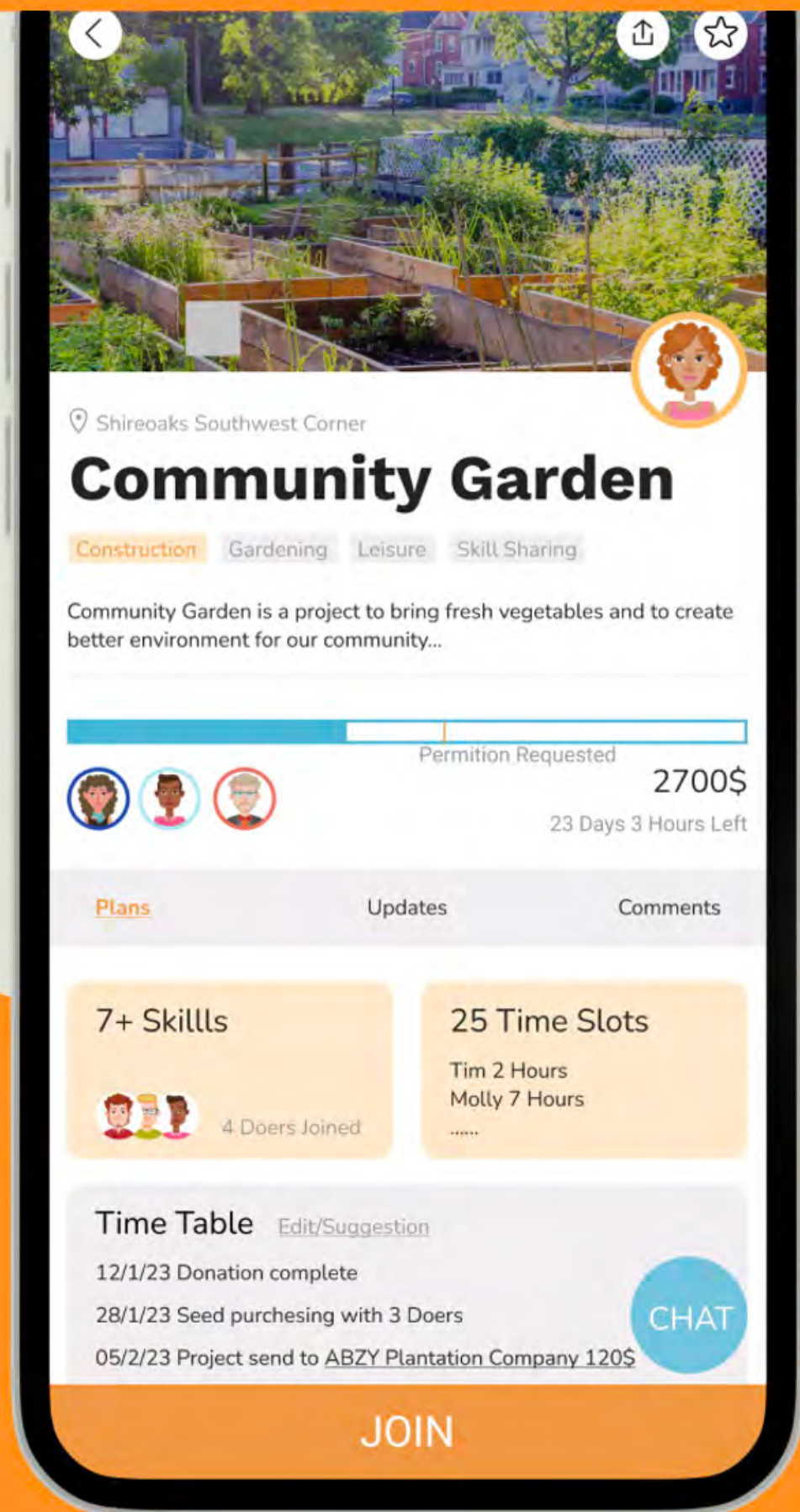


USER EXPERIENCE

Vibe Check Card Game
to promote emotional language learning in children through design psychology.

Circles in a circle
An interactive educational installation for museum to reinterpret **Kandinsky's artwork**

#UserExperienment #SoundDesign #Adobe #Figma #UIDesign



VIBE CHECK

Teams -- JJ Agcaoili, Savio Mukachirayil, Annie Tang

VibeCheck is a game designed to promote emotional language learning in children (4 years+) through the use of various scenarios.

Psychology Insights

- Teaching Children emotion words helps emotional awareness.
- Communicating about emotions improves the social and academic performance of children.
- Increasing social competence helps children to build meaningful relationships and good mental health later.

How Might We

Using language learning to improve the **emotional development of children.**

Improvements

By identifying emotions they or others would feel, the child should improve their Emotional Vocabulary and Emotional Awareness as well as become more comfortable in sharing stories and emotions.

Content

1x board, 1x deck of Scenerio Cards, 1x deck of Event Cards, 6x tokens , 6x decks of emotion card , 5x blank Scenario cards & Event cards, 15x Blank Emotion cards.

Components:

- 1x board
- 1x Scenario Card Deck
- 1x Event Card Deck
- 4x Tokens (1 per player)
- 6x Emotion Card Decks
- 5x Blank Scenario Cards
- 5x Blank Event Cards
- 15x Blank Emotion Cards

Setup:

- Shuffle the Scenario Deck and place it face down on the table.
- Do the same for the Event Deck, and put it beside the scenario deck.
- Place the board next to the cards.
- Each player places their token on Start.

Gameplay:

- Players take turns, starting with the youngest and then moving in a clockwise direction. If it is your turn, you are the "Feeler".
- The feeler draws 1 card from the scenario deck and 1 card from the event deck to form a story, and reads the cards out loud.
- The feeler then chooses any number of emotion cards that matches how they feel about the story and puts them face down on the table.

Rules:

- All players take emotion cards based on the selected difficulty. All players will play with the same cards.
- Once players are familiar with the game, blank cards can be used to name new scenarios, events, or emotions.
- Every other player can ask the feeler questions, but players cannot directly say any emotion words.
- Every other player puts down the emotion card(s) that they think the Feeler has felt.
- Players all reveal their chosen emotion cards.
- Players who have correctly guessed all the feeler's emotions advance equal to the number of emotions guessed, including the Feeler.
- If no-one has the cards that matches all the Feeler's emotion cards, nobody moves on the board.
- The game ends when all players reach the final space.



EMOJI
Help identify facial expression.

WORD
To expand emotional vocabulary for future communication.

Joyful

BACK
Logo

Vibe Check



1.

The premise of the game includes players taking turns to select **one scenario** and **one event card**.

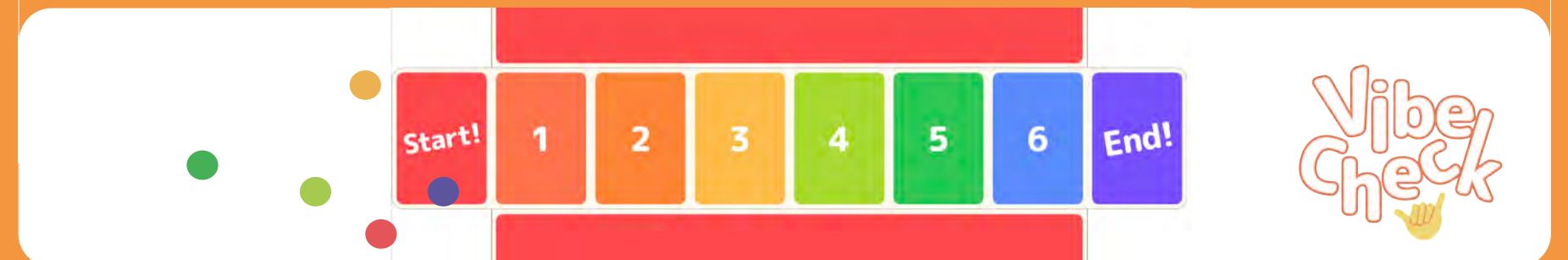


2.

The player selects the **emotions cards** they would feel in the generated situation and others must try to **match the feelings** chosen with their own deck through open questions.

3.

Only when players guess the emotions correctly can they (the 'feeler' and the player) **progress on the board**, thus encouraging collaboration and truthfulness. Finally, in the box, a number of **blank** emotion, scenario and event cards will be included for the players to personalise.



CIRCLES IN A CIRCLE

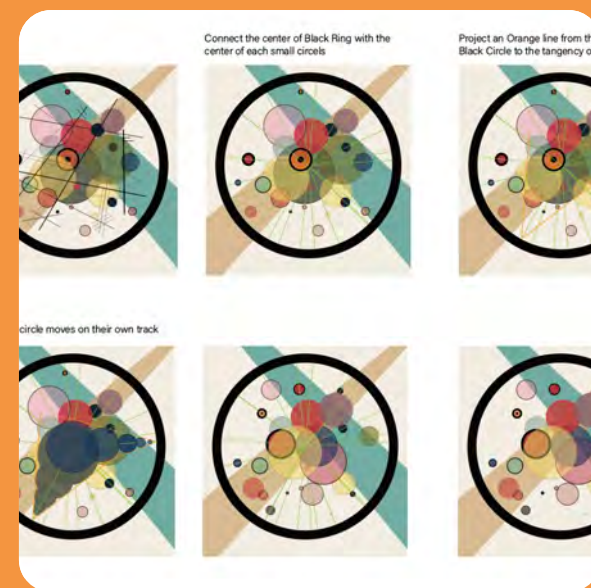
An interactive educational installation designed for museum settings to reinterpret **Kandinsky's artwork** 'Circles In A Circle' through the engaging and hands-on experience. With hand-gesture movements, participants can control the painting elements and therefore play live music notes.

Challenges

Visitors - find abstract paintings challenging to appreciate.

Museum - face difficulties in deeply engaging visitors who typically rush through exhibits.

Social Media - has reshaped art interaction on quick captures and shares.



1 Elements Extration

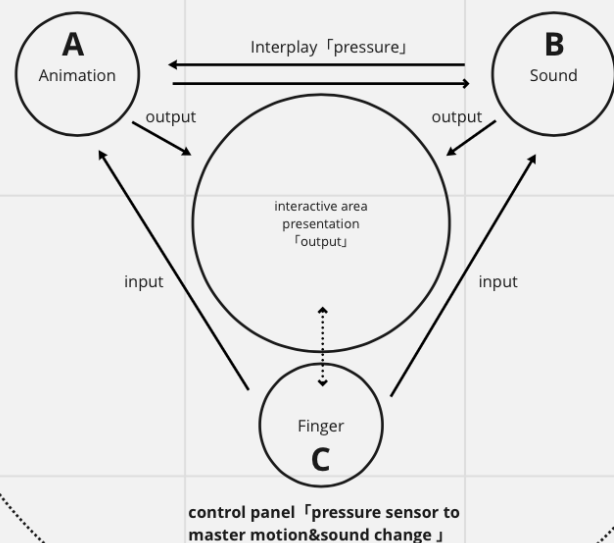
Extract the elements and correspond them to possible variations.

2 Methods of Change

Analyse color, thickness, transparency, straight/curved lines, motion, etc. Organize extracted elements and the transformation under variations.

3 Technology Integration

Animation:
Processing
TouchDesigner



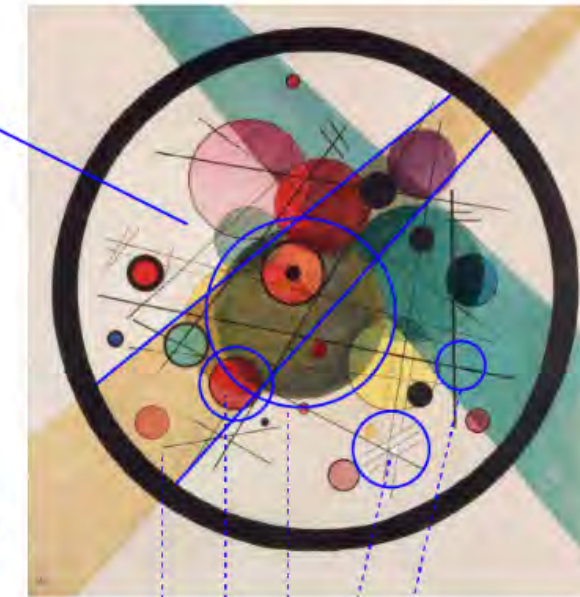
Sound :
1.upload single notes as background in project
2.input musical scale
[simulate playing the piano_gesture]

more pressure, element/voice change more fiercely

Sound input :
Max/Mp3

The Painting

variable quantity
variable animation



"Kandinsky opened to the spectator a new way of looking at painting... a clear transfer of thought on canvas."
-Duchanmp

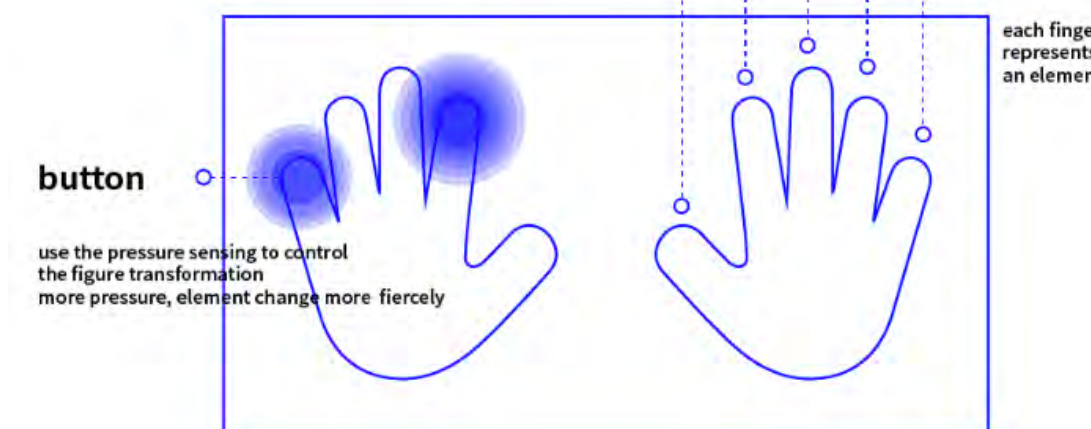
we extract the elements from Kandisky paintings

and also we can extract different elements to use in Kandinsky's other paintings

fold line\curve\triangle\square
retangle\irregular surface.....



back ground
hazy circle
bold line
colour circle
parallel line



button

use the pressure sensing to control the figure transformation
more pressure, element change more fiercely

each finger represents an element

Process

Storyboard

Art exhibition



Interaction Room



The Interactive Table



Social Interaction



Fizz

Teams -- Savio Mukachirayil, Chenkai Zhang, Sandra Di Leo

An mobile app that makes people aware of their eating experience by generating **music from food sounds** and allowing them to share it with other users. It enhances the solo eating experience during the quarantine period by introducing the sound of food.

Sound-taste

Noise factors
Interactive sounds
Background music

Context

Eating problems
Emotional eating
Unbalanced diet

Question

How can we enhance
solo eating experience during the
quarantine through food sounds?

User Journey

Pick up bottle

Pick up a bottle from friends or people worldwide. Engage with the food sound notes within the bottle for inspiration.



Touch Point:
· Drifting bottle visualization
· Sound playback

Intention:
Inspire users with previous culinary sounds and experiences, guiding their cooking choices.

Cook a meal



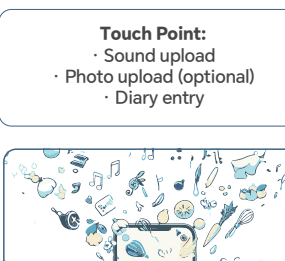
Experiment with ingredients, record the cooking sounds for music generation, and send in a bottle.

Touch Point:
· Ingredient list
· Sound recording

Intention:
To deepen engagement with the cooking process and enhance the overall experience through sound.

Upload Sounds

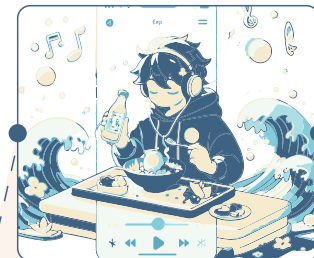
Log ingredient discoveries and social connections in a diary format, aiming for a healthier diet.



Touch Point:
· Sound upload
· Photo upload (optional)
· Diary entry

Intention:
To track culinary adventures and leverage diary entries for a healthier lifestyle.

Enjoy the meal



Listen to personal or community playlists during meals, or interact with the bottle's sender.

Touch Point:
· Sender chat
· Sender playlist
· Playlist recommendations

Intention:
To enrich dining experiences with food-inspired music or connections, reducing feelings of solitude.

Compose & Send

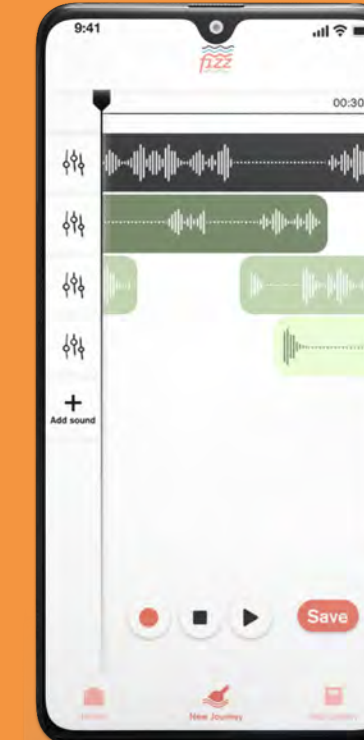
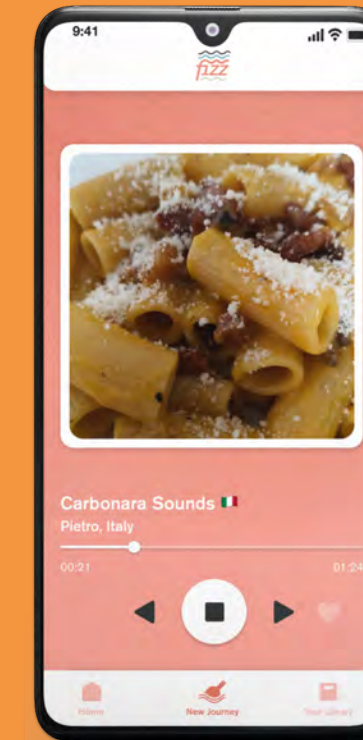
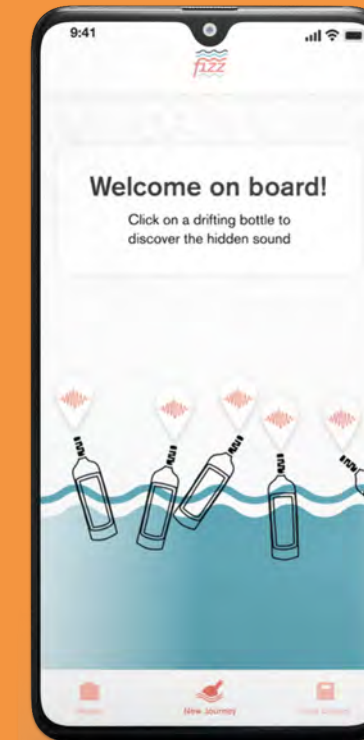
Craft personal food music, encapsulate it in a virtual bottle, and share with another user.



Touch Point:
· Music generation
· Editing tools
· Bottle sending

Intention:
To foster new friendships by sharing unique culinary soundtracks.

Design elements are implemented to create a **gamified experience** and make interactions easy and remarkable: A **reward system** is integrated when the users catch a “fizz” and discovering its sound content.



Name

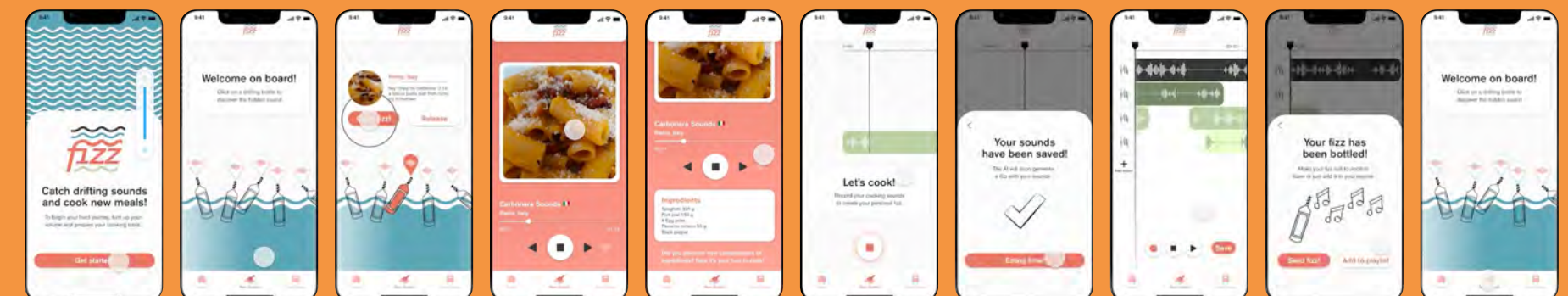
“Fizz” is an onomatopoeia used to describe the satisfying sound of opening bottles.

Logo

The contrast between the round shapes of the sea and the straight strokes of the font give the logo dynamism and a fun but clear personality.

Elements

Hand-drawn illustrations are used to add a personal signature to the brand identity to emphasize its bold personality.



3/4

Furniture design work experiences
at Camerich with research and development projects.

& Product design intern
on kitchenware at American Heirloom.

& Personal furniture wood-working projects.

#FurnitureDesign #FurnitureResearches #ProductDevelopment #Wood-
Working #Manufacture

FURNITURE DEVELOPMENT

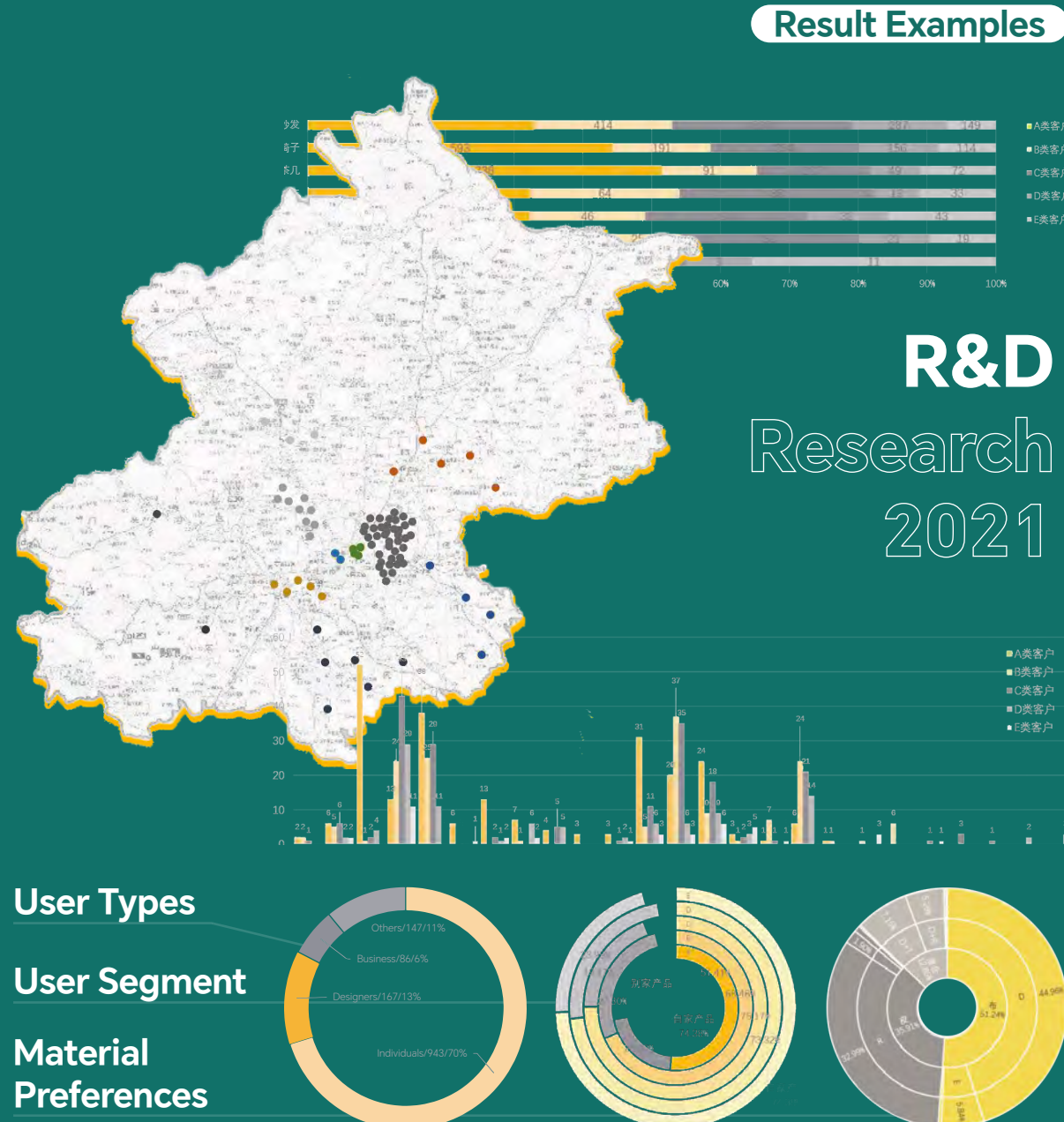


CAMERICH 2020-2021

As a furniture designer at CAMERICH (2020-2021), I led several key projects including the 'East-West' sofa for the 2021 CIFF, spearheaded R&D research, and collaborated on new office design and stuff training material development, contributing to CAMERICH's design, development and marketing innovation.

Research Content

- I. Target Audience Definition
- II. Research Framework
- III. Scope of Work
 1. Population Characteristics
 - 1.1 Demographic Features
 - 1.2 Sociological Attributes
 2. Purchasing Power
 - 2.1 User Segmentation
 3. Consumption Patterns
 - 3.1 Purchase Preferences
 - 3.2 Market Trends
 4. Risk Management
 - 4.1 Delivery Assurance
 - 4.2 Quality Control
- IV. Insights and Conclusion
- V. Limitations

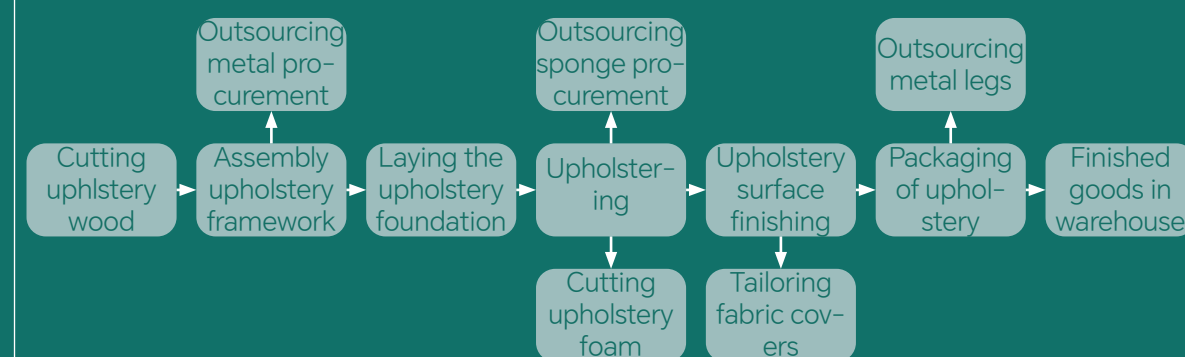


East-West Sofa Design & Development

Camerich collaborated with the Belgium brand Yellow Window for the East-West sofa design, blending European armor elements with the inspiration of Chinese craftsmanship.

The design contains detachable back panels, sloped foam seats, trapezoidal backrests, stitched cushions, and specially shaped legs.

CAMERICH x YELLOW WINDOW



Manufacture Process

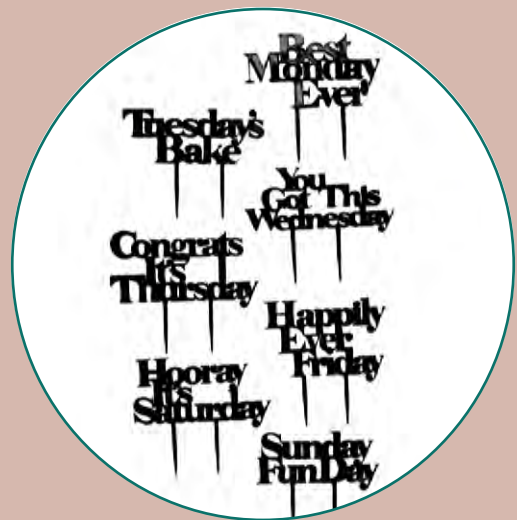
Components



AMERICAN HEIRLOOM

Industrial Design Internship 2019

As an industrial design intern at AH in 2019, I designed and customized home decor and kitchenware for both the brand and business clients. I also managed branding and UI design, and handled product finalization including laser cutting, packaging, and shipping.



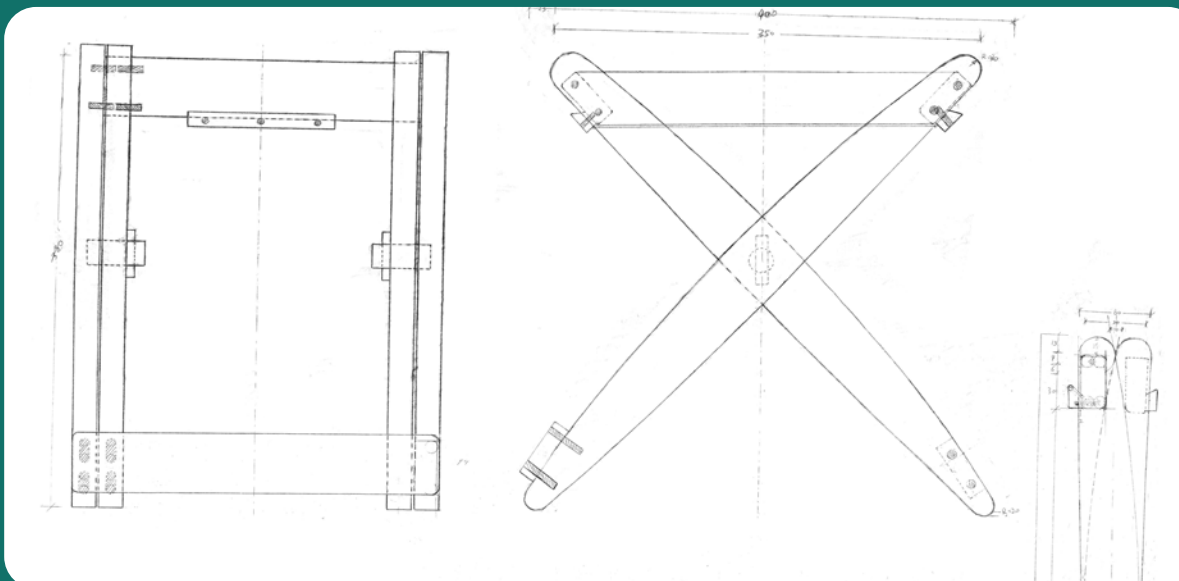
GRAXX

Designed specifically for Kongens Have in Copenhagen, this folding stool embodies portability and convenience. It is crafted for easy transport and easy cleaning, allowing people to immerse themselves in nature.

Prototyping



Finishing



CRAD

The rocking chair is designed with asymmetrical shapes that encourages children to enjoy dynamic and playful movements while using it.



The rounded curves not only enhance the visual appeal but also ensure safety for children.

The ball-shaped stoppers at the bottom of the legs prevent tipping over, allowing children to lean at a secure and enjoyable angle.

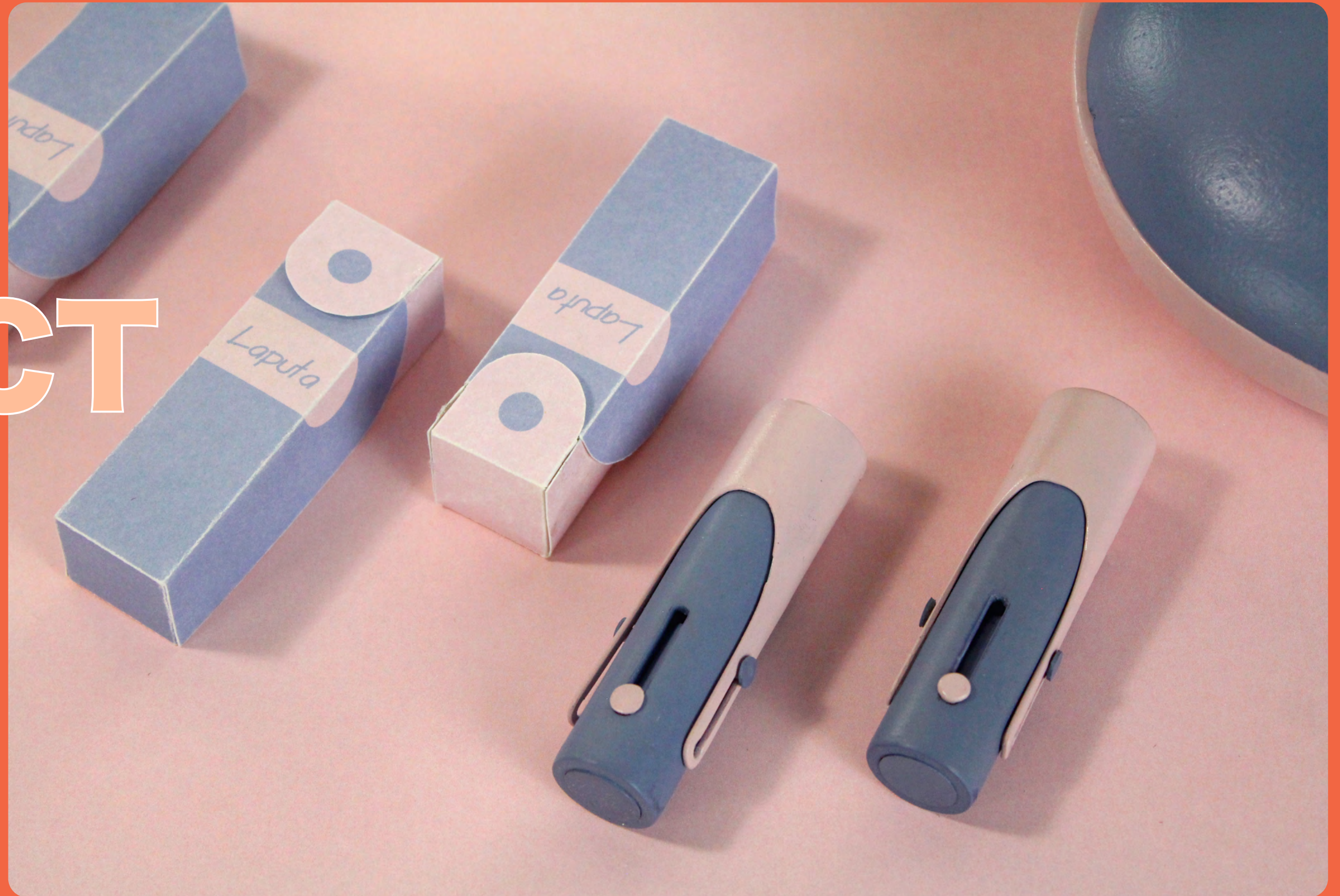
4/4

PRODUCT DESIGN

Laputa Lipstick,
Tu-light Nightlight,
Sanitation Lander, etc.

Personal and team projects working on various products with
design methods.

#ProductDesign #Sketches #CAD #Prototyping #Arduino #3DPrinting

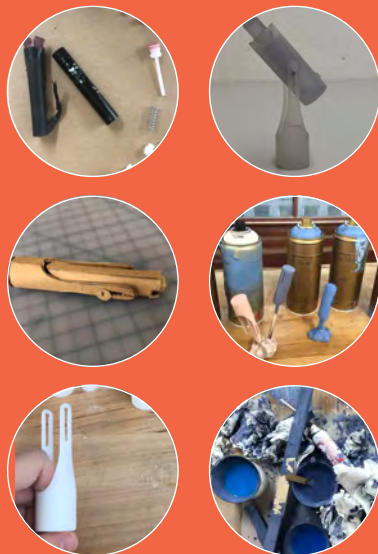


LAPUTA

A lipstick designed for comfort and relaxation. The twistable mechanism redefines the traditional way of opening lipstick, allowing users to easily play it in one hand without dropping the cap.



Prototypes



Metrics

Usage

- Enhance Image
- Boost Confidence
- Elevate Mood
- Foster Relationships
- Express Identity

Portability

- Compact
- Lightweight
- User-Friendly
- Easy Glide

Longevity

- Secure Fit
- Reliable Closure

Fashion

- Prestigious Brands
- Innovative Design
- Luxury Materials
- Attractive Marketing

Reliability

- Friction-Resistant
- Drop-Resistant
- After-Sales

Social Responsibility

- Eco-Packaging
- Eco-Ingredients
- Commitment

Mechanism



User Tests

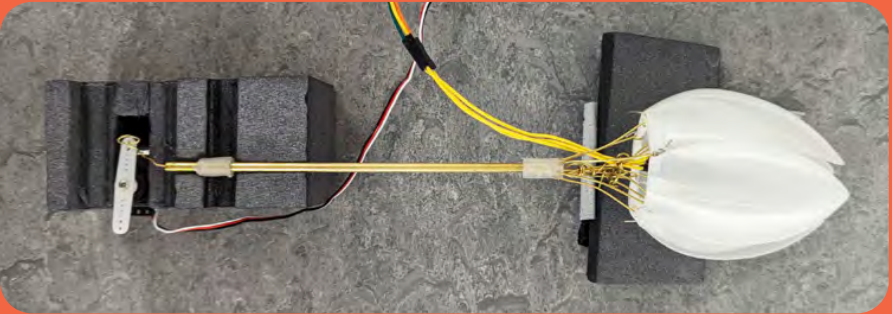
TU-LIGHT

With -- Cui-Lyn Huang

A nightstand companion engineered with Arduino and crafted through 3D printing, intelligently responds to ambient light conditions to ensure you're never left in the dark.

Concept

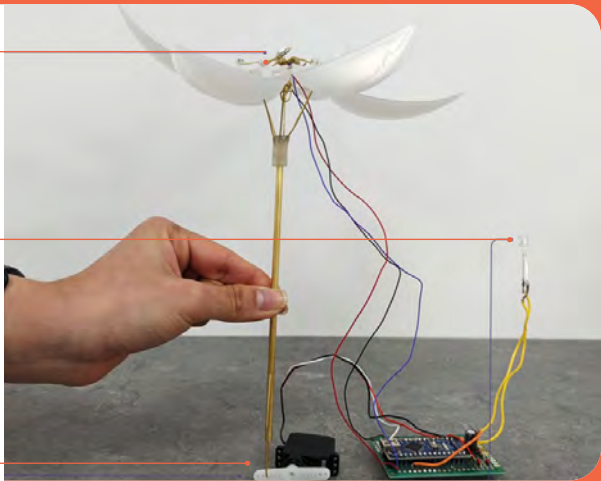
Inspired by Jiri Praus' mass producing mechanical flowers with 3D printed parts, Tu-Light create a product that responded to **environmental stimuli**, and decided on a night light that blooms and turns on when in a dark environment.



Neopixel LED

Photodiode

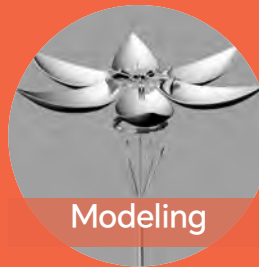
Mini Servo



Materials

3D printing petals to ensure they were of a consistent size and shape, and to achieve the diffused light effect seen through the translucent material.

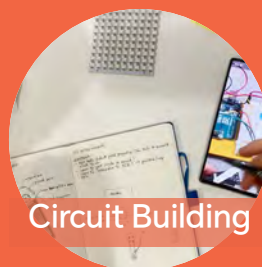
Brass wire, brass rod, and sewing needles for hinge structure and support mechanisms to allowed flexible and movable mechanism.



Modeling



3D printing



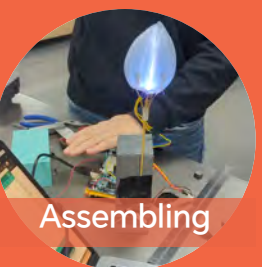
Circuit Building



Coding



Base Building



Assembling

- CLOSED** - When the tulip is situated in a light environment, it will remain in the bloomed position.
- INTERIM** - When it detects decreasing ambient light, the LED will turn on and the petals will begin to open.
- OPEN** - At full bloom, the petals will be fully open and the LED will remain on, serving as a night light in dark surroundings.



SANITATION LANDER

&

Brian Bjelovuk
Yi Wang
Xiao Wu

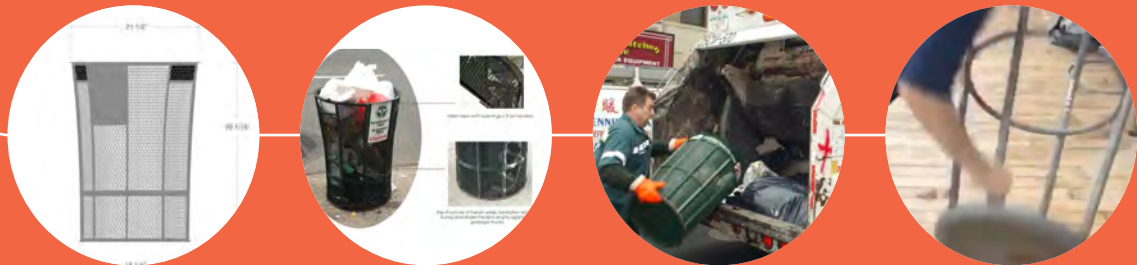


A redesigned litter basket for New York City, crafted to enhance efficiency and reduce litter while serving both Sanitation Workers and the public. This innovative bin combines practicality with ergonomic design, featuring metal mesh for durability, drainage, and rodent prevention.

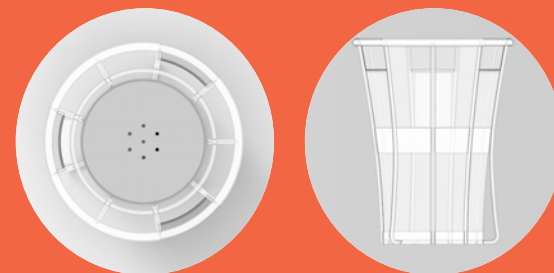
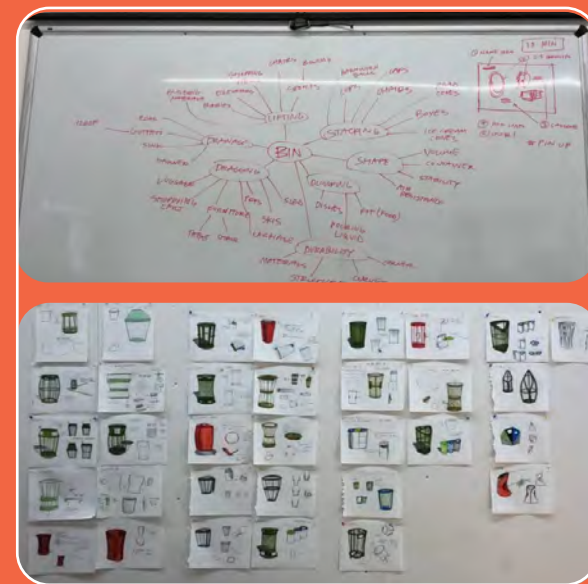
Problems



The team looked closed to the trash bins on the street and found advantages such as durability and problems such as overflowed trash and ergonomic movement inconvenience with the sanitation workers.



Ideation



Improvements

The team considered **shape, ergonomics, bugs and aesthetics**. The rounded handles and the metal bands help workers get a ergonomic and secure grip when lifting bins while protecting the bin. Metal mesh allows drainage with minimized weight. All are designed to better serve people at the modern city, NYC.



Pipe Handlebar

A round pipe replaces the previous sharp L-shaped lip, ensuring comfort and ease for workers handling the bin.

Stackable Shape

A wide opening narrows towards the bottom, facilitating trash disposal and allowing bin stacking.



Protection from Mushrooming

A metal strip at the midpoint shields the bin during emptying, preserving its structure.

Side Handles + Supporting Legs

These features enhance stability and provide an ergonomic lifting mechanism for Sanitation Workers.



MIG-HOSTEL

A transportable modular system to solve the seasonality problems for hotels in order to decrease the waste from the off-season, avoid the shortages during peak season, and therefore increase the potential profit.

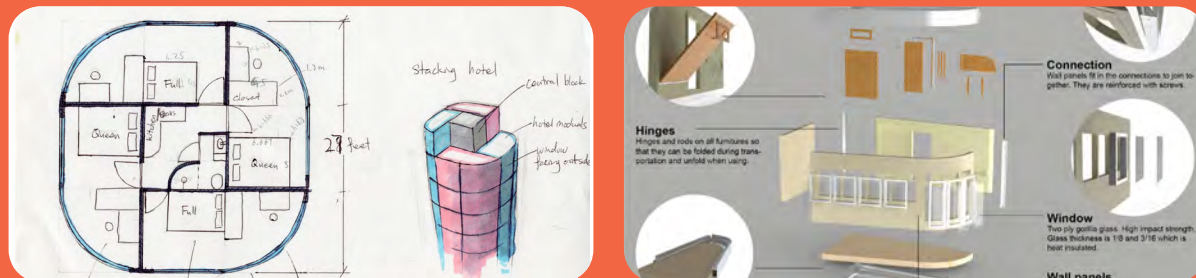
Problems

Seasonality issues: Off-season waste leads to cash flow challenges, diminishes extra revenues, yields low returns on investment, and room reduction results in capacity shortages during peak season.



Sketching

I proposed a transportable, modular solution and tested for the "Modularity Problem": How can rooms be modularly stacked? Within this system, how can furniture be folded to save space?



Decisions



The chosen module is stackable and designed with curved edges to save space. It contains four bedrooms and a common area in the center with stairs.



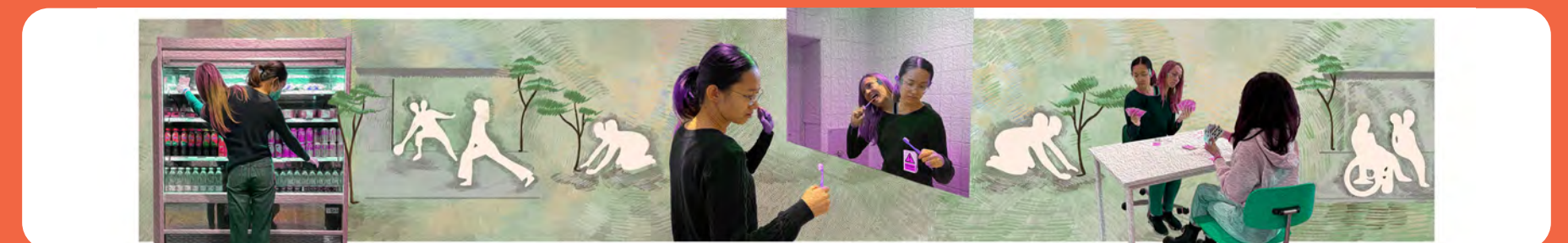
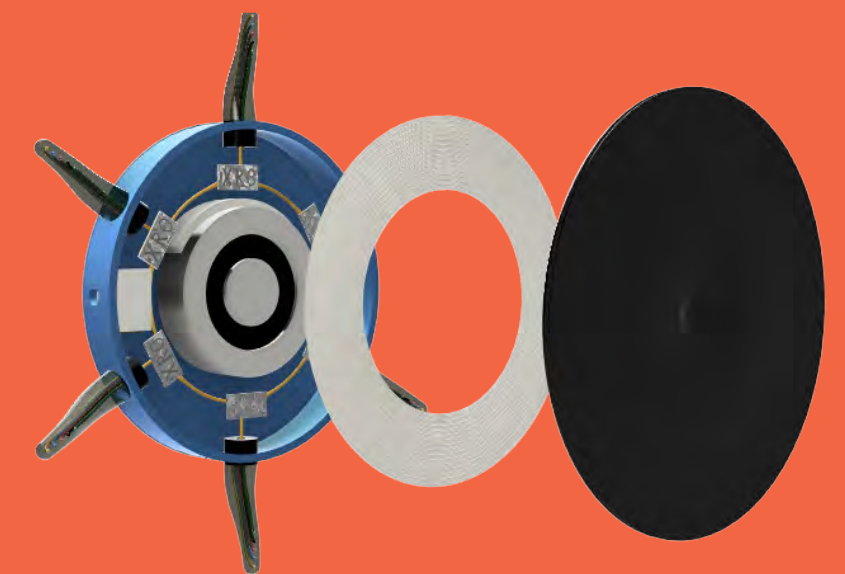
NE-NET

Created with the Brooklyn Museum, Invited contemporary individuals to experience the Egyptian neck-pillow while fitting it into modern routines.



MIRROR

An emotion learning device that teaches newly 'conjoined twins' how to see, feel and hear what their respective partners are experiencing.



EMAIL: peixli@outlook.com

WEBSITE: <http://peixli.com>

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