Sanath Desai

Resume

Sanath **Desai**

Bio-sketch

My name is Sanath Desai and I am fresher. I am a Product Design Graduate from Indian School of Design & Innovation Mumbai. I have been staying in Mumbai for last 20 years. I have interned in studios and corporate companies and gained considerable amount of work experience from these work places. I have worked on Home & Lifestyle products and UI based projects. I excel at Inter-disciplinary projects which focus on User Experience.

Work Experience

Job

Unthinkable Solutions (Gurgaon) pvt. Ltd- 2020 November (Currently Working)
Associate UI/UX Designer: Pitch new digital services to add value to existing products and design User Interface and enhance UX.

Internships

Studio Chisel (Hyderabad)- 2018(2 Weeks)
Furniture Designer Intern: Designed and Prototyped Bespoke Furniture for clients and worked on IIID showcase 2018 Hyderabad.

Vector Projects (I) Pvt. Ltd (Mumbai)- 2018(1 Week)
Intern: Designed a Reception and TV Unit for consumers.

ISDI (Indian School of Design & Innovation) Mumbai- 2017(1 Month)
Intern: Desinged the user interface of Online Course Website for ISDI students.

Education

Diploma in Product Design
Indian School of Design and Innovation Parsons(ISDI) Mumbai (2016-2020)

Bachelor of Arts in History
Mumbai University (IDOL)(2016-2019)

Junior College(11th-12th)
R N Podar High School Mumbai (CBSE) (2014-2016)

School 10th
SM Shetty International School Mumbai(IGCSE)(2008-2014)

Courses

Model Making(2 Weeks)
Arts Univeristy Bournmouth (UK) (July 2018)

Hobbies

Sports(badminton)
Making DIY Models
Explore Gadgets
Singing

Expertise

1. User Experience Design(UX)
2. User Interface(UI)
3. Consumer Electronics
4. Materials Design
5. Furniture Design

Interest

1. Assimilate Products
2. Material Exploration
3. UI & UX
4. Making Gadgets
5. Explore Forms

Software Skills

3D/CAD:
1. Fusion 360
2. Rhino
3. Grasshopper
4. Render Plugin : KeysShot

2D:
1. Photoshop
2. Illustrator
3. Indesign
4. XD
5. Axure
6. Sketch

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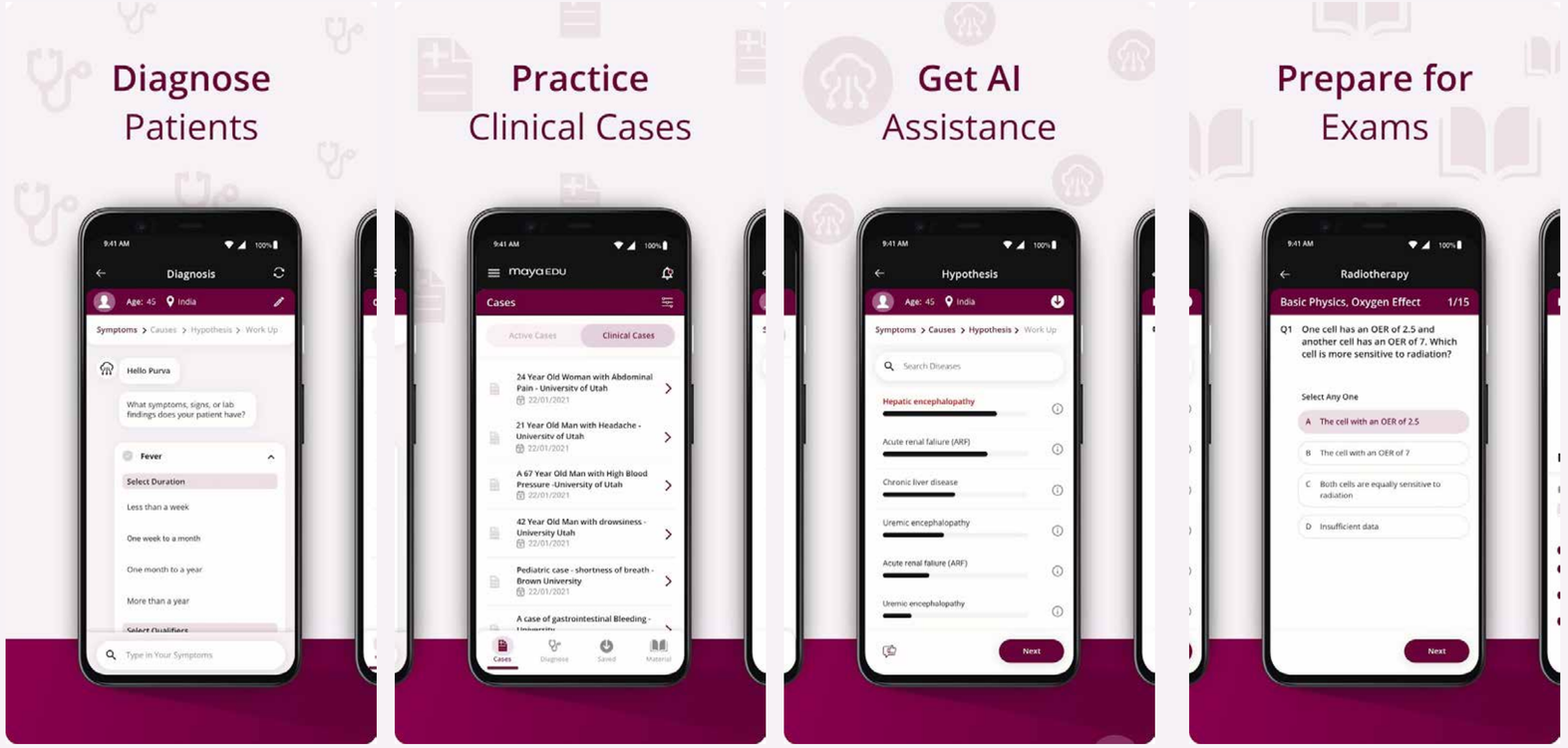
maya EDU

Project: Unthinkable Solutions LLP

MayaEDU is a clinical-education tool used for diagnosis and training for medical students, residents, and instructors. It can be used in real time during classes or on their own. There established medical cases which are updated on the platform. Medical cases can be dis-seminated by instructors to observe how students evaluate cases through the platform.

https://apps.apple.com/us/app/maya-edu/id1453506418

https://play.google.com/store/apps/details?id=ai.mayamd.mayaedu



Alternate Materials

Alternate materials is a research project collaborated with Bharat Floorings & Tiles that explores the possibilities of composite cement material to make sustainable flooring tiles and wall tiles.

May 2020

Bharat Floorings and Tiles

SCHOOL OF DESIGN & INNOVATION
Curricular Collaboration With
Parsons School of Design

Bharat Floorings & Tiles

Company that manufactures horizontal and vertical cement tiles since in 1922.

Products

They make variety of personalized hand crafted tiles for high end consumers.

Flooring tiles

Wall tiles

Wallpaper

Services

Laying tiles

Residents that buy tiles directly are installed by Gaiaa contractors (Contractors for BFT) and polished.

Polishing tiles

After few years the customers request for re-polishing their old floors to bring back the original shine.

Bespoke furniture

Custom-made furniture for clients to suit their requirement of the space.

Cement Tiles

are made from a mixture of sand, cement, color pigment, and marble powder that is poured into metal molds, backed by a dry concrete mixture, and then compressed under 100 tones of pressure.

Heavy/ strong

Handcrafted

Slow production

Customizability

Currently in India....

Ceramic Tiles

are made of 70% clay and 30% of other materials heated at temperatures above 1000 degrees Celsius. The production of ceramic tiles depends mainly on industrial machine.

Light/ brittle

Automated

Fast production

Limited varieties

Cement Tiles - Manufacturing

Flooring

Wall

Procurement

Metric tons of white and black cement is procured and delivered to factories in trucks.

Preparation

New stencils are made out of sheet metal for new tile designs. This process takes a month to finish.

Poured and pressed

For flooring tiles, a layer of coloured cement is poured into the moulds and rest is backed with black cement.

Hydrolysis

Tiles are submerged in water for 3-7 days to cure them and then another 10 days for drying and curing under the sun.

Mixed and poured

For wall tiles, coloured cement is mixed and poured into moulds.

Laying & polishing

Tiles are laid by workers. They are polished using simple polishing machine equipped with polishing stones from rough to fine grids and water.

Observation

Material is the key
Cement controls the properties of the tiles. Hence, altering the amount of cement can add new characteristics to tiles.

Strong & heavy
Cement makes the tiles not only stronger but also heavier. This is desirable for flooring tiles but not wall tiles.

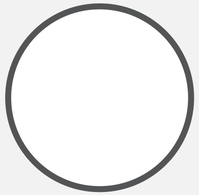
Slow production
Cement as a material takes lot of time to cure which makes the manufacturing process tedious.

Conclusion

Reduction of cement can speed up curing time and reduce weight of the tiles.

Cement

+



Additive

Additive - Cellulose

Why cellulose ?

Cellulose is a mixture of recycled paper and corrugated cardboard.

Abundant

Widel available

Workable

Existing values/properties

Visual aesthetics

Bharat Floorings & Tiles caters to all the needs including visual aesthetics of a customer.

Thermal insulation

Cement tiles are good thermal insulators but reducing cement can affect that aspect. This characteristic can be elevated.

New value addition

Acoustic insulation

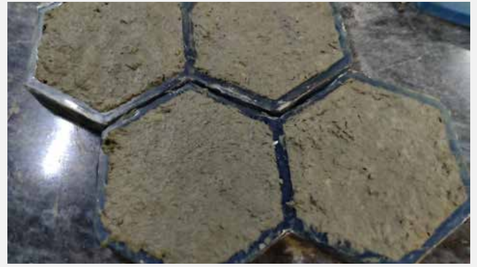
Cellulose provides both acoustic and thermal insulation.

Proof of Concept

Weight of 1 tile- 166g

Samples

Process Images



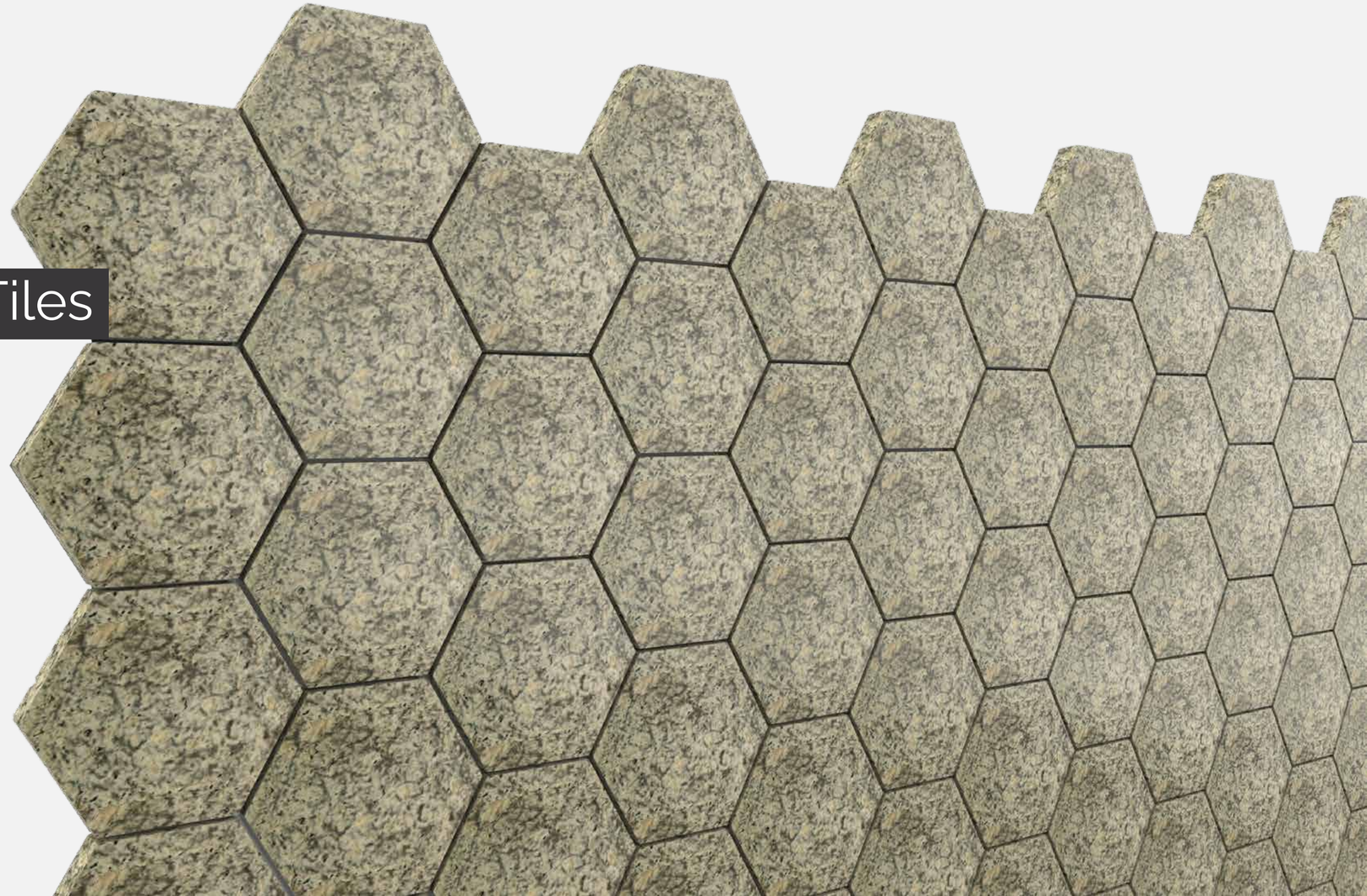
New Range of Wall Tiles

Light in Weight

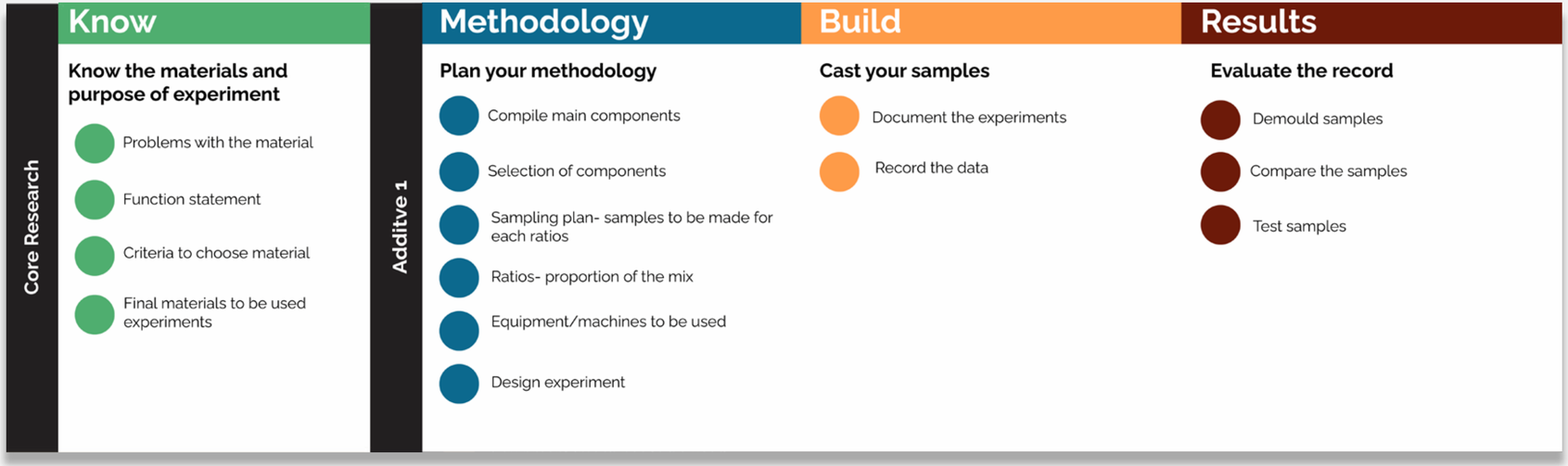
Strong

Thermal Insulation

Acoustic Insulation

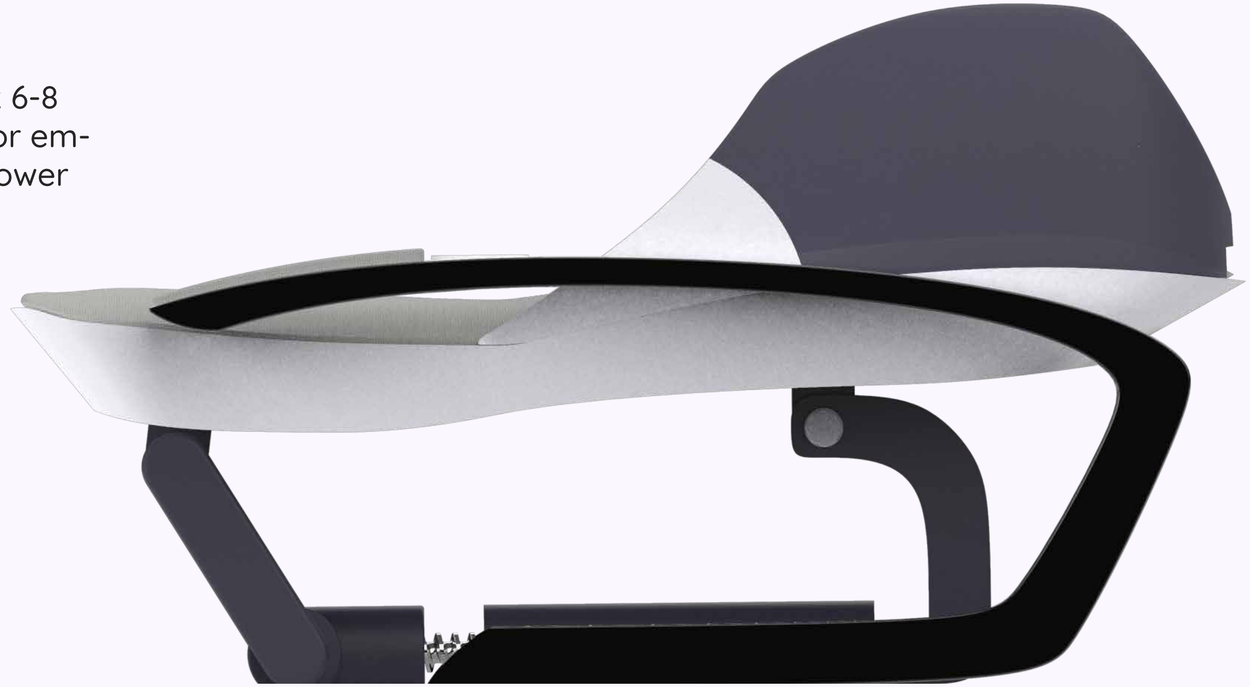


Material Design Process



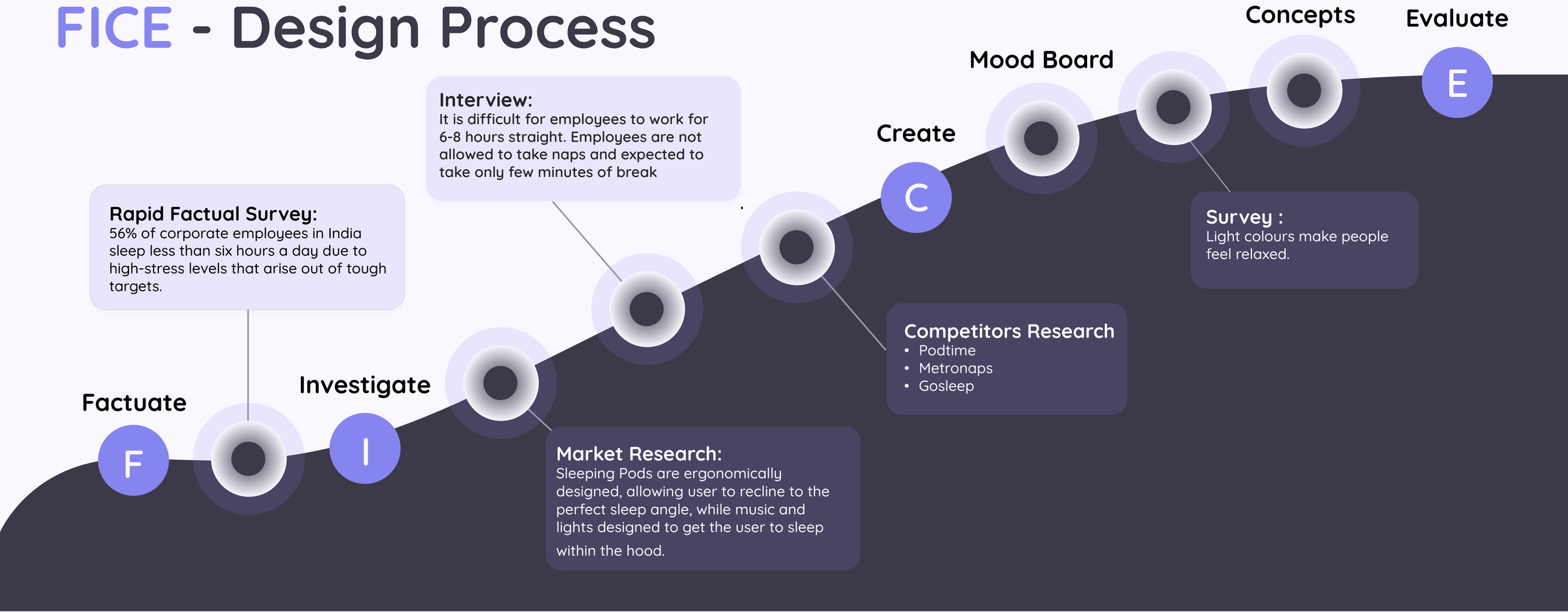
Sleeping Pod

Stress is a huge factor for errors in work because they are expected to work 6-8 hours straight. An average employee can’t focus for so long. Sleeping pod for employees to enable them to focus better for long hours by taking a 23 mins Power Nap.



May 2019

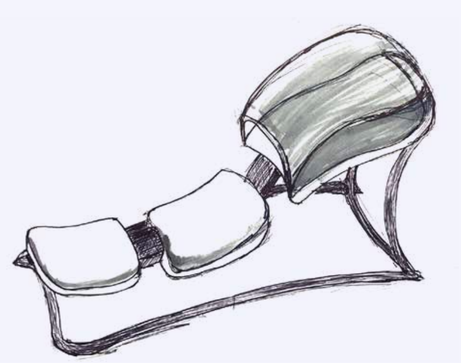
FICE - Design Process



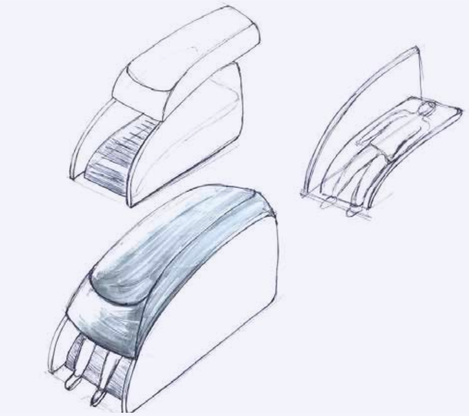
Concepts

There are various to power nap for employees in the offices that but most suitable ones are lying down to relax the spin.

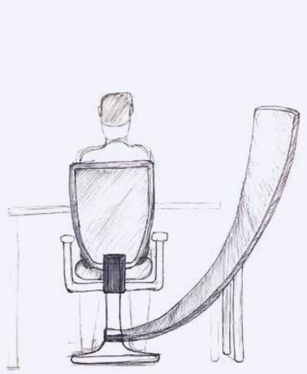
1. Reclined Posture



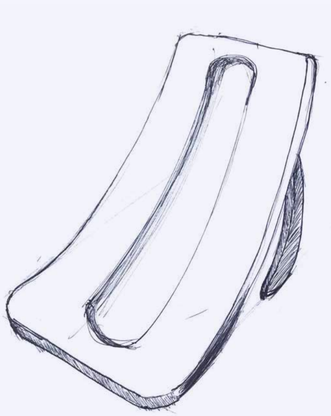
2. Sleeping Pods



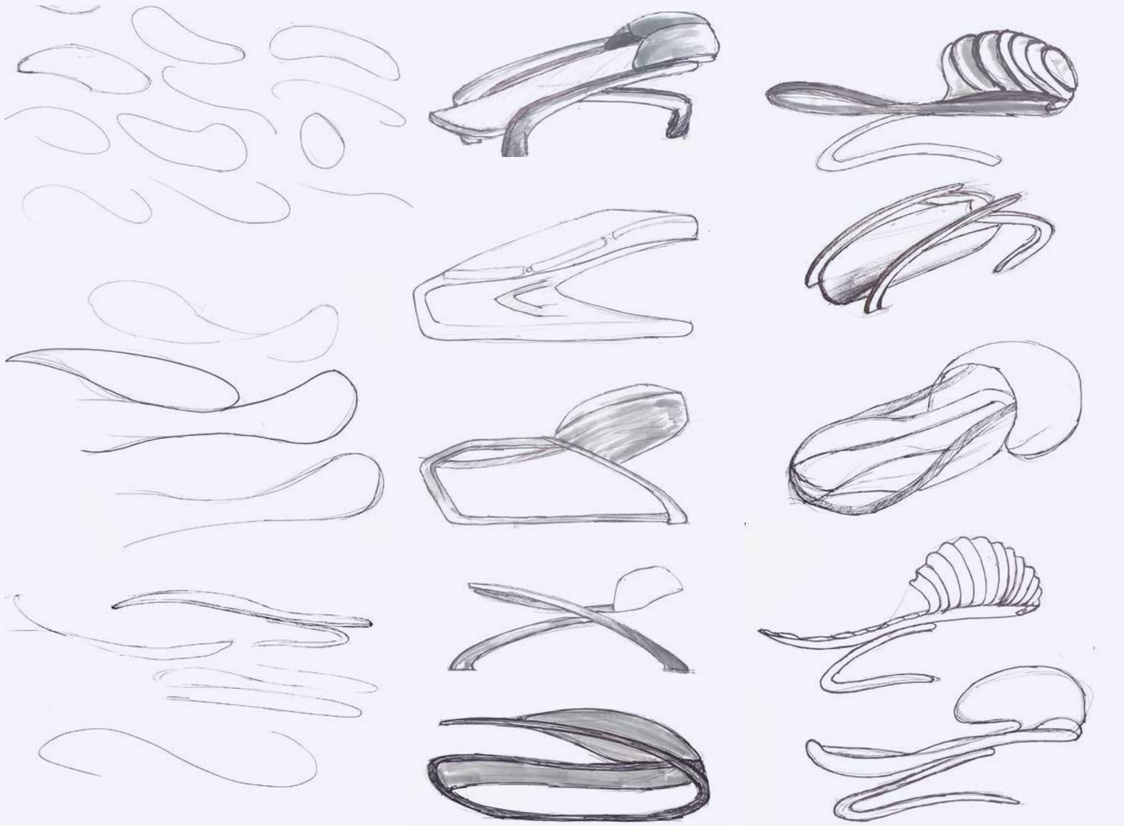
3. Chairs & Seats

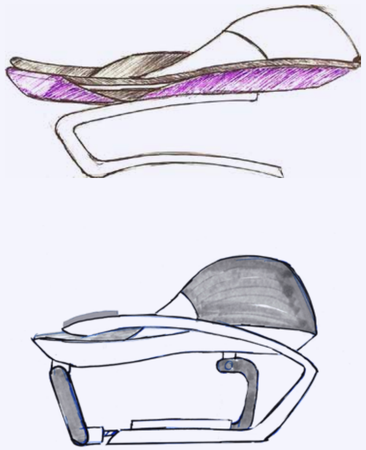


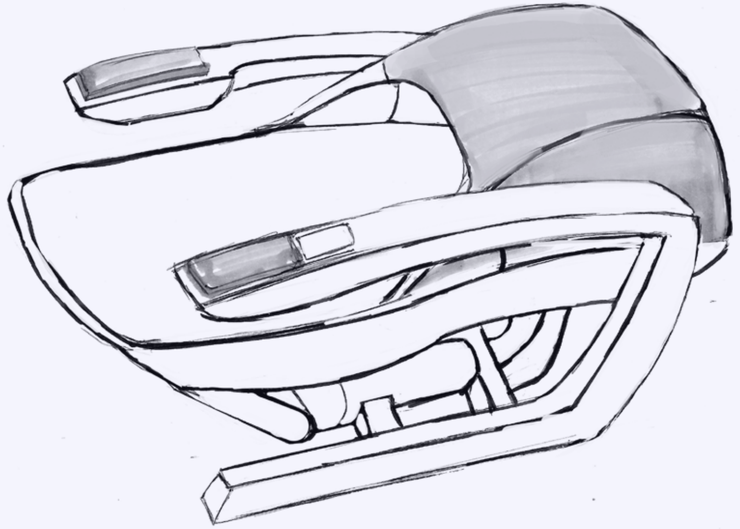
3. Leaning Posture



Form Exploration

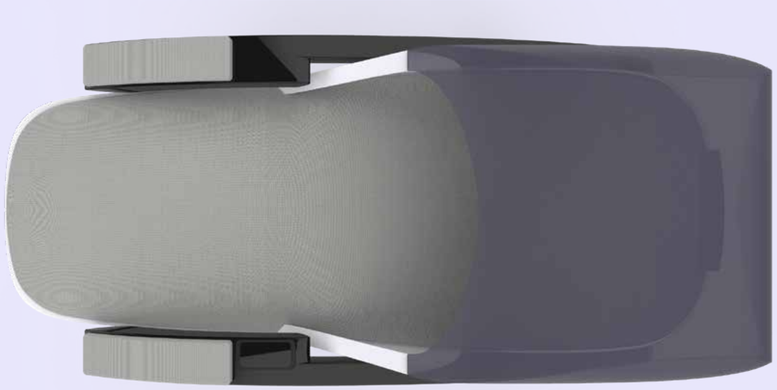






Power Naping

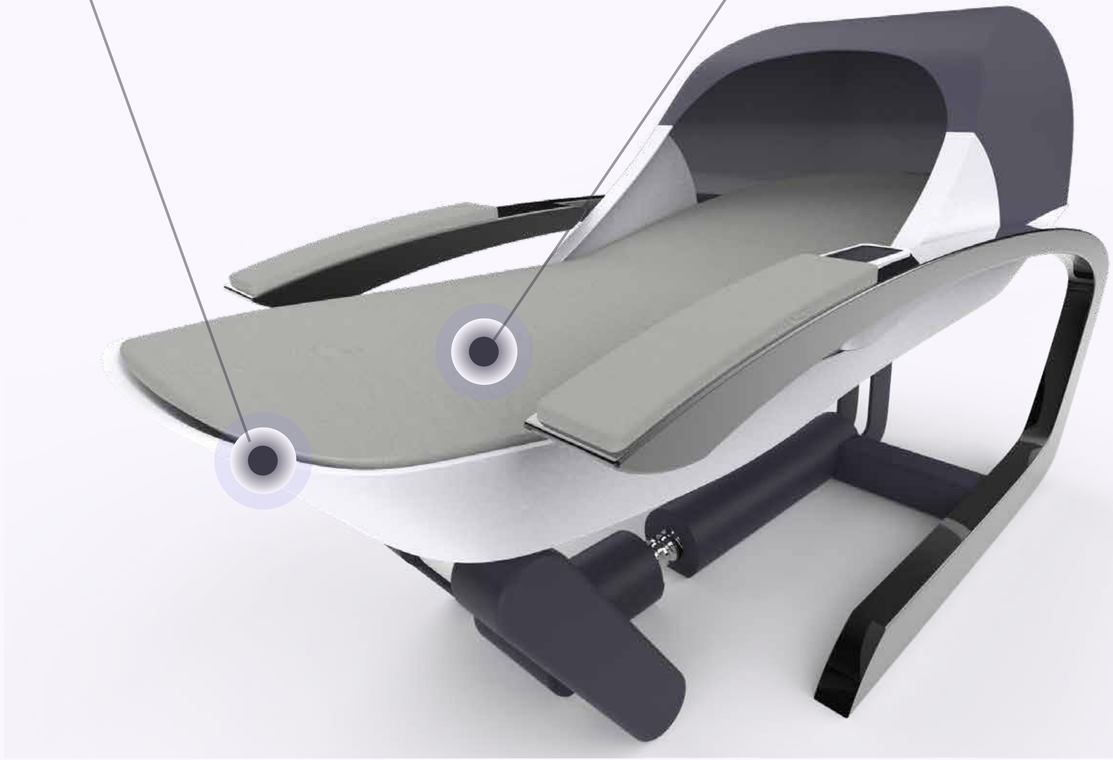
Naps can restore alertness, enhance performance, and reduce mistakes.



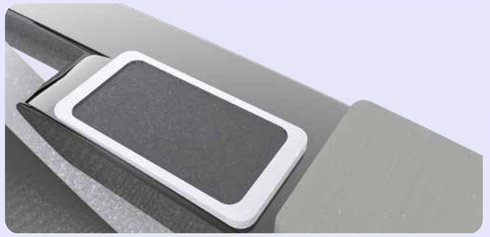
White Noise
Low, medium, and high-frequency sounds played together at the same intensity

Bed
Support during back sleep is re Commended by medical institutions. Neck, back and knees require supports for a proper back sleep.

Temperature
The best temperature for optimal sleep is between 60 and 67 degree. Bed keeps the conditions ideal for a nap.



Process

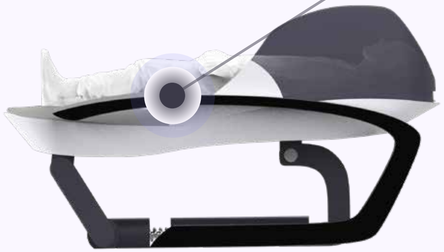


Touch Interface
Touch controls to start the timer and activate the nap mode. NFC support to track employee usage.

Powered On

Once powered On the Pod will tilt down. Then the person can be ly down.

Ready/Stand by



Then pressing Start on touch interface will start the sleep cycle and adjust environment.

Started Nap

Naps can restore alertness, enhance performance, and reduce mistakes.

Splint

A supportive device for Cerebral Palsy patients which provides them with grip to hold objects and aids muscle tone variations.

Group Members

Callum Gonsalves
Prashant Tare
Sanath Desai
Tanvi Gosalia
Urvi Thakker

Dec 2018

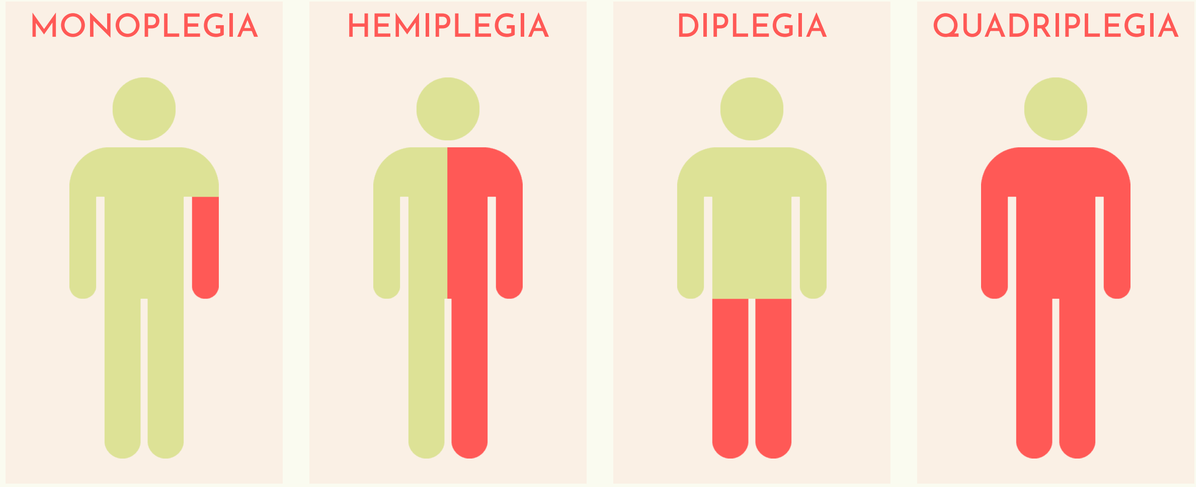
What is Cerebral Palsy (CP)

Cerebral Palsy isn't a singular condition. It is a family of disorders caused by abnormal brain development which affects a person's ability to move. Weakness or problems in body movements, affects the brain, muscle movement and coordination.

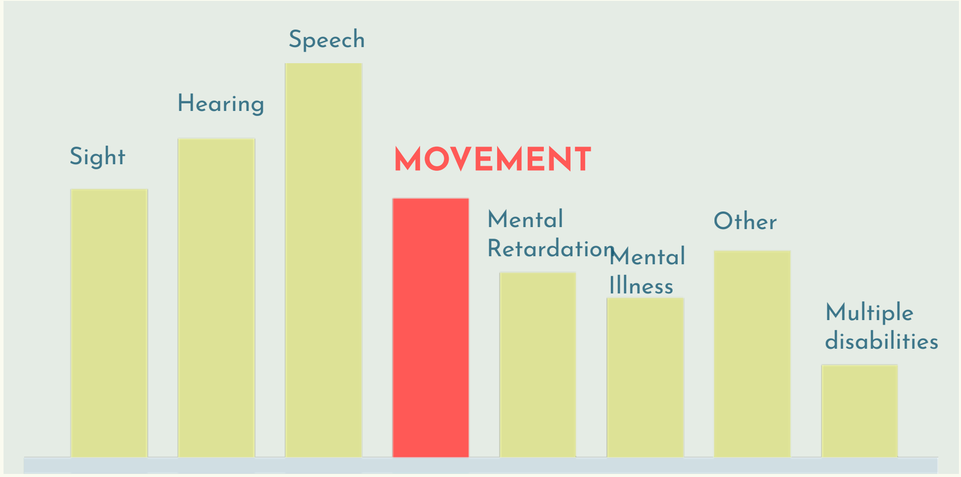
Spastic Cerebral Palsy

Spasticity refers to increased muscular tones. In case of spastic CP, damaged regions of the brain send signals to the body that result in involuntary movements, stiffness and mobility impairment.

4 Types



Job opportunities among disabilities



DISABLED POPULATION BY TYPE OF DISABILITY IN INDIA - CENSUS, 2011

Spastic Society Of India

Specially-abled face many challenges including employment. Employment rates are very low for them and more so for Cerebral Palsy patients which fall under the category of movement and mental disabilities.

The **SPASTIC SOCIETY OF INDIA** is a school to help them complete their education despite their hurdles and sponsor treatments for children who can't afford it.

Cerebral Palsy Patient

MONOPLEGIA

Only one hand affected

Handicapped
Spastic
Telephone operating
No intellectual problem
Eyesight problem

ASHUTOSH

Ashutosh has spastic cerebral palsy who is training to be a telephone operator at SPASTIC SOCIETY OF INDIA . He is learning to answer calls and interact with people.

Empathy Map

Say

- Asking for the number / Remembering the number
- I want to be a telephone operator & talk to people. I hold the
- receiver in one hand and dial with the other.

Feel

- Confident in listening and dialing number
- Lonely
- Uncomfortable while transferring the call

Do

- Dialing
- Sitting Idle
- Receiving and transferring calls
- Noting down information

Think

- Is it the right number?
- Thinking about the next call/ wondering what others are doing.
- Who does he have to transfer the call to?

Pain points

- Unable to note down information on his own
- He needs assistance
- Faces difficulty while transferring calls, holding receiver in one hand, dialing from other.
- Lonely when idle

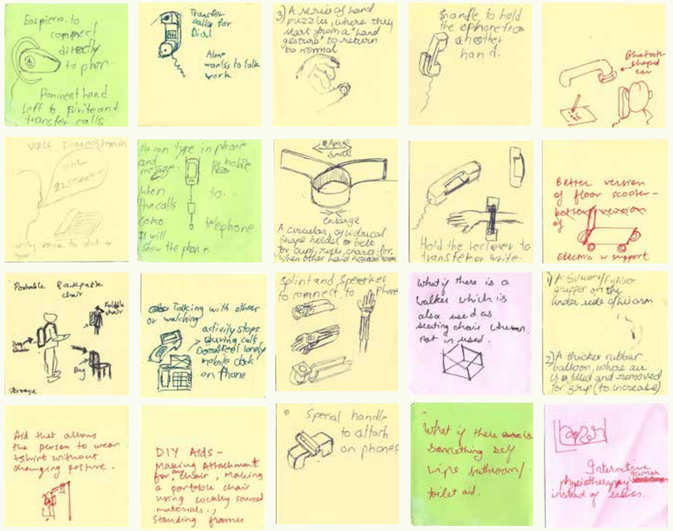
Gain points

- Brightens up when he is dials someone
- Confident after transferring call
- Confident to listen & dial the number

Ideation

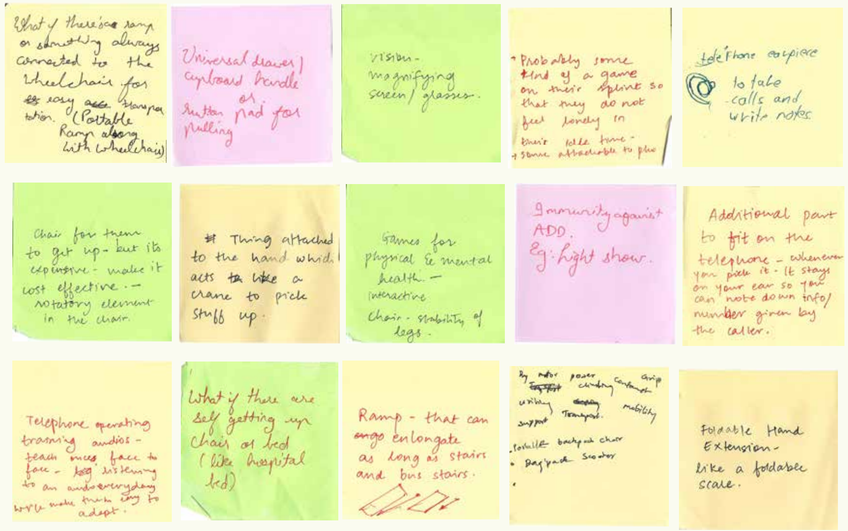
Human locomotive aid which helps to lift or grip objects and complete bimanual tasks for people suffering from monotonic (one hand functioning normally) form of **Cerebral Palsy.**

#1 Ideation



#2 Ideation

#3 Ideation



Dirty Prototyping

Cerebral palsy patients wear splints to reduce muscle tone variations and impairment. Conventional splint support the muscles and posture but limits hand movement. However, the muscles movement have to be allowed to do manual task.

Prototype 1

This locomotive aid enables CP patients to move their hands much freely. It has suction pads which help them grab or hold objects.

Prototype 2

Molded to fit the shape of a straight hand. Enhances posture of the hand

Mockup Testing

Prototype 1

Benefits

Soft foam give comfort.

Improvements

Needs stiffness

Prototype 2

Benefits

Allows movement
Provides grip
Perfectly stiff

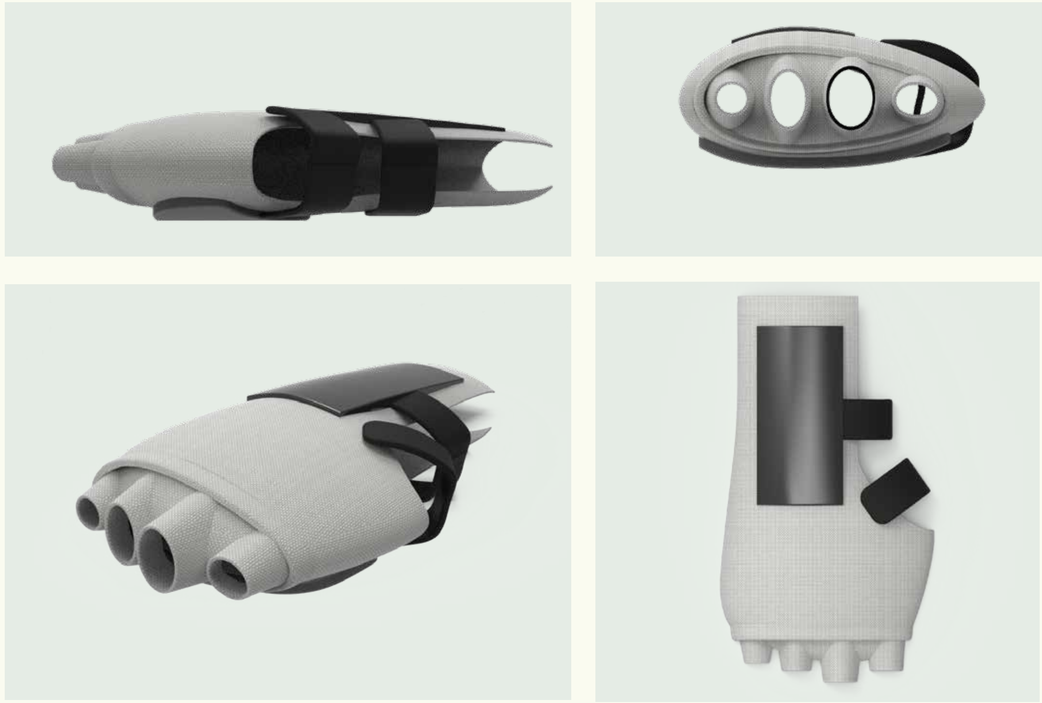
Improvements

Wrist extension
Cousions
Adjustable fitting
Finger separation

Final Concept

Functional Prototype

Digital 3D Model



E- Cafe

1 E- Cafe is an IOT based coffee machine(consumer electronic product) which is portable, brews espresso comparable to other automated machines and prototyped using Arduino Board.

2 App which can enable interaction between the user and the coffee machine.

Dec 2018 & May 2019

A good coffee depends on?

Coffee Beams

Quality of the beans and how well they are ground.

Type of coffee machine

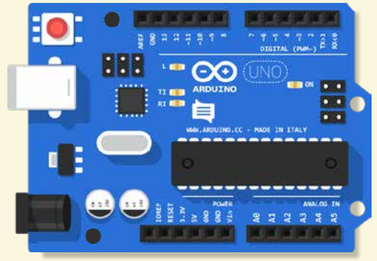
Espresso machines in Cafe' use hot water and pressurized steam to brew coffee.

Temperature

Right temperature to consume coffee is around 70°C to 80°C.

How does a espresso machine works

A espresso coffee machine generate steam using a **heating mechanism** and forces out water up to **7-9 bars** through the **portafilter** which is packed with coffee beans.

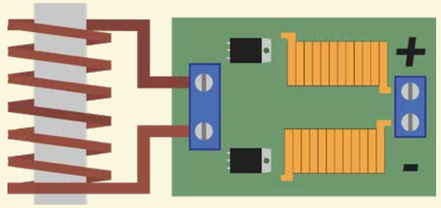


Micro-controller(Ardiuno)

Micro-controller processes all the inputs given by the user and controls other components to brew the coffee beverage that user orders.

Portafilter

Portafilter is the most common component in manually operated coffee machines.



Heating coil

The water flows directly into the into the heating mechanism (thermostat) and heats up the water to generate steam.

Persona

Based on interviews there are three type of coffee consumers. These users don't own a coffee machine due following reasons:

"Too expensive" "Confusing to use"

"Difficult to wash and maintain" "Not enough space"

Pratik

Age: 31

Gender: Male

Occupation: Entrepreneur

Frequency: 4-5 Cups a Week

Doesn't make Coffee at home

Doesn't own a coffee machine

Shruti

Age: 19

Gender: Female

Occupation: Student

Frequency: 1-2 Cups a Week

Makes Coffee at home

Doesn't own a coffee machine

Ravi

Age: 27

Gender: Male

Occupation: IT Programmer

Frequency: 25-30 Cups a Week

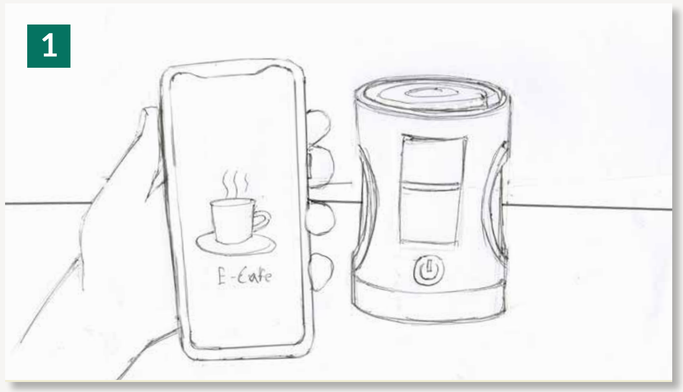
Makes Coffee at home

Previously owned

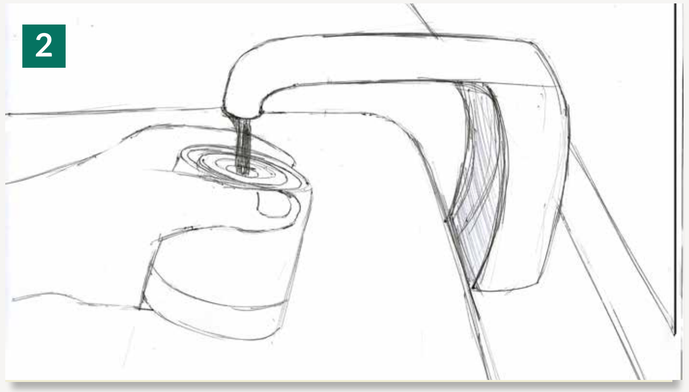
Interaction

The coffee machine must be simple to use and easier to clean after every use. The device should have easy steps to brew.

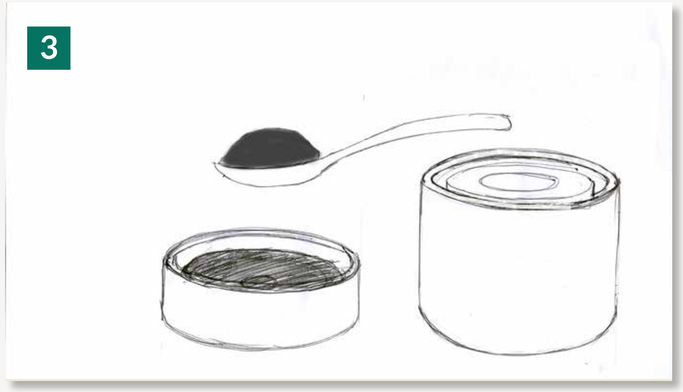
Setup device using an App



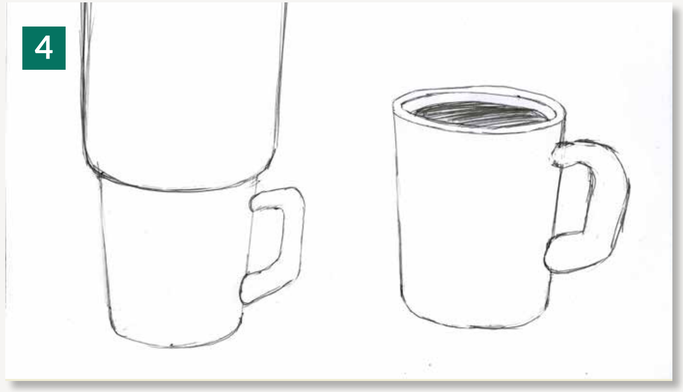
Fill water



Add coffee powder/beans



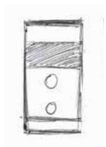
Brew coffee



Form Exploration

Coffee machine must be ergonomic to hold, viable to manufacture and firmly rest on a mug.

1



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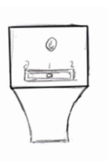

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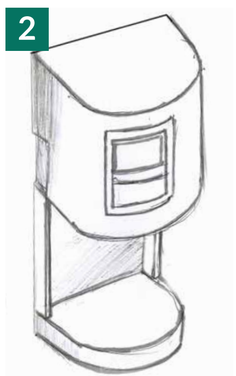

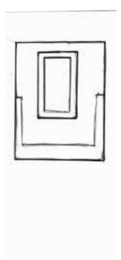

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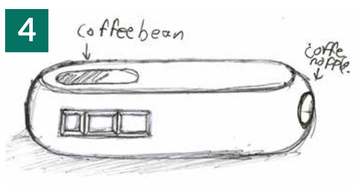

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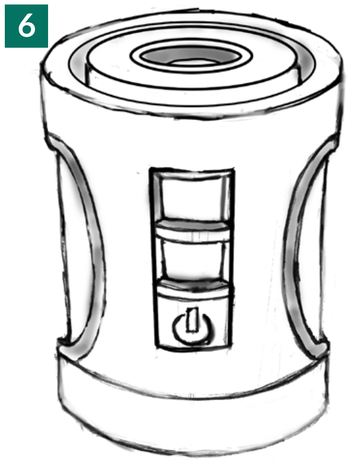
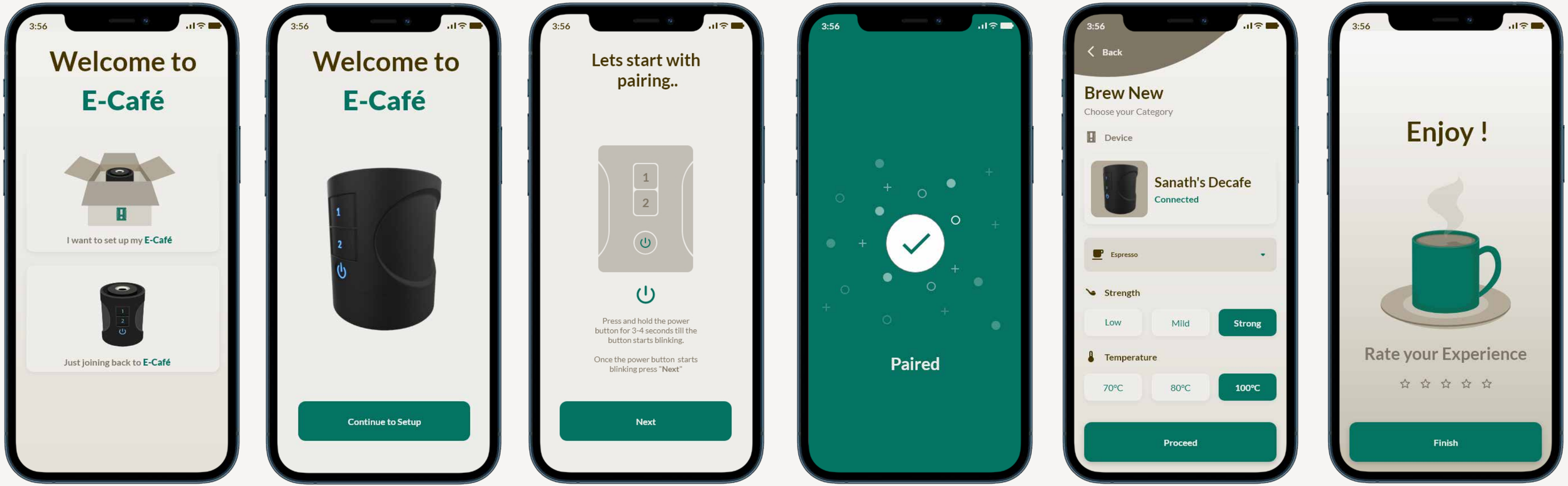


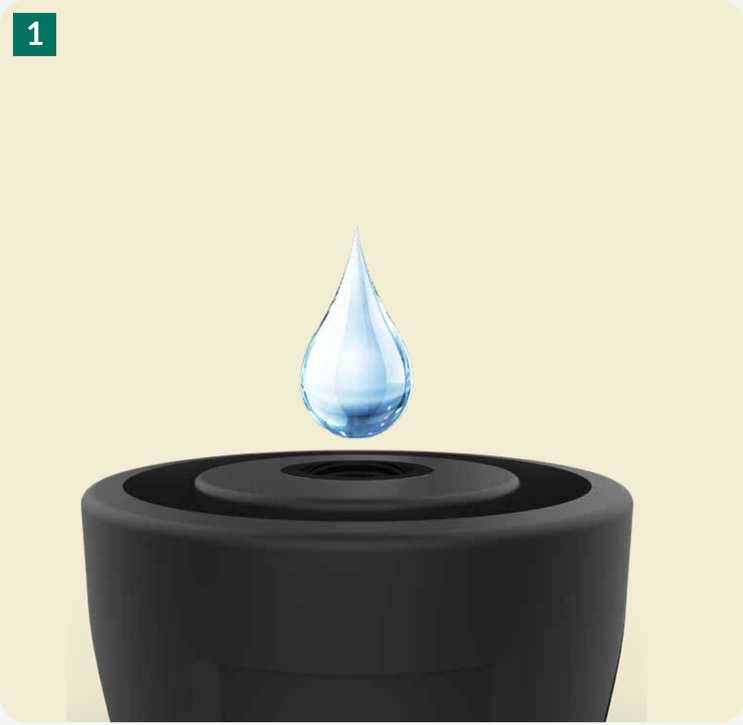
On-boarding Process



Final Product

Fill water

Twist and remove the top and fill it with water



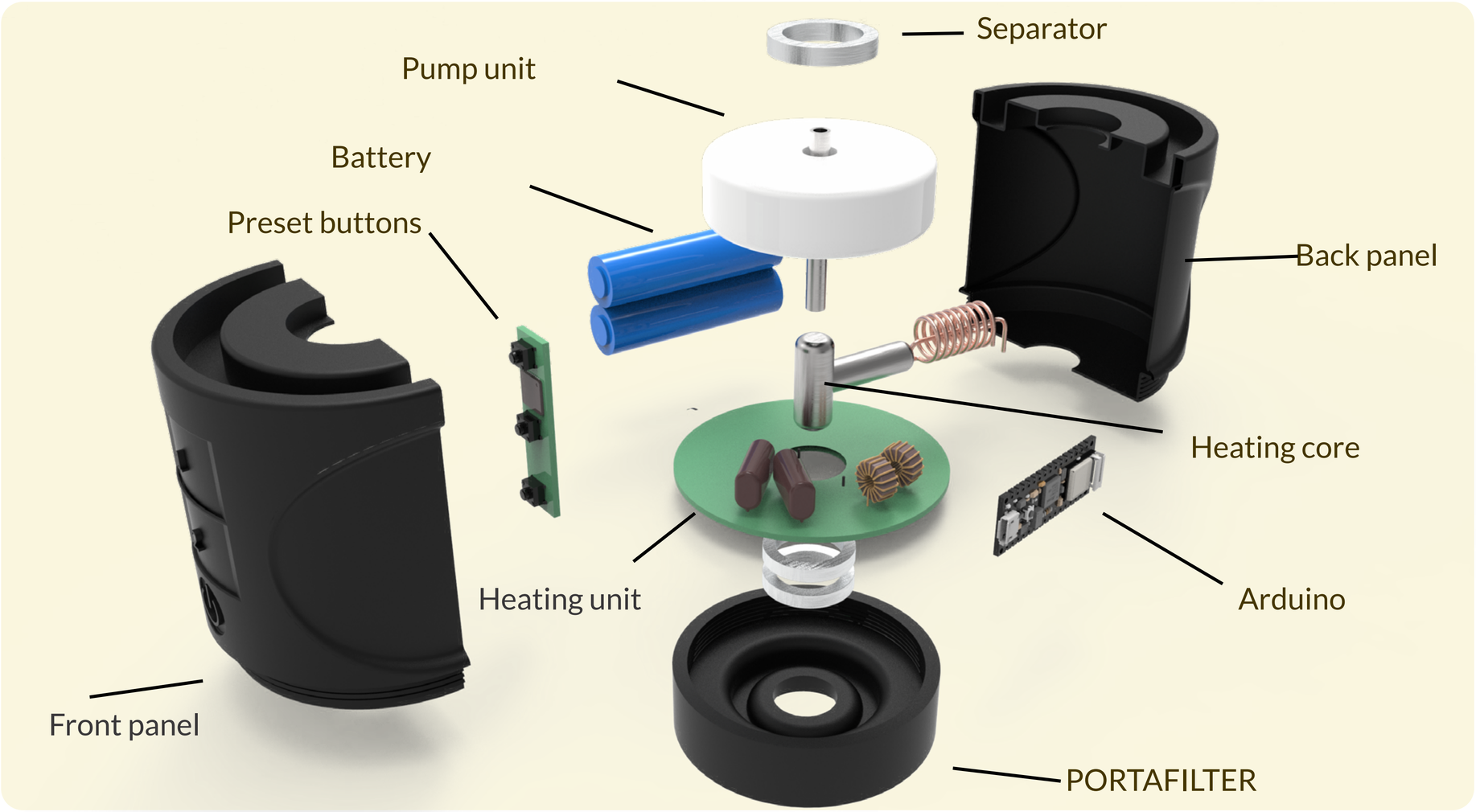
Fill coffee beans/powder

Twist and remove the bottom cap. Fill the cap with coffee beans or powder.

Brew it

Place it on the cup and press the 1st preset button and brew a cup of coffee.

Exploded View



Internship Project with Studio Chisel

Client: Photographer

June 2018

Brief

To Design a case that hold a printer and extension board for customers to take pictures and print or share them on the spot.

This is a movable photo machine which can capture and print photos on the spot.
This system is assembled and setup on the venues.

Events

Weddings

Parties

Birthday Parties

Observation

Printer is heavy and needs power

Client carries equipments

Printer opens outwards to load paper

Wire management is needed

Mobility:

The case should be easy to move around.

Sleek and Easy Design:

Case should be compact.

Aesthetics:

The form should be pleasing.

Grip:

These printers are heavy and so be easier to lift.

Space:

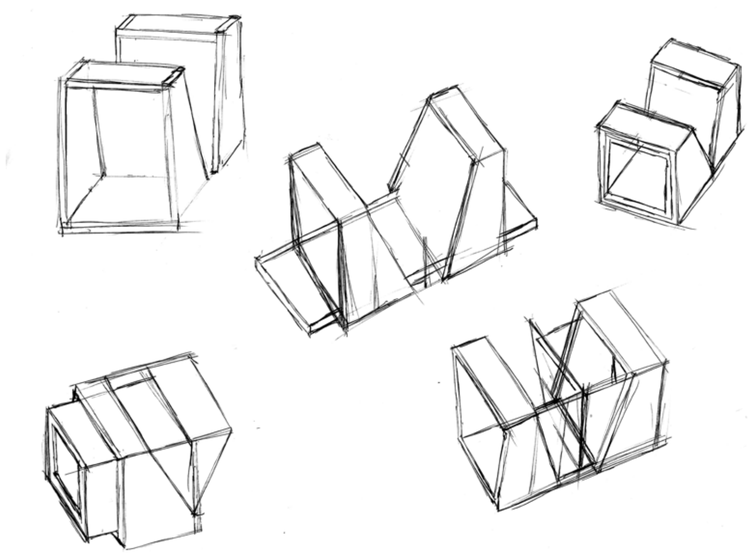
The case should have space to manage wiring.

Easily Manufactured

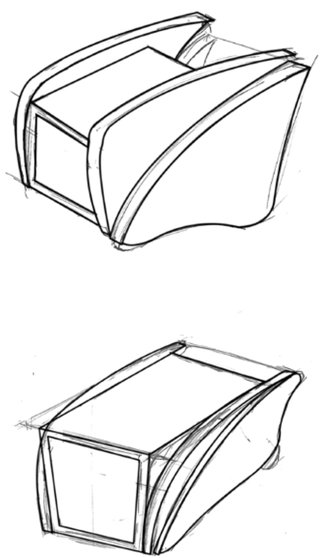
The case should be easier to make if more required in future.

Forms Explored

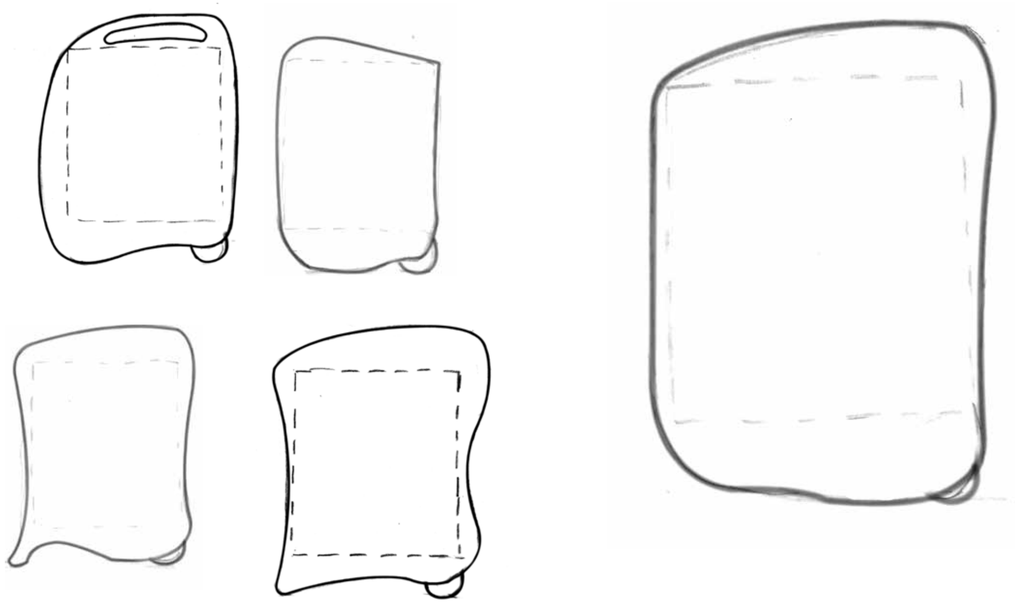
Basic Frame



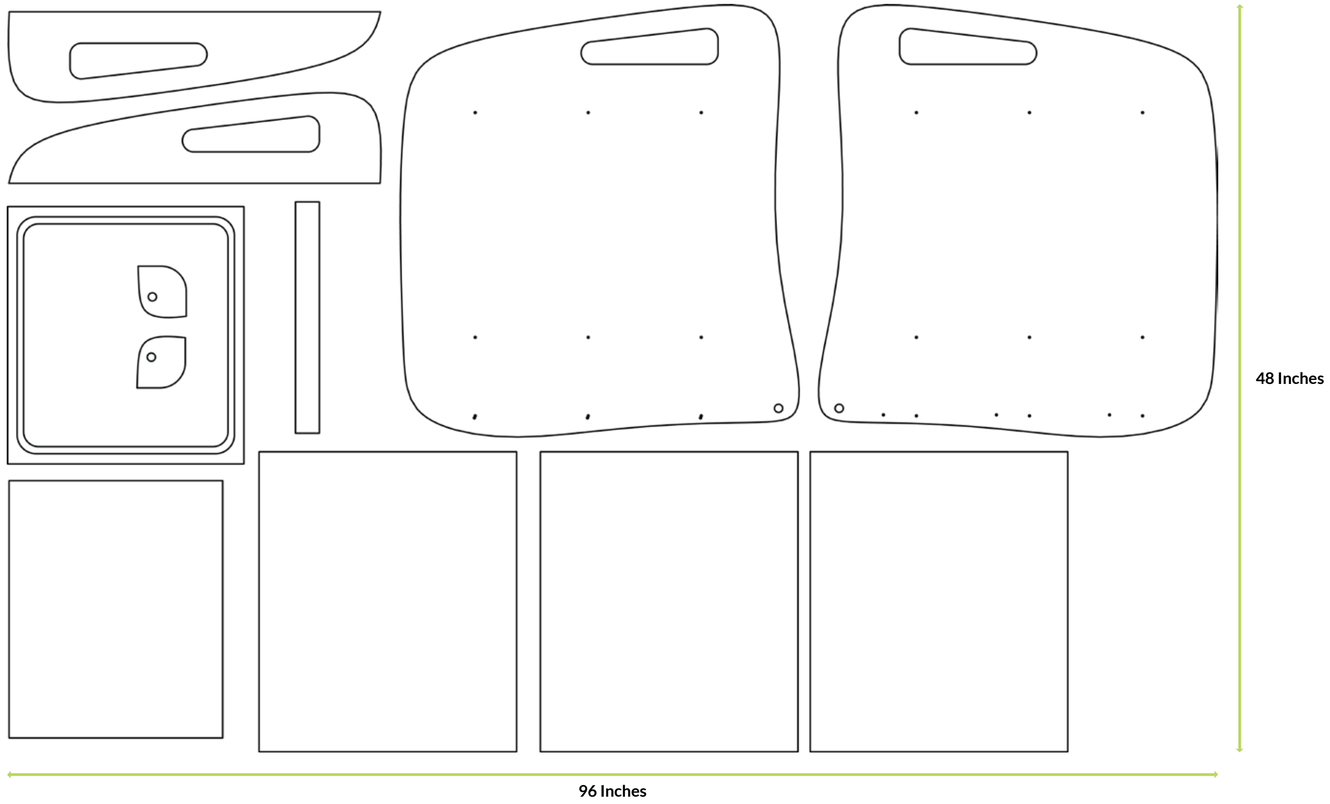
Form Style



Side Profiles



CNC Mock up



Space

Space for keeping the **power cords with a** space for extension cord.

This will help in managing **the cables.**

Easy to Open

Opening door to load printing papers in the printer and easy to clean.

Grip

Handles help in lifting the printer while transportation with other equipments.

Mobility

Wheels

The wheels gives mobility to the product and convenient to carry it around.

Button

The Button enables extension of the handle to suitable height.

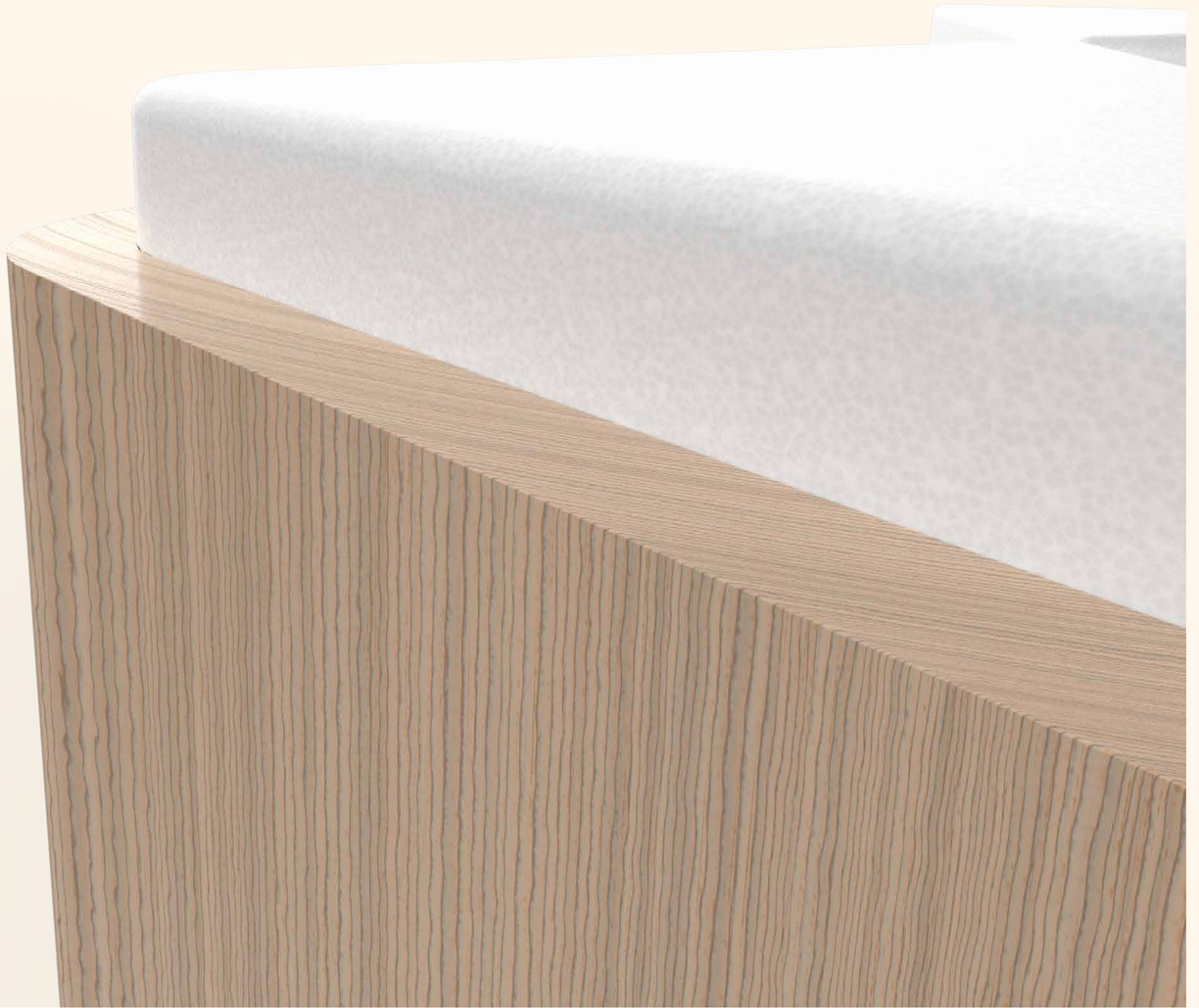
Handle

The Handle makes it easier to drag the case.

Fridget

A seating furniture which can be used as a storage closet and tea table for congested apartments in Mumbai.

May 2018



Problem statement

Furniture at home are used differently across many home and spaces in Mumbai are cramped.

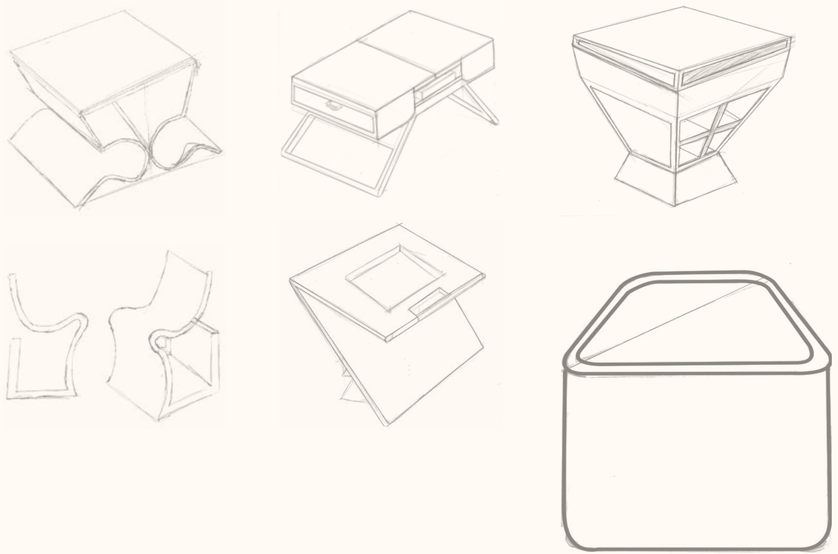
Clutter can negatively affect the space.

Various use cases require multiple configurations.

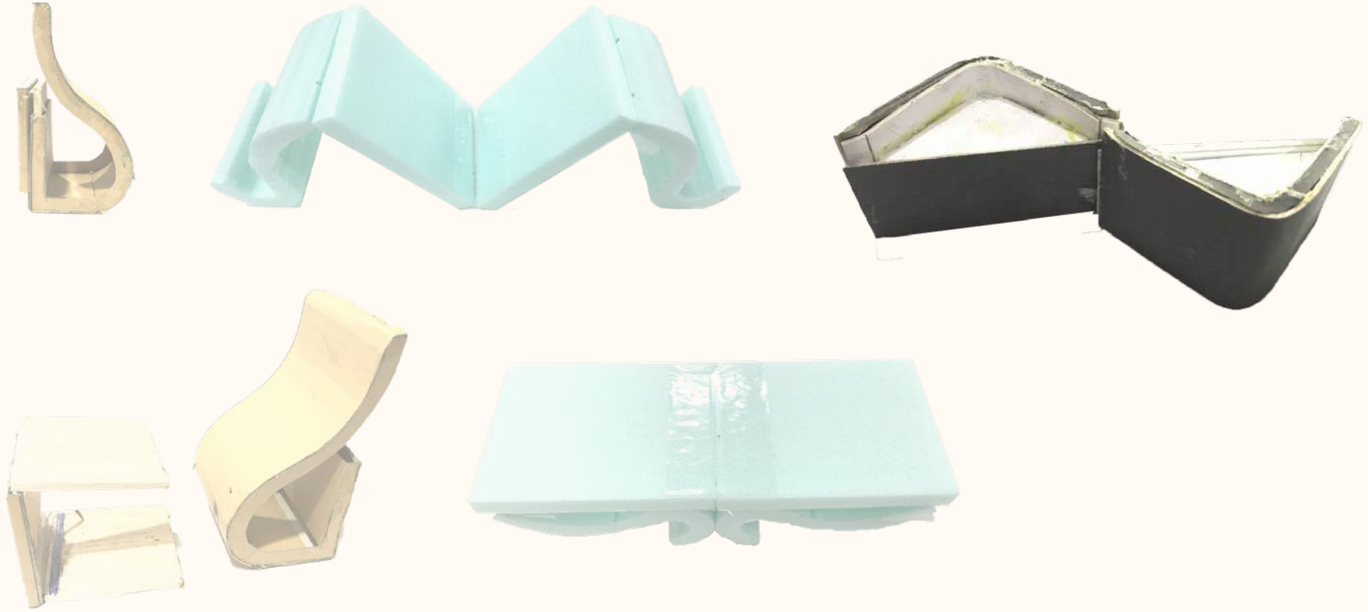
Use cases in Mumbai houses:
Table - for meals and food
Storage - for regularly used items
Seating - for guests and occasion

Concepts & Paper Prototypes

Concepts



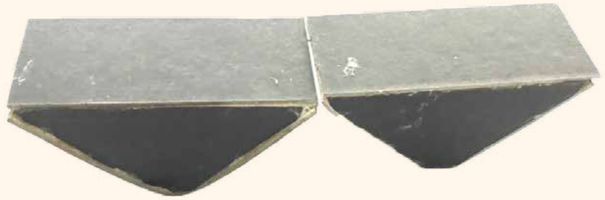
Prototypes



Configurations

Three specific configurations are cater to most common use cases.

Tea Table

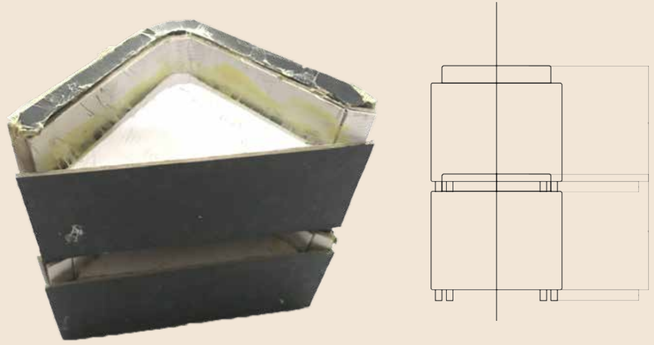


Tea table are mostly needed during snacks and meals. Later they can shift to other configuration to fee up some space.

Seat

Seating configuration can be utilized for guests that come in for temporary visits.

Storage Closet



Storage configuration that can utilize the spaces in the corner for longterm usage.

Freedom of Usage

User are provided the freedom to use their furniture in different ways without compromising space which reduces clutter and improves the space.

Tea Table

Seat

Storage Closet

Final Product

Three configurations that

Thank You

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