
PORTFOLIO 20 21

Drishti Thawani

Industrial Design



DRISHTI THAWANI

INDUSTRIAL DESIGN STUDENT

AHMEDABAD, INDIA

I'm

An Undergraduate student pursuing design education in the field of Industrial Design (Semester VII). I am a keen learner, having positive and committed attitude towards work. I love to go on a trip, explore new places and food, being with nature, listening music and working with materials

CONTACT



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drish.art_studio



EDUCATION

St. Xavier's High School, Hansol

Senior Secondary Education | 2015 - 2017

Institute of Design, Nirma University

Semester VII | December 2021 - ongoing



WORK EXPERIENCE

DrishArt Studio

Owning a Business from 3 years

Home Decor and Lifestyle Brand

Making Handcrafted Home decor products and Accessories using different materials and concept.

NGO Manav Sadhna

Summer Internship 2019

Working with other volunteer's for the children's creative projects.

Curio Design

Summer Internship 2020

Working with the material Leather and creating a Bar Tray and Coaster.

Shades and Shapes Studio

Summer Internship 2021

An Interior Design firm. Designing Display units and layout for a project to display and exhibit Electronics product at different existing stores.



OBJECTIVE

- Exposure to Professional Life
- Bring Knowledge into practical life
- Learn and imbibe new things to reach at echelon in the career



SKILLS

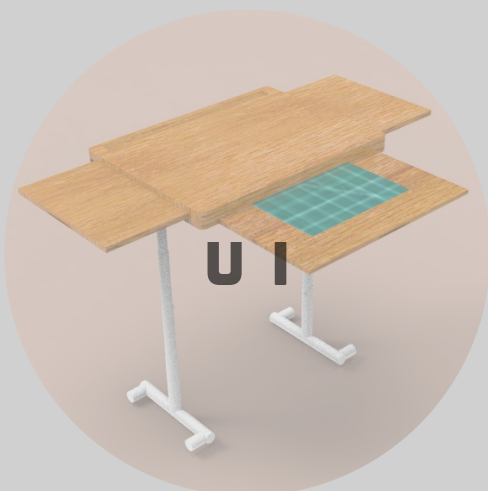
SOFTWARE SKILLS

- Rhinoceros 3D
- Keyshot
- Autocad
- Adobe Photoshop
- Adobe Indesign
- Adobe Illustrator
- Sketchup
- Sketchbook

ANALOGUE SKILLS

- Sketching
- Prototyping
- 3D Modelling
- Research
- Concept Ideation
- Geometry
- Photography

CONTENT



Working Table



Stool Easy Bed



Photography Exhibition



Cloth Clip



Spinning Top



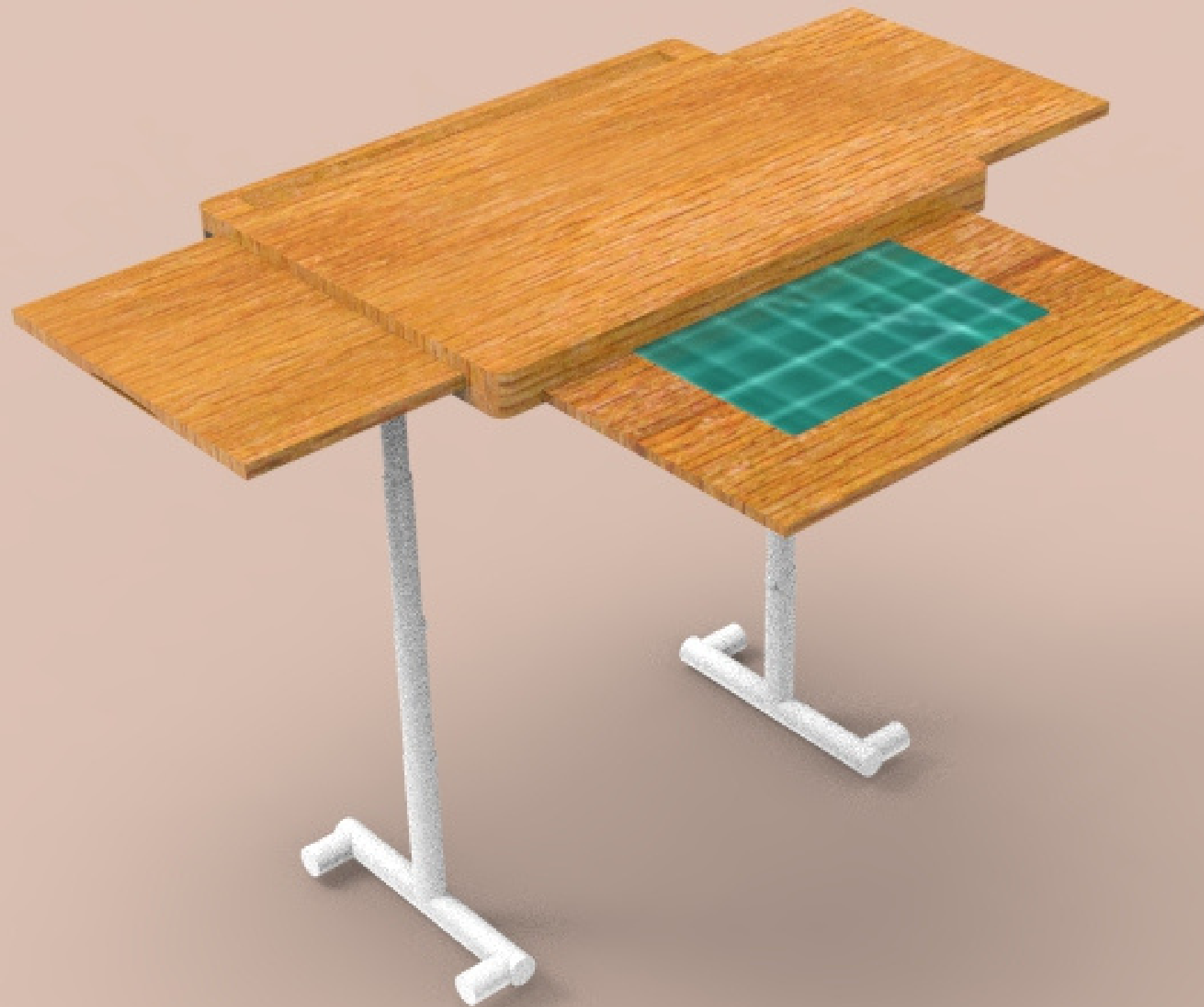
Spot On - The Game



Packaging Design



Other



Study Table

Designing a working table for oneself keeping in mind all the tasks that are done by me on the table and requirements related to that.

REQUIREMENTS

Material requirement

- Easy to manage and clean
- Strong and Lightweight

Function Requirement

- Wide so that each material placed on it is visible yet compact.
 - The size should be such that A3 size sheet and model of around that size can be kept on it.
 - The material in it should remain organized
- i. Sheet should remain flat and should not get dirty
- ii. Attach Cutting mat

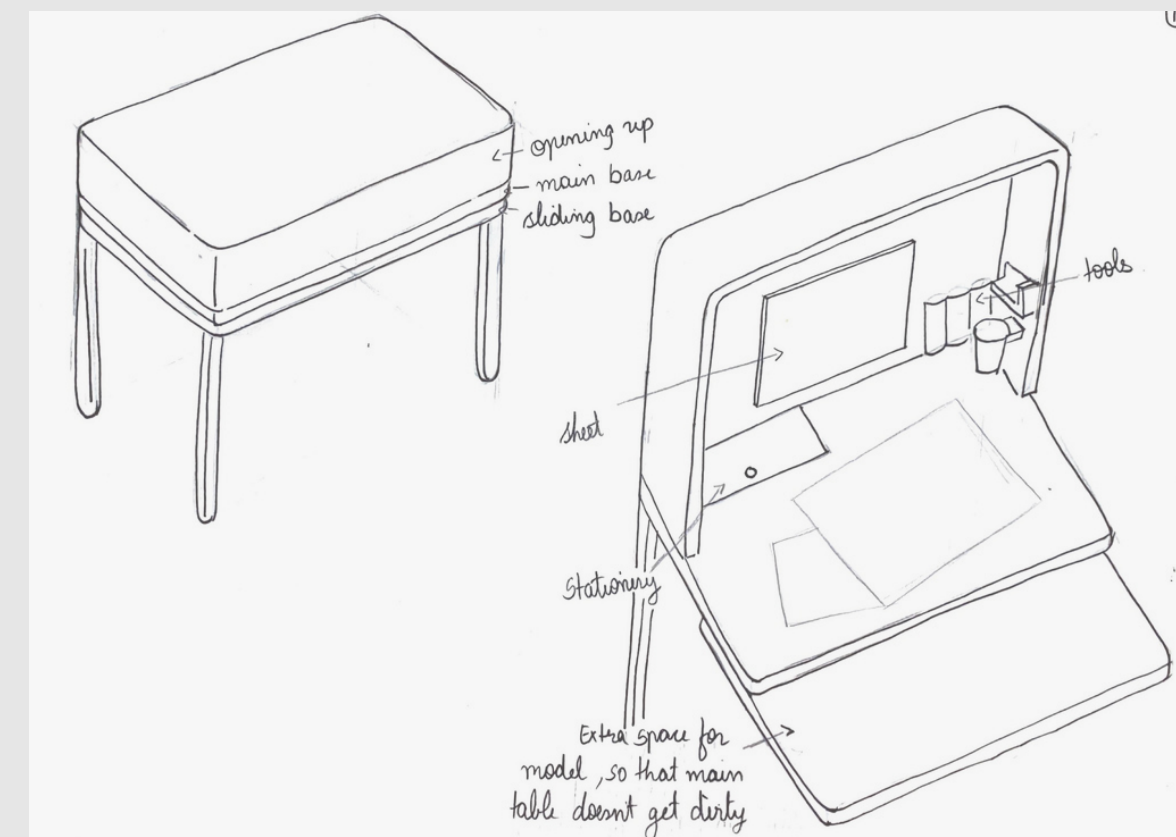
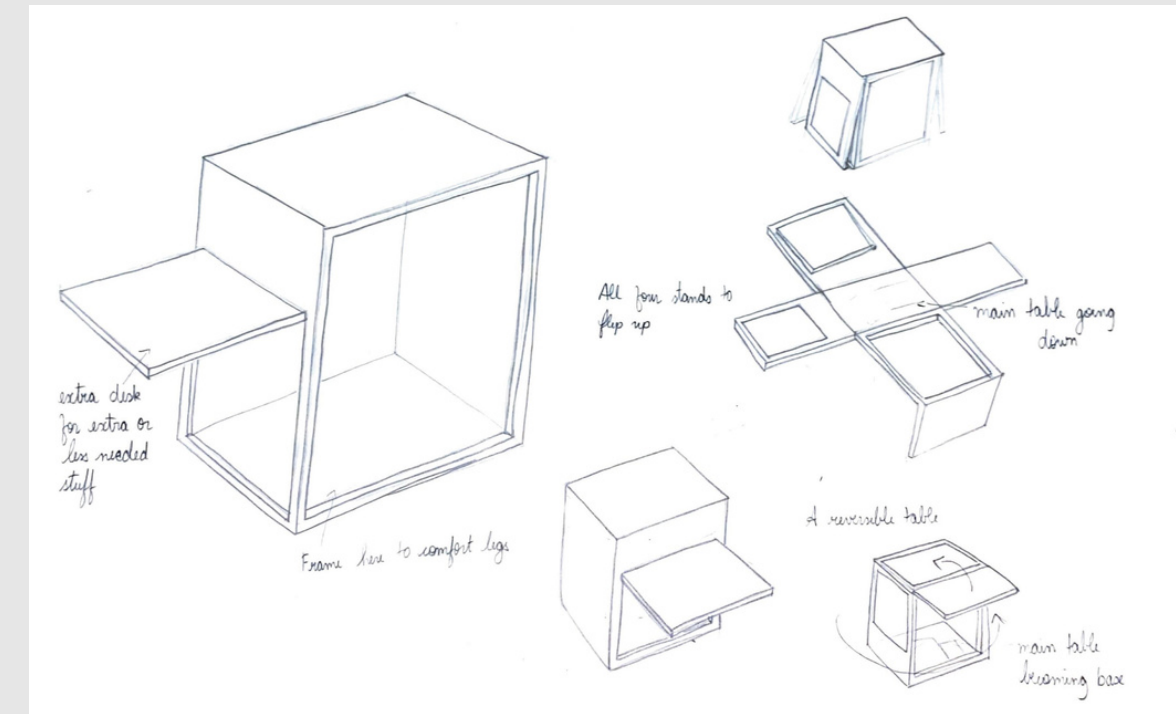
Aesthetic Requirement

- Should go with the space of house
- Should look pleasing and good when kept- not an awkward different thing around.
- Not bulky

Details

- Edges should not be sharp
- Smooth surface
- Flat surface
- Rectangle or square in shape – as the sheet is rectangle and also the laptop so that will make design compact.
- Comfortable size and everything easily accessible - ergonomically correct

IDEATION



DESIGN BRIEF

Designing a piece of furniture which eliminates the task of setting up the materials each time before starting the work and clearing the space in the middle of work.

Context

Place- Home

User- Me, Student of design

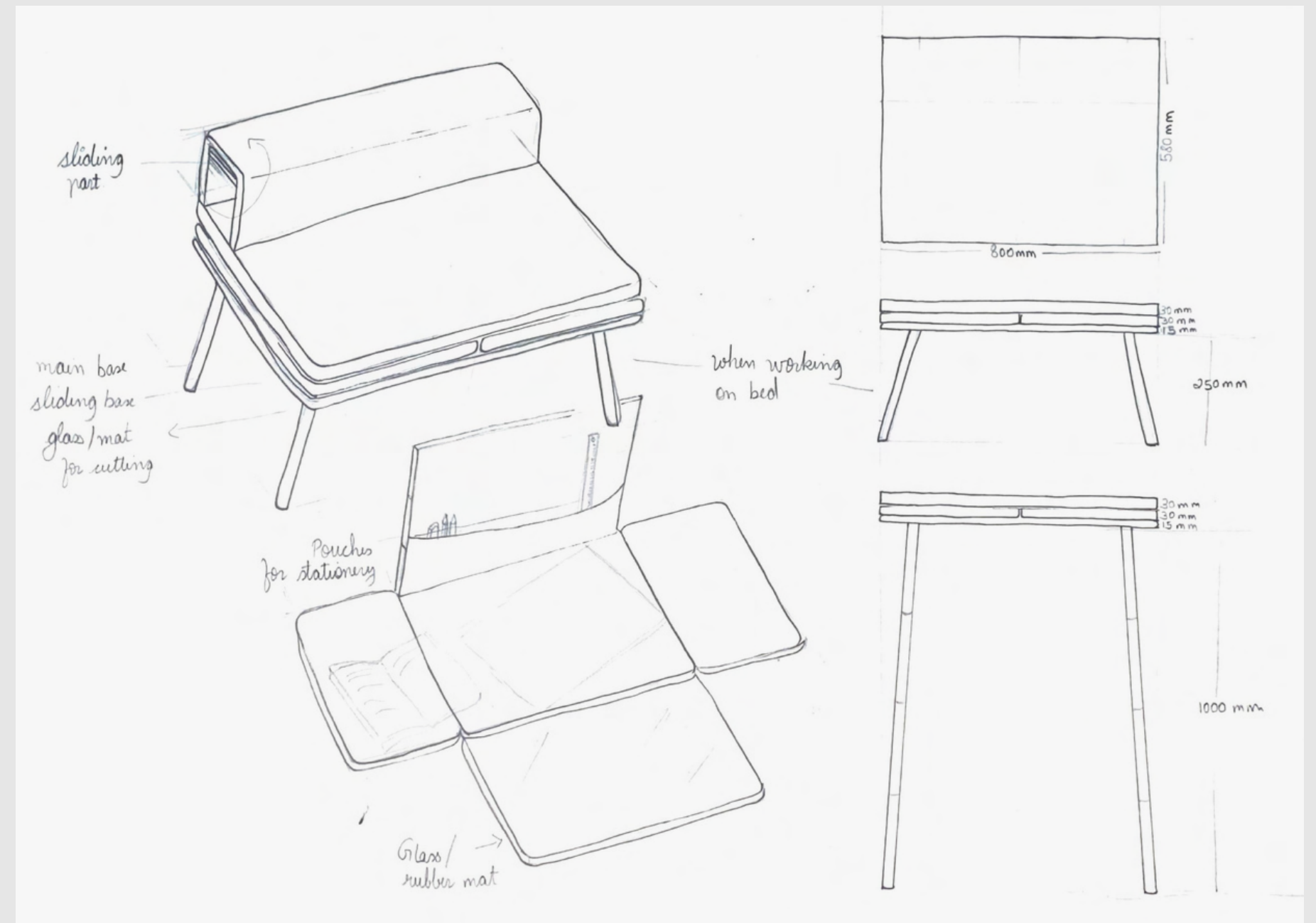
Task- Researching, Sketching, Taking Notes, Online discussion with faculties and classmates through different medium, Making models.

CONCEPT

A table which can be used on bed and also can be extended and used as a regular table, having 3 slider making it wide yet compact, with a basic stationery storage space.

3 layer wood having a Main base and three layers of sliders.

With extended legs, which make it easy to adjust the height so that it can be used on bed as well as the regular table.



Material

Plywood - Strong, Durable and easily available

Steel Telescoping channel- Hard and available

PROCESS OF MAKING

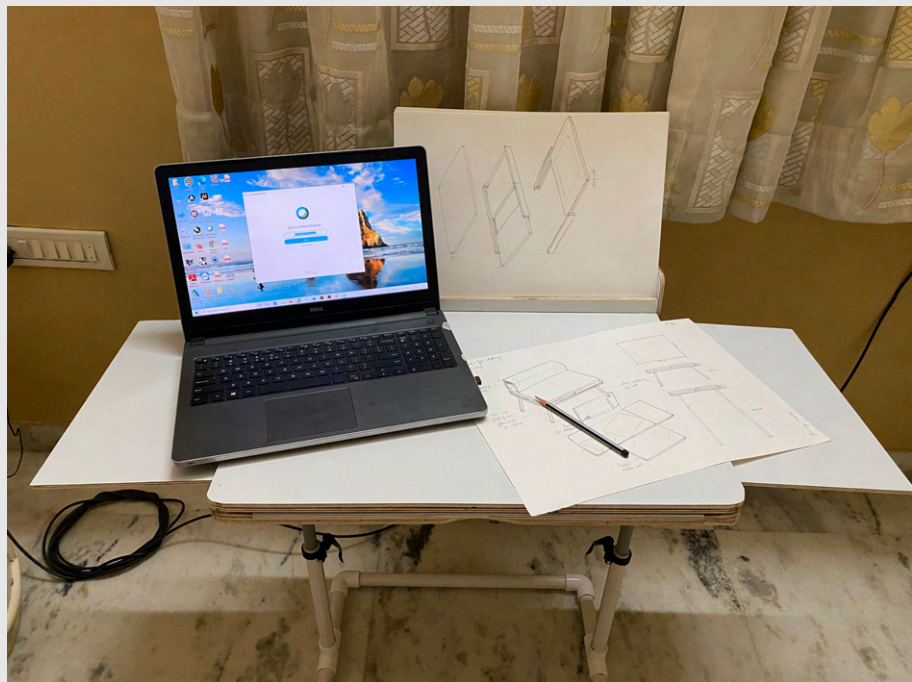


Made with the help of Carpenter Mansukhbhai

PROTOTYPE



PROTOTYPE IN CONTEXT



Compact yet Wide. There are 3 slider in this table which gives the large and distinguished area to work on



Using Table on the Bed



Using Table on floor



A depression to make it easy to pull the slider out with hands.



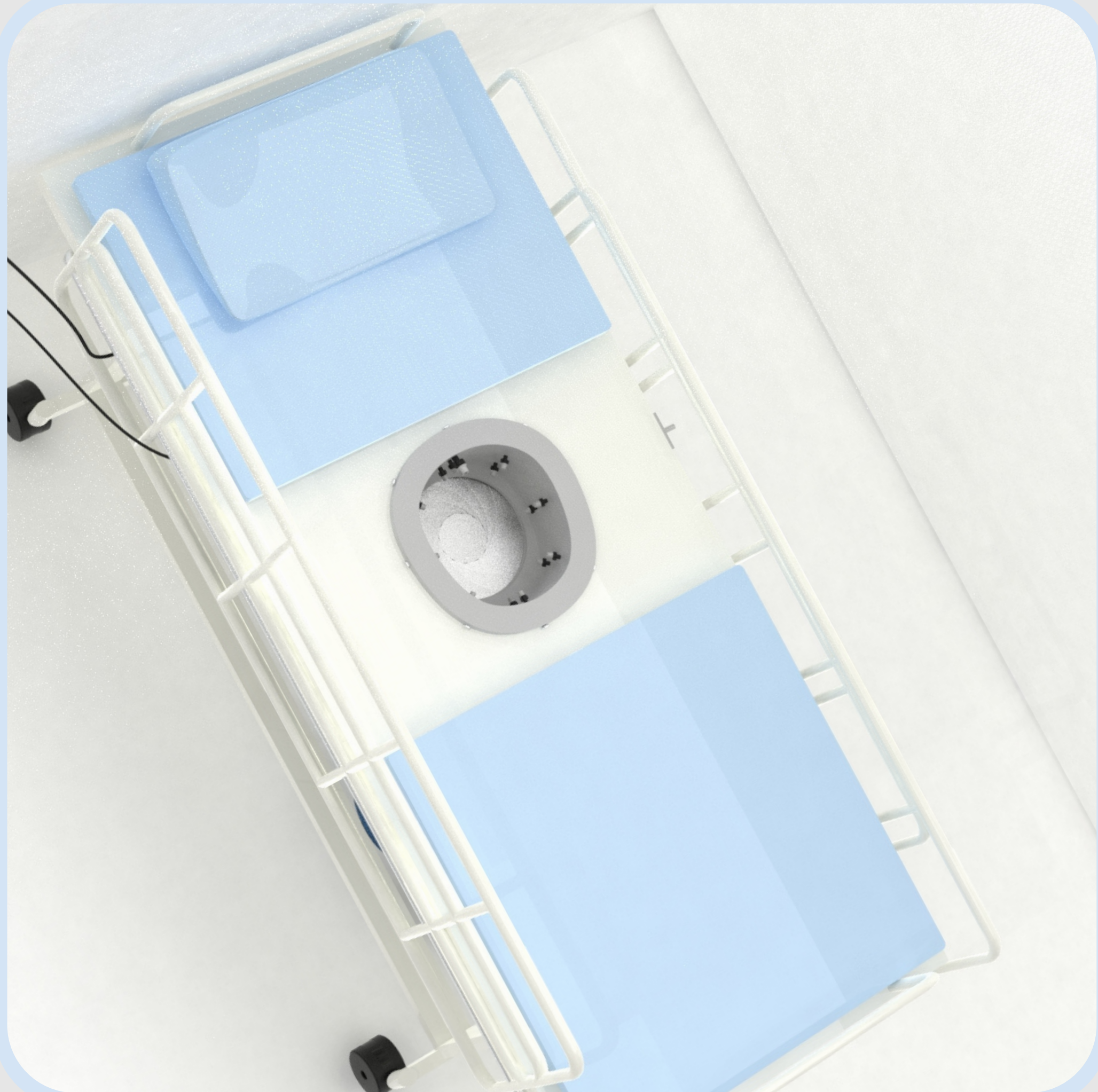
Table in the minimum height and all sliders open.



An Organizer on the top base where the basic stationery and sheets and book of Size A3 can kept, which will be easily accessible .



We can also keep our phone in the Organizer which help us to study as we dont have to hold phone by one hand, we simply can keep it there.



Stool Easy Bed

Technical Complex Design

Finding a problem in the Health Care area and solving it through the Design Process.

RESEARCH

Problem

For the bedridden people it become difficult for the patient to pee and pass the stool. For some patient it is not possible to get up and go to washroom and its also a work for nurse too to take care of it. Diaper and bed pot for stool and pee bag for urine is used for patients whose body movement is restricted. A hygienic and comfortable device for passing stool by the patient is required.

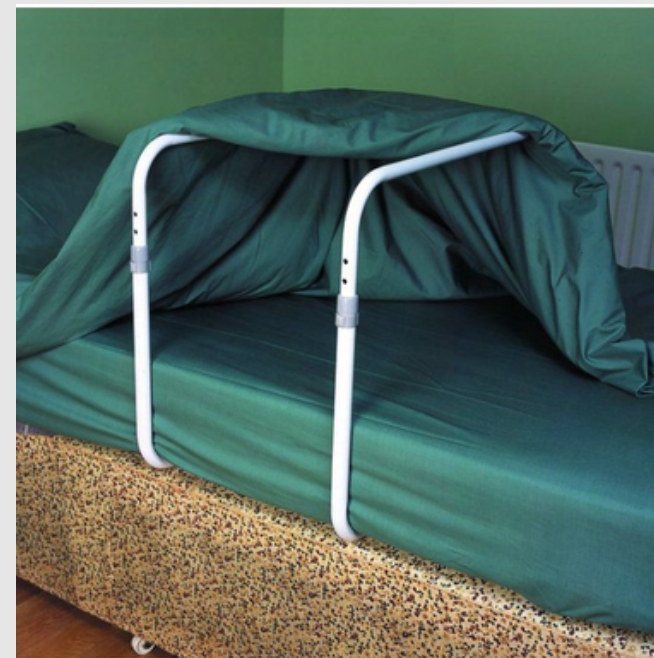
Existing Products used to pass stool



Diaper



Bed pan



Bed Cradle is used to cover the patient while using bed pan

Need

- Comfortable for the patient
- Hygienic
- Easy to use
- Easy to clean
- Privacy for patient (bed cradle)
- Water outlet
- Vacuum system
- Numbering
- Air tight storage tank
- Sanitizer

Want

- Disposal prompter
- Fragrance diffuser

DESIGN BRIEF

To create a device which makes the process of passing stool comfortable for the patients who cannot get up to use the restroom. A device which is easy to use and clean as well as aids in making the process hygienic.

User: patients who cannot or are advised not to get up from the bed to use the restroom

CONCEPT

A Cardiac Bed having a Pot attached with bed's metal frame. Above the metal frame there is a mattress which will be in three part.

To access the pot, the middle mattress will have to be kept aside.

The stool can be passed in both position sleeping and sitting up.

Pot has the capacity of to store around the stools passed three times a day. It will reduced the energy of nurse/ward boy to go dispose the waste each time after the stool is passed, the person will have to go only once a day to dispose the waste.



POT

There are two parts of the pot : one is the pot itself and other is the storage tank which is attach to the pot, and in between of them there is a Iris Shutter.



First the stool will be passed in pot, then the Iris shutters will open and the stool will fall down in storage tank and the pot will be cleaned with water.

Water will come from the nozzles which are in the pot with the all pipes .



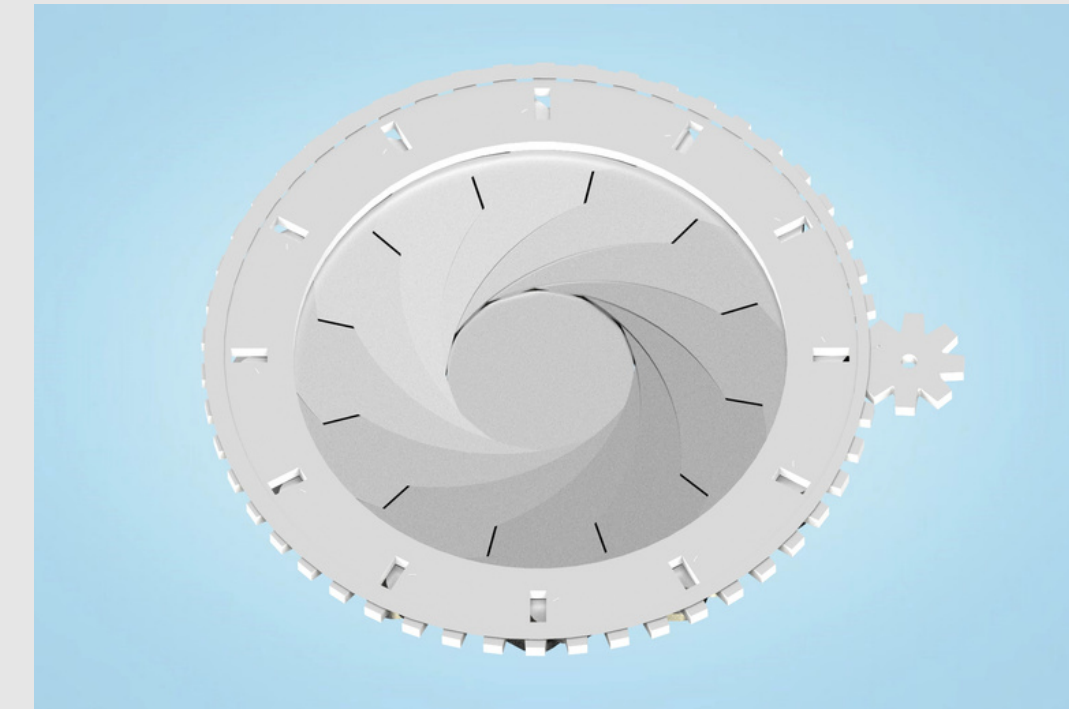
Pipes



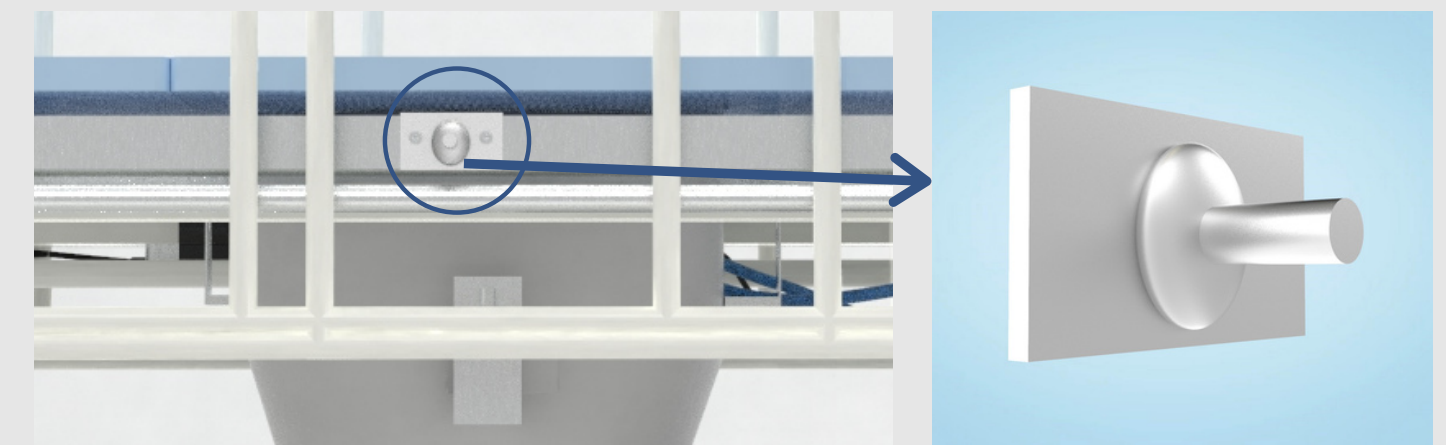
Nozzle

Iris Shutter will be opened with a help of the button .

The Mechanism includes Rotatory Arduino and gear rings for the shutter movement.



Iris Shutters with Gear rings



Iris Shutters button attach on the left side of the bed with the screws

W A T A R T A N K A N D M O T O R

Water tank having the capacity of 1o litres of water, from which the water will flow in the pot for cleaning the pot and the body part.



Stair climb wheel making it easy to take it out from below the bed .



The handle will make it easy for the nurse/ward boy to carry it will refilling.

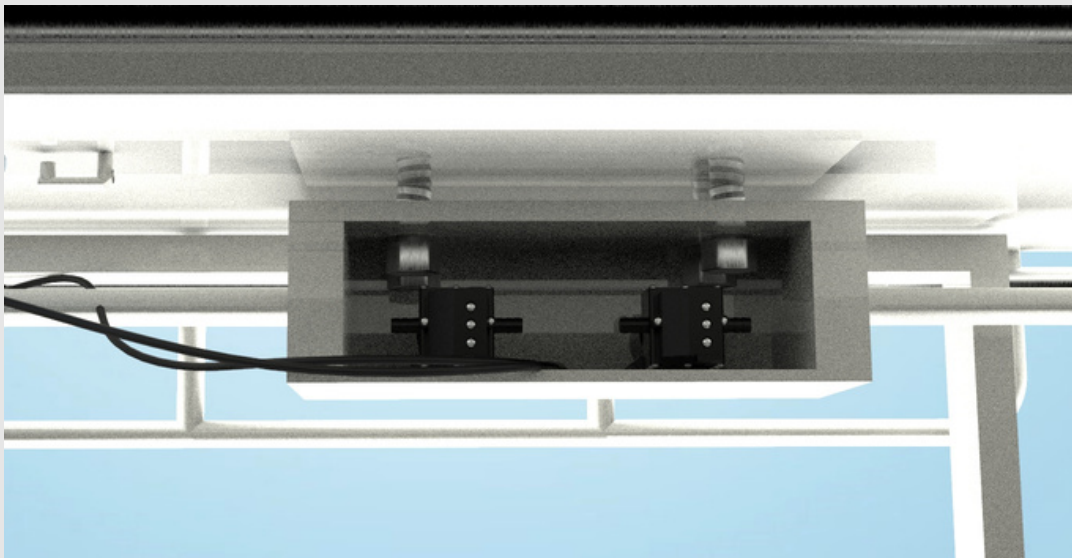


Stair climb wheel

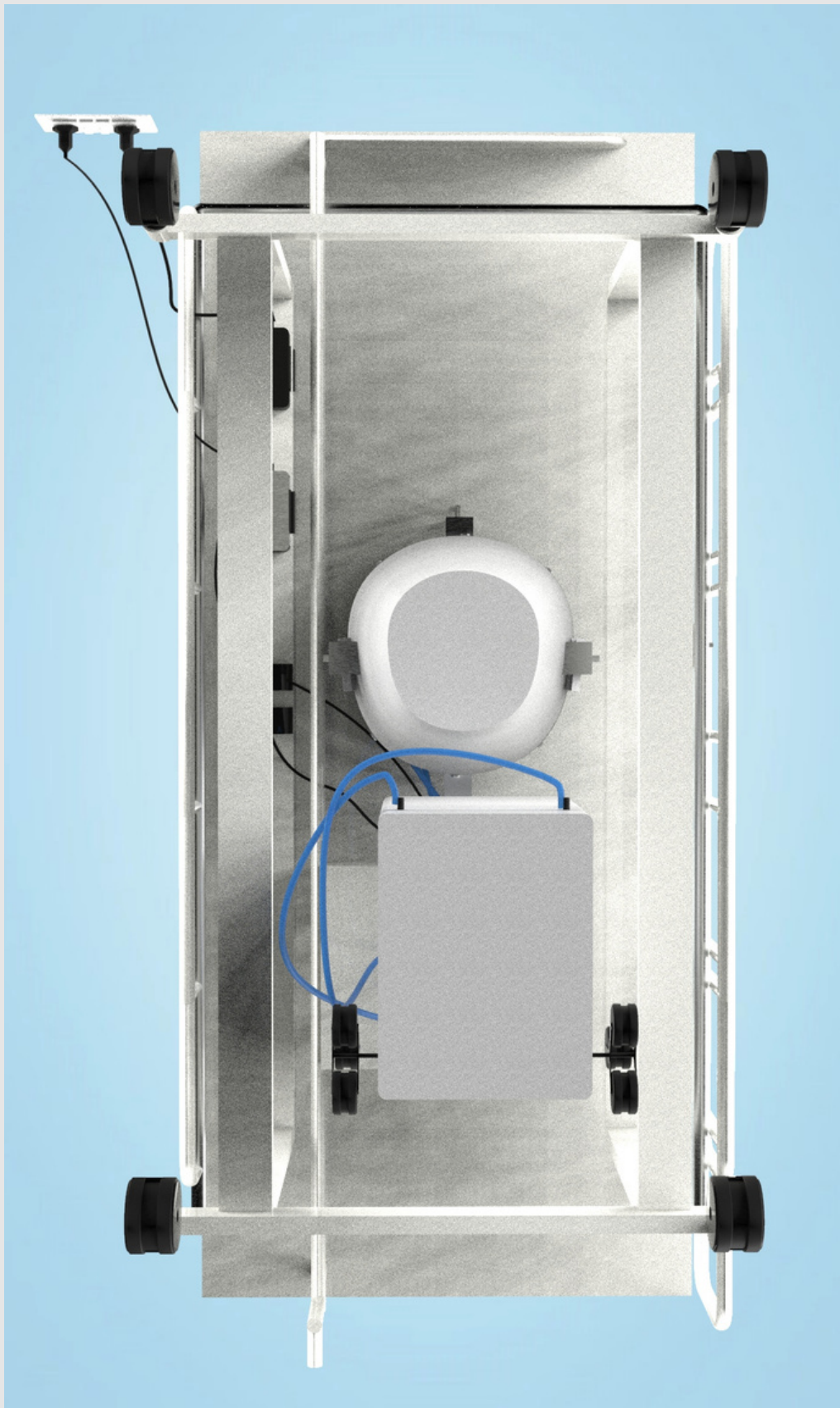
The pipe is attach with the water tank, then the motor and lastly with the nozzles attached to the pot. Motor helps the water flow towards the way to pot. To run the motor we need adapter.



Motor



Motor box attached below the bed



Bottom view of the cardiac bed with all the elements (pot, storage tank, motor, adaptor, water tank)

Materials Bed Frame - Metal
 Mattress - Foam mattress with rexine cover
 Pot - HDPE
 Iris Shutters - Aluminum metal
 Iris Shutter Button - Aluminum metal
 Motor - Aluminum metal
 Water Tank - HDPE





Photography Display

Selecting any product and designing a Exhibition display for it and its layout.

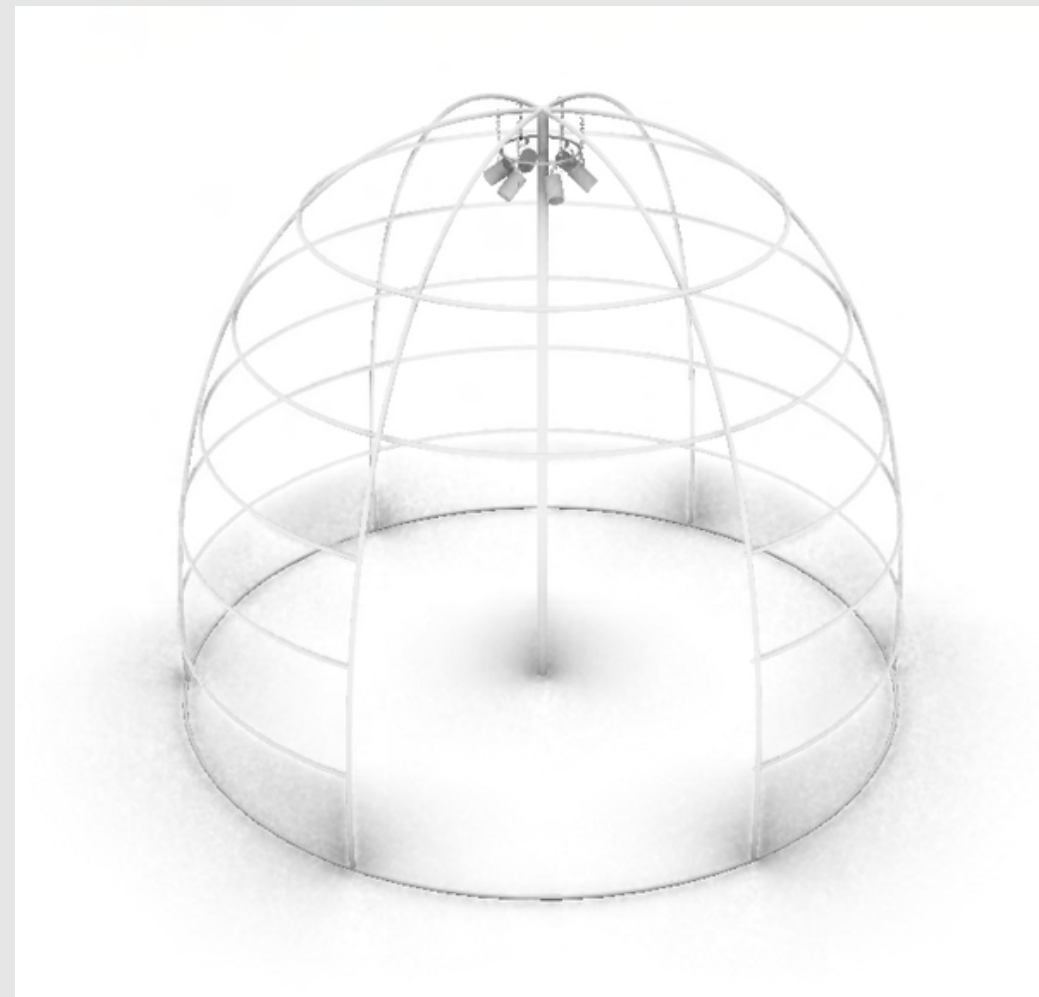
CONCEPT

Designing a display for Photography Exhibition and its layout.
A Dome Structure having a Photography Frames inside with lights.



The outer and inner surface is flexi ply standing with the support of metal frame.

Height: 10'
Length: 12'

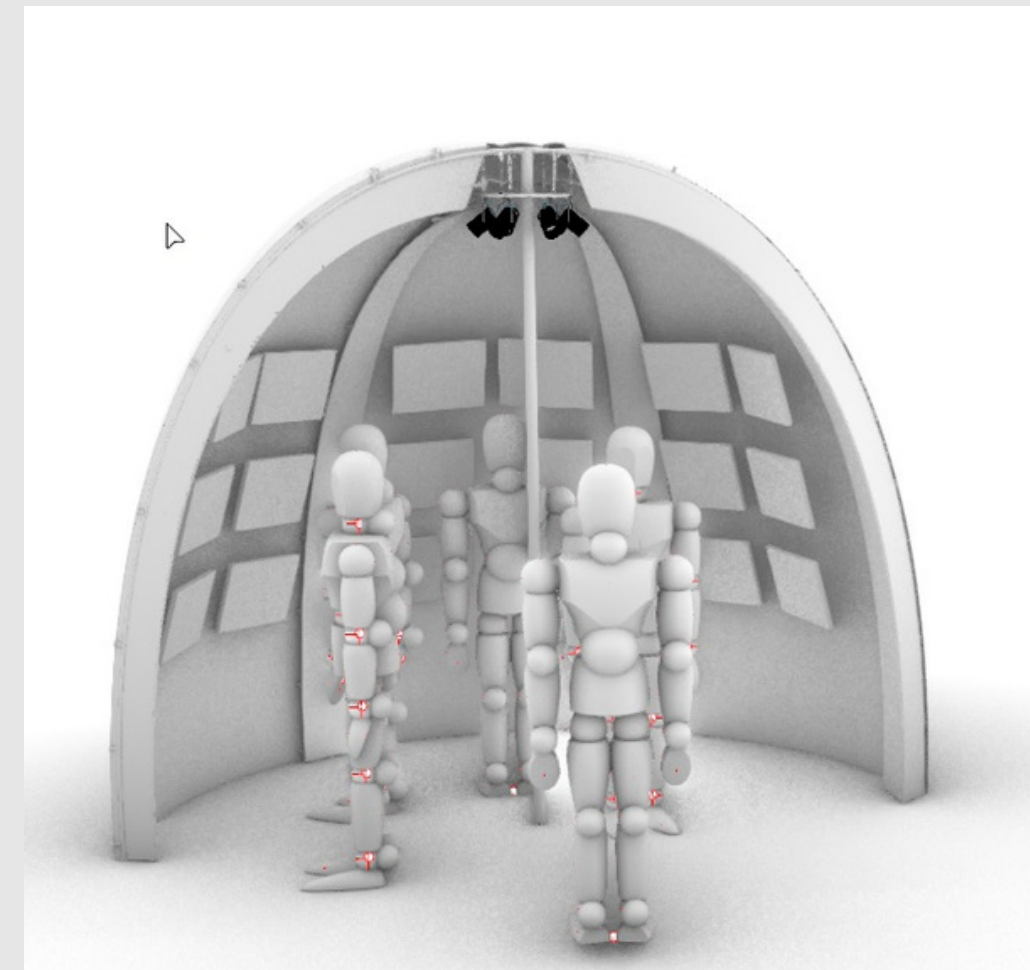


Metal Frame with spotlight

There are total 6 spotlight in the middle throwing light on each panel so the photos on each panel is highlighted and can be seen clearly

Materials

- Flexi-Ply - Dome panel
- Stainless Steel



The photos will hang on the Flexi ply with the help of frame hook

LAYOUT

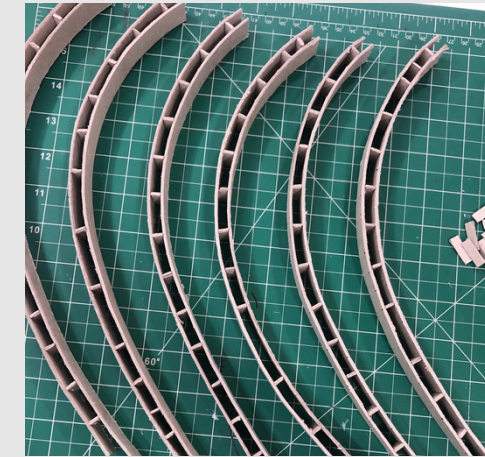
6 Dome in a circular path and a table in between for a talk with other people and the Artist



Each dome will have different theme photos of the same artist or each dome will have the photos of different artist, so it will become easy to go around and look. The center round table is an interactive table for the audience with the artist.

PROTOTYPE

Prototype is been made using cotton cloth in the place of Flexi Ply and mount board in the place of Metal Frame







Cloth Clip

Finding the problem area in the existing Cloth Clip, doing the user study and survey and designing a new clip which satisfy the users demand.

RESEARCH

Cloth Clip

Clothes pin is a product which is used to attach wet clothes to the cloth line so they can dry.



Existing Cloth Clips

Clothes pin are made up of different material like plastic, wood, stainless steel.

Widely used clothes pin are plastic and then stainless steel, so I decided to focus and study them.

User Study Analysis

- Cloth Clip either break down in 2-3 months or become loose.
- Steel Cloth clip capture the rust very easily.
- Some cloth clip need hard pressure to open it.
- There is a need of two cloth clip , one for the thing clothes and another for the thick clothes like blanket, jeans, etc
- Clip doesn't stay strong on cloth line during windy atmosphere or if monkey or cat come over on the string.

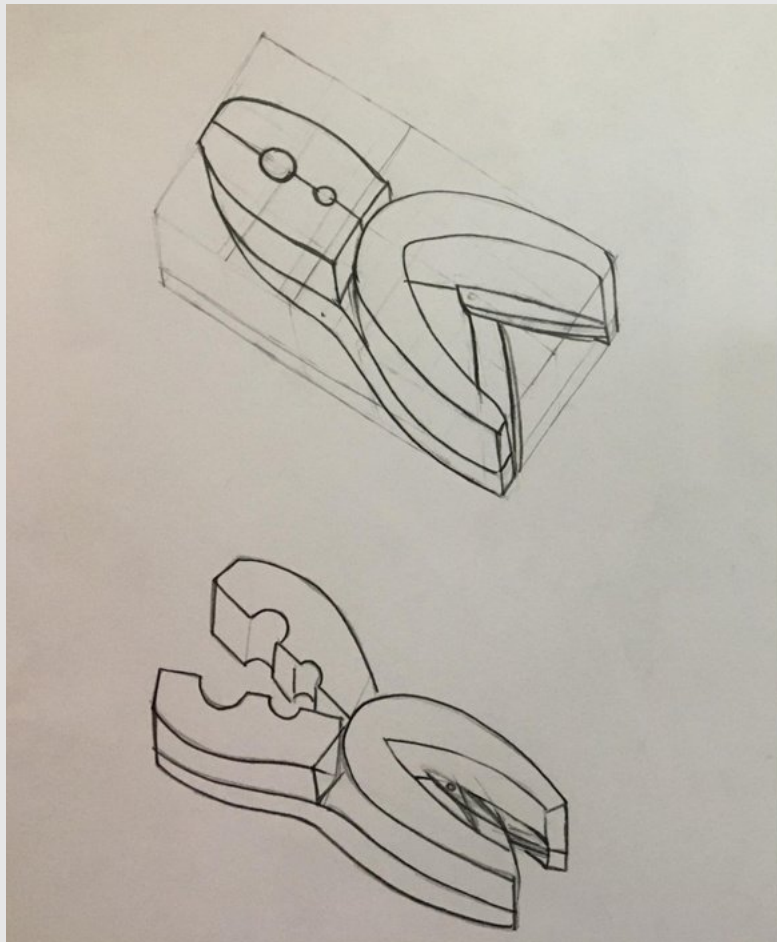
Design Brief

A product which can hold the clothes on the cloth line, it should be long lasting, rust resistance, weather resistance, doesn't require hard pressure and stays strong on the cloth line.

Concept

The concept is to make a clothes clip of one material and in one shot which has a property of flexibility spring in it. The base is flat but on the top there is a flexible material which acts as a spring.

PROTOTYPE



The form is inspired from butterfly wings. The holes in the clip on the top part are for that it stays on string strongly, and that it can be used for both thick and thin clothes.

The final product will be only of Polypropylene

The prototype is made using MDF and silicon in 1:1 ratio.





Handcrafted Spinning Top

A fusion of the traditional *lattu* and the Mandala Dreamcatcher web (which is said to catch bad dreams and let good dreams pass through it and reach the user) brings out a totally interesting Spinning Top to play with. The Web Pattern is made keeping in mind the Rainbow Colors to make it colorful and attractive. .

Dream catchers were hung above the beds of sleeping children to protect them from bad dreams and evil spirits. Legends held that the web design of the dream catcher would allow good dreams to pass through and float down the hanging beads and feathers to the sleeping children.



Dreamcatcher



Materials used: Thread, metal ring, metal, wood.

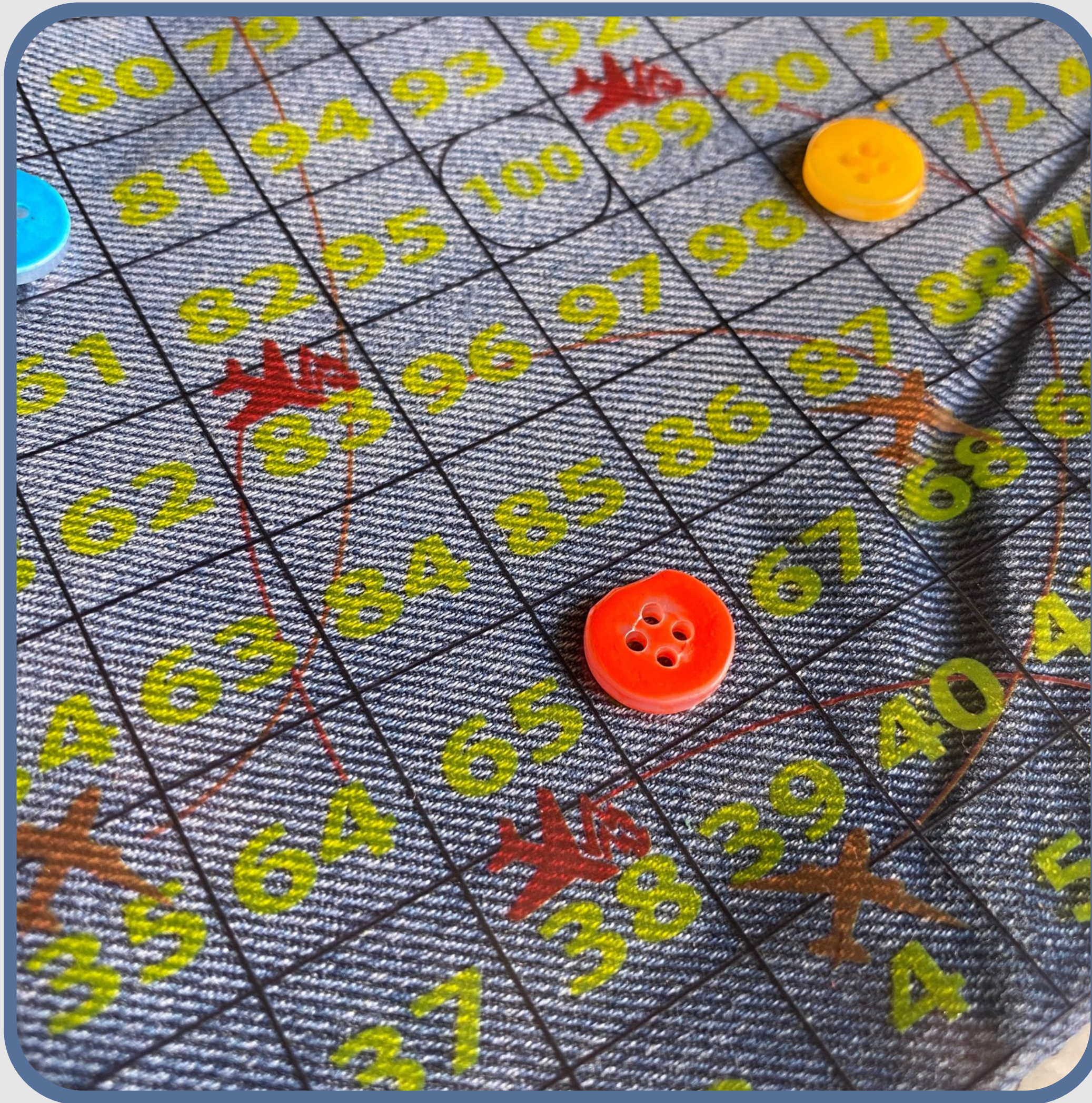


Sketch of Mandala Web

By rapidly spinning the top, the rainbow web creates a pattern and is extremely soothing to watch.

Along with promoting the traditional crafts the product would also increase employment as it is completely handcrafted.





Spot On - The Game

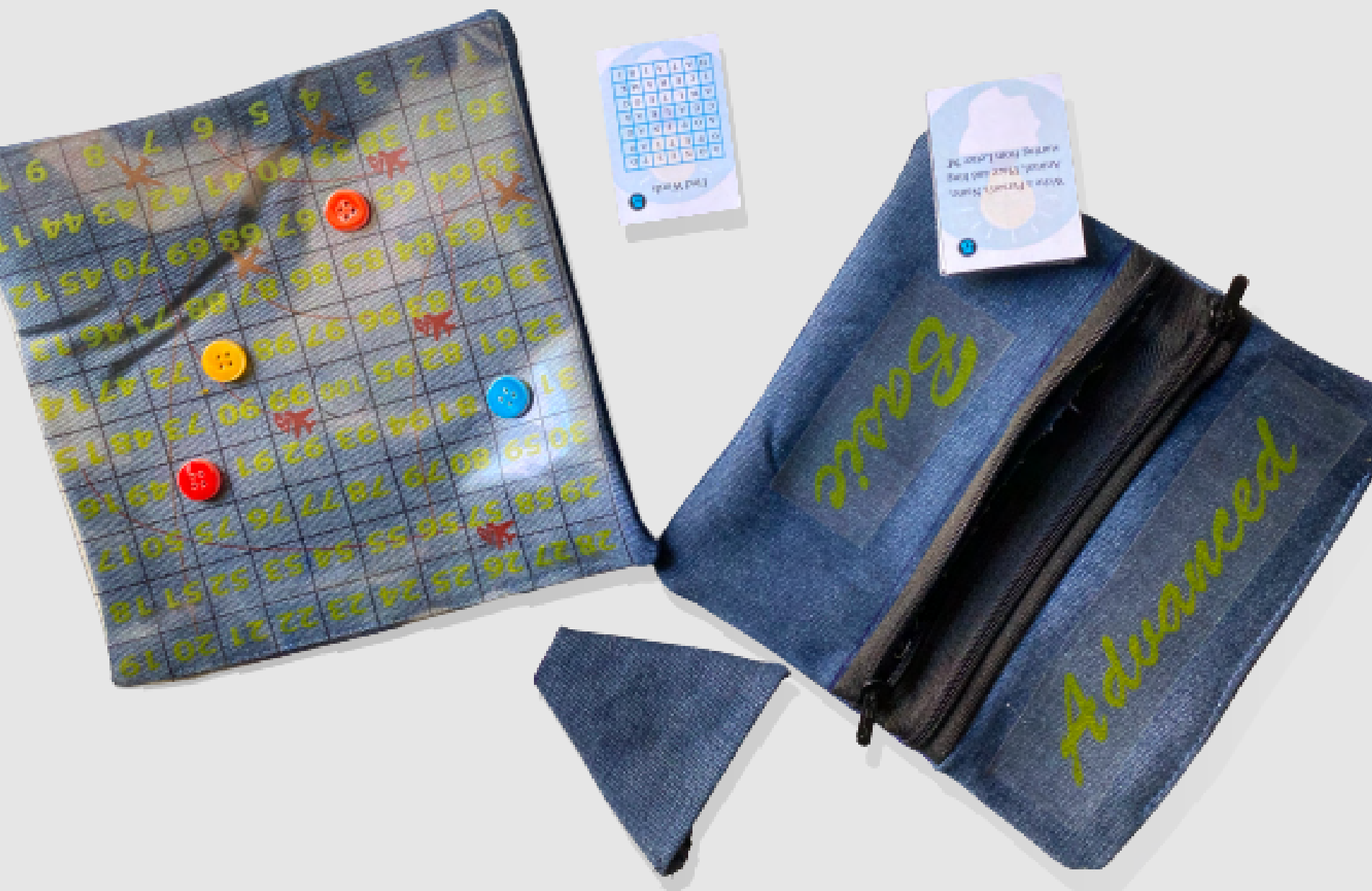
Learning Style Game which increase the ability to focus in the individual(children) which will lead them to have more confidence in their self, boosting their self esteem, decision-making power and the ability to complete any task peacefully inspite of presence of distractors.

DIRECTION OF PROJECT

Increasing the ability to Focus

Why focus is important for children?

- Focus is one of the most important thinking skills, as it helps children begin tasks without procrastinating, maintain their attention in the presence of distractions, and continue tasks till it reaches completion.



ABOUT THE GAME

The game Spot On is a board game which comes along with task cards in which there are different tasks written to be done or answered to go on with the game. The game can be played by two or more players. The task written are the ones that need focus to complete it. The player who is able to focus and complete the task first, wins.

For a game to be interesting, there should be some sort of conflict to present a challenge for the player to overcome.

There are two levels, each for different age group, one is for 6+ years kids and other is for 10+ years.

Each task guarantees different amount of point based on the difficulty level of the task. There are some bonus cards too.

The main twist is the game is on the board- there are two icons, one leading you up and the other leading you down. So the main twist is that the player also needs concentrate on the board while completing the task because even if the player completes the task and gets the point, the point might lead them downwards and be of no use, so the player has to be very careful while playing and should know when to answer and when to not.

The two icons are :-

1. Plane: Leading you up
2. Plane crash: Leading you down

BOARD



Board has the numbers printed on it where the player will move once they complete their task. The player will be moving using the button he/she chose to play with.

The numbers aren't in a linear pattern but are printed such that they form a spiral so as to create more confusion for the players so that they need to pay more attention and focus more on the game and board both.

The colors of the board are blue, yellow, orange and red.

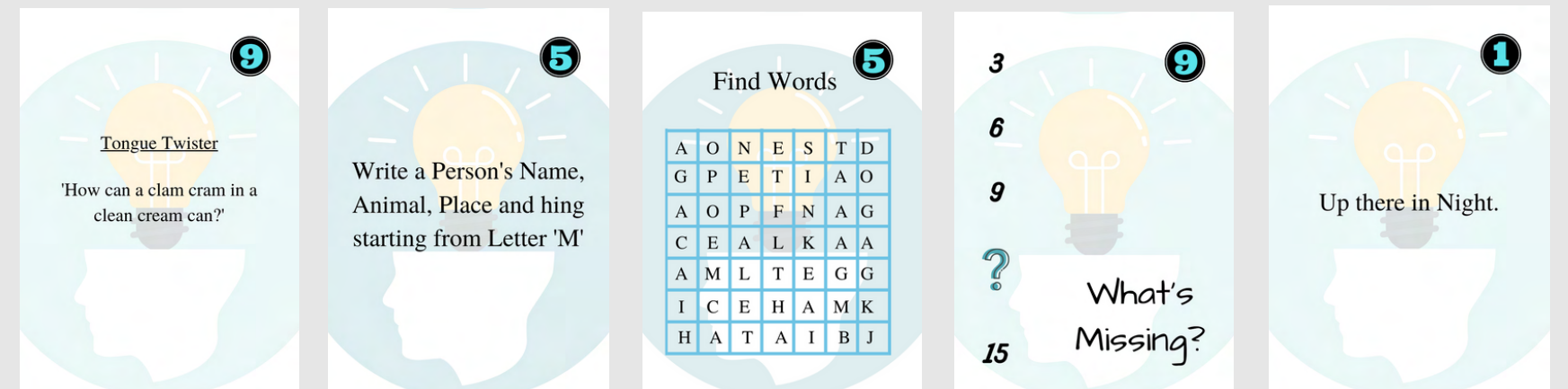
The Fabric and Buttons used would have been upcycled for the purpose of manufacturing the game. This also promotes the concept of sustainability

TASK CARD

Task cards are of two different Levels. Each level have 30 cards in it and 5 blank extra cards. The task cards have a number on it which means if the player solves or complete the task, he/she can move forward with that number.

The task cards have the following types of content:

- Sequence
- Missing
- Riddles
- Tongue twisters
- Memory
- Get Something
- Write
- Find out
- Bonus Cards



HOW TO PLAY

Rules:-

- Each player selects one button to play with as his mark.
- The game will start with "1" and end when any one of the player reaches "100".
- The players according to the age group have to decide whether they want to go with the basic level or advanced level. Basic level is for the 6+ years and advanced level is for the 10+ years.
- After deciding the level each player will take one card turn by turn, and read aloud and each player will try to solve or complete the task.
- The first one to solve or complete the task wins.
- The one who completes the task first has to move ahead by the number written on the task card.
- Only the one who completes the task can go ahead and the others remain on the same number.
- There are two icons on the board, one is the plane and the other is a plane crash. If a player reaches a number on which there is a plane then it means s/he has to follow the route which will ultimately take them up. But if the player reaches the number where there is an icon of a plane crash, then they have to follow the route which will bring them down.
- The first one to reach 100 will be the winner.

USER STUDY





5
Write a Person's Name,
Animal, Place and hing
starting from Letter 'M'

5
Find Words

A	O	N	E	S	T	D
G	P	E	T	I	A	O
A	O	P	F	N	A	G
C	E	A	L	K	A	A
A	M	L	T	E	G	G
I	C	E	H	A	M	K
H	A	T	A	I	B	J



Packaging Design

Finding the problem area in the Packaging of 100 gms Butter box and solving it.



Butter

100 gm

RESEARCH

Amul Butter

Available in the size of :

- 10 gms
- 100 gms
- 200 gms
- 500 gms



Material

100 gms Butter Box

Secondary Packaging :- Card paper 55 gsm

Primary Packaging :- Waxed paper



Butter

100 gm

Different ways people store Butter



Problem

- Hands get dirty while taking it out of the box and specially putting it back in it.
- It becomes difficult to put the butter back into the box
- Secondary Packet gets soggy
- Extra Vessel is needed while using it if we store it in the box itself
- Extra container is needed to store it.

CONCEPT

A box which opens fully giving a proper surface to use Butter, for which we do not need to take the butter out from the box.



Material - 120 Gsm Card sheet

120 Gsm card sheet solves the problem of the Box getting soggy.



Closed Box



Open Box



The big opening is giving a very comfortable space for a person to use butter and it stays in the box only, which directly solves the problem of putting Butter back and also our hands getting dirty while doing the same.





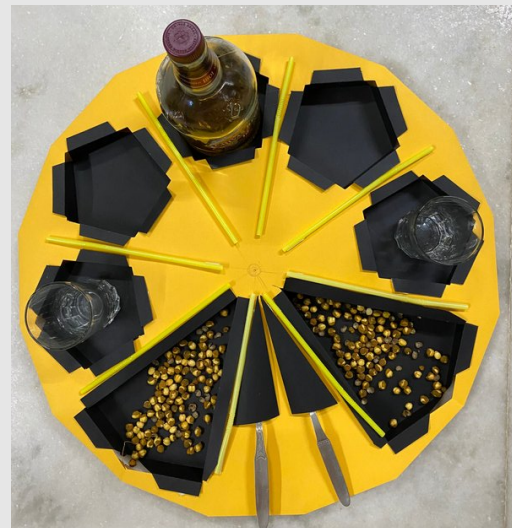
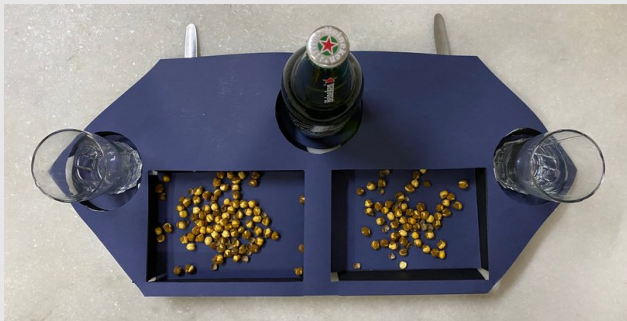
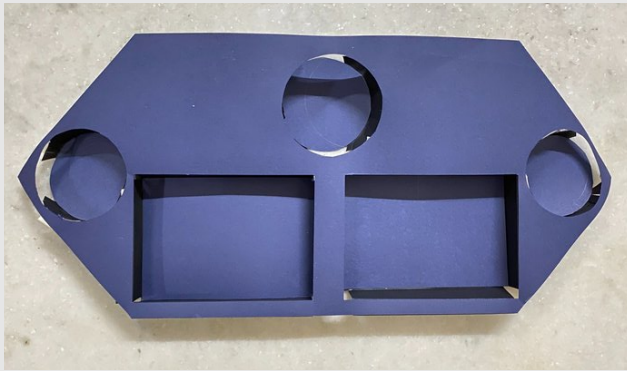
Small Projects and Skill

BAR ACCESSORIES

Design Brief

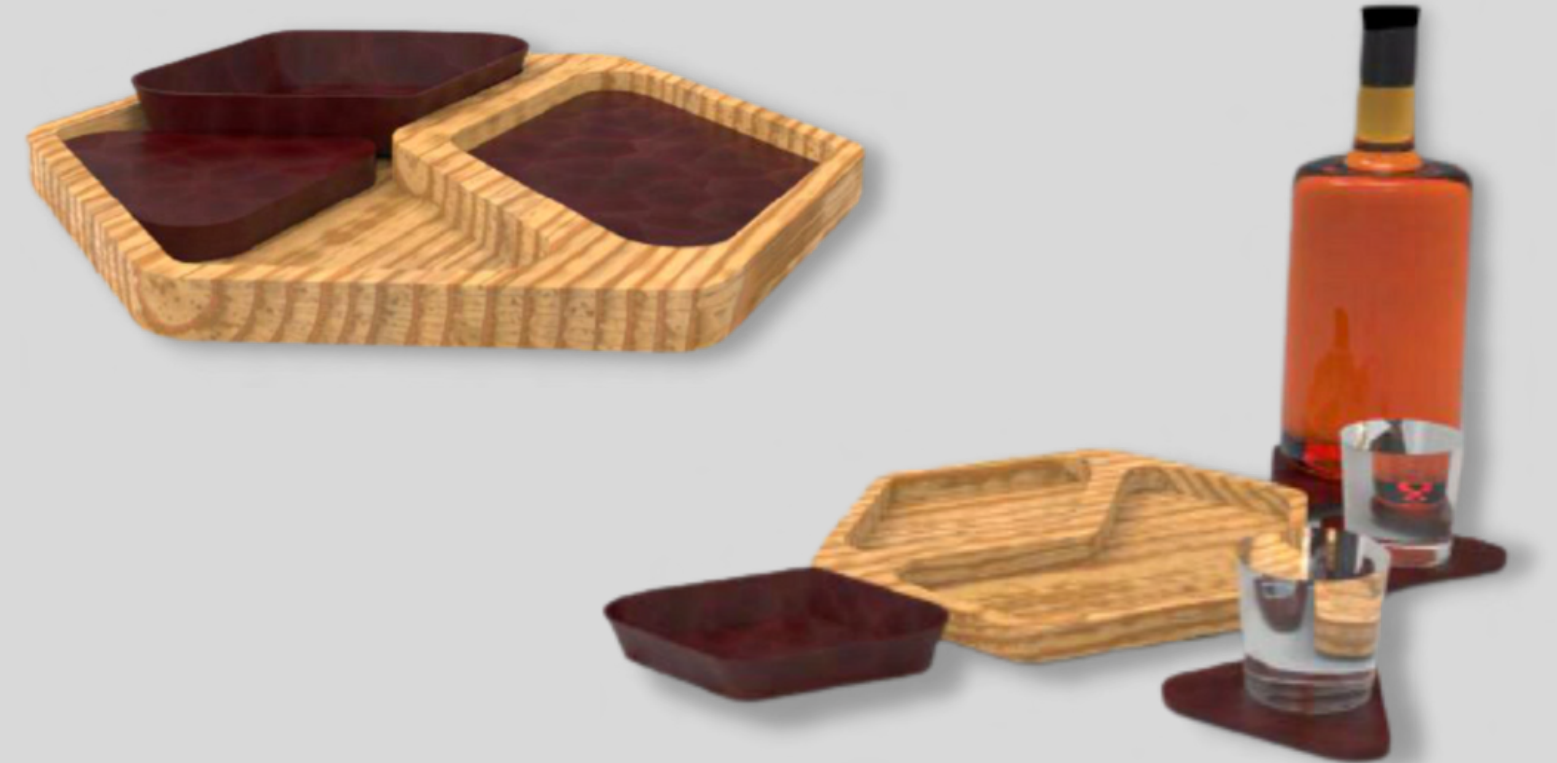
A luxury product holding the essential items one uses while having a drink at a home bar i.e. bottle, glass, snacks bowl, spoon and tissue using the material Leather and wood

Ideation



Final Design

For 4 peoples ,having two snacks bowls - One big and One small, which are detachable , 4 glass coaster, 2 bottle coaster and 2 Ashtray. There are total 3 trays for all , one holding snack bowl and the other two for keeping glass and bottle on it with coasters. All the coasters can fit in the main snacks , and that become helpful when a single person uses it.



PRODUCT DISPLAY UNITS

Design Brief

Designing a display unit for different CDIT Products which can be placed at already existing stores.

Display unit needed

Entrance Branding Table at the entrance of the store giving information about the brand and few products for attraction

Leaflets Holder for keeping banners at the entrance and billing counter

Mini Movable Platforms for Washing Machine, Fridge, Air Cooler, Electric Fan, Dishwashers

Hooks for Bluetooth Headphones, Headphones, USB Cables and connectors, Ink, Toner and cartridge

Wall Shelf for A.C, Water Heater, Chimneys, Water Purifiers, LED T.V, Wall Dispensers

Table/Shelf/Rack for Projectors, CCTV Video Security, Sports and Action Camera, Printer, Desktop, Bluetooth Speakers, Fitness Band, Trackness and Pedometers, Hair Dryers, Hair Straightener, Trimmers, Irons, Blender, Choppers, Kettle, Toasters, Sandwich Maker, V.F. Cleaner, Phone, Tablet, Charger, Watches

Price Tags

Leaflet Stand



Design 1



Design 2



Design 3

Price Tag



Design 1

Highlighting the smile from Brand's Logo



Design 2

Highlighting the smile from Brand's Logo backside

Hook Stand



Extendable Hook Stand

Mini Movable Platform



Wall Shelf



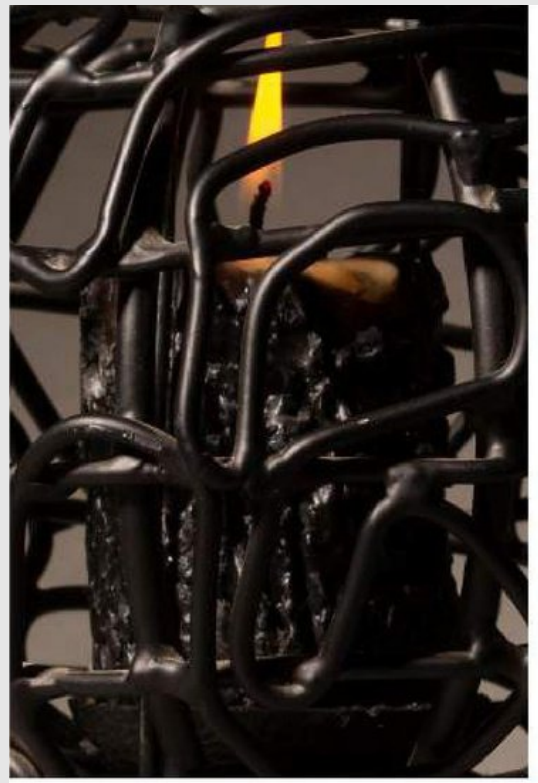
A wall Shelf which can hold accessories which are packed in the boxes having hook holes, Beauty appliances and other medium size appliances like printers, mobiles, small kitchen appliances. It is made with an extendable table from backside to show the product separately they are interested in.

Entrance Branding Table

Entrance Branding Table were made keeping in mind that the brand will be setting up its place in already existing different store size, so it should not hinder the space of the store, so we made different size table for different store sizes.



PHOTOGRAPHY



WORKING WITH WOOD



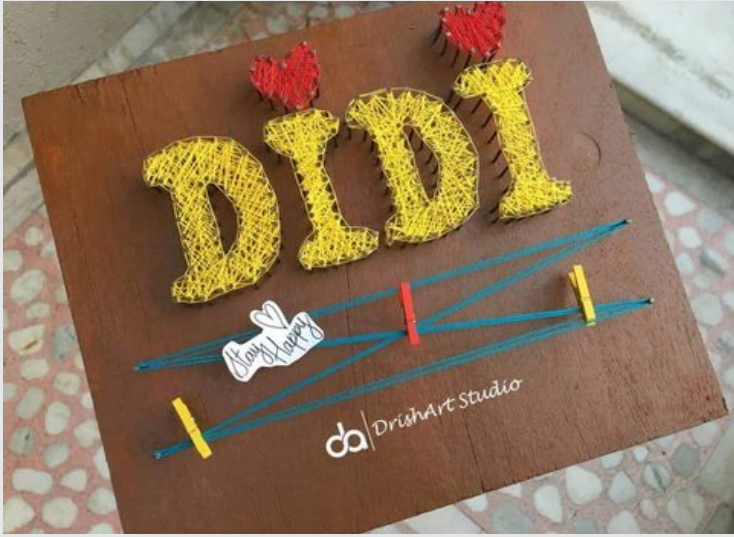
WORKING WITH CLAY



WORKING WITH POP



DRISHART STUDIO



LET'S CONNECT

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