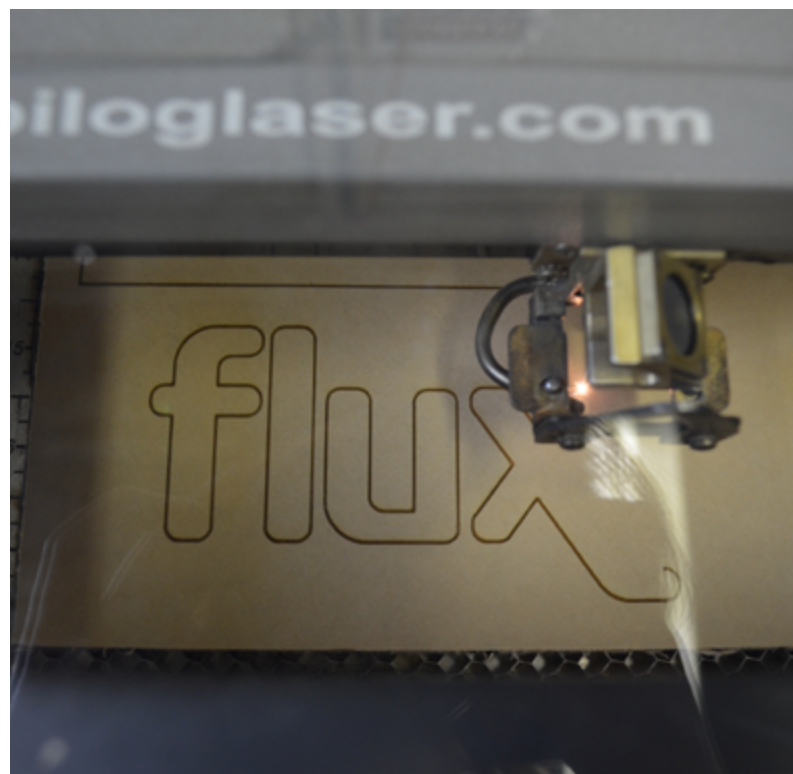




THIS WEEK IN

Hello from flux!

Our final week for the first prototype has concluded! The focus for this week was to test our sensing capabilities and to prepare for building our model. Early in the week we went to the ArtFab facility to laser cut our first sheet of acrylic. They use Rhino3D to generate the tool path and although we ran into a slight versioning issue, Anisha was able to recreate our tool path and the cutting was a success! We cut a small scale model of our entire design, as well as two larger arcs for our first prototype. Jason confirmed our audio capabilities with a circuit that would sense sound around it and dynamically change the brightness of a LED based on the sensed volume. Elwin dug into the physical specifications of the installation, particularly the number of LEDs per panel and how to power them as well as refining the mathematics behind the pattern of the design.



Building Installation

We had met with Janice, the building coordinator, to outline exactly how we plan to install in the RPIS and what kind of power considerations we have. Explaining the project to her also gave us the opportunity to receive the impression of a naive guest! She had suggested to include an informational panel next to our installations so the vision and purpose of our project remains clear.

The faculty's chief concern with our installation in the RPIS is that it does not disrupt classes, which is the room's primary purpose. We have installed a small test that has panels of LED lights that slowly dim and brighten over time. The purpose of the test is to determine if teachers and students find the lights distracting or disruptive in anyway. Stay tuned to hear more on the findings next week!



Current Challenges

We've encountered two challenges this week: properly communicating when design decisions are made, and finding an efficient way to group orders for new components. Regarding the first, even though we are a small team of four, we each encounter slightly different problems in our individual work. Sometimes, a small decision just needs to be made to keep moving forward, and these small decisions can be lost for a few days until we have a formal team meeting. I've implemented a design log wherein the team adds a small entry whenever they encounter a problem and their proposed solution. This collects all of the decisions and gives us a tool to review them when we meet.

For the second, we are rapidly discovering technical solutions to our circuitry needs. In parallel, we are also exploring fabrication techniques to achieve the right look and feel. We have been rolling our orders, placing them whenever we found something we needed since we have had to establish a baseline of supplies. Unfortunately, our budget has taken a hit because we've spent quite a bit on shipping alone! In the interest of reducing the amount we spend on shipping and minimizing any wait time associated with new orders, we plan to project each prototype's needs on the first day that we start a new prototype phase.

Looking Forward

We're moving forward with our work arrangement with the ArtFab facility. In exchange for use of the facility, ArtFab is interested in documentation of our process. Moreover, they would like for us to set up, test, and troubleshoot a new, open-bottom laser cutter they will purchase. Once we have it up and running, we are also free to use it! Anisha, our resident expert on laser cutters, will be leading this setup endeavor. Furthermore and with Ruth Comley's involvement, this work arrangement will form the basis of a longer lasting relationship between the ETC and ArtFab for future projects.