



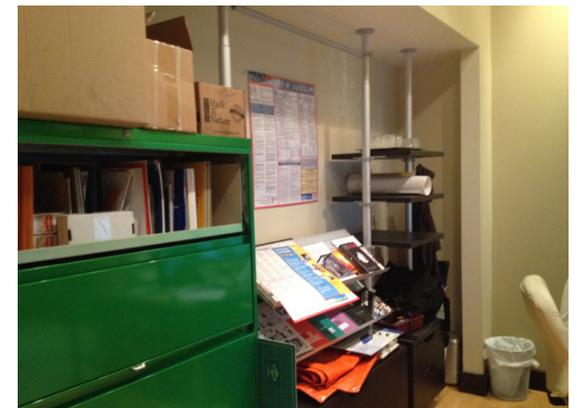
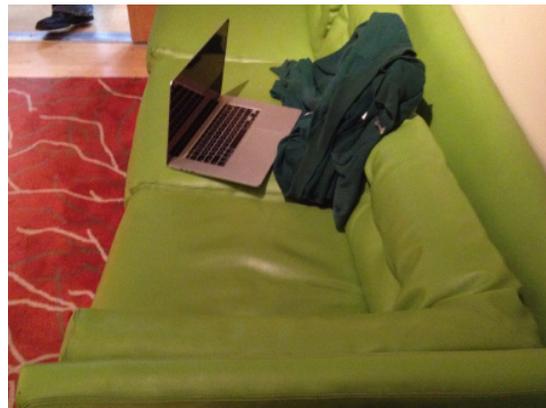
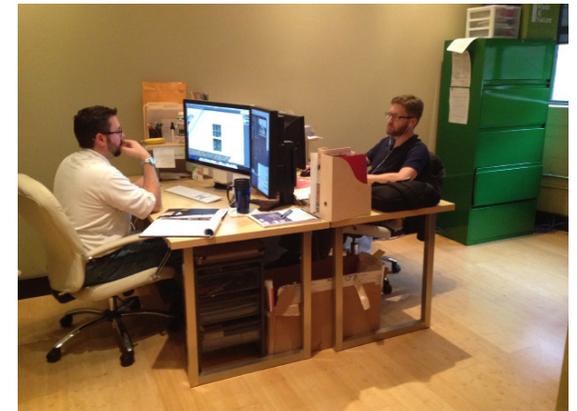
Adaptable Conference Space

Senior ID Studio: Sustainable Product Design
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Visiting Distributed Workspaces

In order to conduct our research, we visited Smokestack, Co-Working Rochester, and Venture Creations. All three of them are distributed workspaces, but each has a very different office climate and workers.



User Needs

Co-Working Rochester

Who: remote workers, freelancers, start-ups

Benefits: Shared facilities, social interaction, and a space with minimal distractions

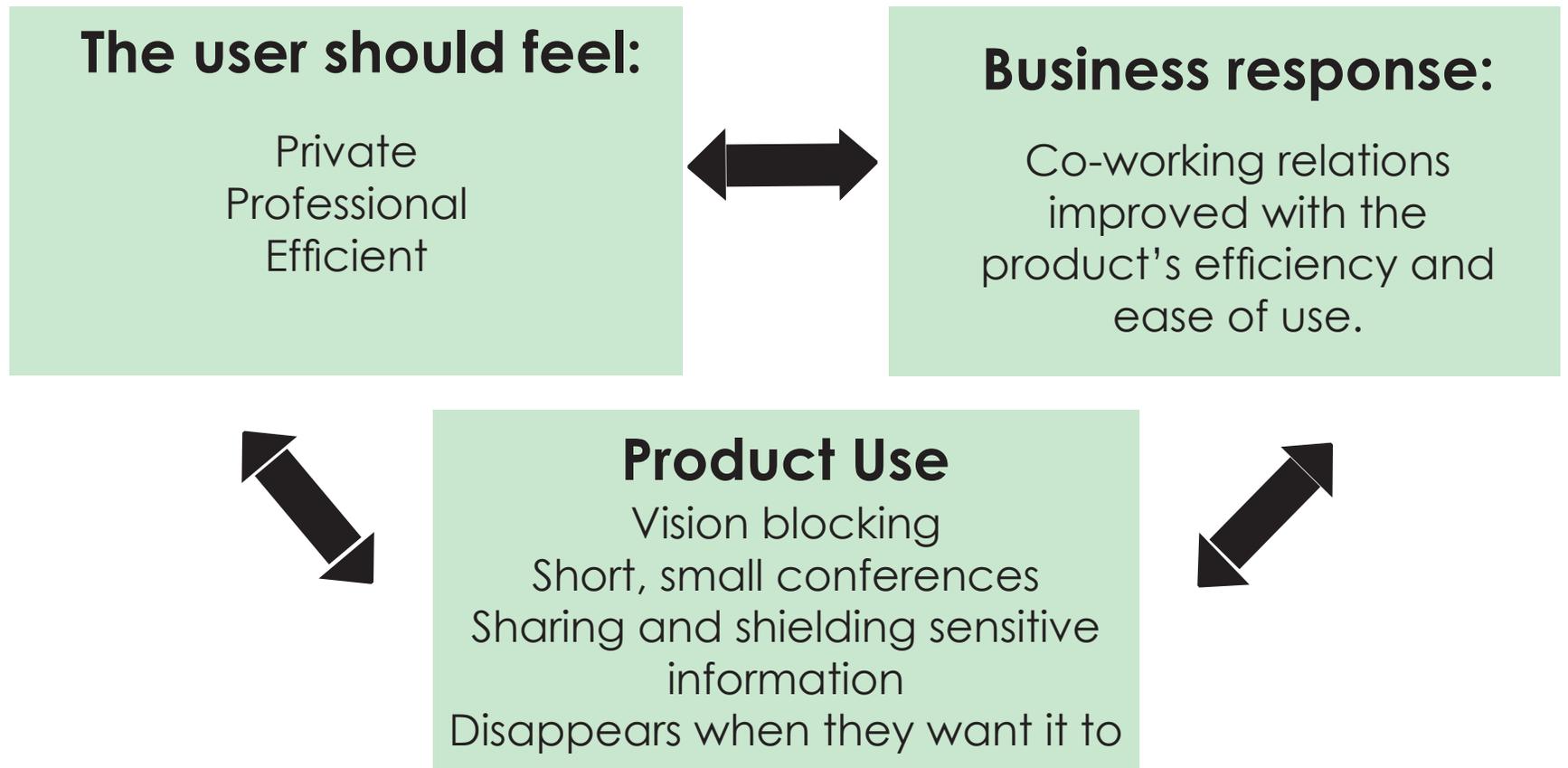
Disadvantages: balancing individual work spaces with meeting spaces, need for privacy between companies.

They Need:

Privacy
Adaptability
Ease of use

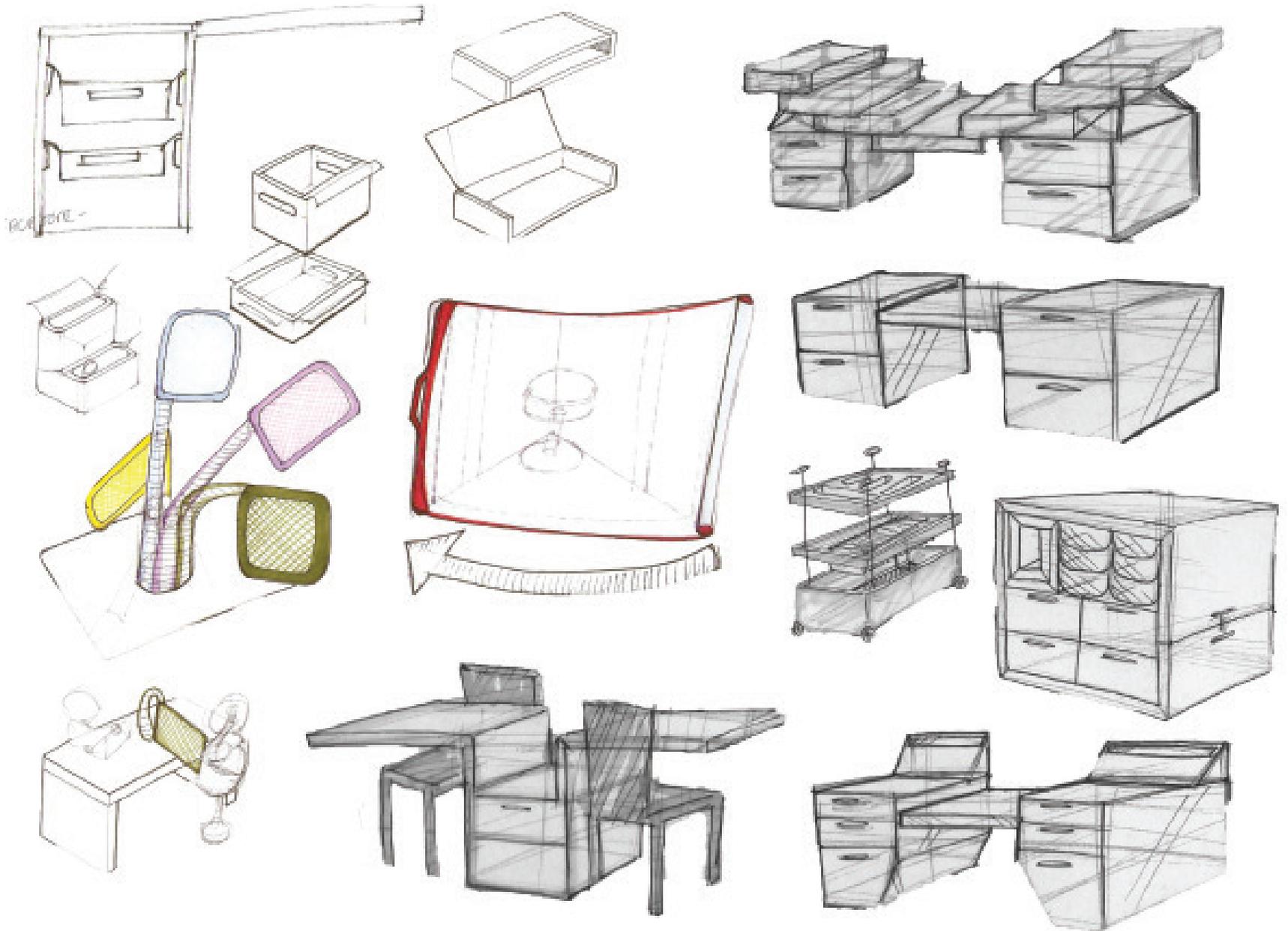


User Needs



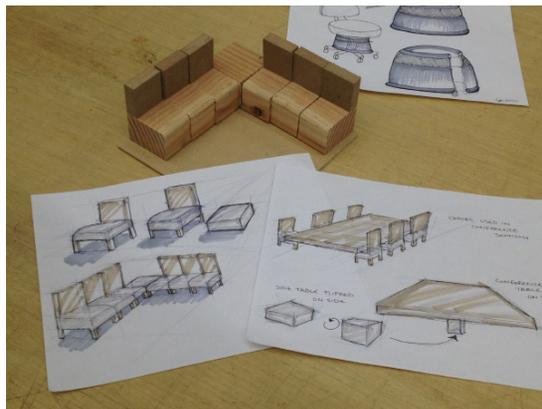
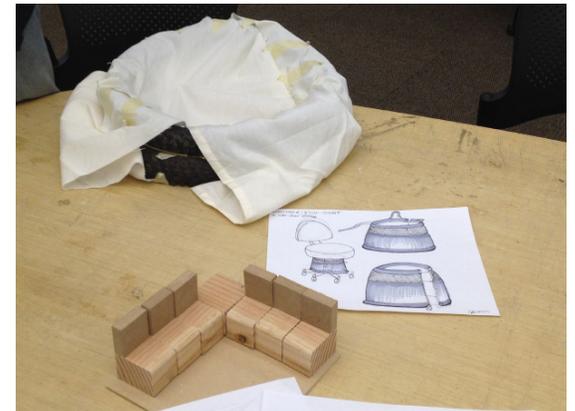
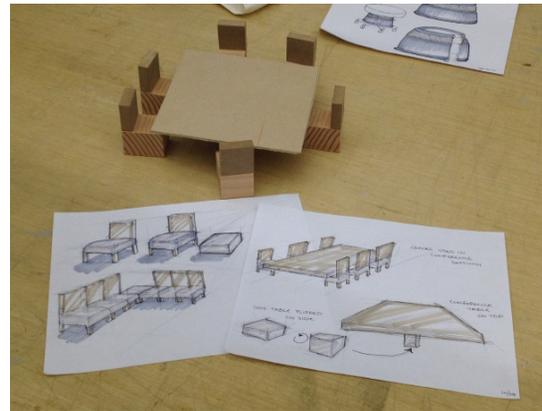
Our next task was determining what we wanted the users to experience while using our product. Using these guidelines for feeling, using, and the overall business response of the product, we began to ideate possible solutions.

Ideation

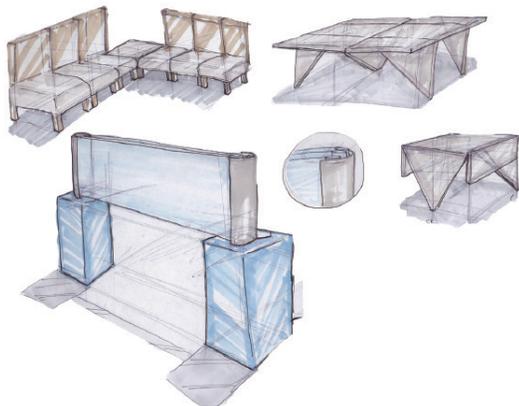
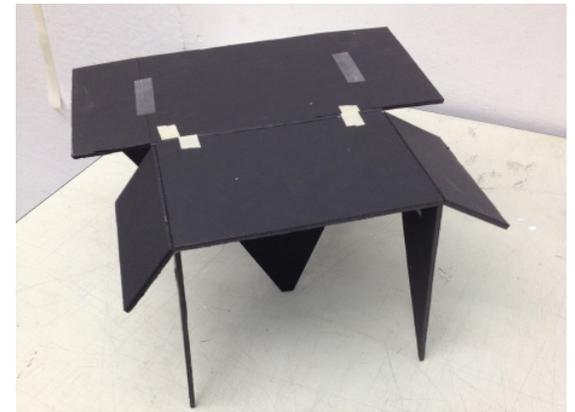
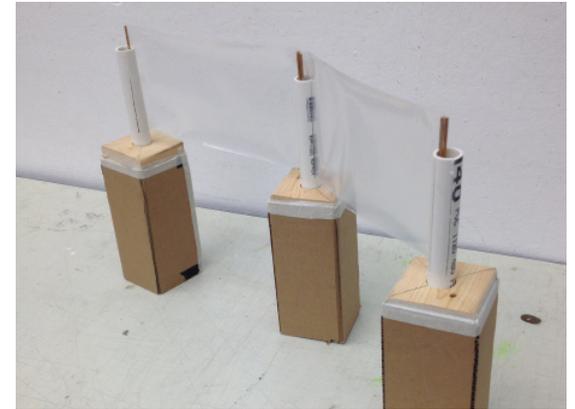
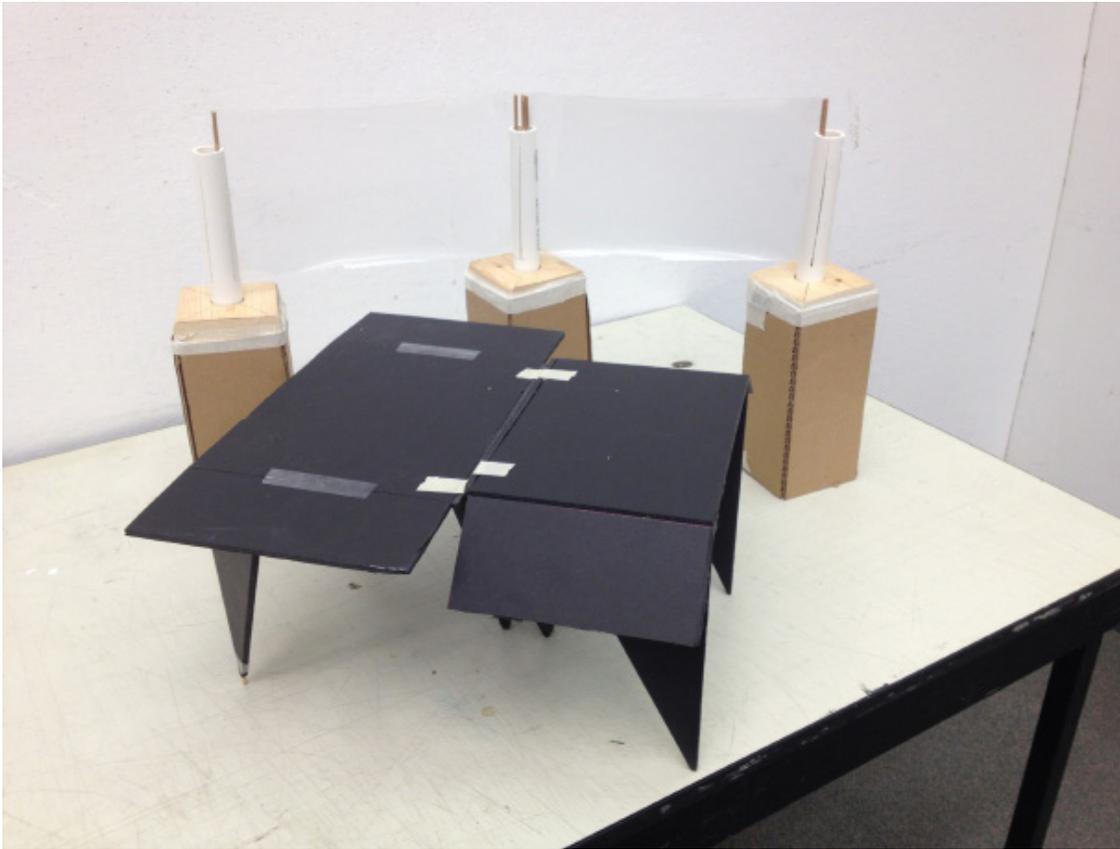


Initial Concepts

Our first concepts were based on the need for collaboration within the workspace, privacy, and securing personal belongings throughout the workday. The first concept was a privacy divider screen meant to block the user from the view of others. The second was a modular conference table and lounge area. The third was a basket designed to go under the user's chair in order to keep personal belongings secure when they weren't at their desk.

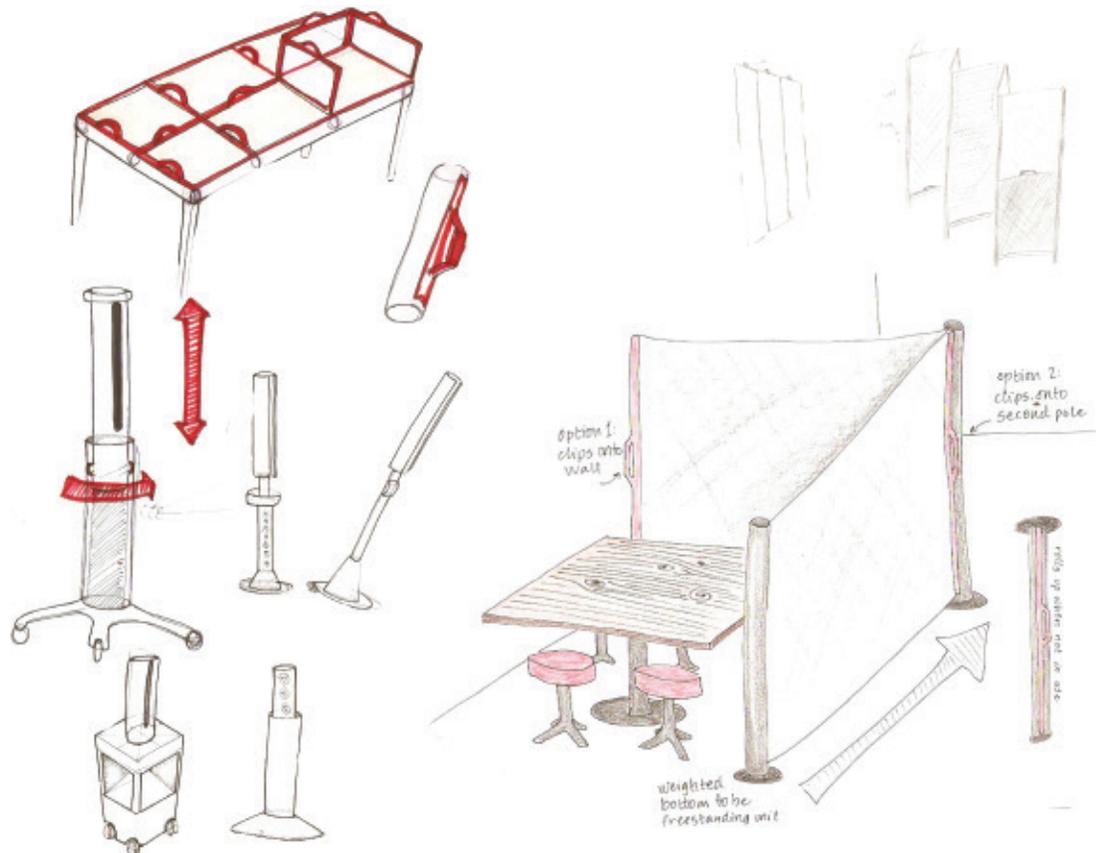


Refined Concepts



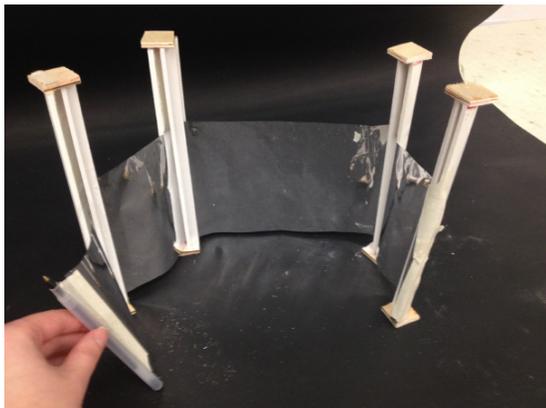
We decided to expand on our initial concepts of a modular conference table and privacy screens and tried to integrate them into the experience of using a conference room. We wanted the users to be able to use multiple surfaces of the conference room and have quick meetings at the podiums while having longer conferences at the tables. However, the two concepts were still too difficult to integrate, and we needed a way to integrate them better.

Screens and Dividers

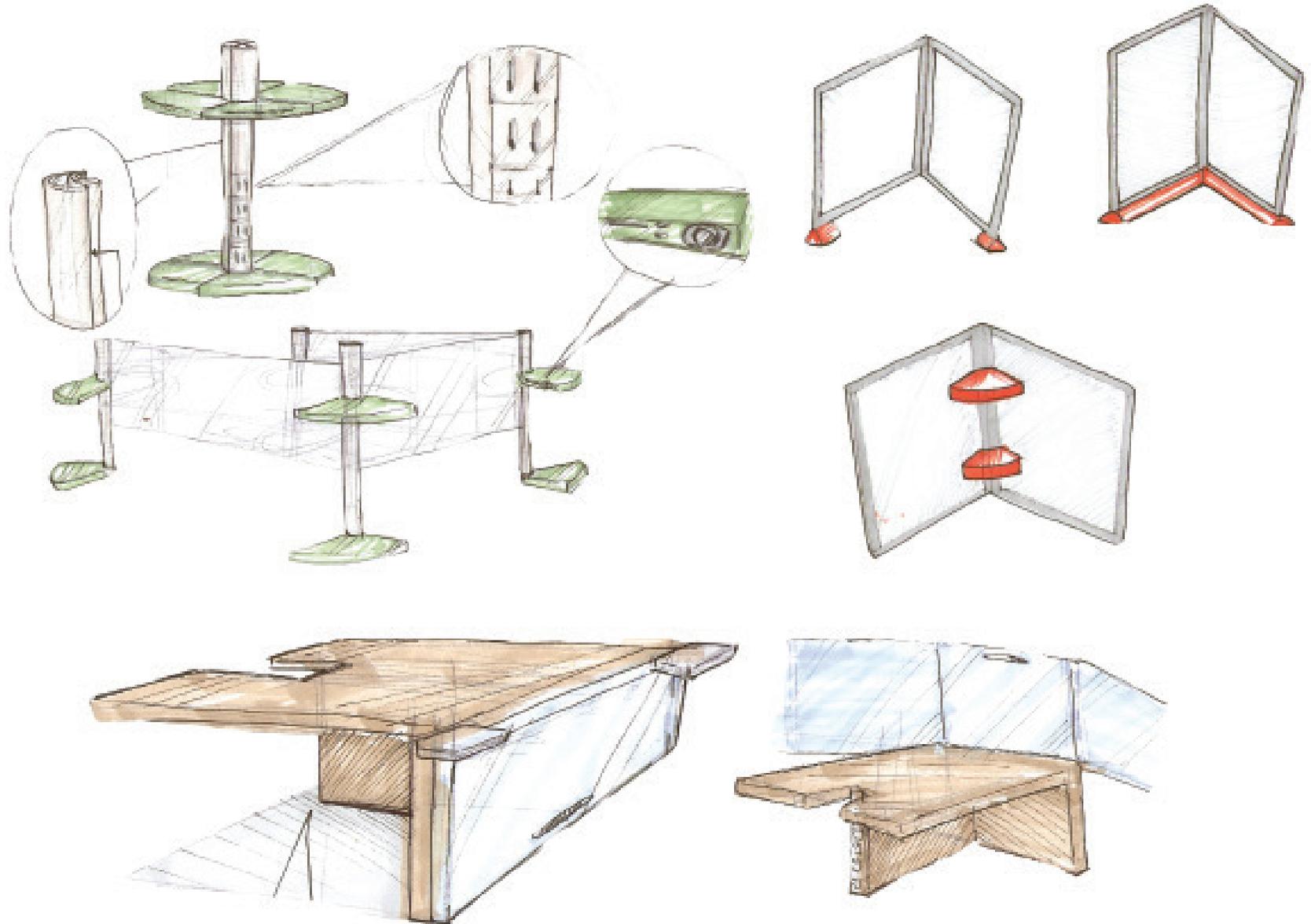


We decided to break down the elements of our design and focus on the screens. We started to think about the ways we could use the screens as something that could both visually block users and bring them together.

We realized that the office of the future would have a more distinct need for a space that could both be private and collaborative, so we decided to focus more on privacy screens.



Integrating Technology



The Role of Future Technology

Pico Projectors, Power Strips, and Video Conferencing

We began to look at the ways that we could intergrate technology so that it would benefit productivity. We realized that small electrical devices such as surge protectors and pico projectors could transform the way our users could utilize the space by making it either an ideal place to work on their own or a good place to collaborate. We also realized how important videoconferencing is to the modern workplace, and as businesses expand to various locations, they will need a way to connect to their workers.



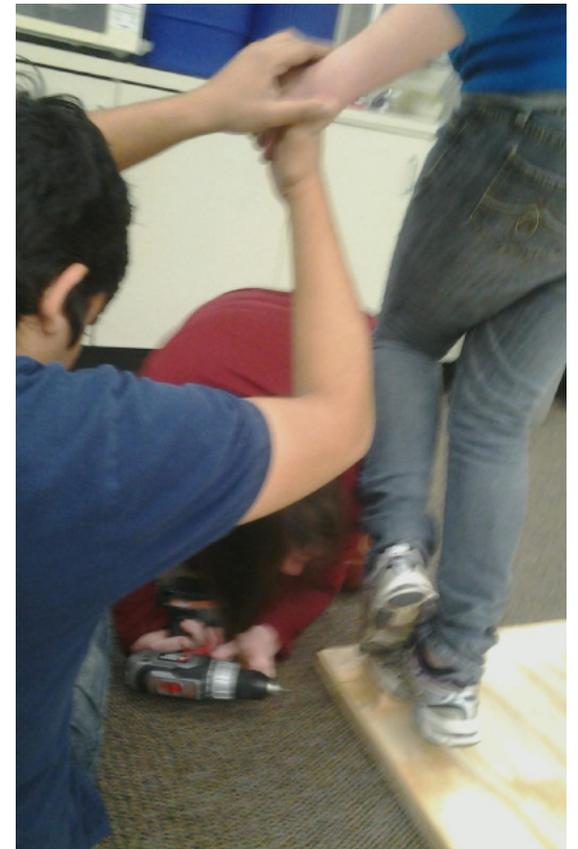
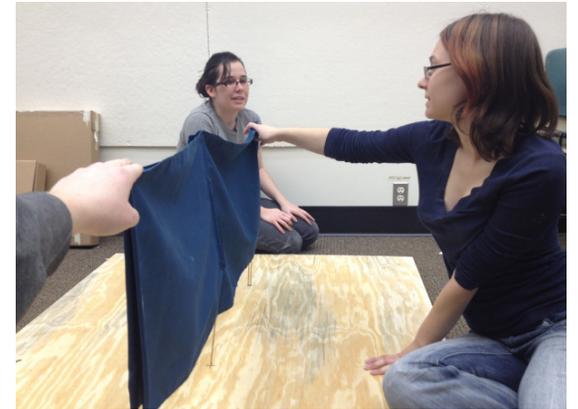
Material Trade-offs

	Wood Surface with Metal Hardware	All Metal	Molded Plastic with Living Hinge	Fiber Based Composite Surface with Metal Hardware	Silk	Cotton	Vinyl
Stage 1: Manufacturing							
Stage 2: Use							
Stage 3: End of Life							

Streamlined Life Cycle Assessment

	Traditional Layout (including conference space and work space for four)	Adaptable Office
System Components	One 48" x 66" conference table Four 24" x 30" individual desks One 48" x 64" projection screen	One 48" X 66" table with screen storage (Slight addition) Zero individual desks (100% reduction) One 24" x 32" projection screen (75% reduction) Two 18" x 42" dividers (Addition)
Material Usage Reduction	Screen size 48" high by 64" wide.	Screen size 24" high by 32" wide. (75% reduction in size and material).
Material Increase	Traditional conference tables do not include a shelf for screen storage.	Storage of the screen by mounting under the table requires an additional layer of material beneath the table surface.
Material Selection	Solid wood surface	Fiber based composite, a material made from 100% post consumer recycled paper and petroleum free resins
Square footage per user	Average square footage per user is 340 feet	The increase of collaborative and team oriented space is estimated to result in a 43% decrease in office space per worker
Energy per user	57% of energy in office buildings is used for lighting and space conditioning	Lighting and space conditioning are related to square footage and volume. We estimate an energy savings between 30 and 40% per user, due to the increase in users in the same square footage.
Screen Mechanism Simplification	Operated using roller retraction devices, hinges, wall or ceiling mounts and pneumatic or hydraulic supports.	Mounted in feet during use and is stored expanded under the conference table, eliminating the complicated mechanisms.
End of Life Management	The recycling infrastructure for wood is well established, however wood is recycled to a lower quality end use.	The recycling infrastructure for fiber based composites is limited; however research work shows potential for separation of resin and fibers, enabling future material recovery.

Making the Model



Filming the Video



User Scenarios



Annemarie and Raianna are freelancers who are sick of the coffee shop scene, so they come to the distributed office looking for a mix of both private working space and the ability to socialize when they want to. The privacy screens enable them to have both privacy and a social atmosphere.



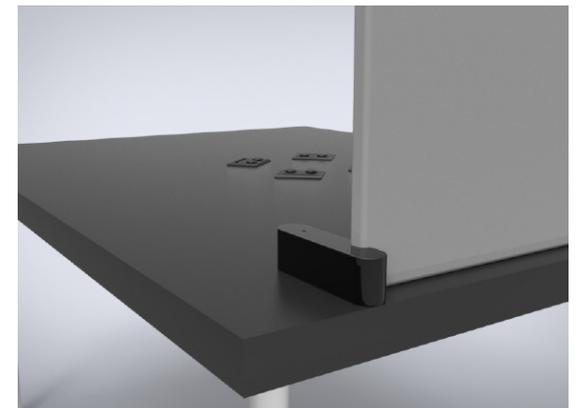
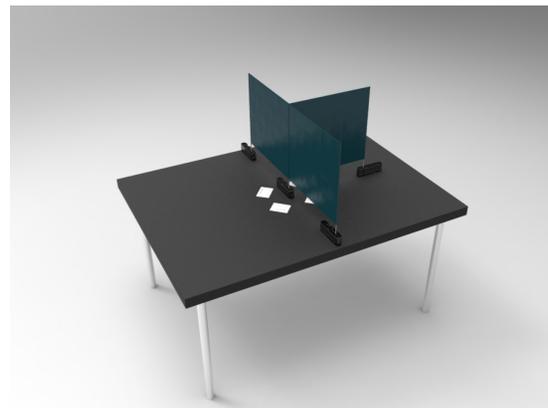
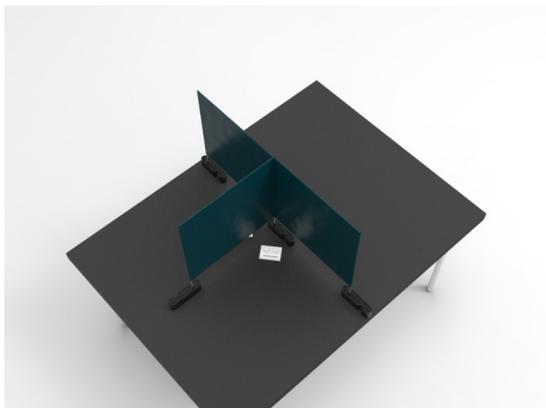
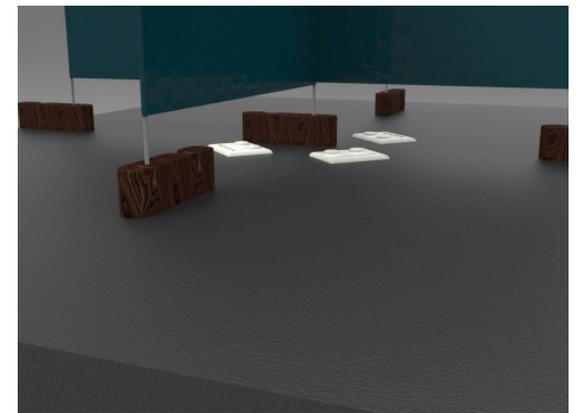
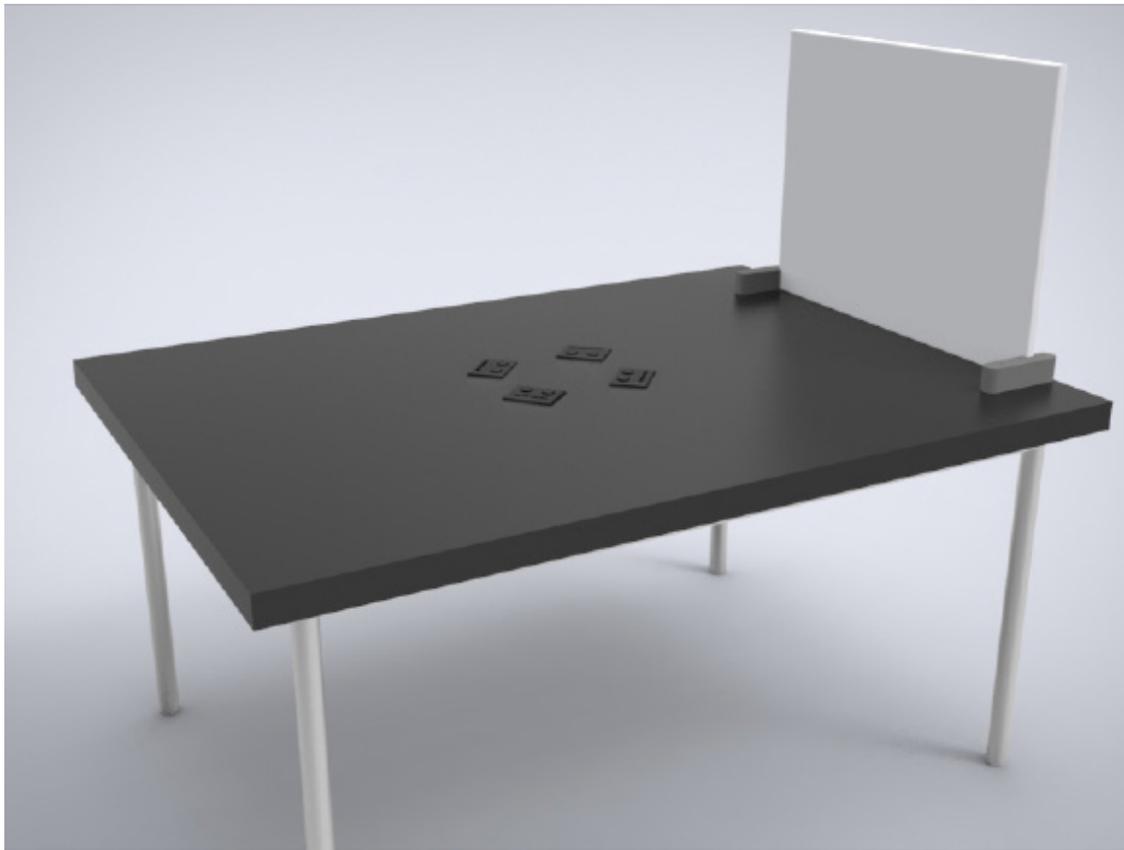
Barbara is used to working from home, but lately she has too many distractions. She comes to the distributed office to get the privacy and quiet she needs and be more productive.



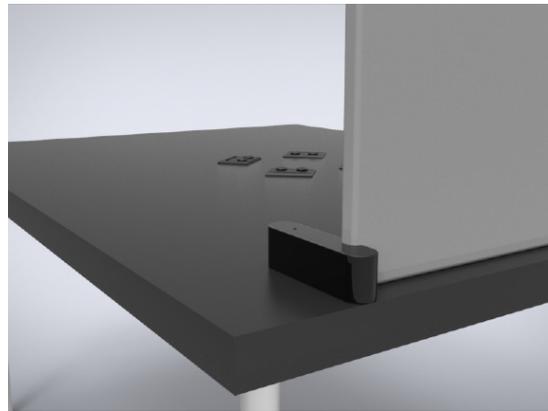
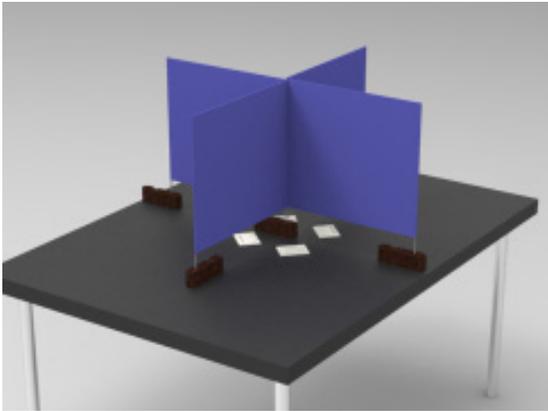
In our video, Abhi is a mobile worker who needs a place that he can work without distractions. The projector screen allows him to give presentations anytime he needs to, and being in the distributed office environment allows him to talk to various clients.

See for yourself: <http://www.youtube.com/watch?v=dV-zpF-zoZ8>

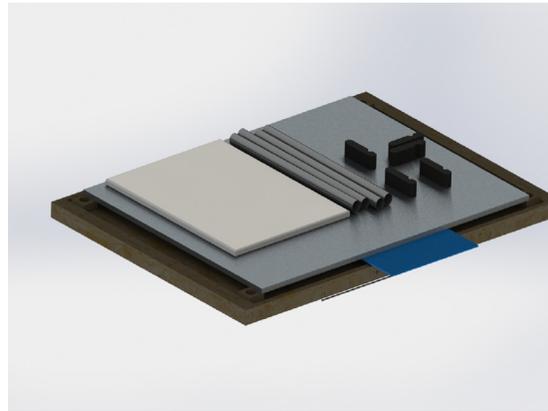
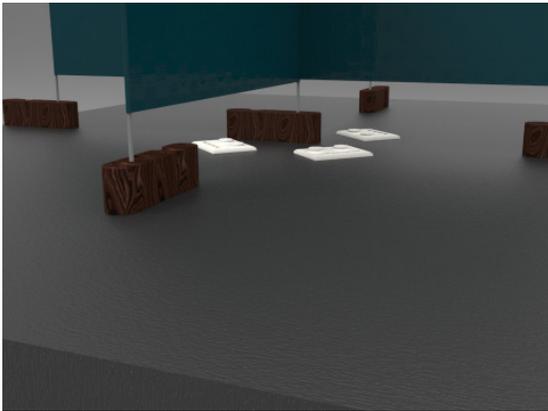
Renderings



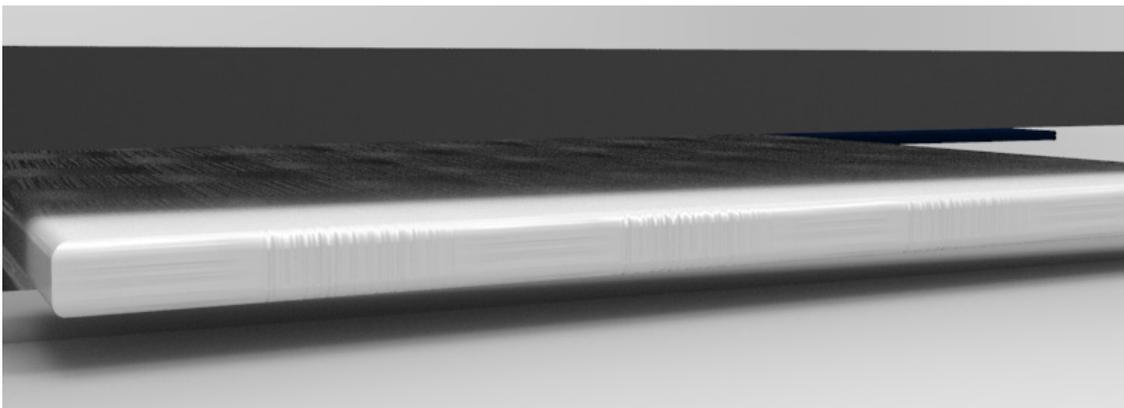
Features



Divider splits the table into up to four separate workspaces. The users can configure however many spaces they need at a particular time. The same blocks that hold the table up also hold the projection screen up, which means only one type of part is being manufactured.



Electrical outlets and USB ports can be found at the center of the table so that electronic devices can be plugged in closely to the user and not trail on the floor. The unit also ships flat



Storage space for the screen, dividers, and support blocks are located under the tabletop.

Final Model

