Emergence

Dustin McDermott

Concept Statement

Emergence

Emergence is an organic balance of wood and glass that celebrates the intersection of two masses. Taking inspiration from an iceberg piercing the surface of water, the table has an arching walnut top, with a separate plywood shelving unit piercing through the walnut surface. This piece is intended to be more high end being made up of walnut, formed plywood, and custom glass pieces.

User

Name-Timothy Lee
Age- 30 y/o
Job- Therapist
Hobbies-
-Wine tasting
-Jogging
-Plays the Harmonica

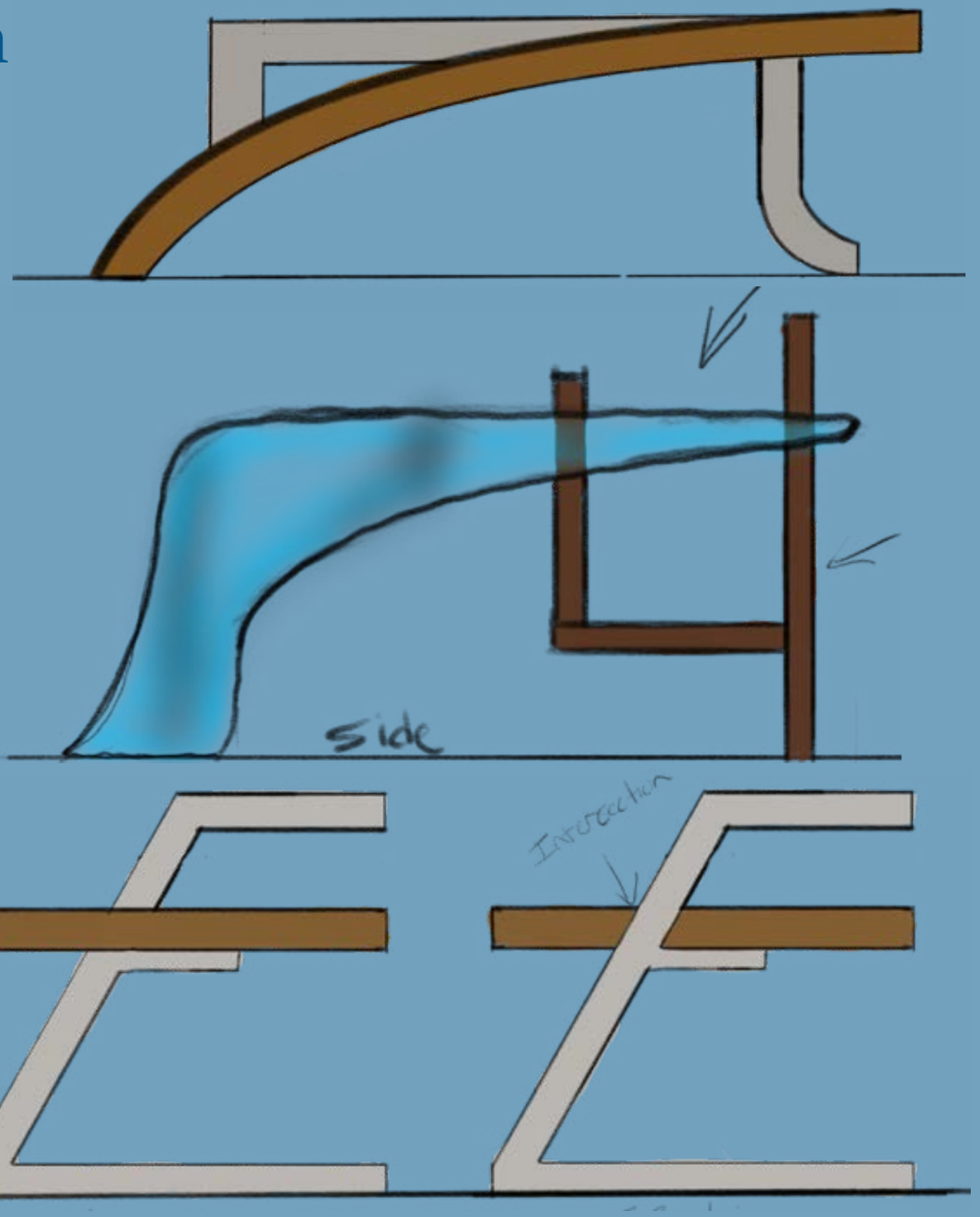
Timothy is looking for a organic piece of furniture that will be a conversation piece in his new house. He wants something that is beautiful yet still has a functional use.

Inspiration

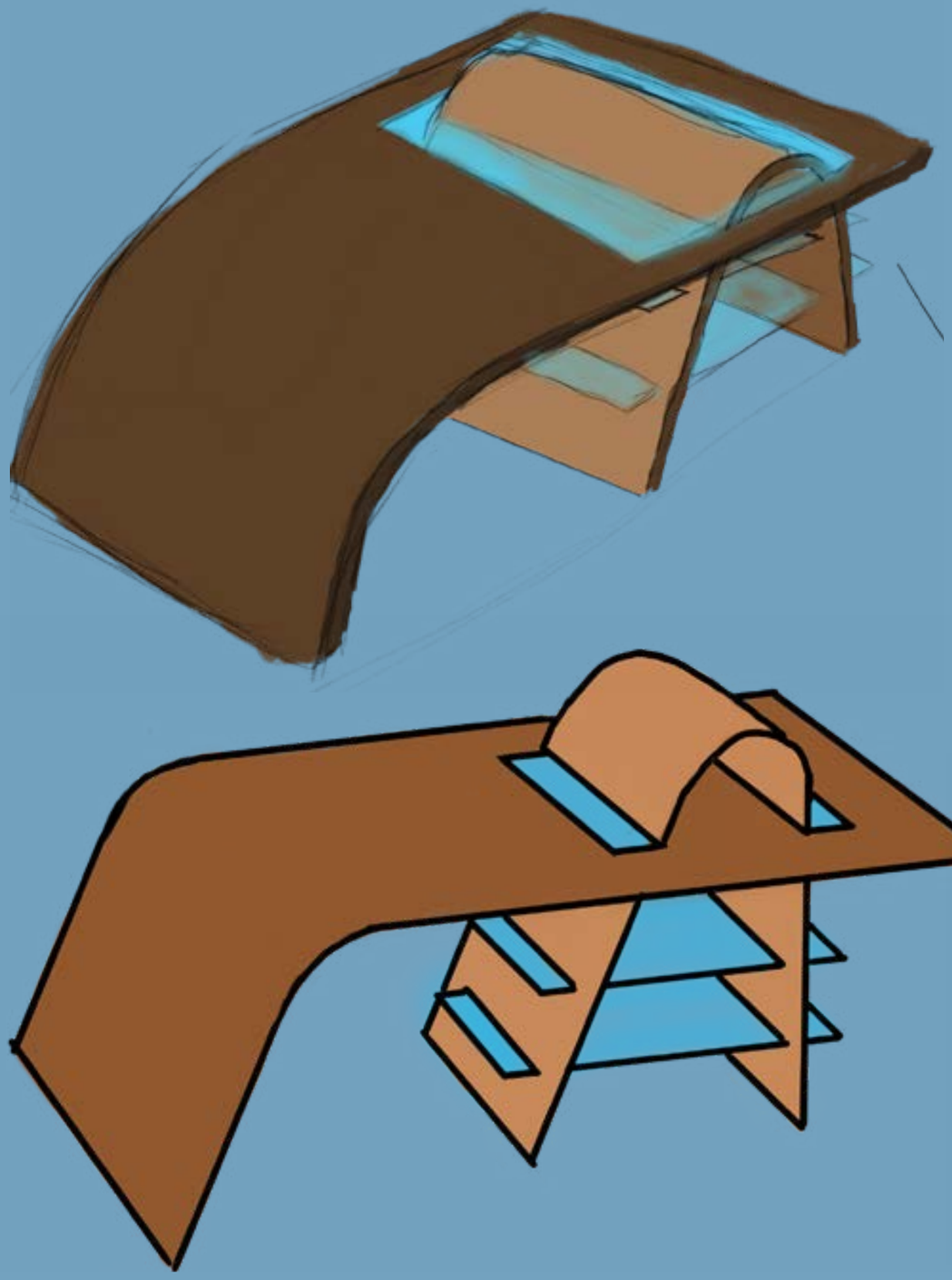
Ideation Process

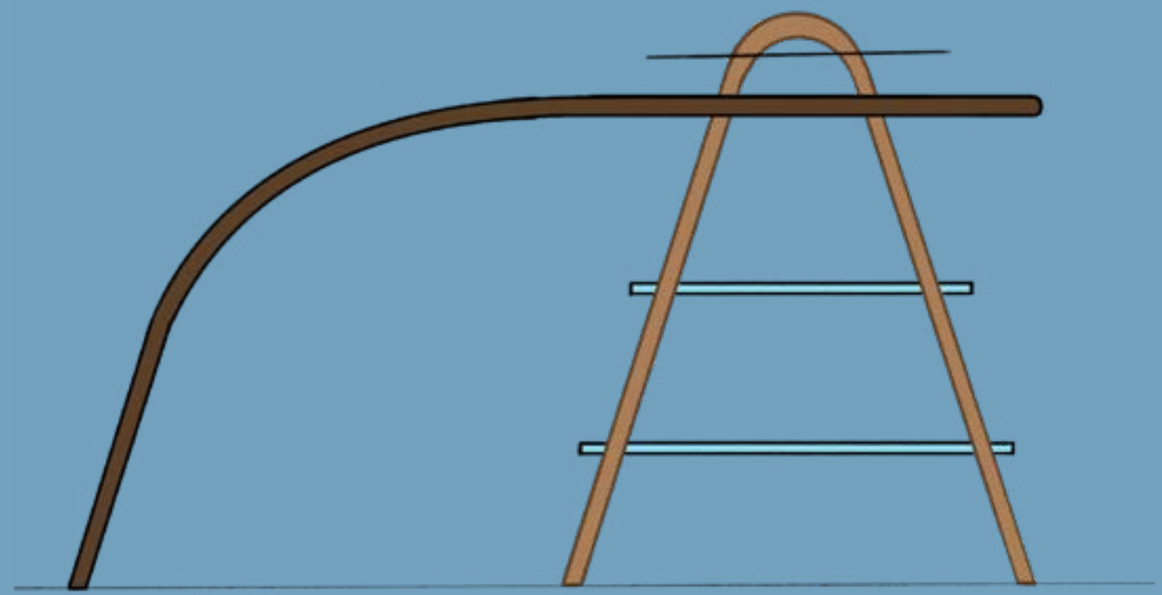
Concept

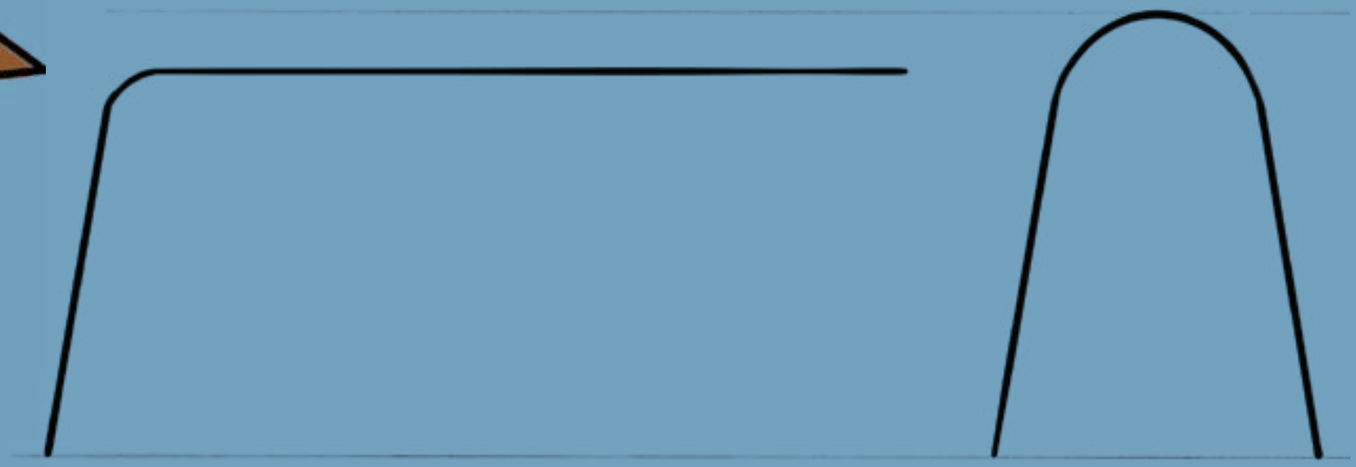
Intersection

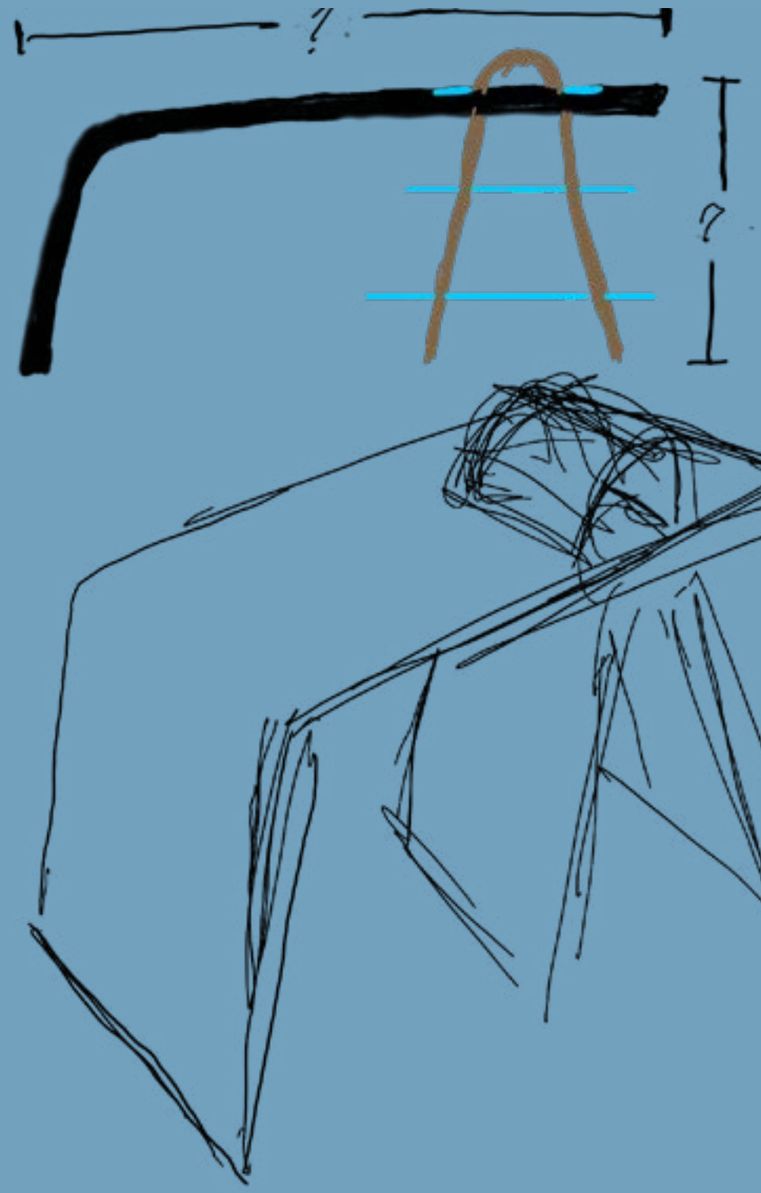


Development





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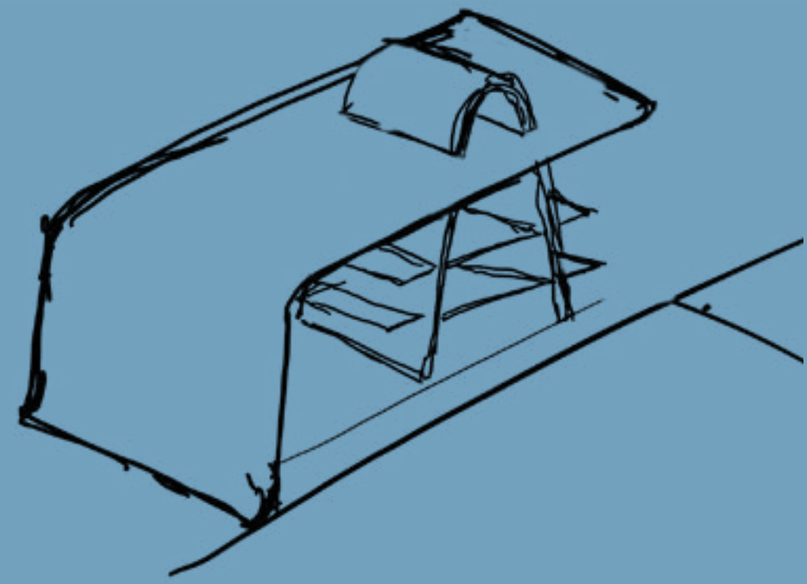
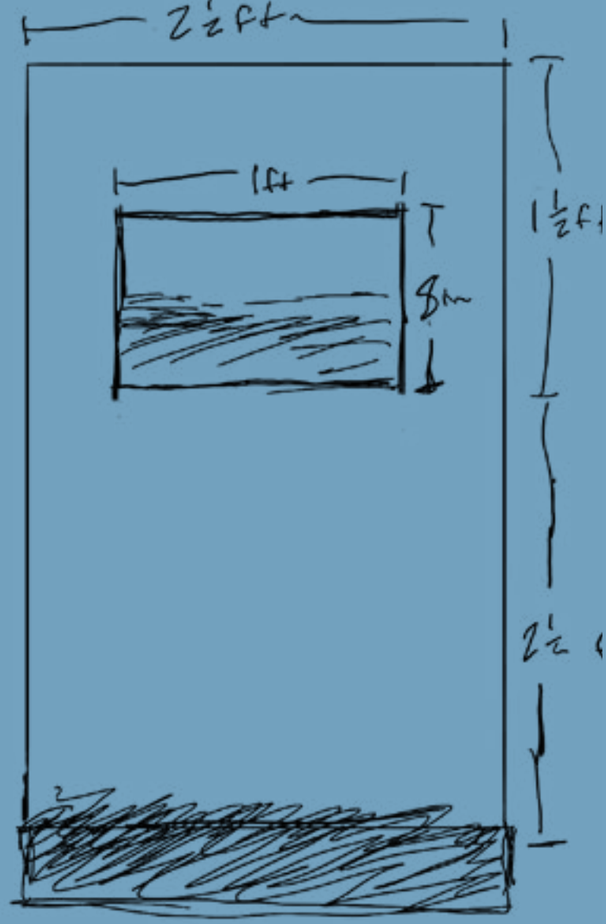
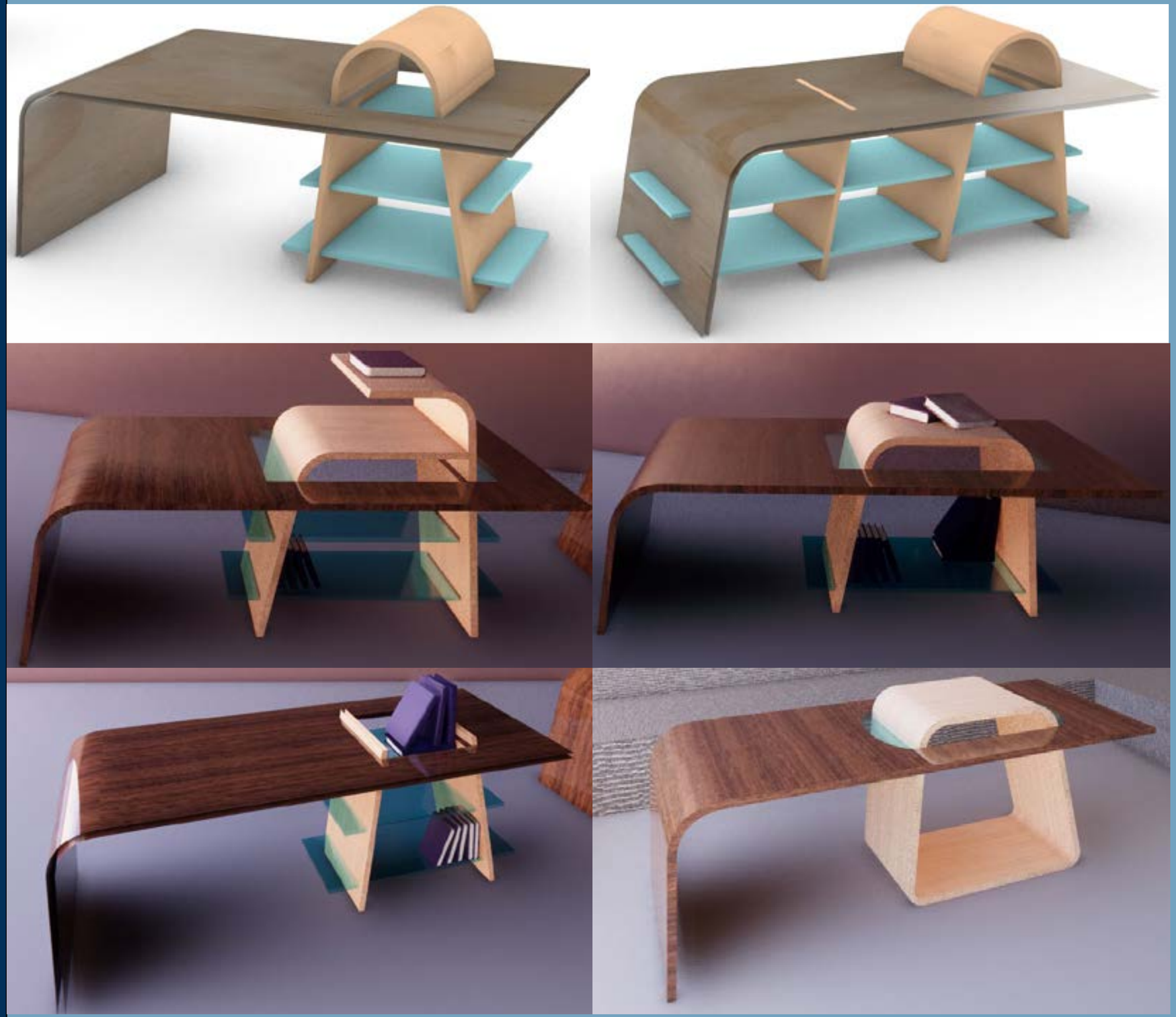
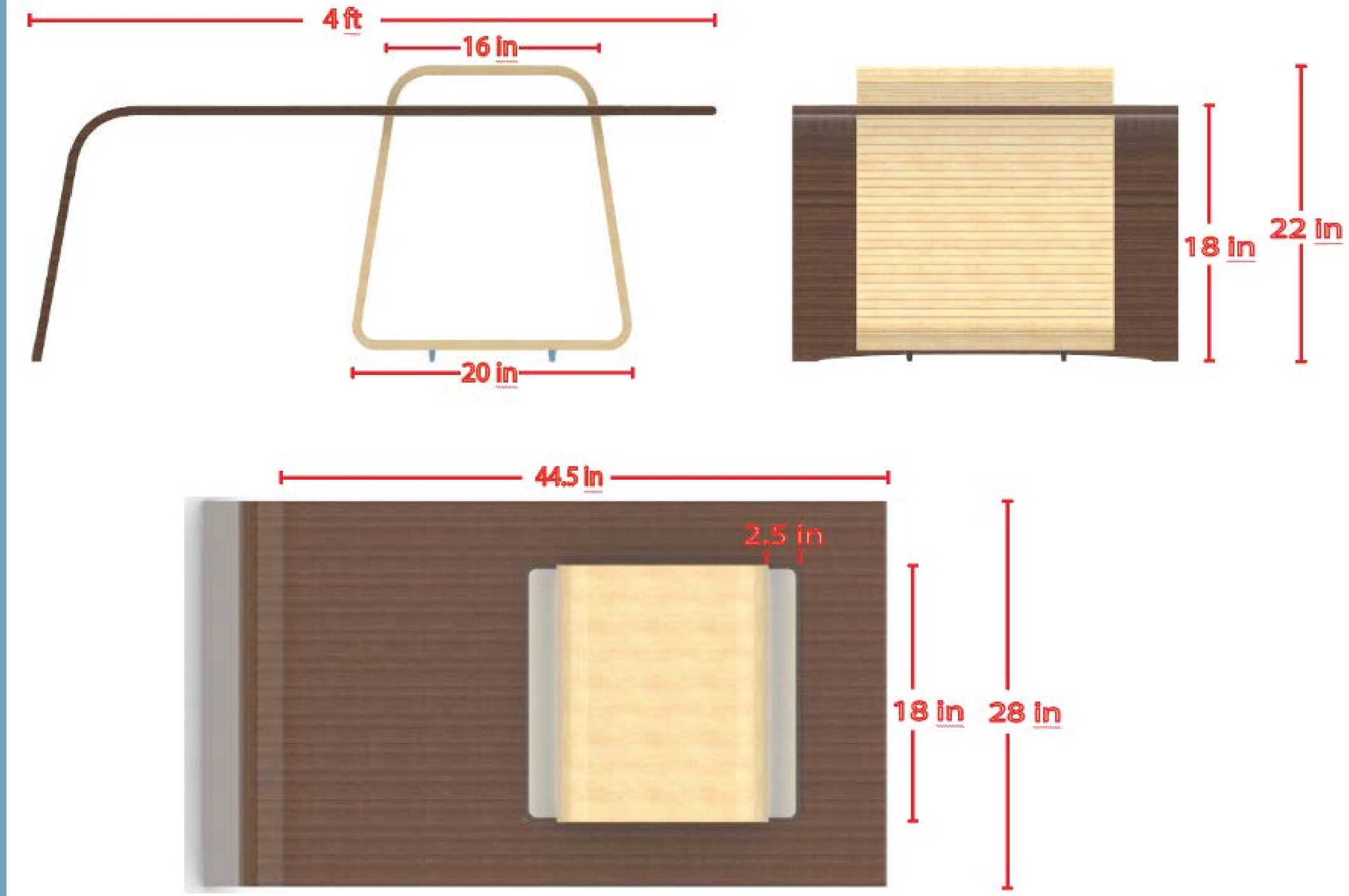



2½ft
1ft
1ft
8in
1½ft
2½ft

Itterations



Final Design



Dimensions

Materials

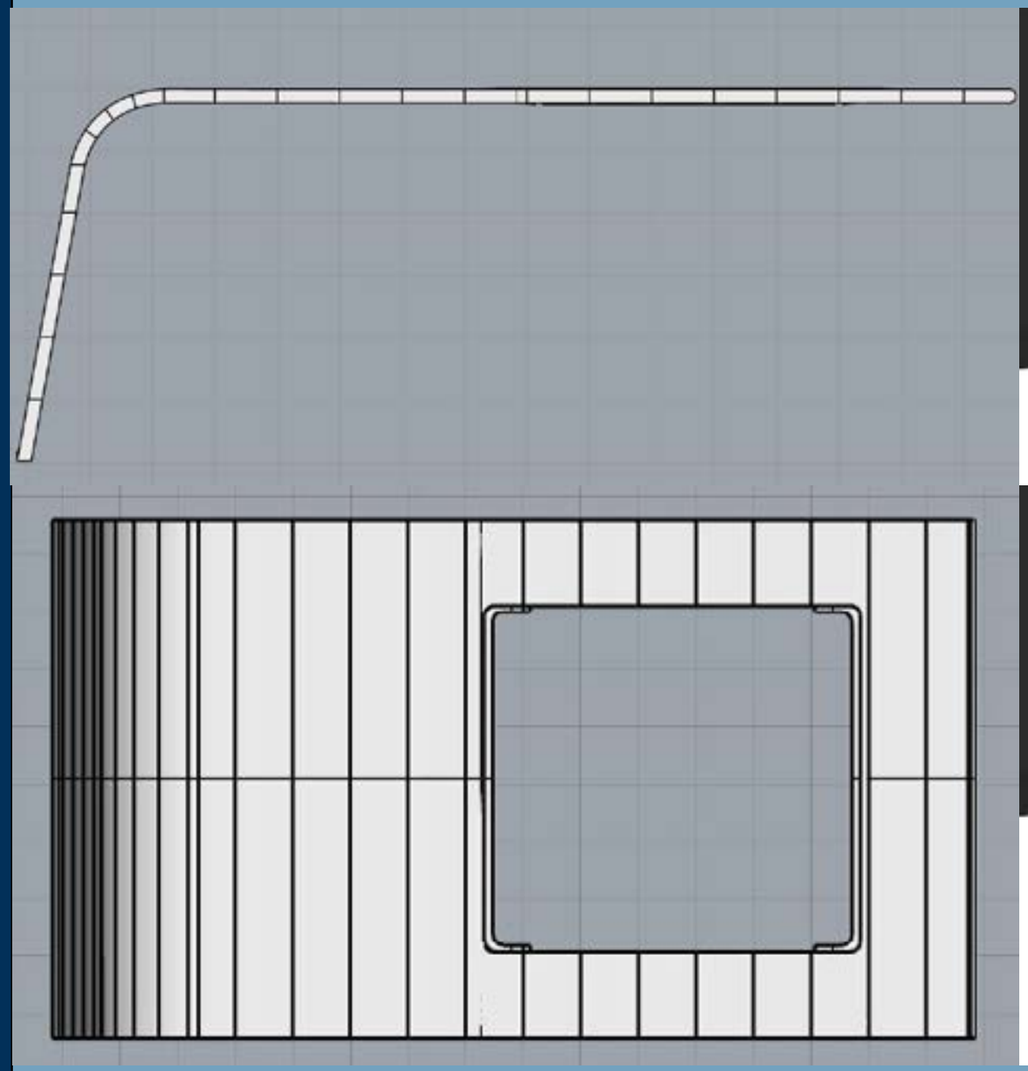
3/4” Baltic Birch Plywood

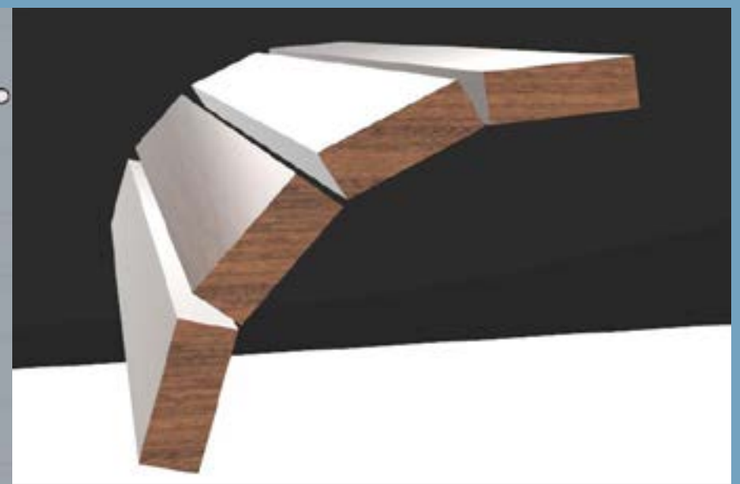
Tempered Glass

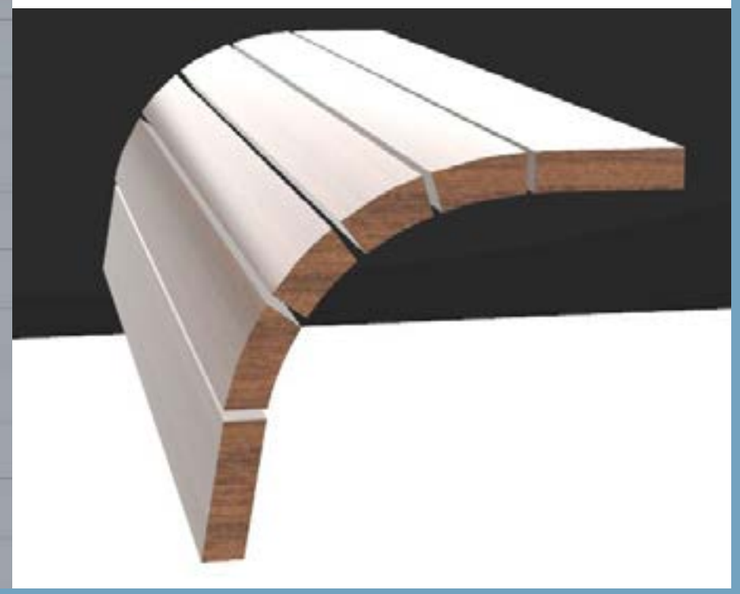
Metal Rods

Rubber Feet

Fabrication

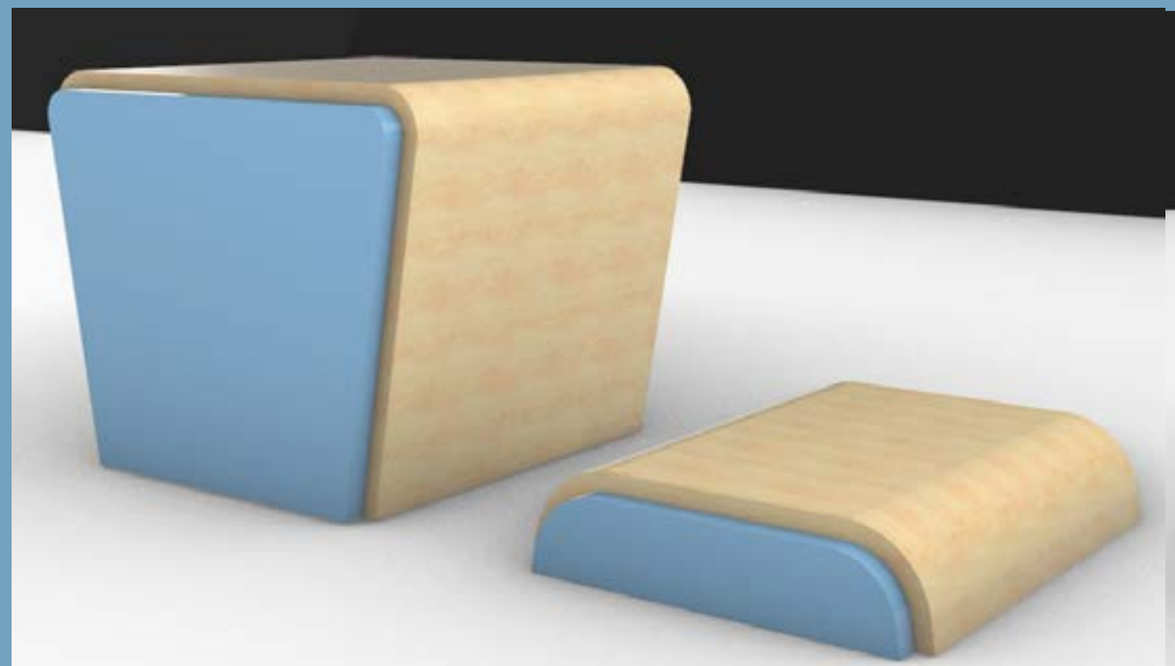


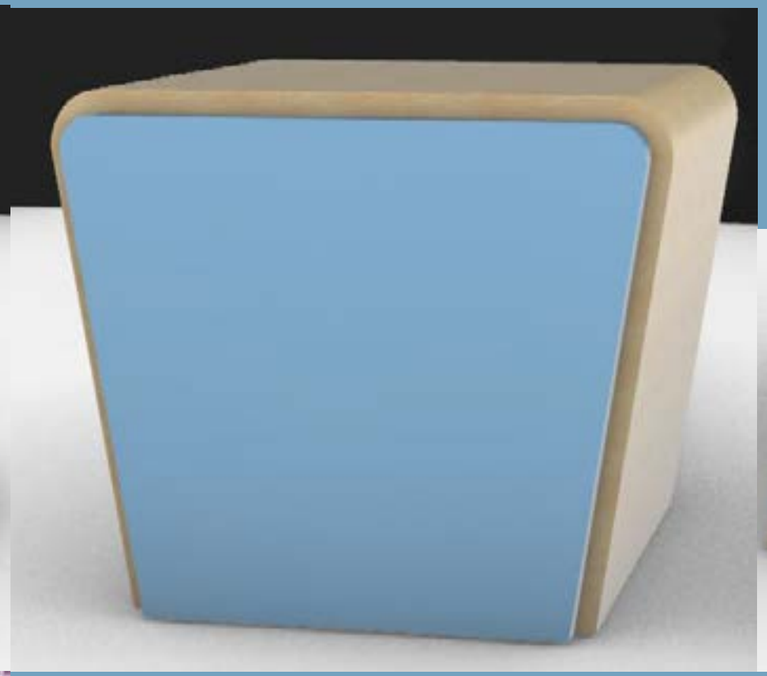


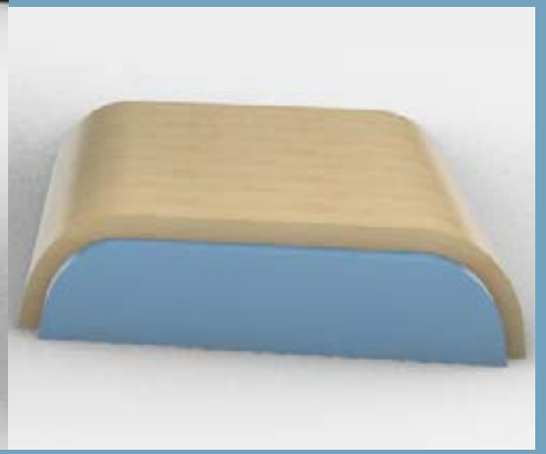


Curved Surface

1. The table top is made up of 19, 4in strips and 4, 2in strips of Walnut. After cutting out these strips you would take the 2in strips and cut the sides of them on 70 degree angles. 5 of the 4in strips would be cut at 80 degree angles. The 18x16 square would then be cut out of 7 of the 4in pieces. Then all pieces would be glued together and later sanded to make the curve smooth.

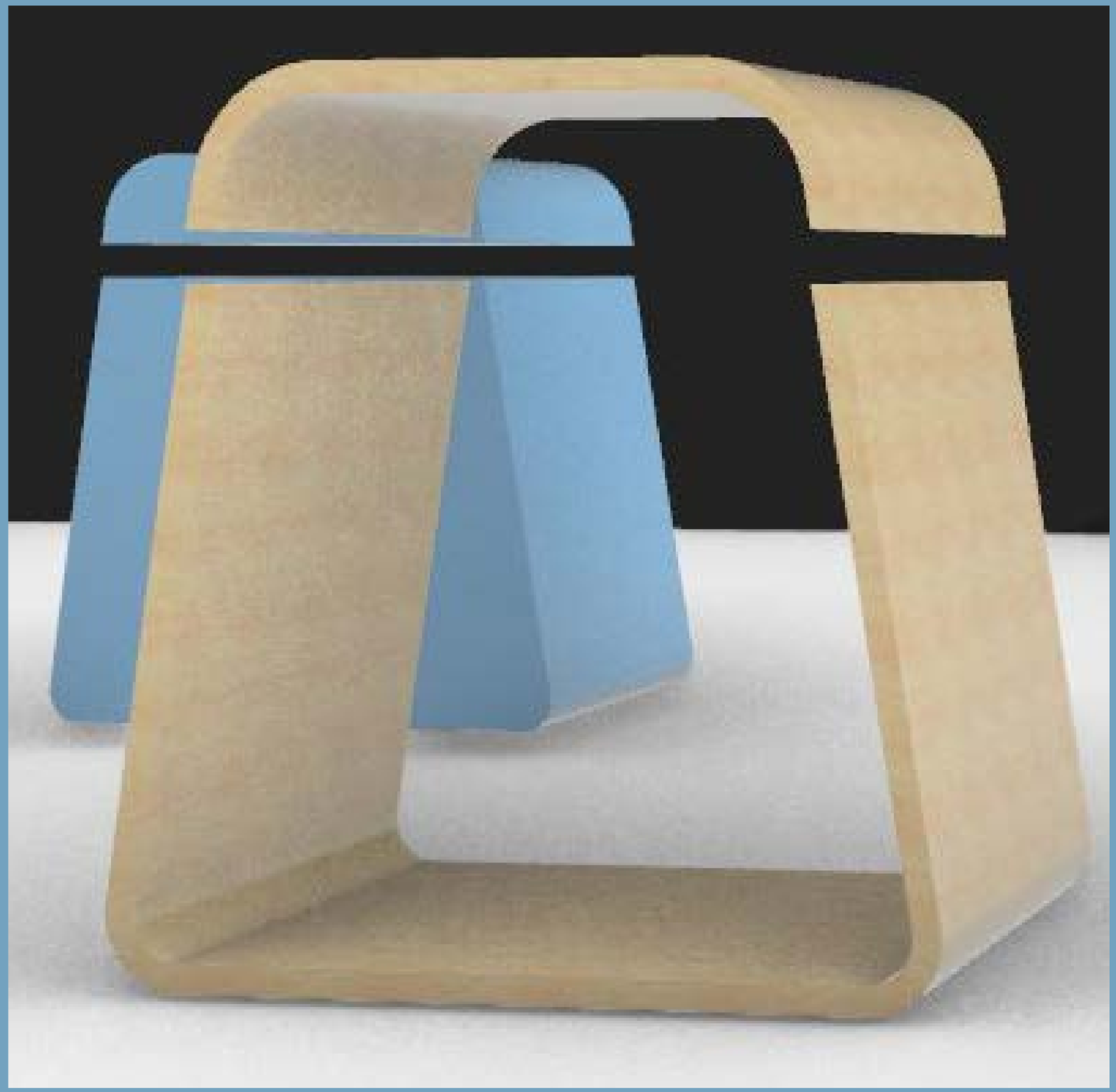


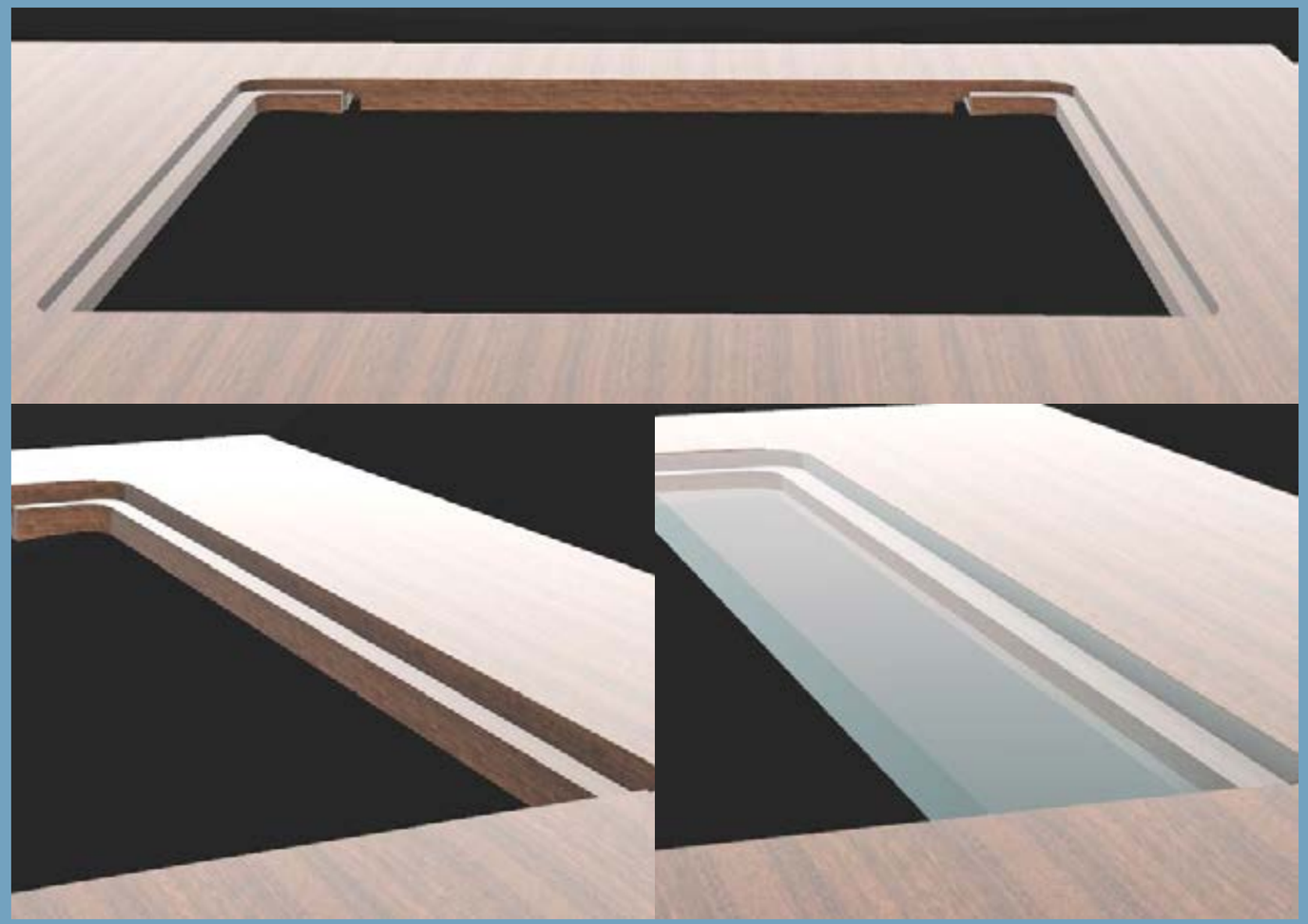




Vacuum Forming

2. Make a form out of foam and then cut it horizontally 5 inches from the top. place them in the vacuum bag and add 1/8 sheets of plywood layer by layer, applying glue to each layer, untill it reaches a thickness of 3/4in. After gluing up all the layers, both pieces would be glued together and the seem would be carefully sanded down to create a smooth surface.





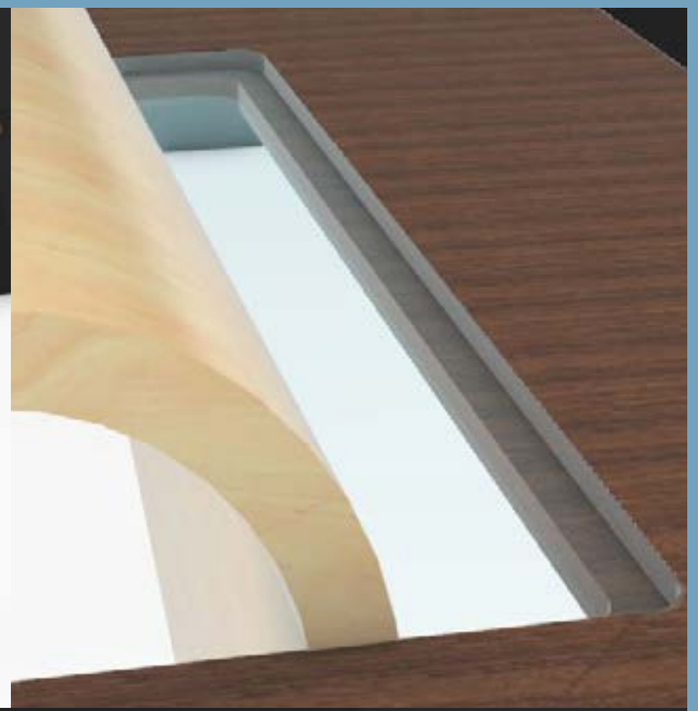
Routering

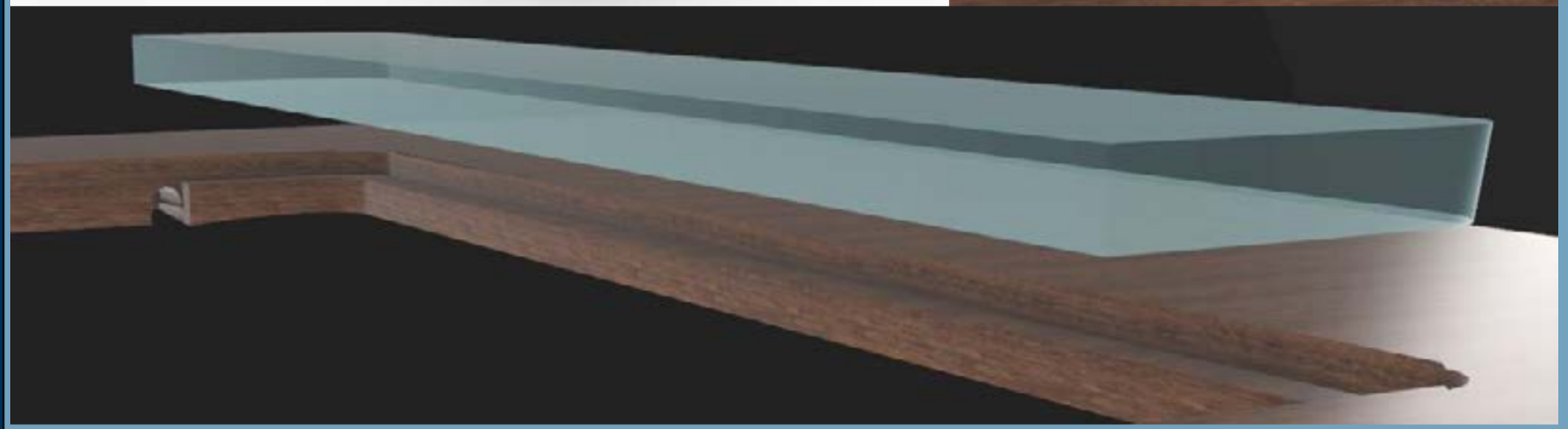
3. The glass rests on a 3x18 rabbit edge. This routering could be done before or after the gluing process. All edges and creases would need to be sanded down to allow for the glass to sit evenly and fit perfectly snug against the formed plywood.

Edge Banding

4. Since the edge of plywood is not pleasing to the eye, part of the finishing touch is gluing a edge veneer to the edges making it look like hardwood. The banding would be cut with a box knife to fit the shape of the plywood and then be sanded down after gluing to fit the edges perfectly.

Assembly





Glass Placement

5. The glass is held down by gravity. The 3in x 18in custom made pieces of glass would be set in very last.

Inset Metal Rods

6. First drill a 3/8in hole an centered and inch above the seam of the two pieces. Then router the 2in long receptive hole out of the bottom of the walnut surface. Glue and hammer all 4, 4in rods halfway into the plywood. They walnut top will then slide into place ontop of the rods and hold sturdy.

Arch Cut Away

7. This cut away would be done on the band saw or with a jigsaw. The highpoint of the arch is only 1in of the ground and allows for 2in of walnut on each side to rest on the floor. This was done to avoid a wobbly table on uneven floors.

Rubber Feet

8. These rubber feet would be screwed on to the bottom of the plywood raising it 3/4in off the floor. Making it look as if its floating from human perspective as well as giving a more stable stance if the floor its sitting on is uneven.