
THE SONARC

MAX - CALEB - JOSH





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WEEK 1 - RENDERS & SKETCH MODEL

Within our first week we had to complete three objectives. The first objective was to sketch out and use CAD software for our design and to come up with a chair that we could all agree on.





After four iterations of chairs we came to our conclusion and decided on the chair we would create. We then delve right into making the sketch model of our chair. With a goal of creating a 1 of 1 scale that was as accurate as possible to our renders



We began our work by heading straight to Home Depot to acquire our materials. When we returned with our pink foam and pvc pipes we began crafting. We glued pieces together, cut pieces apart, and made everything align perfectly to our render.



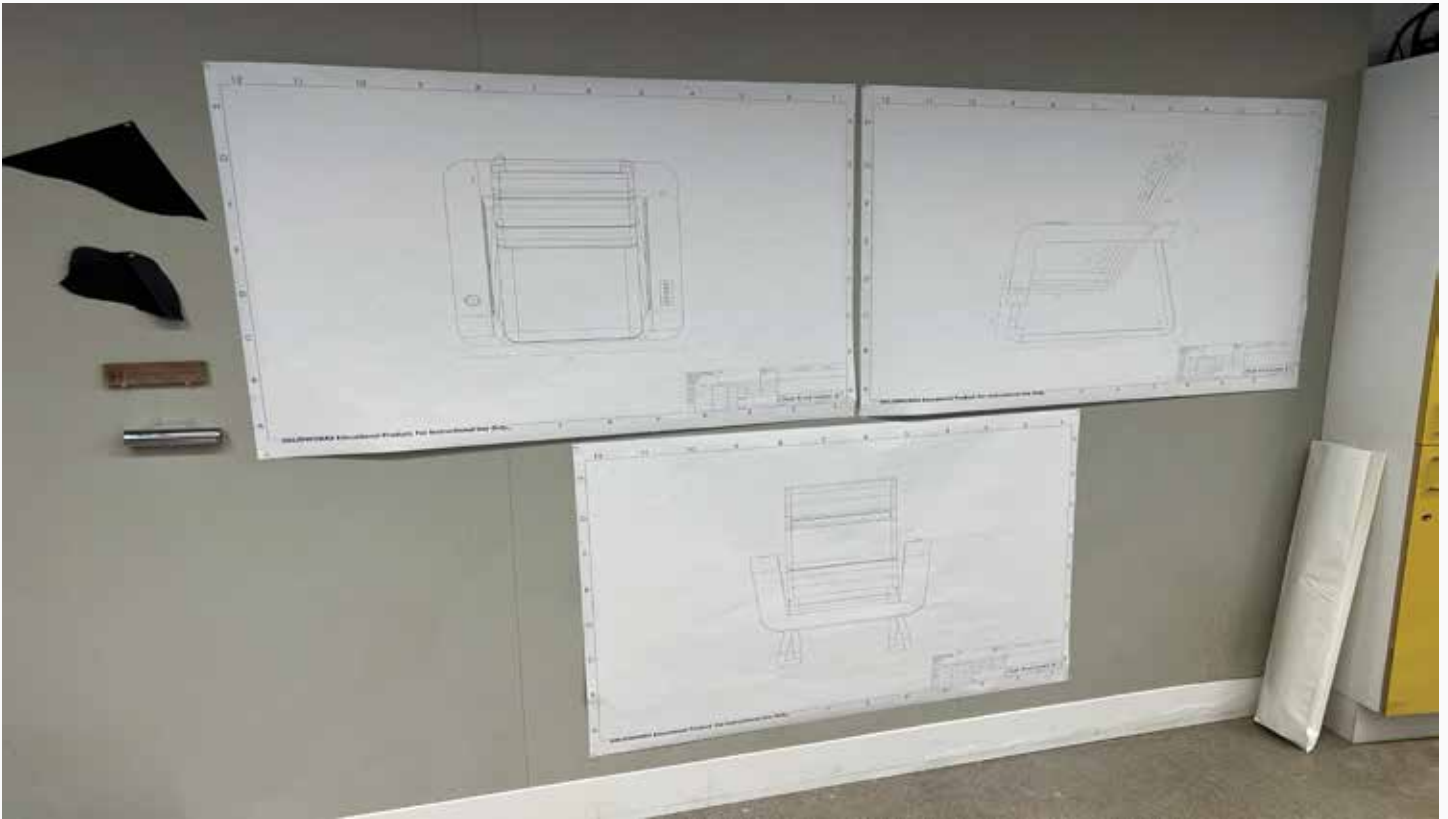


We decided we would 3D print the joint parts connecting our pink foam pieces and the rounds for our pvc pipes to connect. They can both be seen in hot pink.



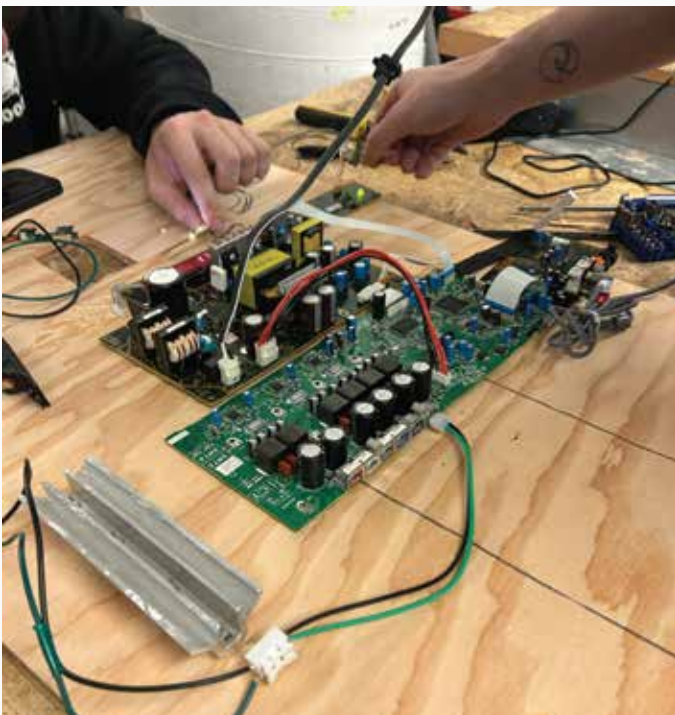
We completed our sketch model within three days and were able to make a perfect 1 of 1.





We then presented our model, along with our technical drawings and a few samples of materials we would use for the real chair.

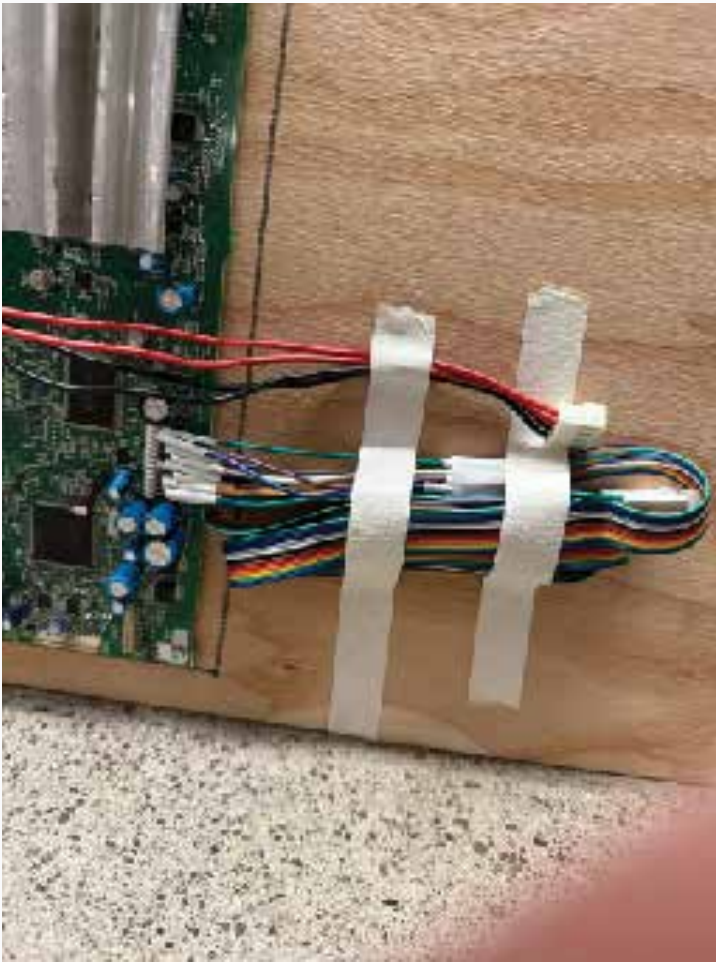
We began by assembling the seat frame of our chair, we placed a metal bracket inside the frame for structural integrity with space for the electronics. Followed by taking apart the receiver and rewiring all the boards to our speakers for testing.



After creating the main seat frame of our chair we moved towards the butt cushion. Pairing it with a subwoofer that we had luckily found with perfect timing.



The sub worked perfectly for our design. We also began working on brackets for our speakers to be placed into the armrests.



During our rewiring process for the boards to communicate, we ran into multiple problems trying to find the best way to connect everything without shorting any components.



Eventually we managed to find a solution to wiring our parts by heavily taping every piece so they would not come into contact.





WEEK 3 - URING & UPHOLSTERY

With the cnc job of our biggest piece of wood finally completed called the Uring. We were able to begin our work on the outer frame of the chair along with our upholstery of the cushions and panels.

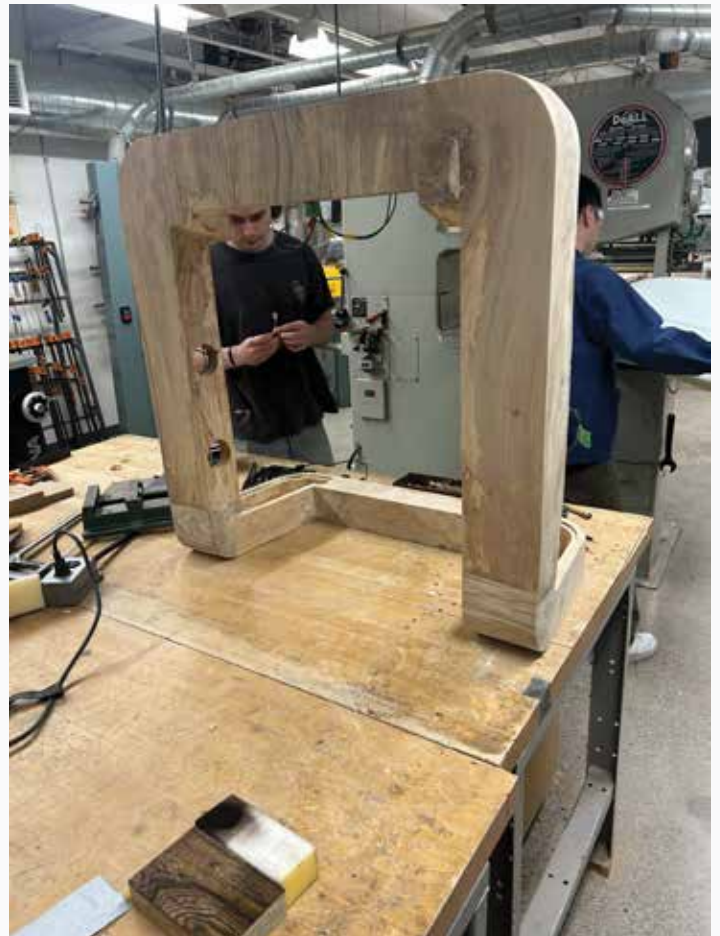
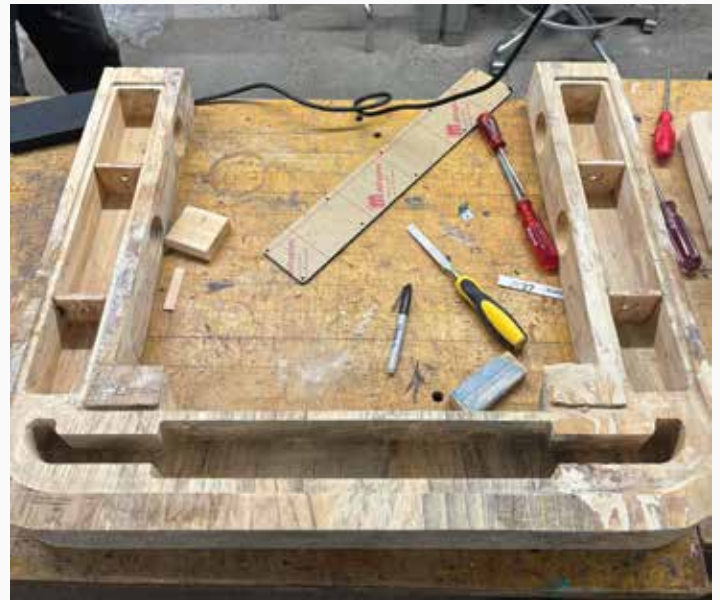




An immense amount of sanding and filling was required for our Uring as our wood had some small cracks. We created two filleted blocks along with using dowels to join the two pieces of the Uring together.

Soon with the Uring assembled and the cushions upholstered we also recieved our chair legs, which were rounded and were welded to our metal plates to connect to the rest of the chair. With that we could finally begin placing the pieces of the puzzle together.



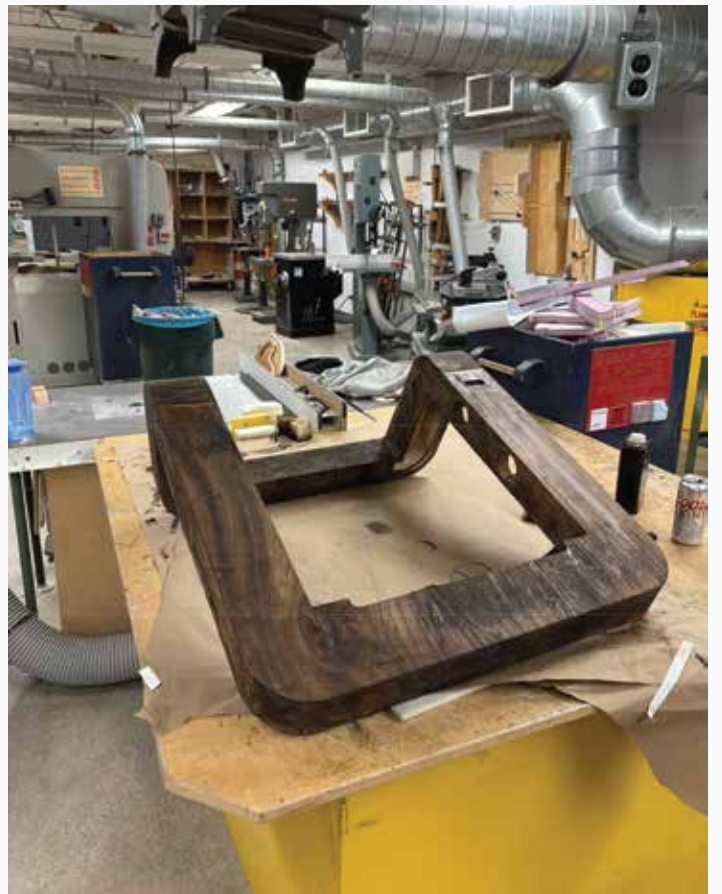
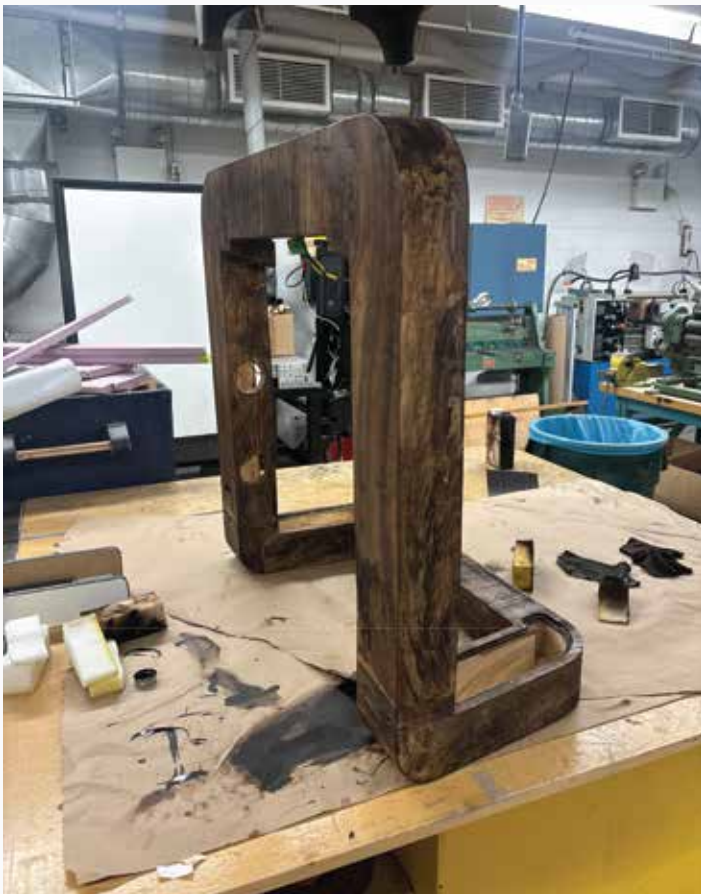


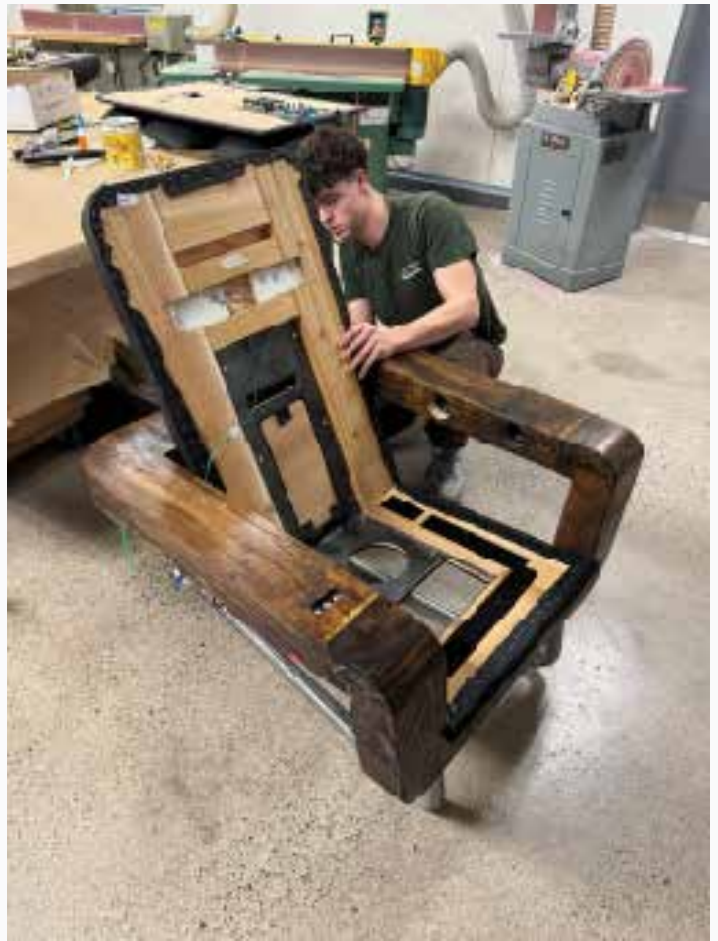
With our Uring fully sanded we could begin cutting holes for the speakers and wires to pass through and add supports within the armrests for extra integrity. As well, we completed upholstery and assembling our frames with all the electronics attached.



WEEK 4 - STAINING & ASSEMBLING

With all our pieces finally assembled we could begin staining the Uring to give its finished look. Along with assembling the final pieces of our chair together.





We completed staining the wood and with all the wires and parts in place we began our final assembly.





We had completed combining the main pieces of our chair and screwed everything shut. All that was left was the minor details throughout the chair.





In the end after everything was assembled we began testing, making sure it was comfortable and that it sounded great.

















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