

**DEP301: COLLABORATIVE DESIGN PROJECT**

# **WFH Workspace**

Week 2 : Analysis and Product Requirements

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# SO FAR

In the last week we brainstormed, narrowed down to a problem, did research, got some insights and redefined our problem statement

- Initial Brainstorming and Shortlisting
- Secondary Research and Final Problem Selection
- Problem Statement
- Primary Research and Market Study
- Key Insights from Research
- Redefined Problem Statement
- Existing Solutions

# CONTENTS

<b>So Far</b>	<b>2</b>
<b>Revised Product Requirements</b>	<b>4</b>
<b>Ideation</b>	<b>6</b>
Flexible	7
Fixed	10
<b>Concepts</b>	<b>13</b>
Concept 1	13
Concept 2	14
Concept 3	15
<b>Next Steps</b>	<b>17</b>
<b>References</b>	<b>18</b>

# REVISED PRODUCT REQUIREMENTS

After the previous presentation we relooked at our product requirements. We considered what the day of person working from home would look like. The fact that if people are working from home for a longer duration, they would probably have a dedicated spot in the house and not a make-do space in the house like working from dining table or from the bed, but it would still be a shared space in the house. From our primary research we had understood that a significant amount of people (approx 50%) were willing to buy new furniture if working from home even after COVID. So we also took that perspective into consideration. Earlier we had taken into consideration insights for the present situation. We ideated according to that.

We also looked at sound blocking, we did some research on the topic. There were two approaches, one being using material for the partition that blocks sound, but for that to have a significant reduction in noise, the person has to be covered completely, meaning the partition should either go upto the ceiling or it should be covered from the top forming a complete closed chamber. This generates a lot of issues in ventilation and feeling of congestion, space. And all this was for noise for which the user can use noise cancelling headphones, or even regular earphones with rubber buds can make a significant difference.

Through our initial secondary research we had found that companies are considering a hybrid model where people would come to office for any important meeting as collaboration happens better in person when people are in front of each other but work from home when they have been assigned tasks that they can do on their own.

Moreover softwares are developing to block out background noise and can recognise the speaker's voice and retain that.

Our revised product requirements are as follows:

## **Quick Assembly**

There should be minimum prep time. Should be quick to assemble, not more than 2 minutes. It is something that would be used regularly and using the partition may not be a critical task, so if it is taking lot of efforts to assemble before use, the user might be discouraged from using it

## **Ventilation**

In case of full enclosure, there should be proper ventilation and person shouldn't feel suffocated inside.

## **Aesthetics**

It should blend in well with the surroundings. It shouldn't look odd. It should also feel good for the person inside.

## **Light**

There should be proper light available inside. If the design of the partition is such that it gets dark inside, there should be provision for light.

## **Congestion**

The person inside shouldn't feel congested in the space.

**Get in/Out**

The user would have to get outside to have food, use the washroom or any other reason and should be able to do so without much effort

**Shape**

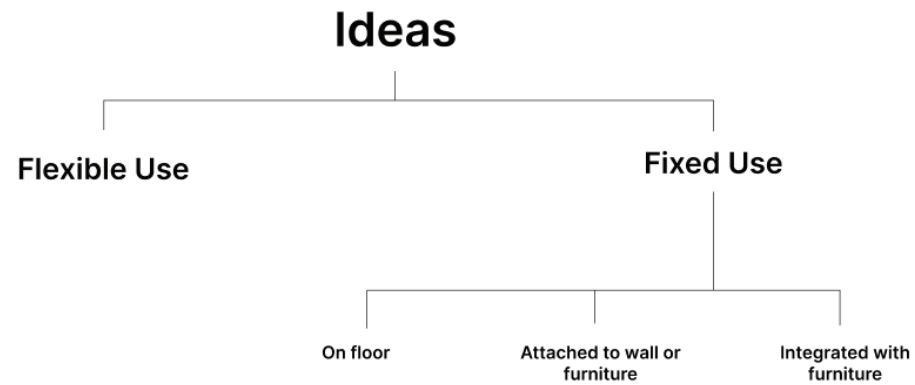
The product should be foldable. It should fold or bend at various lengths to accommodate various surroundings, shape and structure of workspace, etc

**Multiway attach**

Sometimes it is not possible to mount on wall, sometimes it is not possible to place on floor and sometimes one side can be mounted on wall and other can be placed on the floor. Or it can be a combination of both. So, there should be provision to do that

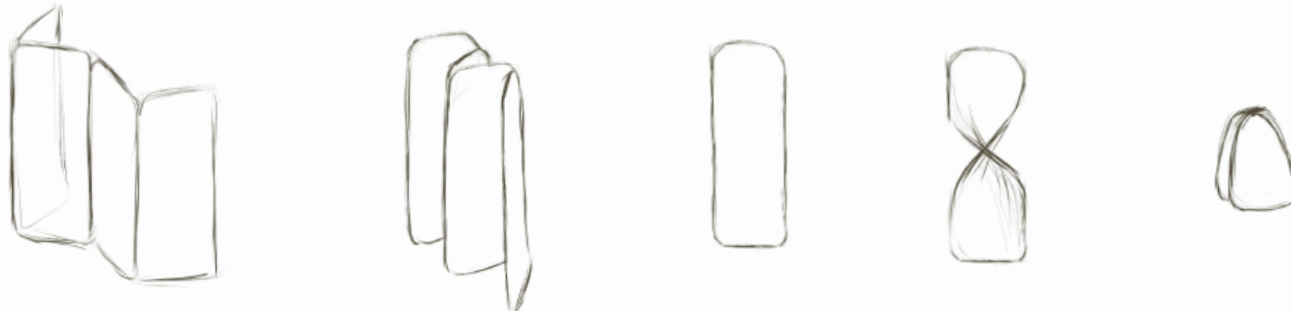
# IDEATION

Our ideations can be grouped in two major categories - flexible use partitions that can be used as a general partition even for other purposes and fixed type partitions that are specific to a table or a space, with less flexibility in terms of how you use it. In the fixed type there were further types like something that is placed on the floor, something that is integrated into the furniture, something that is attached to the wall. Some of the ideas are mentioned in this report.



# FLEXIBLE TYPE

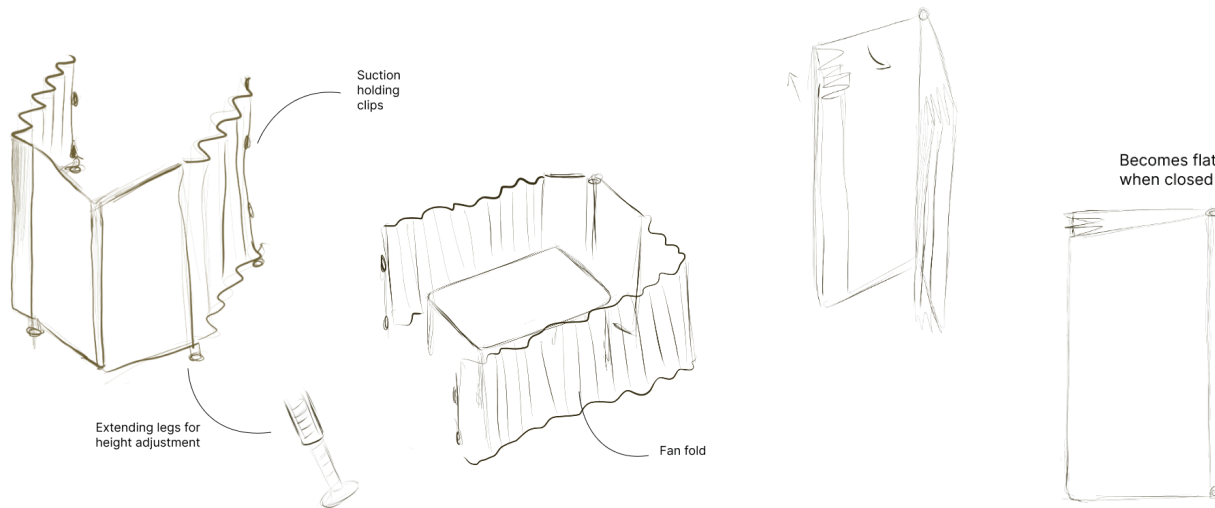
## IDEA 1



This one was for easy storing, taking inspiration from pop up tents and laundry bags



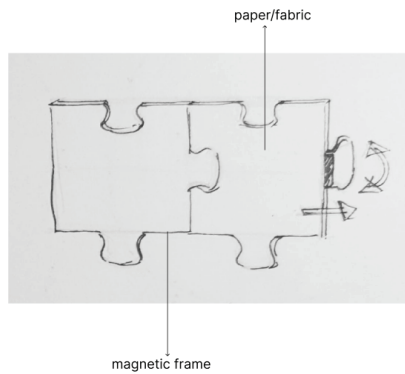
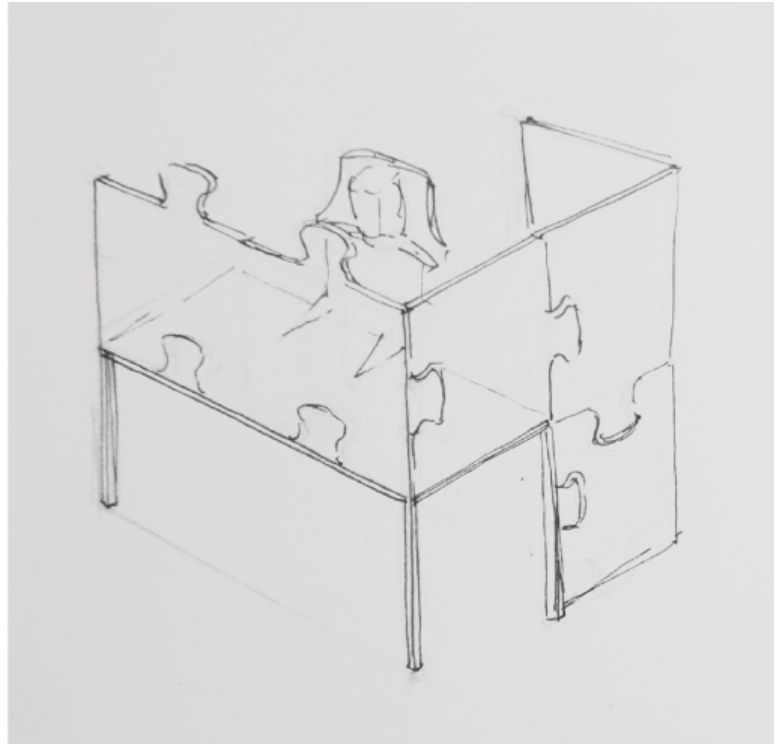
## IDEA 2



This was another quick ideation involving easy storage, and how it can take shape around tables of different sizes in different rooms.

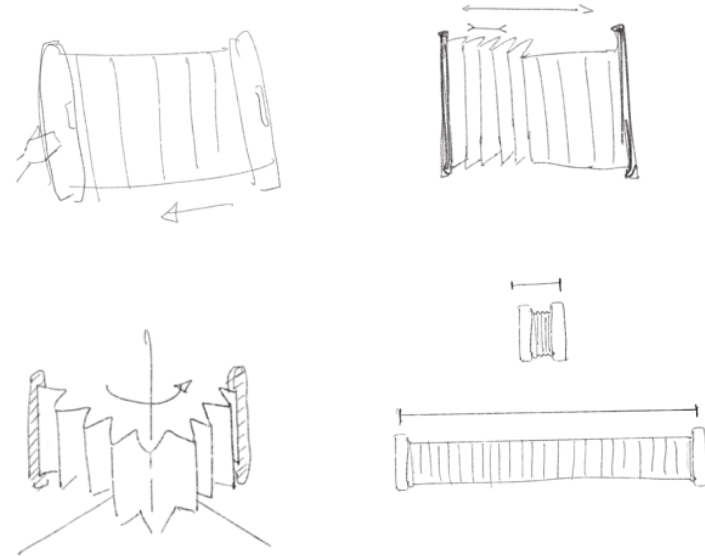
It has two larger stiff panels and the rest of the part in the fan fold form which can take any form according to the table size.

### IDEA 3



This one is inspired by puzzle pieces. The pieces are super light weight, could be made out of paper. the frame is magnetic. The connecting bits can be pulled out to swing.

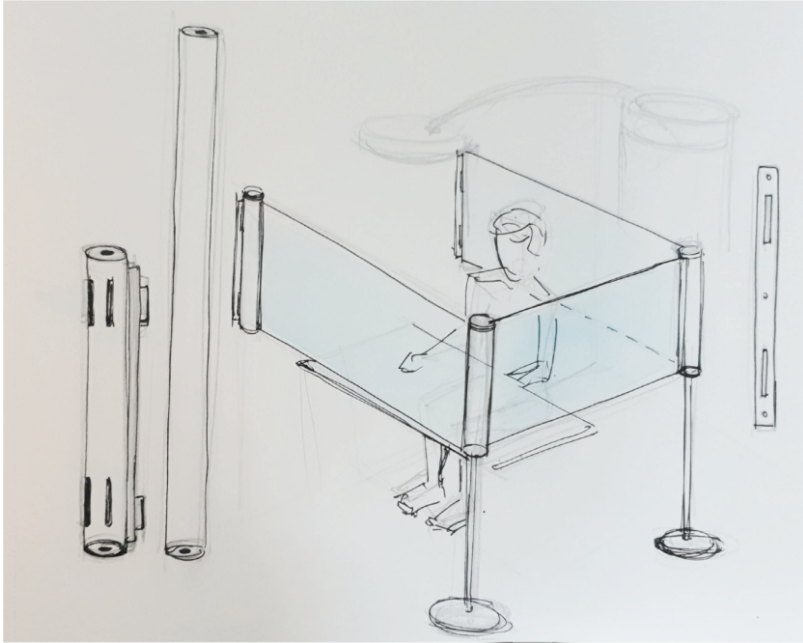
### IDEA 4



This one was for easy assembly and storage, inspired from the origami folds and an accordion



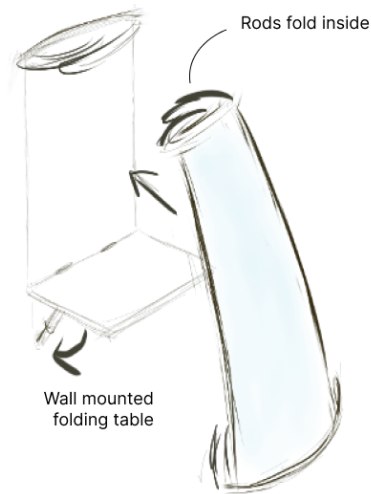
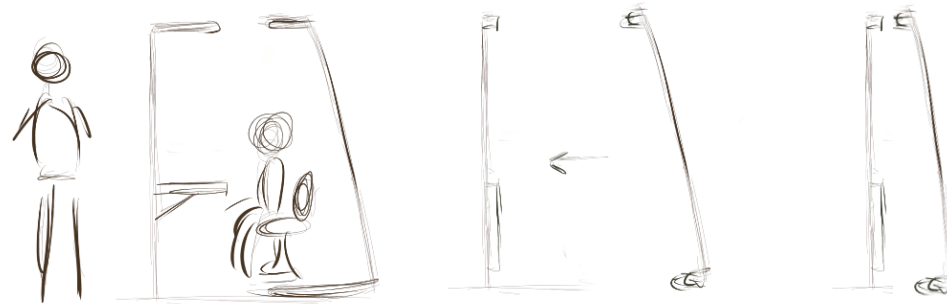
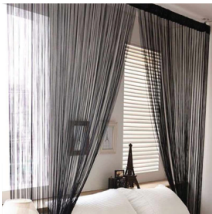
## IDEA 5



This one is inspired by retractable belts on stanchions. It would come in two heights and can be put on a pole or attached to the wall. As it would retract into the poles, it will take very little space and also no effort for the user to roll as it will automatically roll.

# FIXED TYPE

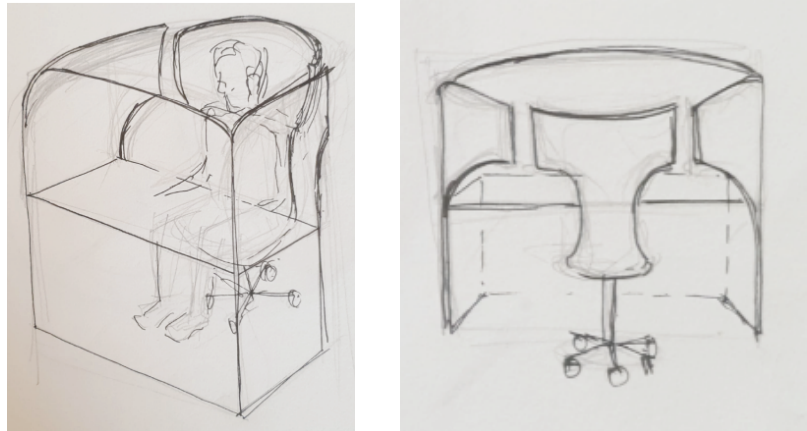
## IDEA 6



This idea was aimed towards making a workspace that collapses into a somewhat flat-ish cupboard size thing. there will be a folding table that is wall mounted and a back part which acts like a cover and both of them will have two rods that can fold inside. These rods will have strip like curtains or curtains of thread.

The curtain can be removed and washed like any other curtains. The back side of the cover can be customised, depending on the room where this will be placed. it can have a full length mirror if placed in the bedroom or have some kind of decorative piece if in the living room.

### IDEA 7

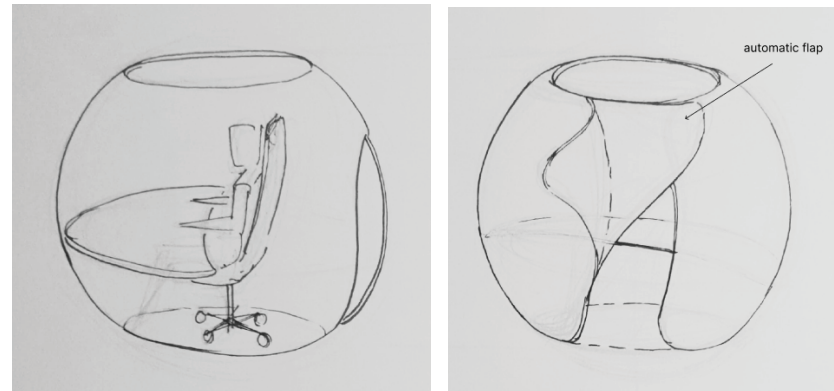


The main idea with this one was that the user had to use zero effort to get in and out of the workspace. It would be a part of the table or can even be placed separately on the floor and the chair could have an attachment or can be chair with a special backrest with that shape.

### IDEA 8



Inspired by a space capsule concept, the flaps open and close automatically sensing human presence.



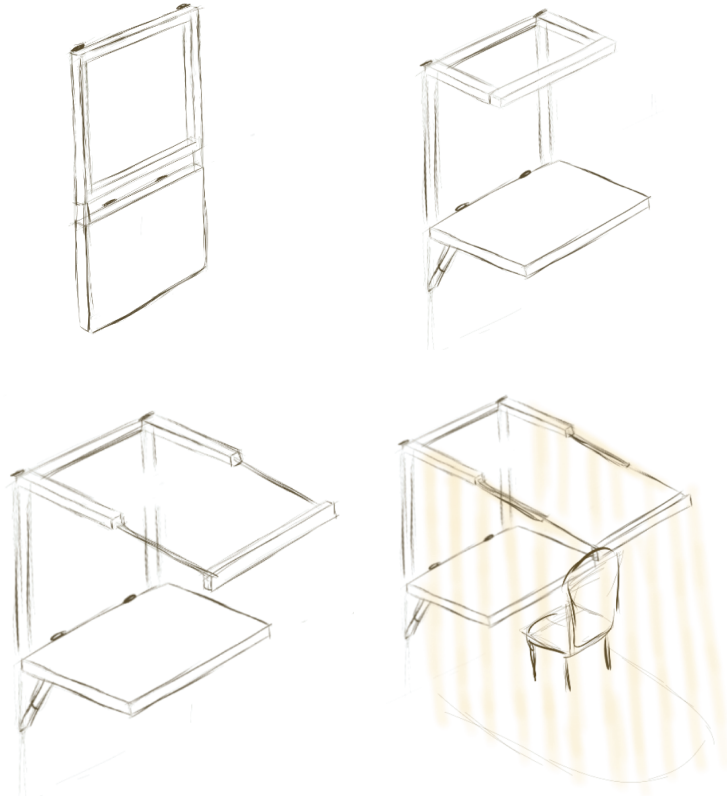
### IDEA 9



This idea is inspired from the handheld fan shown in the image. The idea involved a similar thing which opens up and has curtains at the ends of the planks.

it can be wall mounted and will have strip curtains. The user can choose if he wants to keep it completely closed or with gaps in between. The curtains will be connected to one another and each next plank will automatically move when one is moved.

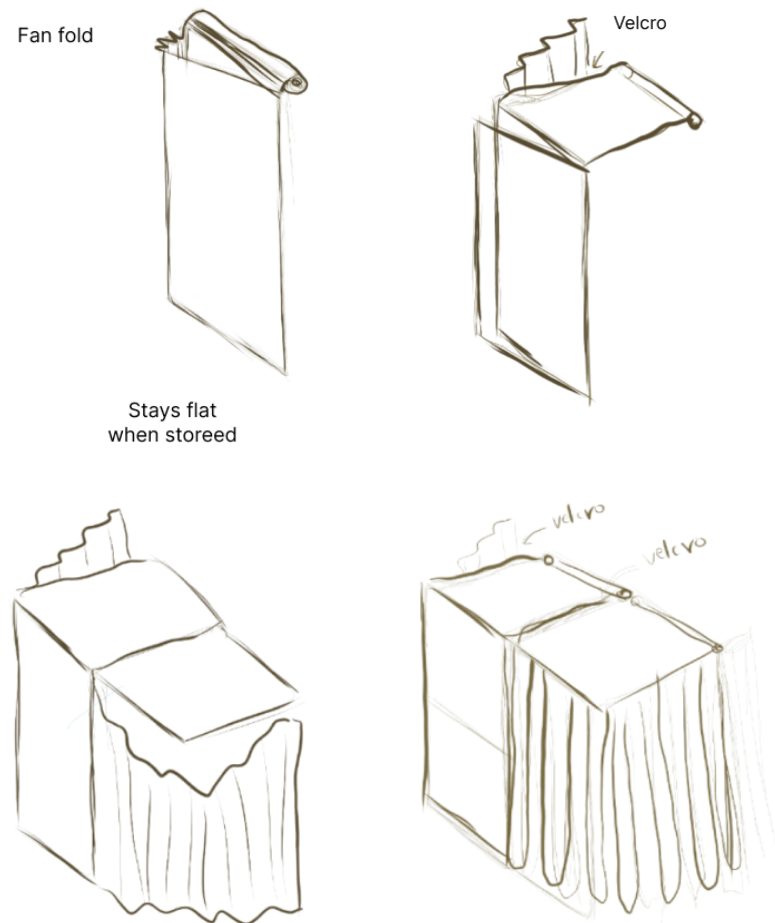
### IDEA 10



This is a type of integrated furniture which has privacy screen inbuilt. The entire thing along with the table can become flat when not in use. It can be kept open if used everyday. You open the upper part similar to the folded table on the bottom and pull it out which will form the rod where curtains will be there.

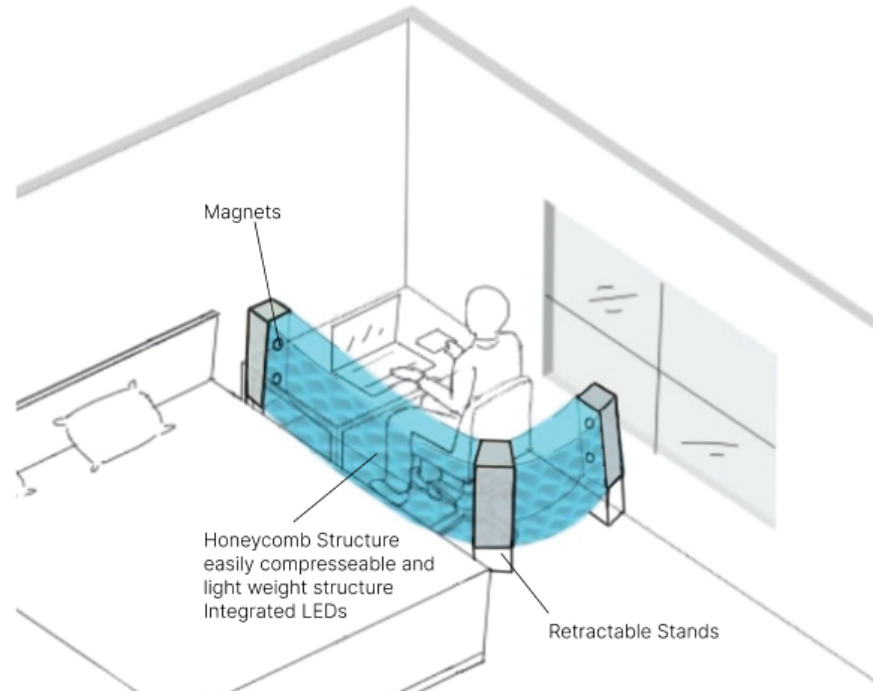
### IDEA 11

This is a complete enclosure type solutions for sound blocking.



# CONCEPTS

## CONCEPT 1



Honeycomb structure

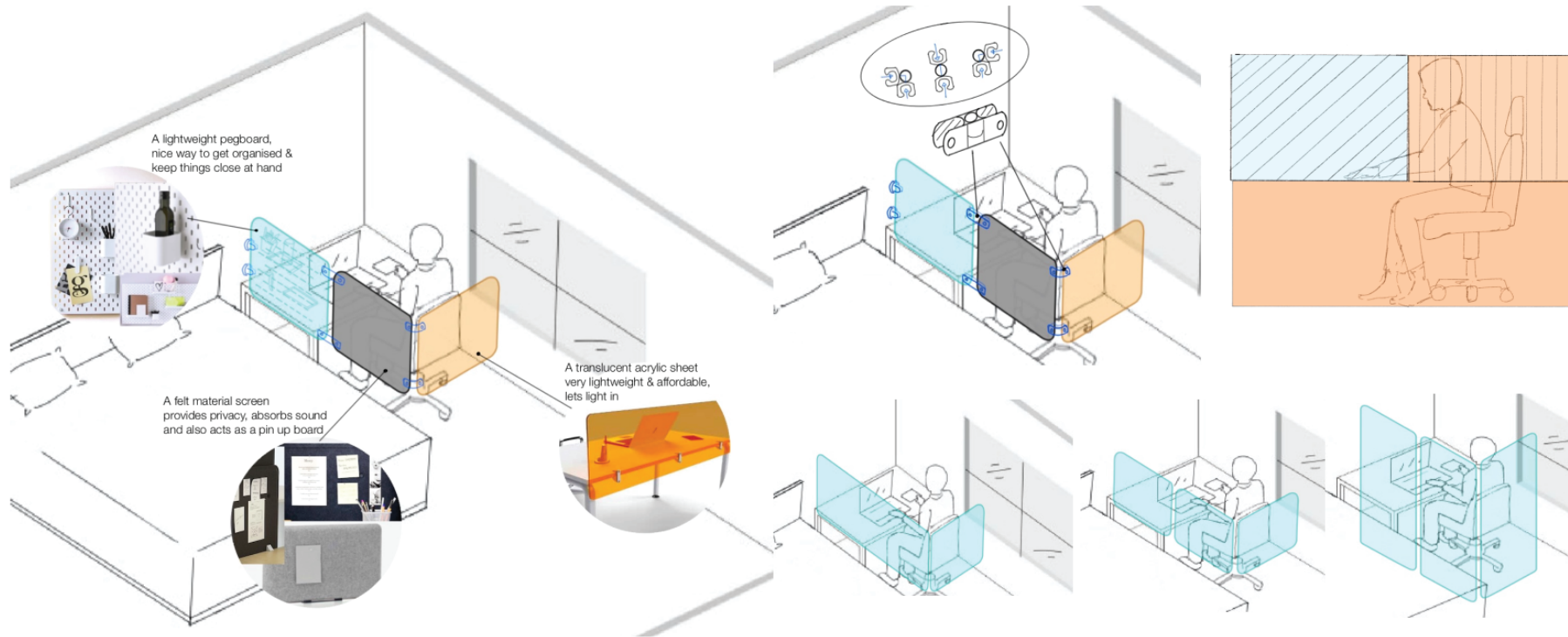


Integrated LEDs



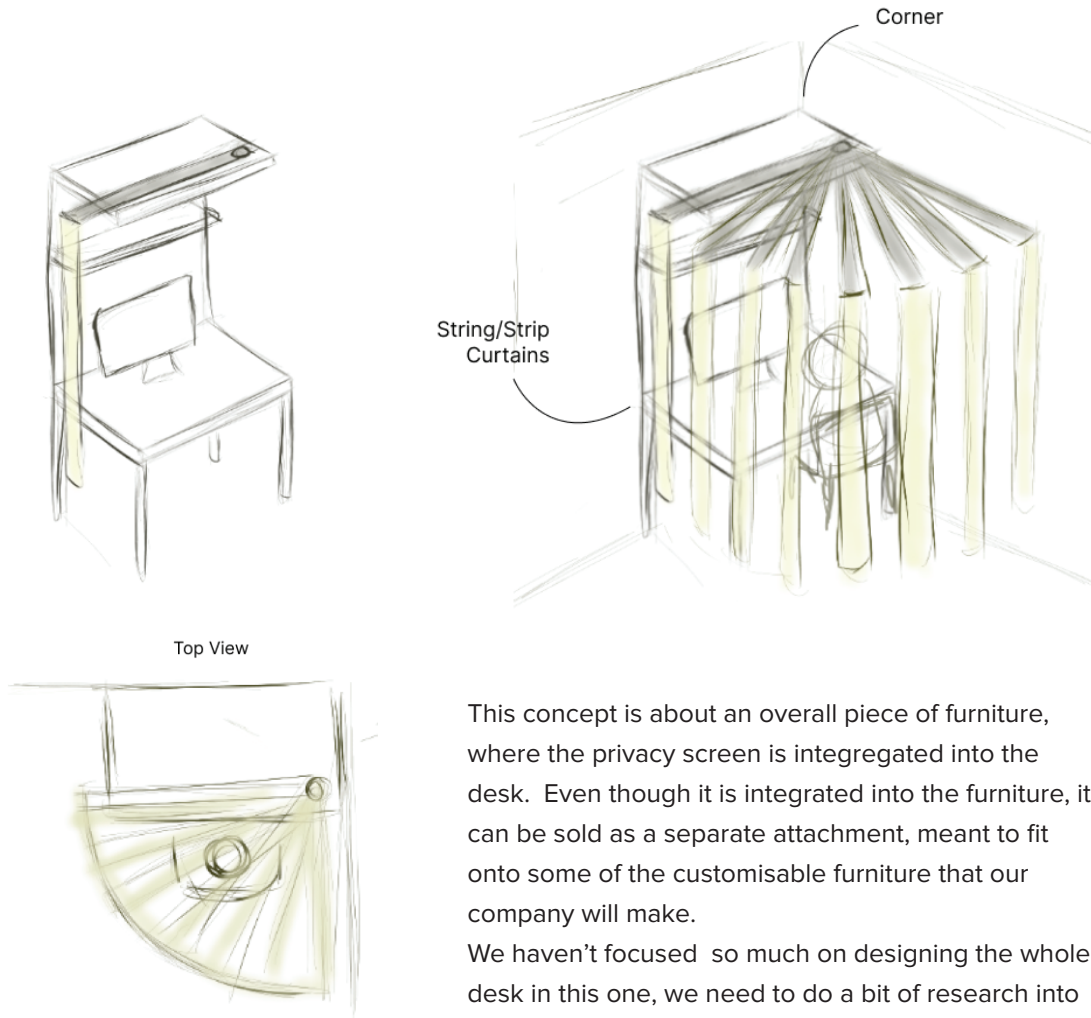
First concept is a flexible privacy screen. inspired from origami, paper foldings and traditional jaalis, the screen uses a flexible honeycomb geometry allowing it to expand and morph into different shapes in accordance to the space manipulated by the user. Made out of a flexible recycled plastic polyethylene. The screen has magnets on both ends that connects it to the stands with magnets providing support to the structure. The screen also has structure integrated LEDs that illuminate the space with ambient lighting. Along with that the structure itself provides some sort of sound proofing as well.

## CONCEPT 2



Second concept is a modular screen concept. The user is provided with two screen types, square and rectangle. The screens are of different materials for different uses. For example a pegboard screen could be used to keep small things closeby & a felt screen could be used as a sound blocking screen and a pin up board. Availability of such options and its easy configurability makes the product very versatile and easy to use(setup).

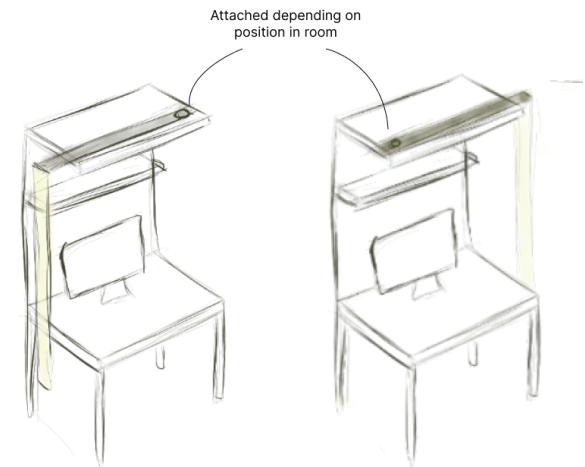
### CONCEPT 3

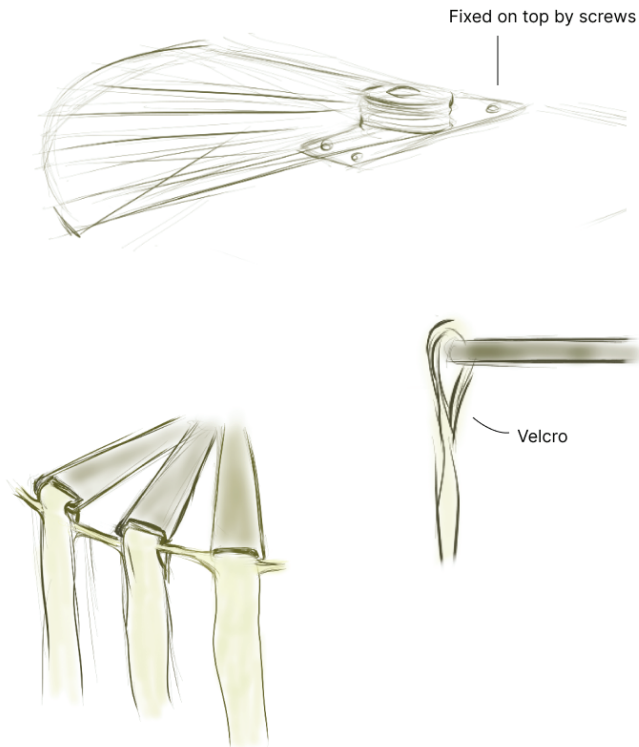


This concept is about an overall piece of furniture, where the privacy screen is integrated into the desk. Even though it is integrated into the furniture, it can be sold as a separate attachment, meant to fit onto some of the customisable furniture that our company will make.

We haven't focused so much on designing the whole desk in this one, we need to do a bit of research into that as our focus so far was how to bring in privacy in home workspace. This one is meant for desk kept in corner.

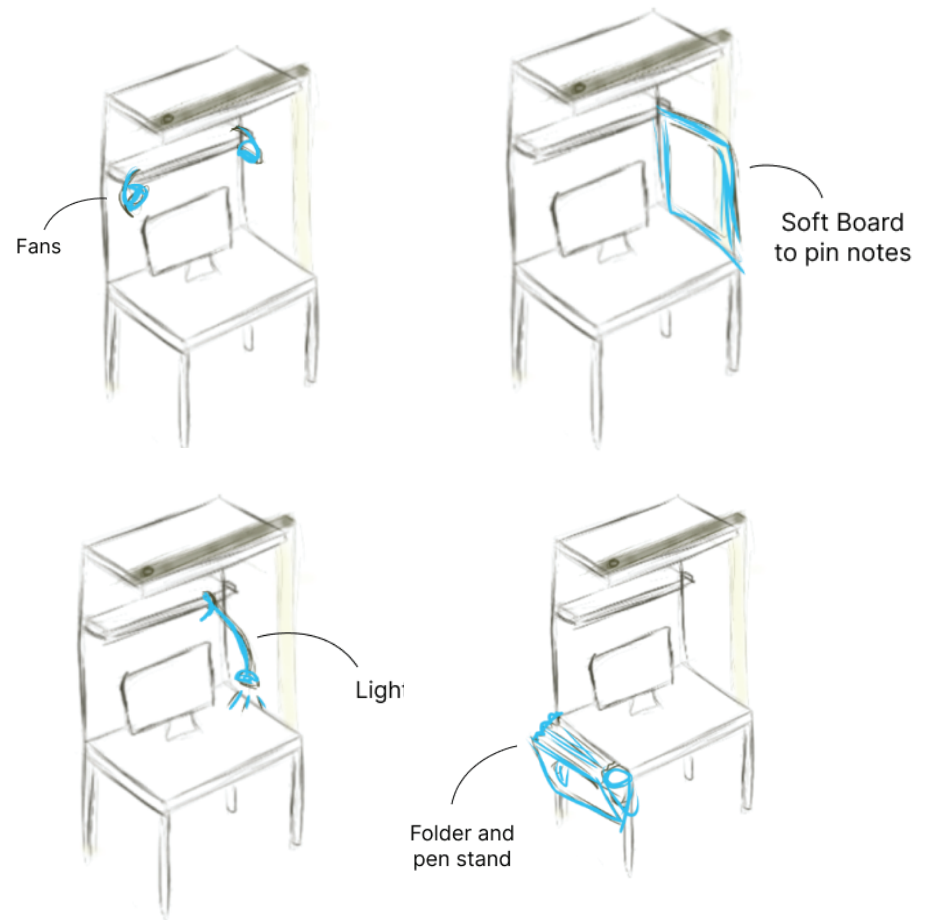
The fixing part would be a one time thing depending on where you want to keep the furniture. Whether it should fit on the right side or the left. It will have screws that can be removed to detach the part.





The thread or strip curtains will be detachable and so can be washed like regular curtains. Because of these curtains the user can go out easily and also wouldn't feel congested.

From a business pov, we can expand by making other attachments that people can add to their furniture to customise it. Things like maybe a sort of a folder to keep your papers or a pen stand on the side which is attachable or a pin board that can be attached to a side, depending on the person's requirements, the user can build his workspace, lights, mini fans, etc. the main tables or desks will be designed to accommodate these accessories.





# NEXT STEPS

Our next steps are to make changes based on feedback we get in this presentation, get user feedback, select one concept and make revisions based on user feedback, build prototypes and business model

- Changes based on feedback
- User Feedback on Concepts
- Revised Design
- Product Sketches and Prototyping
- Business Model

# REFERENCES

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