

m ē k ā

a product design agency



We are a **product design agency** specialised in
medical device design and development.

(but we build other things too.)

Our Team



Hisham Bary
Head of Engineering

[Connect with me on LinkedIn](#)



Shafiq Bashir
Founder & CEO

[Connect with me on LinkedIn](#)



Muhammad Junaidi
Head of Design

[Connect with me on LinkedIn](#)

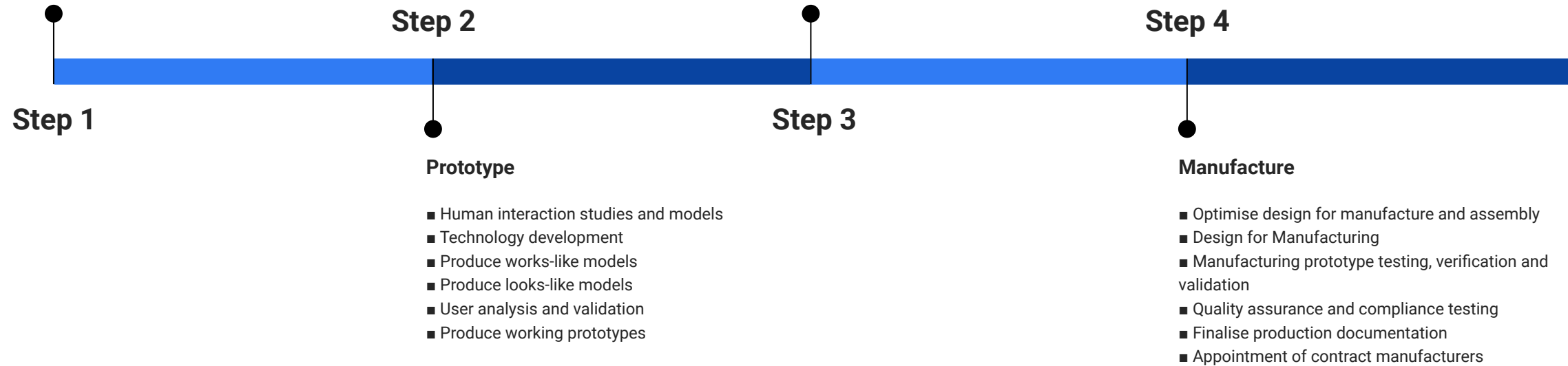
What we do

Design

- Product requirements and specifications
- User, product and market research
- User personas and journey maps
- User experience design and testing
- Multiple concept development
- Presentations, mock-ups and models
- Preliminary human experience studies
- Testing requirements

Regulatory Submission

- Identifying standards to comply with for regulatory submission
- Testing and certification (through third parties)
- Curate documentation according to submission requirements
- Other support needed for regulatory submission



Our Process

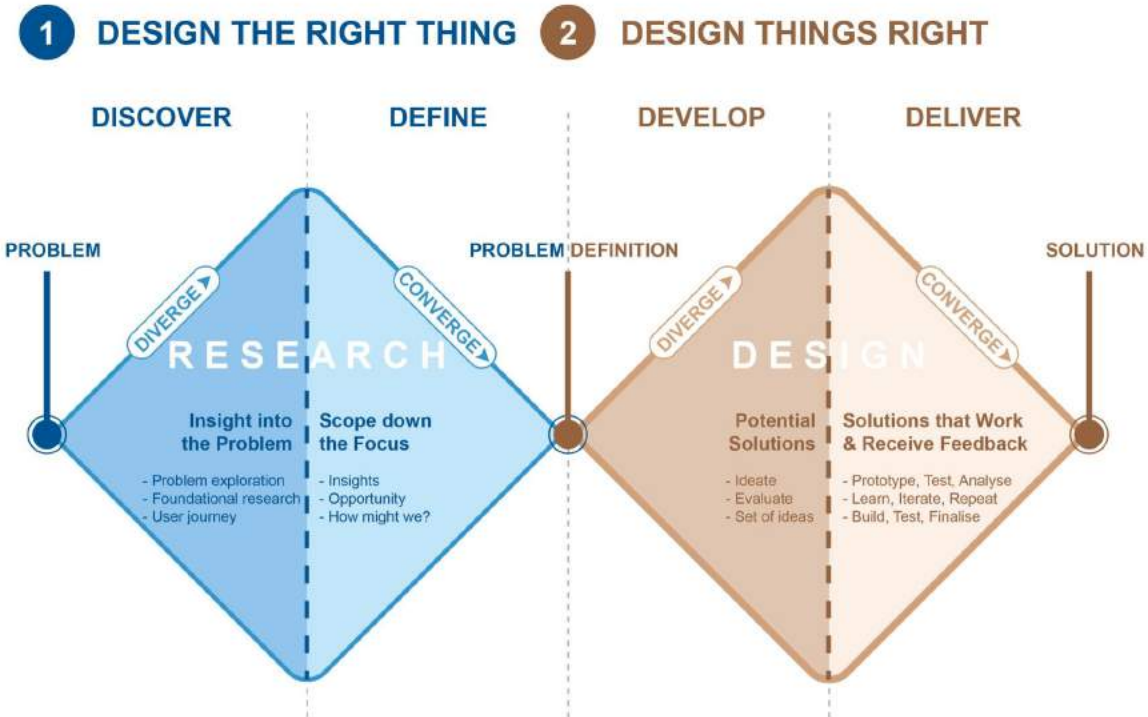


Image inspired by Digi-ark

Why mēkā?

Controlled risk

Experienced team

Iterative process

Excellent client communication

Some of our capabilities

In-house

Out-of-house

Industrial Design

Mechanical Design

SLS 3D Printing

MJF 3D Printing

PCB Design

Automation Design

Injection molding

Multi-axis CNC Machining

FDM 3D Printing

Waterjet Cutting

Metal Fabrication

Acrylic Fabrication

Laser Cutting

Wood Fabrication

Assembly

Quality Assurance

Some of our clients



Media Coverage

THE SMART LOCAL TRAVEL THINGS TO DO LOCAL ADULTING REVIEWS

GXS FlexiLoan
Low Interest from 2.99% p.a. (EIR 5.65% p.a.)
Sign up now

REKA Is A New Reality-TV Show Where Contestants Transform Pre-loved Items

2 minutes reading time

04 Jan 2019 Pailin Boonlong · Misc

Follow us on Whatsapp for the latest updates

REKA – new Singapore Good Design 2024

Organiser

Health and Wellness Sponsor

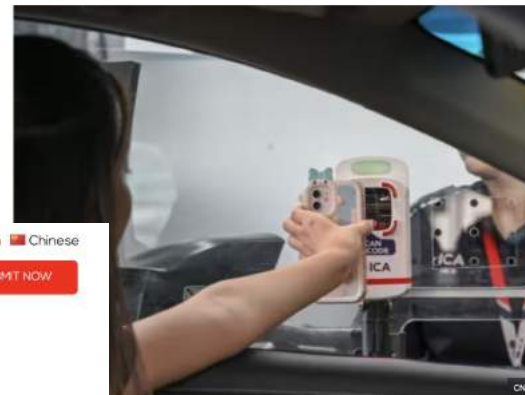
dbcs design business chamber singapore

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today Singapore World Big Read Adulting 101 Gen Y Speaks Gen Z Speaks Voices Commentary 8 Days More

A Weighing Scale That Tracks Body Fat, Metabolic Age & More
Shop Now

Travelling in and out of Singapore by car? QR code immigration clearance begins March 19



BY GRACE YECH

Published March 12, 2024
Updated March 12, 2024



Use of QR code for immigration clearance at Woodlands Checkpoint by the Immigration and Checkpoints Authority on March 12, 2024.

BioSpectrum ASIA BIO PARTNERING FORUM APRIL 24-25, 2024 SINGAPORE

HOME Pharma BioTech MedTech BioServices Healthcare Bio LAB HER Health

cdc Trailblazing Innovation & Collaborations in ADC Drug Development in Asia

Country Singapore Singapore develops hand-held device for skin care

Singapore develops hand-held device for skin care

22 April 2021 | News

The system has passed several rounds of prototyping and clinical trials, which have proven it to be robust and clinician-friendly

A photograph showing a person in a white lab coat using a hand-held device on a patient's skin. The patient is sitting at a table, and the lab coat person is standing and holding the device against the patient's arm. The device is a small, handheld unit with a screen and a sensor.

How we collaborate

Fee for Service

You pay us for a clearly defined scope of work. We'll solve your problems. You'll own all the IP.

Licensing

We'll design and develop the products and components. You'll pay us royalties and buy essential components from us. We own all the IP.

Co-Creation

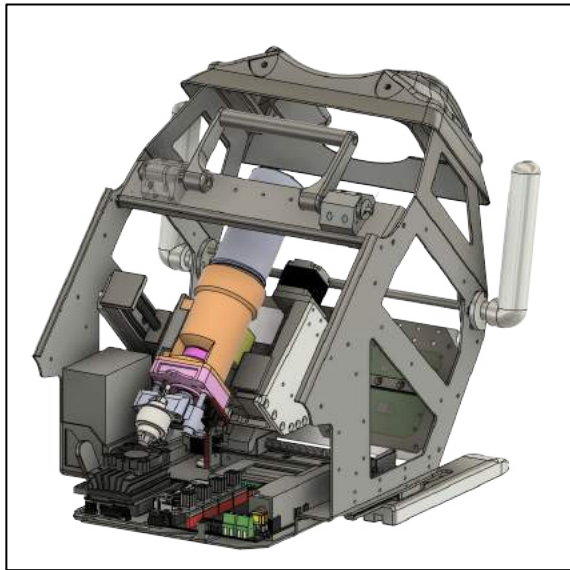
If you can identify a problem but don't have the team to explore solutions. We can help. We will co-own the IP together.

Spin-offs and Joint Ventures

If you are an expert in your field and can identify an opportunity but you need a team, we'd love to collaborate on a startup.

Here are some examples of our work in medical devices

Wallaby Eye Scanner



Internal Structuring



Idea Sketch



CAD Modeling

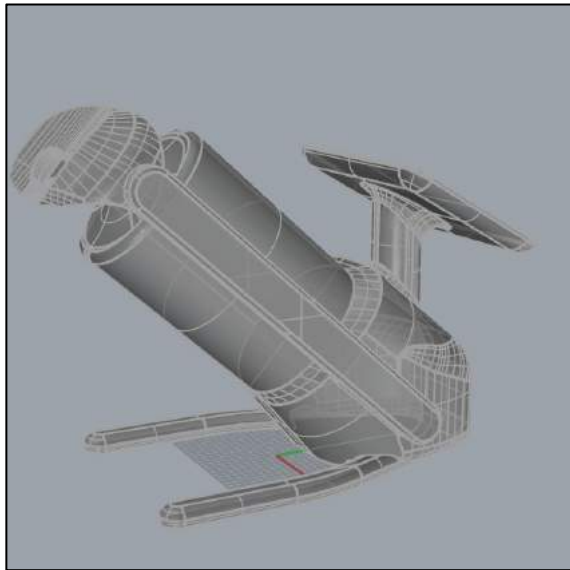


Final Prototype

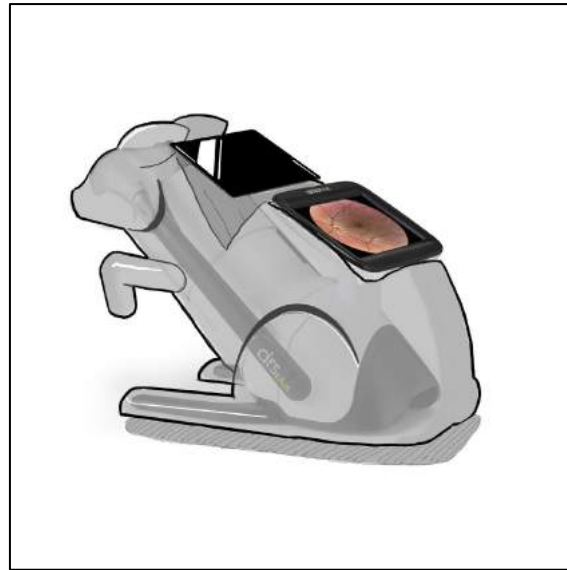
Wallaby is an affordable fully-automated eye scanning solution designed and built for TeleMedC.

10 pieces small run for evaluation

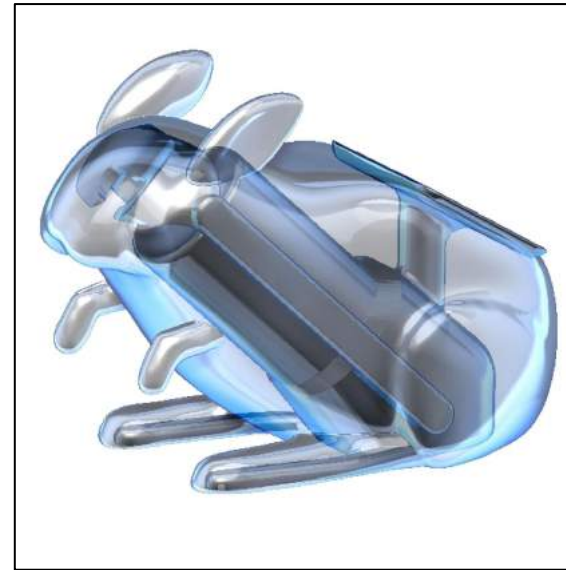
Mama Rabbit



Reverse Engineering



Idea Sketch



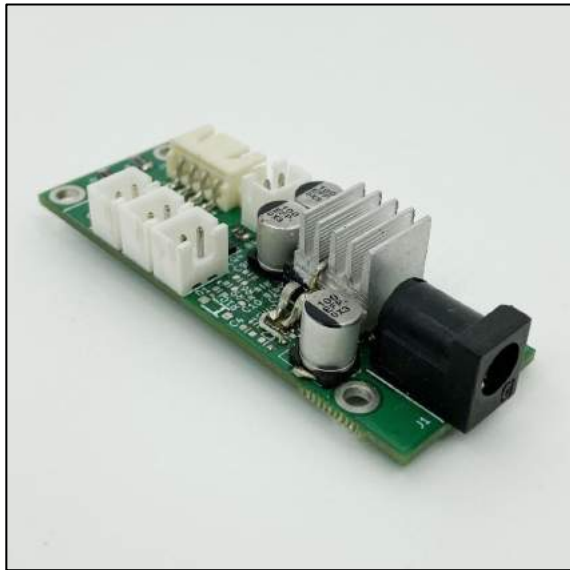
CAD Modeling



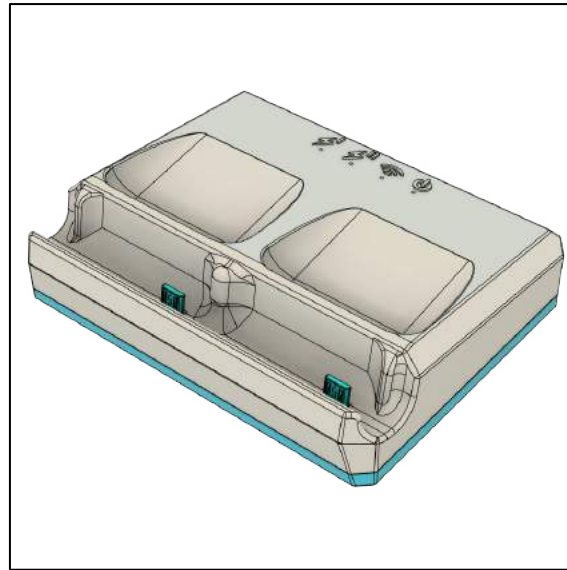
Manufacturing

Mama Rabbit is a device used to conduct comparison studies with the Wallaby.

Respiree



Electronics



CAD Modeling



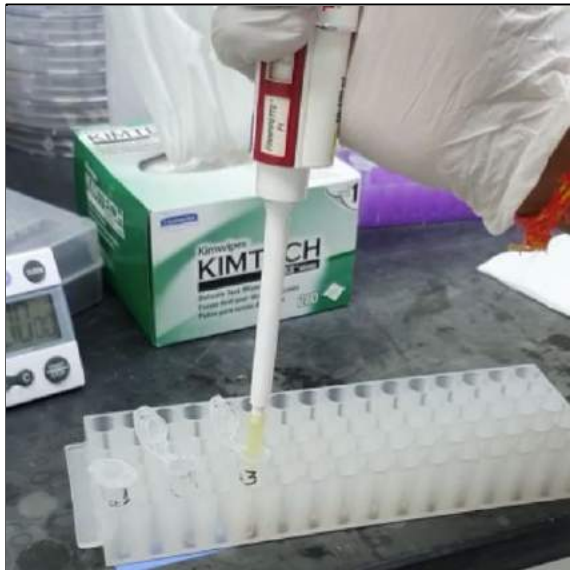
Prototyping



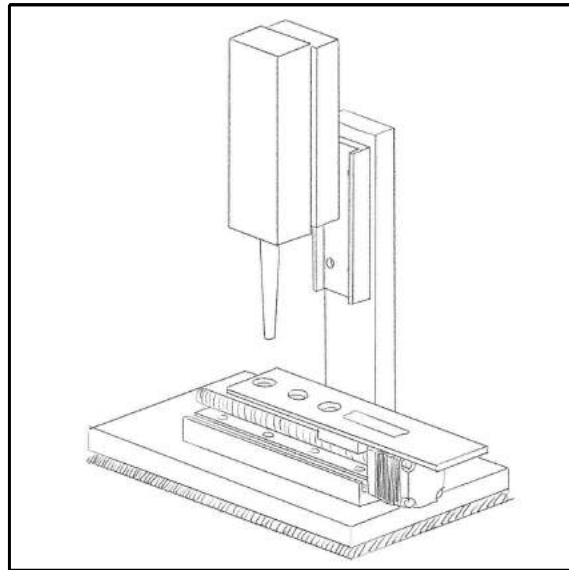
Manufacturing

June 2023: 2nd run of 300 pieces with testing and certification done by TÜV-SÜD.

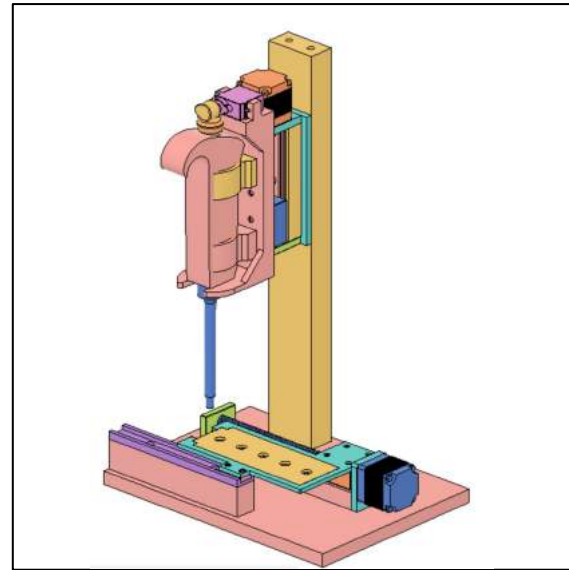
Sample Processing Robot



Problem Research



Idea Sketch



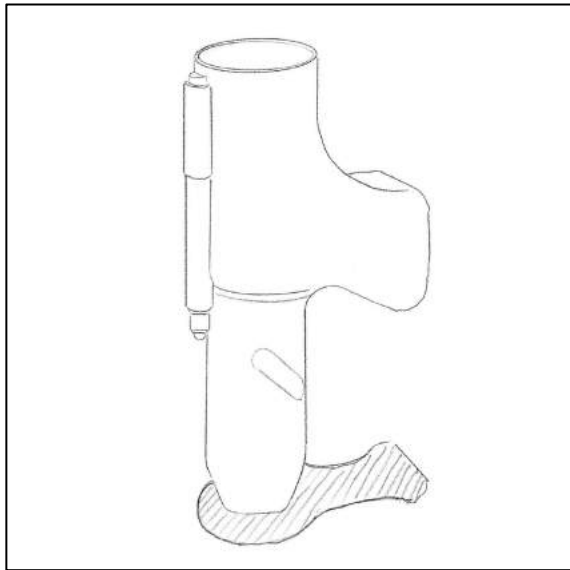
CAD model



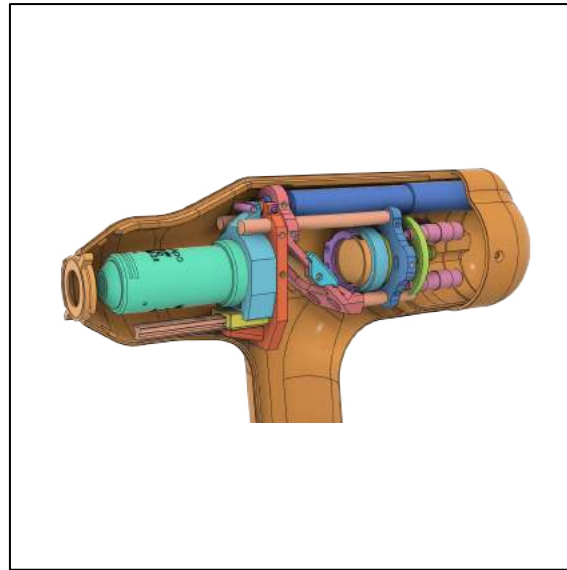
Final Product

Being used to process nearly 100 samples a day. September 2023: new version in development.

Helioderma Version 1



Concept Sketch



CAD



Machining of parts



Final Prototype

Validation completed. New version developed to address ergonomics issues.

Helioderma Version 3



Form Exploration



User Testing



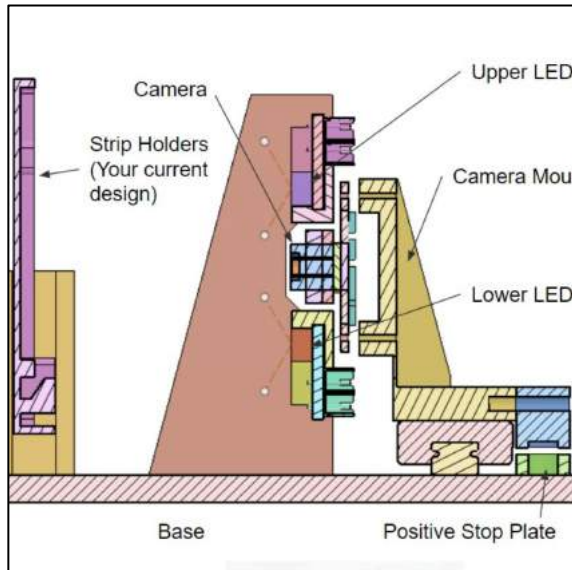
CAD model



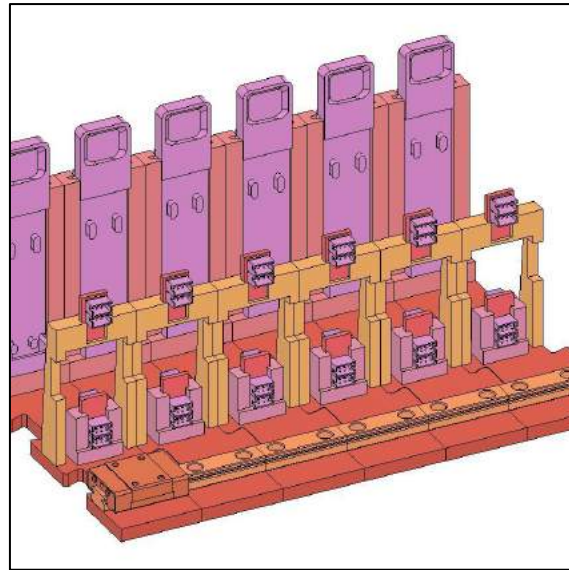
Manufacturing

Being used in hospital trials.

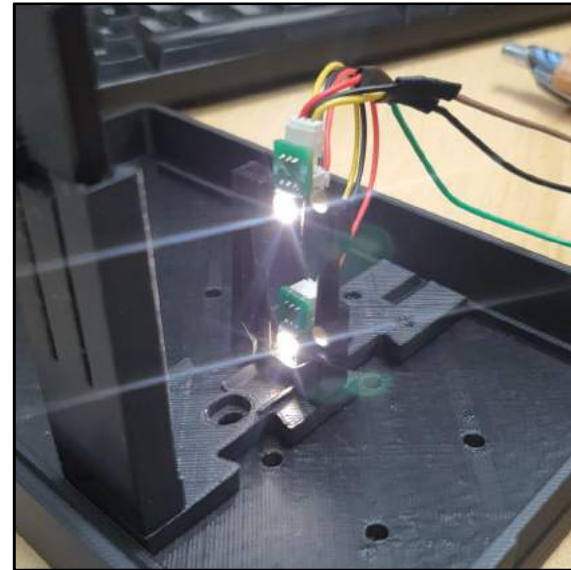
Cortisol tester



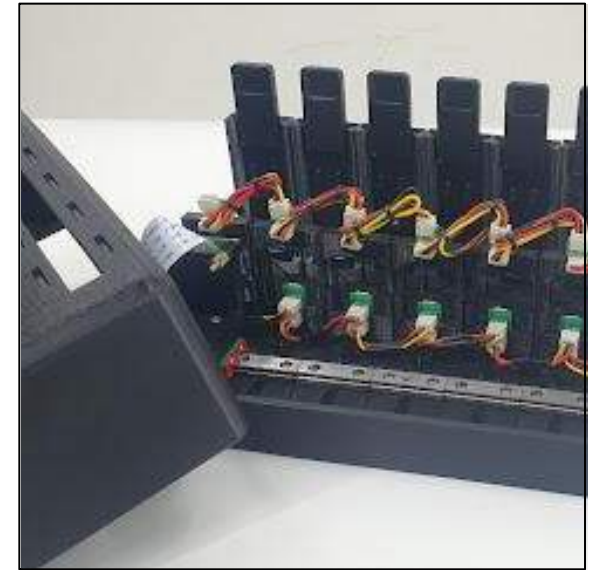
Initial idea



Electronics and 3D Design



Integration and testing



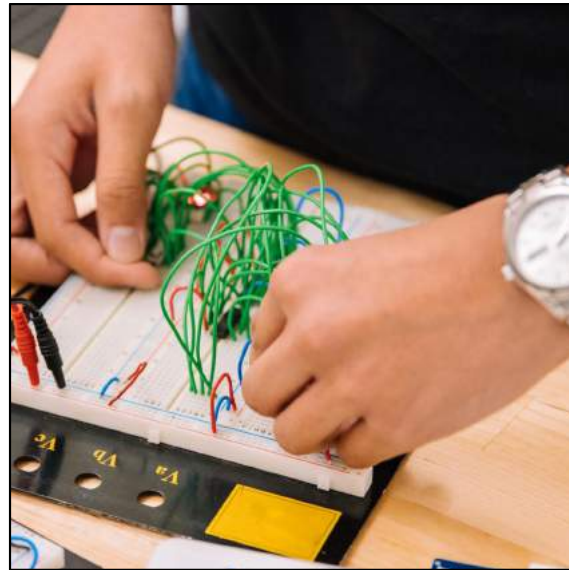
Fully functional prototype

Being used in data gathering and validation studies.

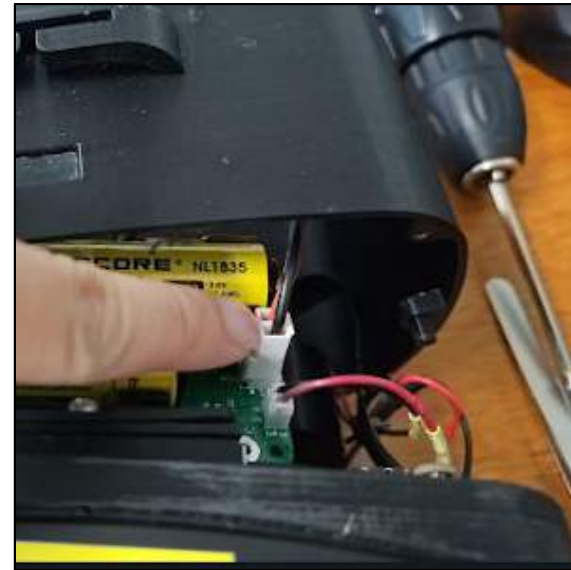
Virtual Reality Headset for pre-surgical use



Project Planning



Electronics and software



Hardware build and testing

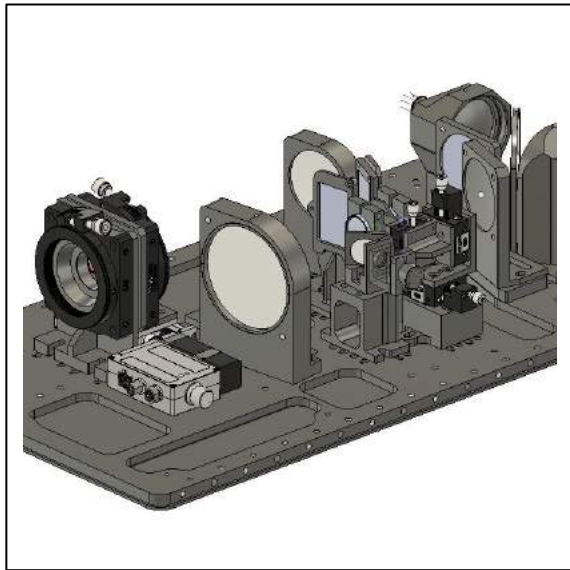


Fully functional prototype

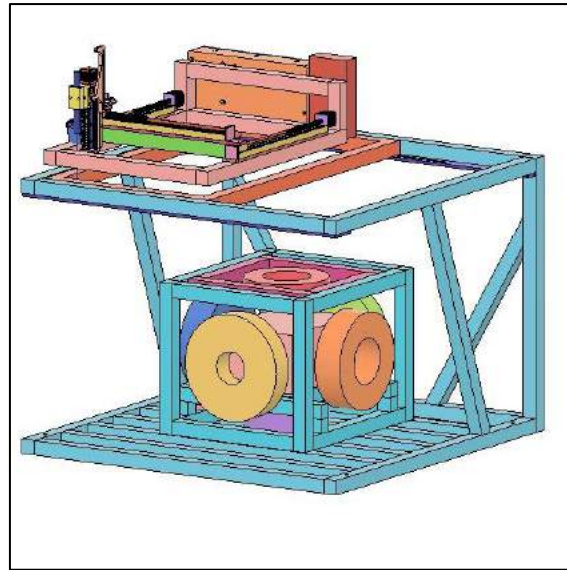
Being used in hospital trials.

Here are some of the other things we build

Jigs and Fixtures



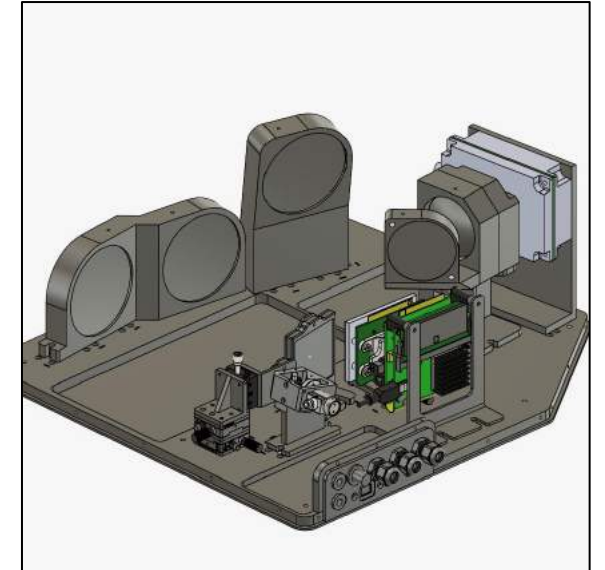
Optical Mounts



Electromagnet Probe Fixture

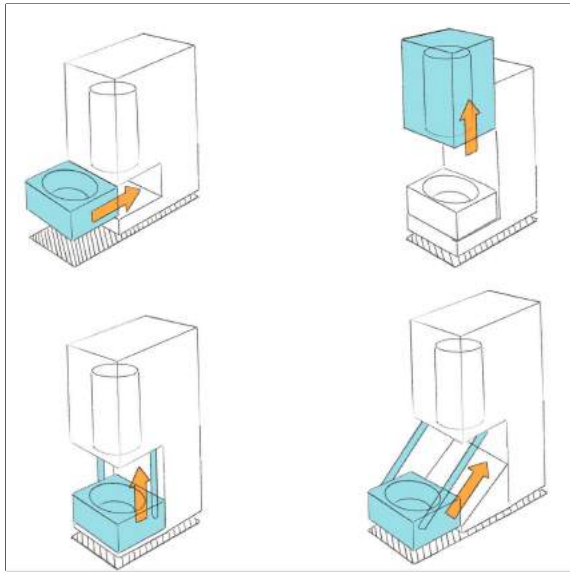


Bone Clamp

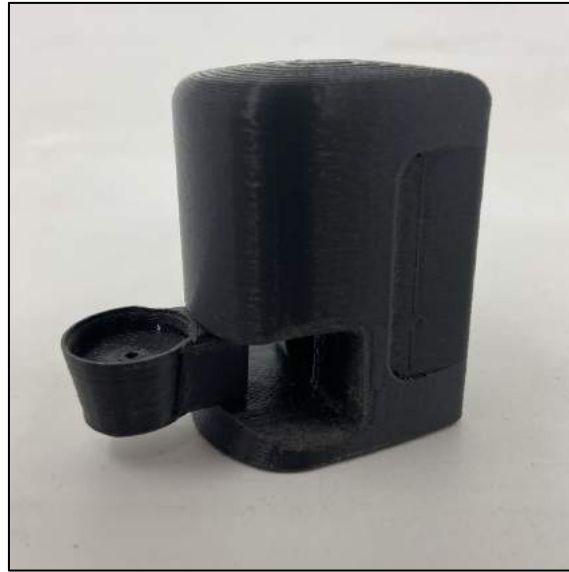


Optical set up

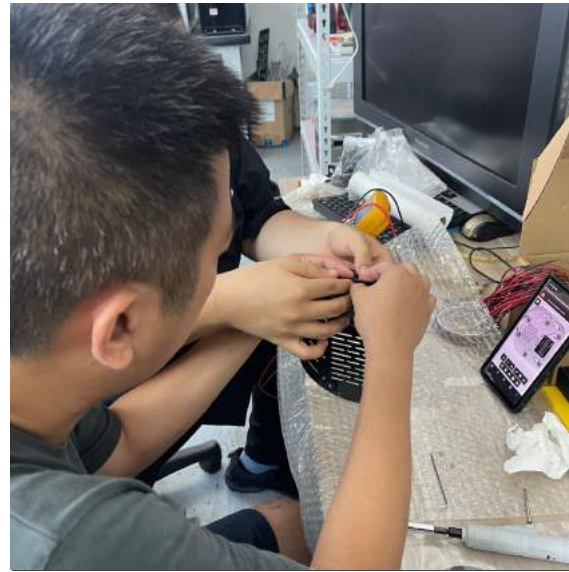
Food Ingredient Analyser



Interaction exploration



Prototyping



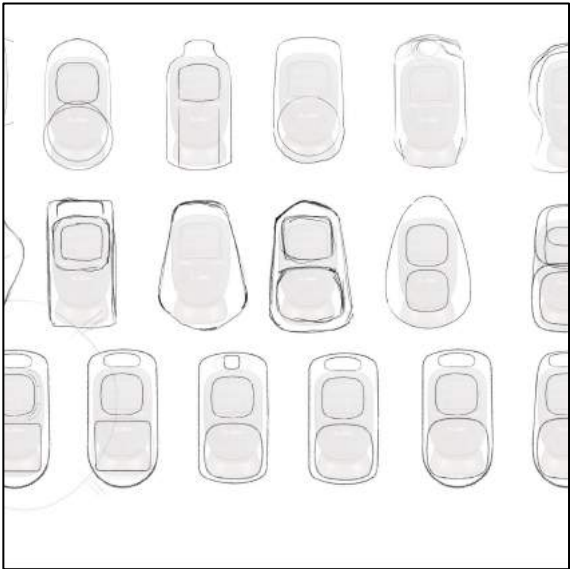
Assembly



Final product

September 2023: mēkā assisting in procurement, manufacturing and assembly.

QR Code scanner



Form exploration



Instructional Graphics



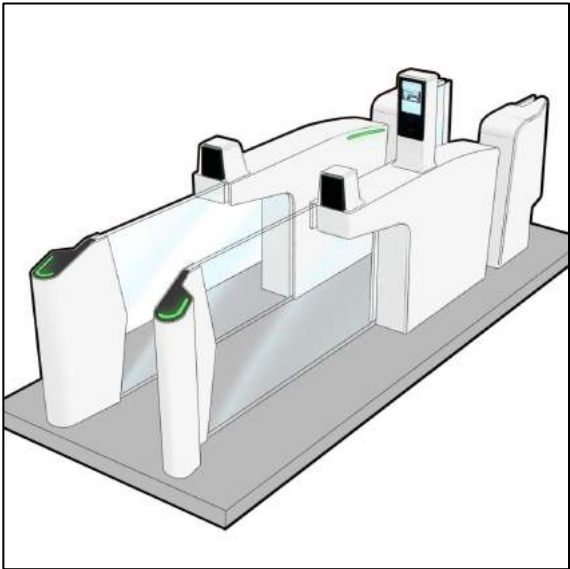
Test fit casing



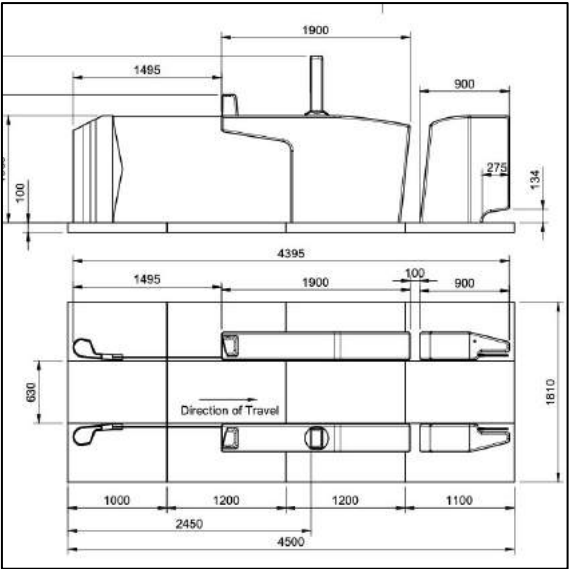
Final prototype of the casing

September 2023: Being manufactured and deployed at land checkpoints in Singapore.

Identification on the move



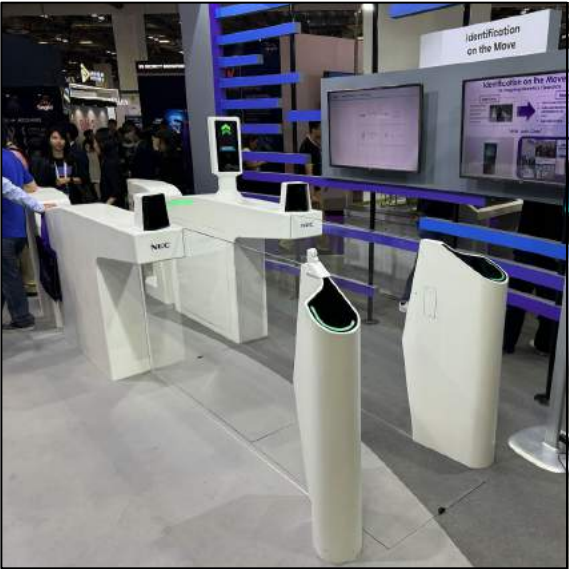
Concept Render



Dimensional Drawings for Fabrication and Assembly

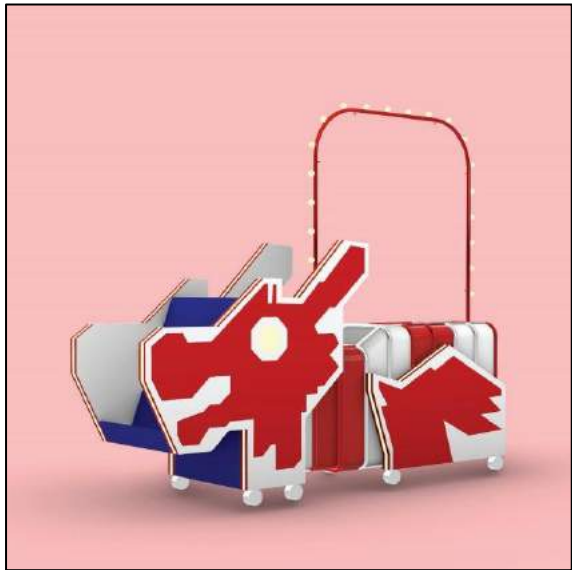


Fabrication



Full installation for exhibition

Live Station Carts



Design and Engineering



Fabrication



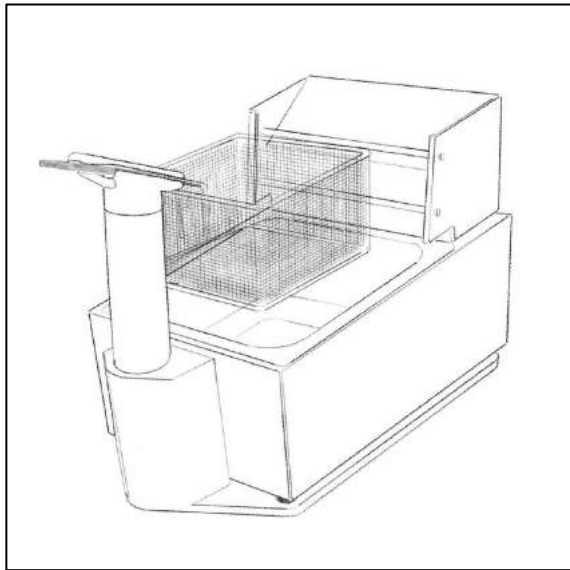
Installation



Deployment

December 2022: On exhibit

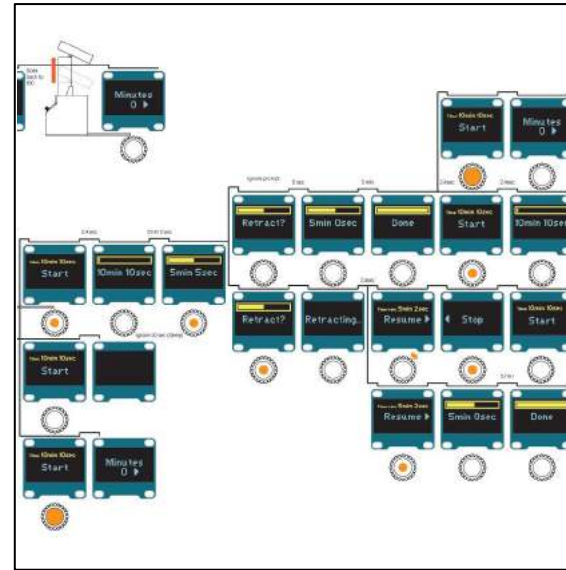
Automated Deep Fryer



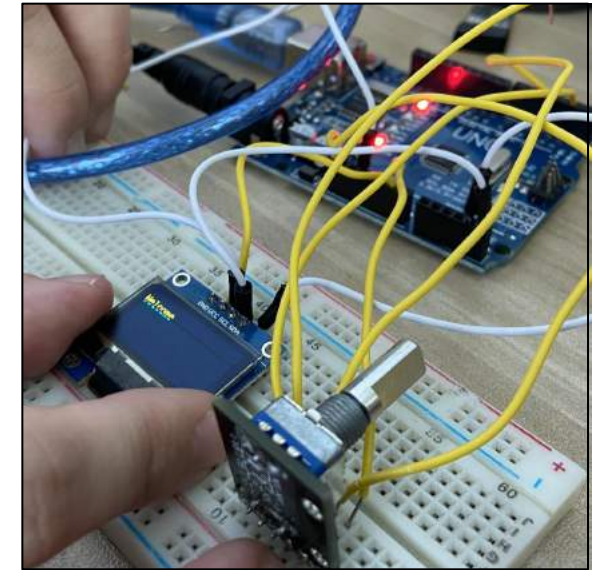
Idea Sketch



Prototype from CAD model

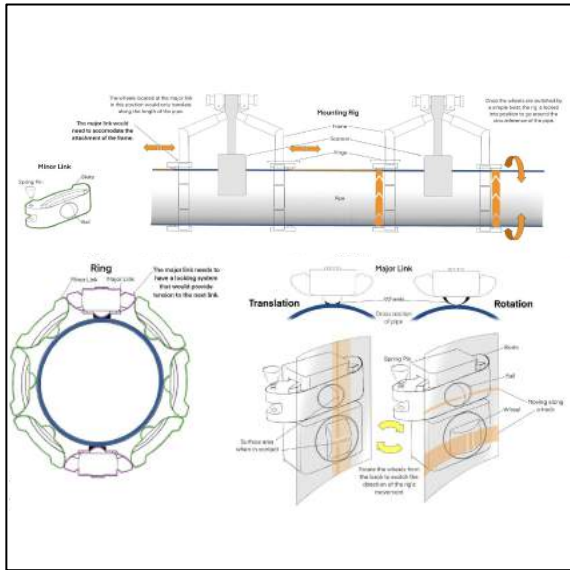


User Interface Logic



Electronics

Pipe Scanning Rig



Idea Exploration



CAD Modeling & 3D printing

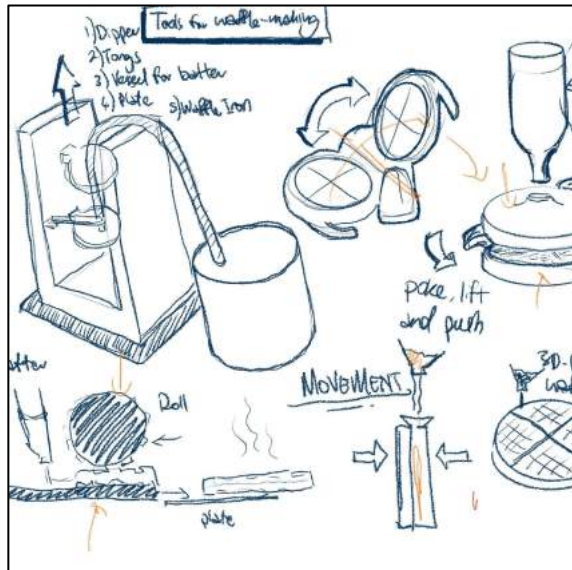


Prototyping

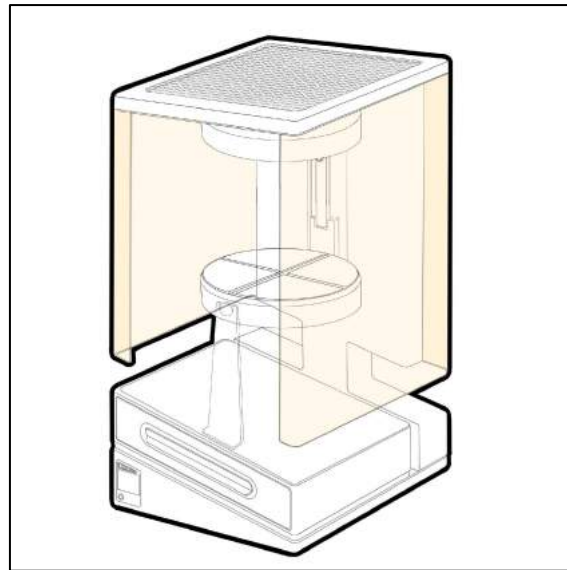


Working Prototype

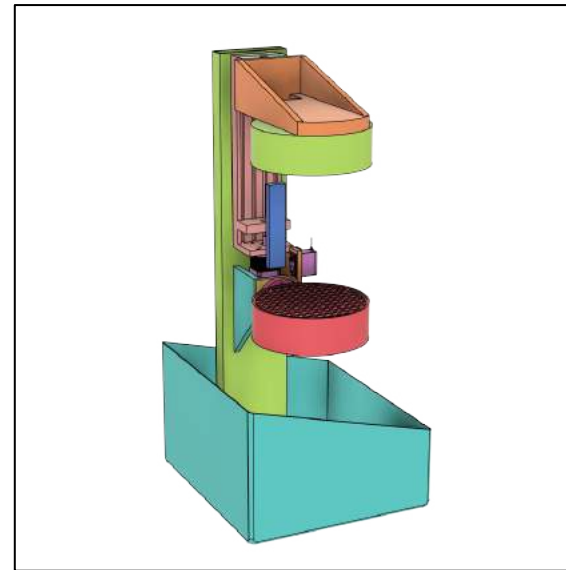
Automated Waffle maker



Idea Sketching



Concept Sketch

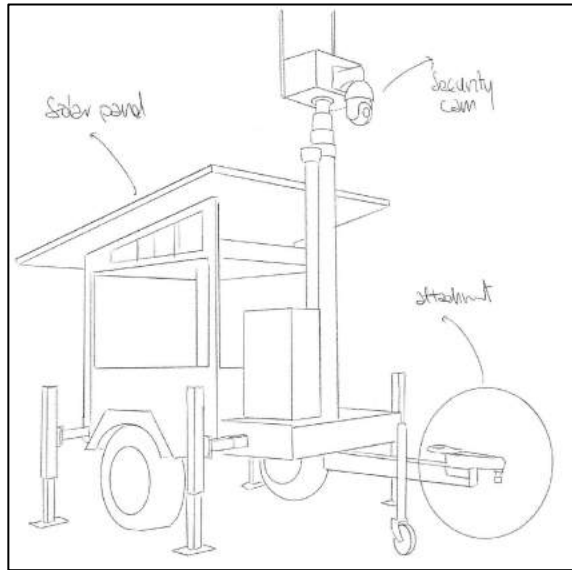


CAD Modeling

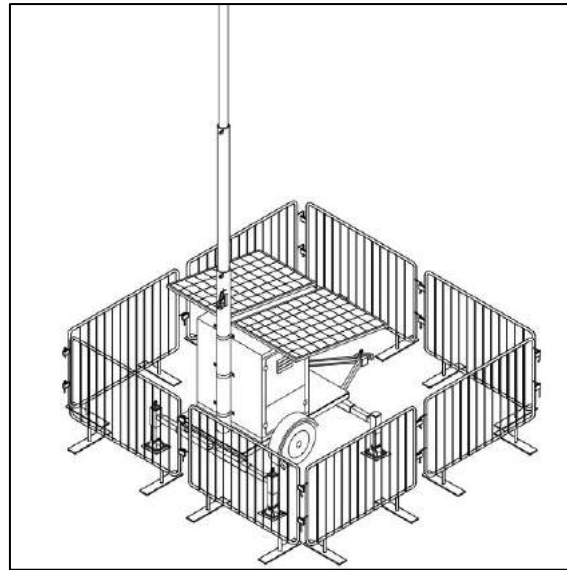


Prototype

Mobile Security Trailer



Concept Sketch



CAD model/Drawing

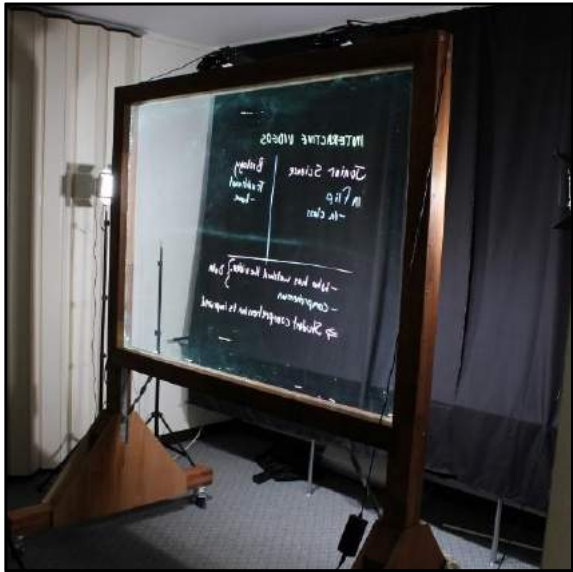


Procurement

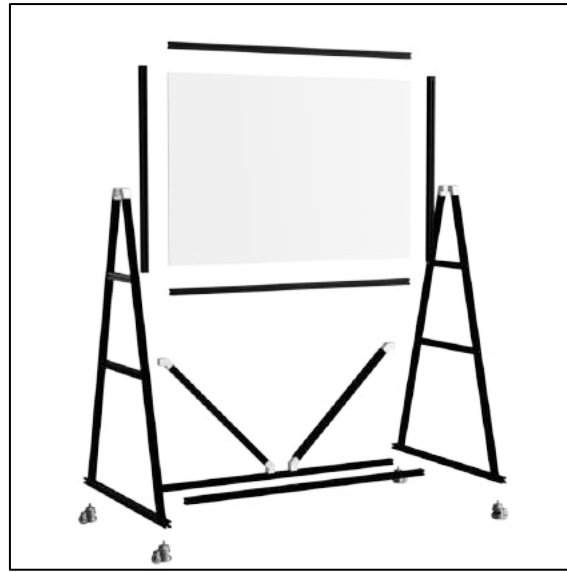


Final Product

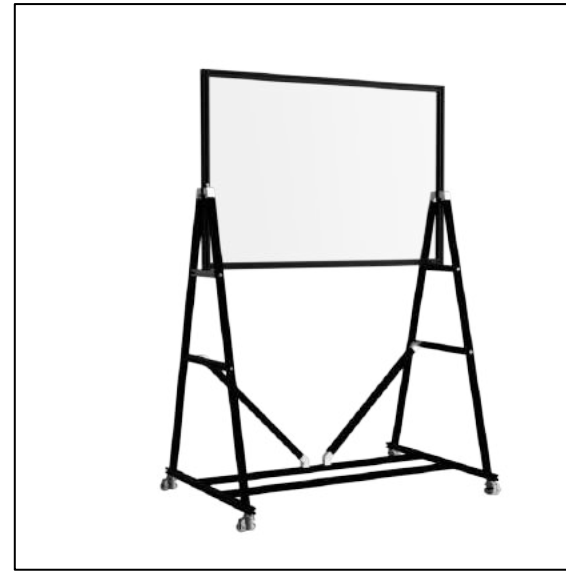
Lightboard



Existing Product



Electronics and 3D Design



Product Render



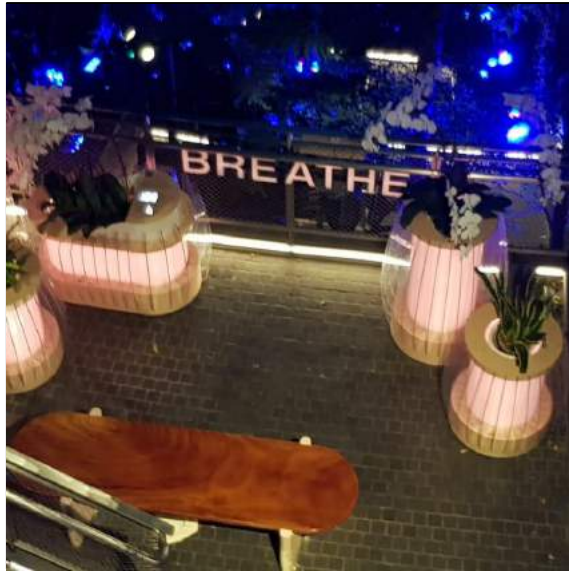
Final Prototype

~20 units sold in Singapore.
Product discontinued.

Jewel “Breathe” Installation



Wood and Polycarbonate



Full installation at night



Full installation in the day



Integrated lighting and electronics

m ē k ā

a product design agency

Think we can help?

contact@mekainnovation.com

[Book a consultation](#)