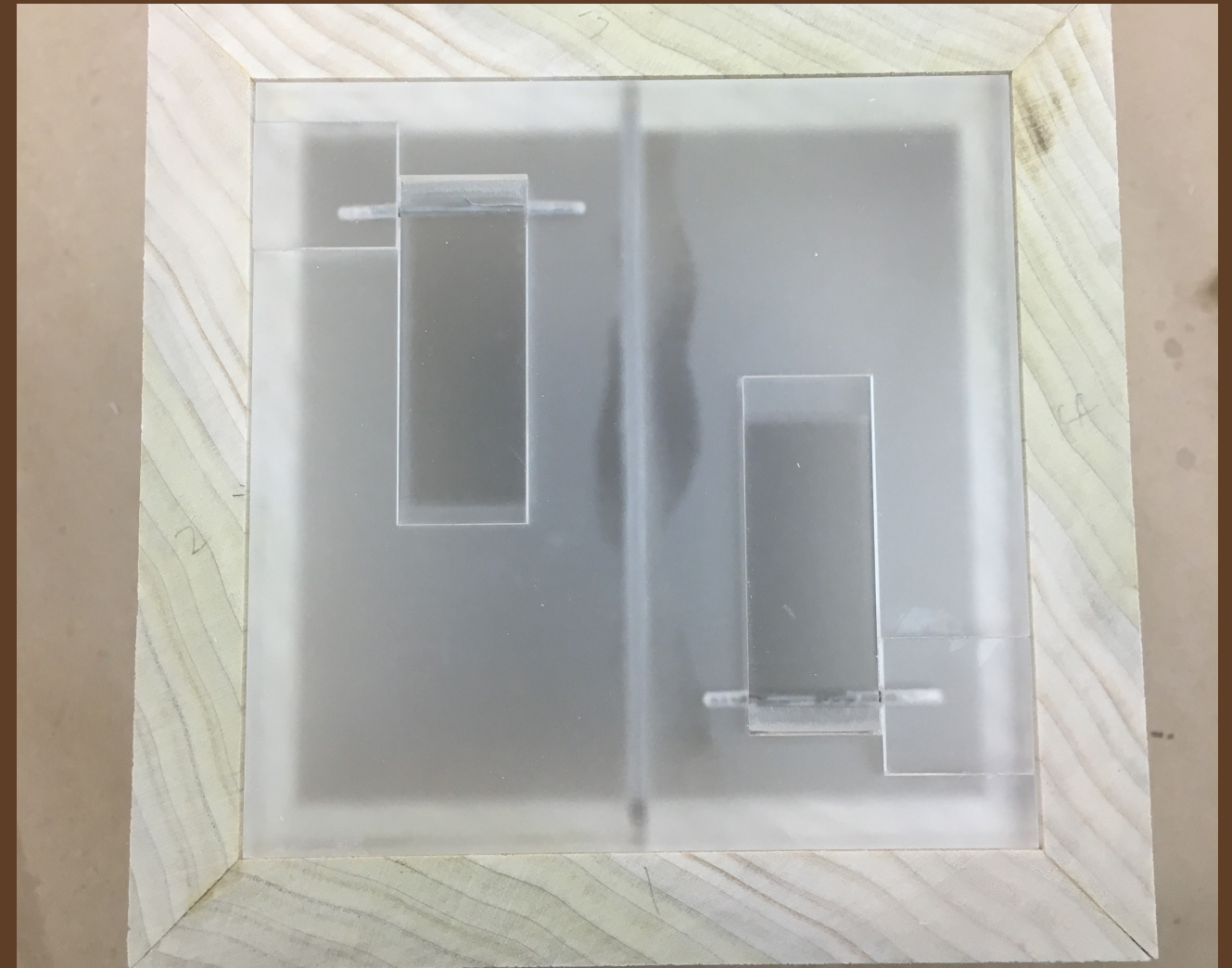
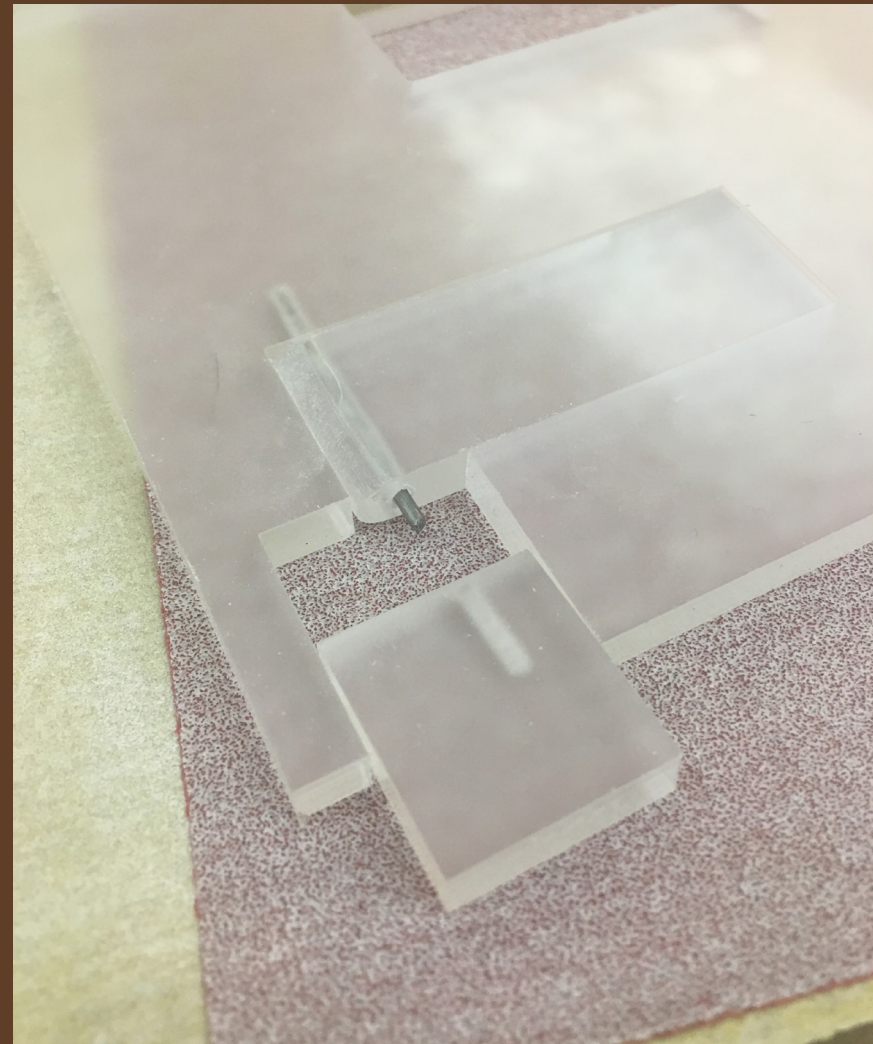
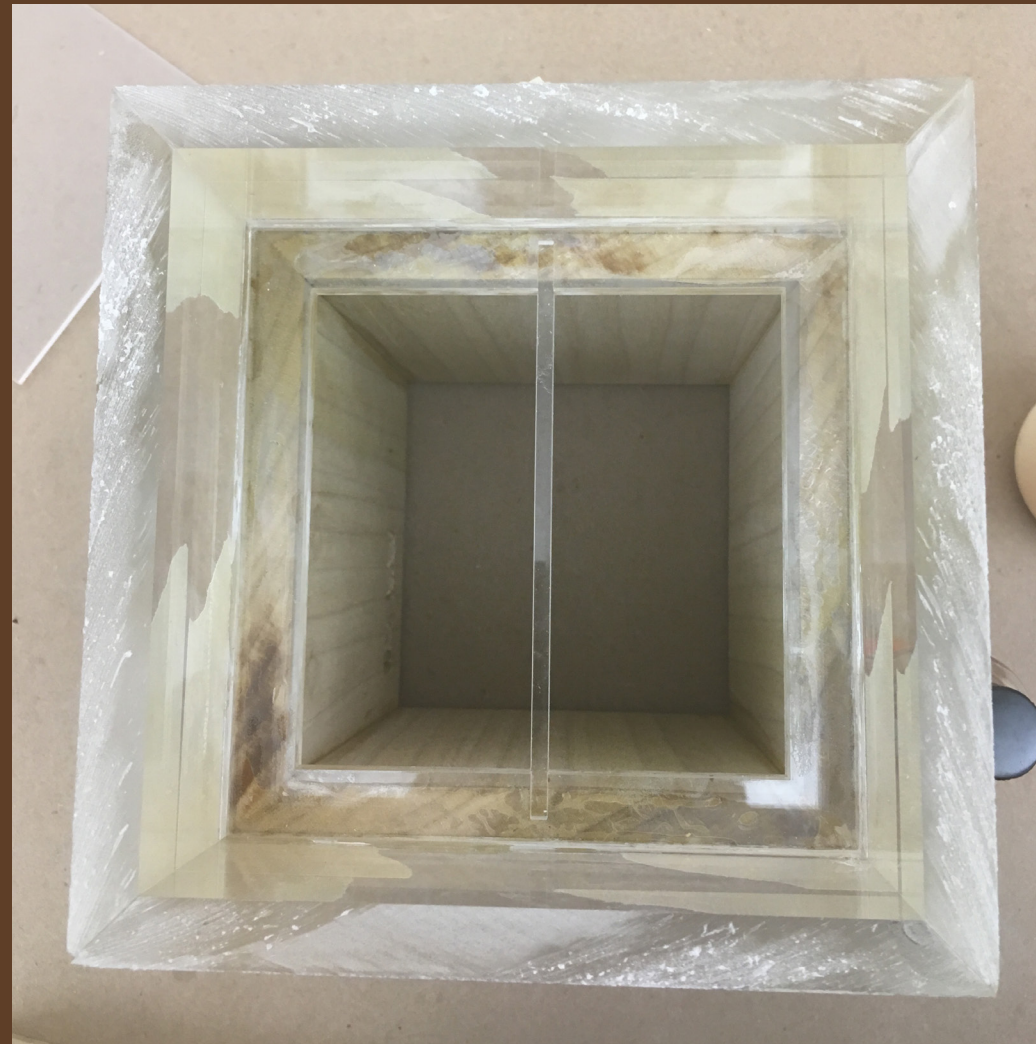


Process sketches

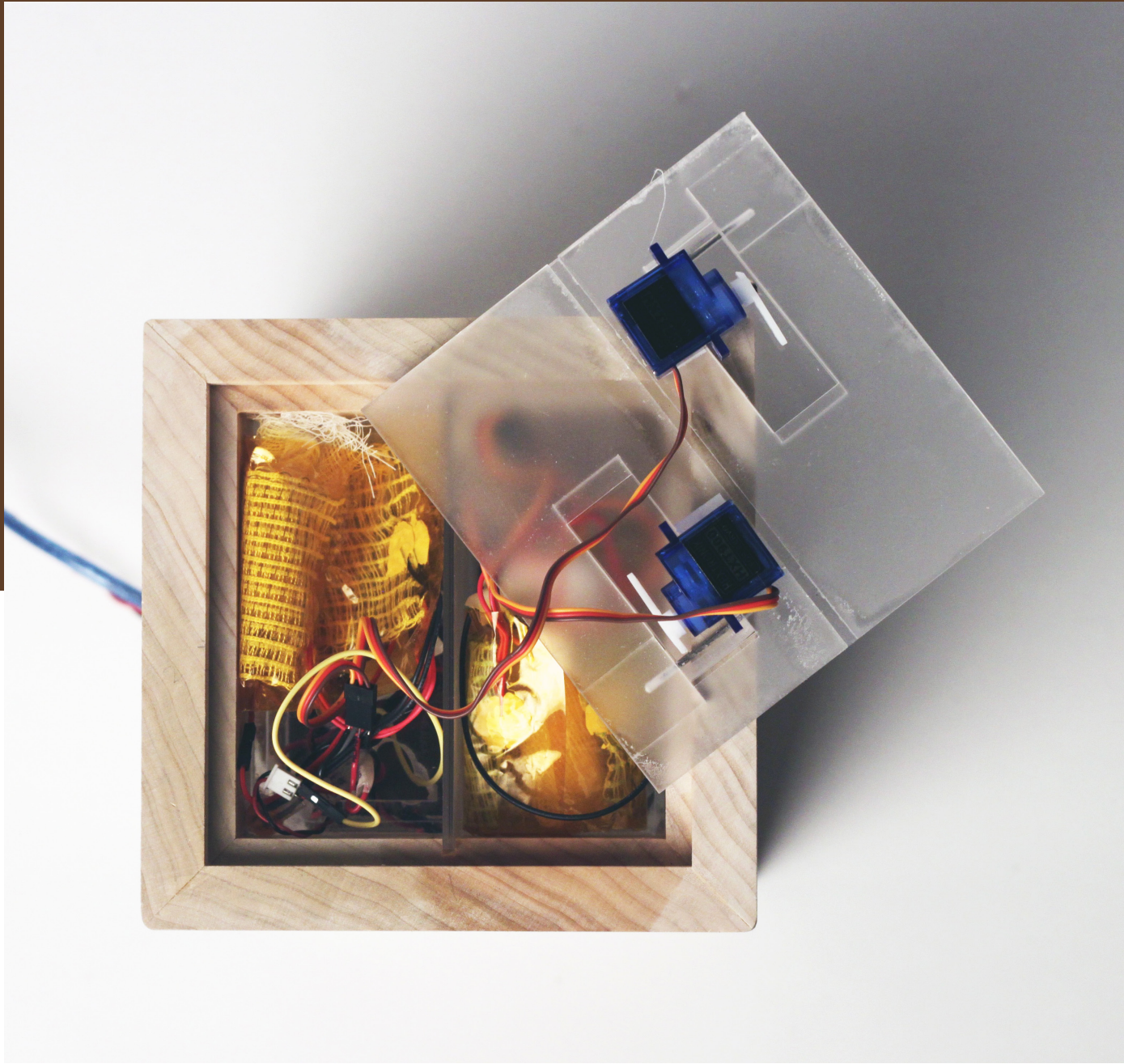
Process photos:

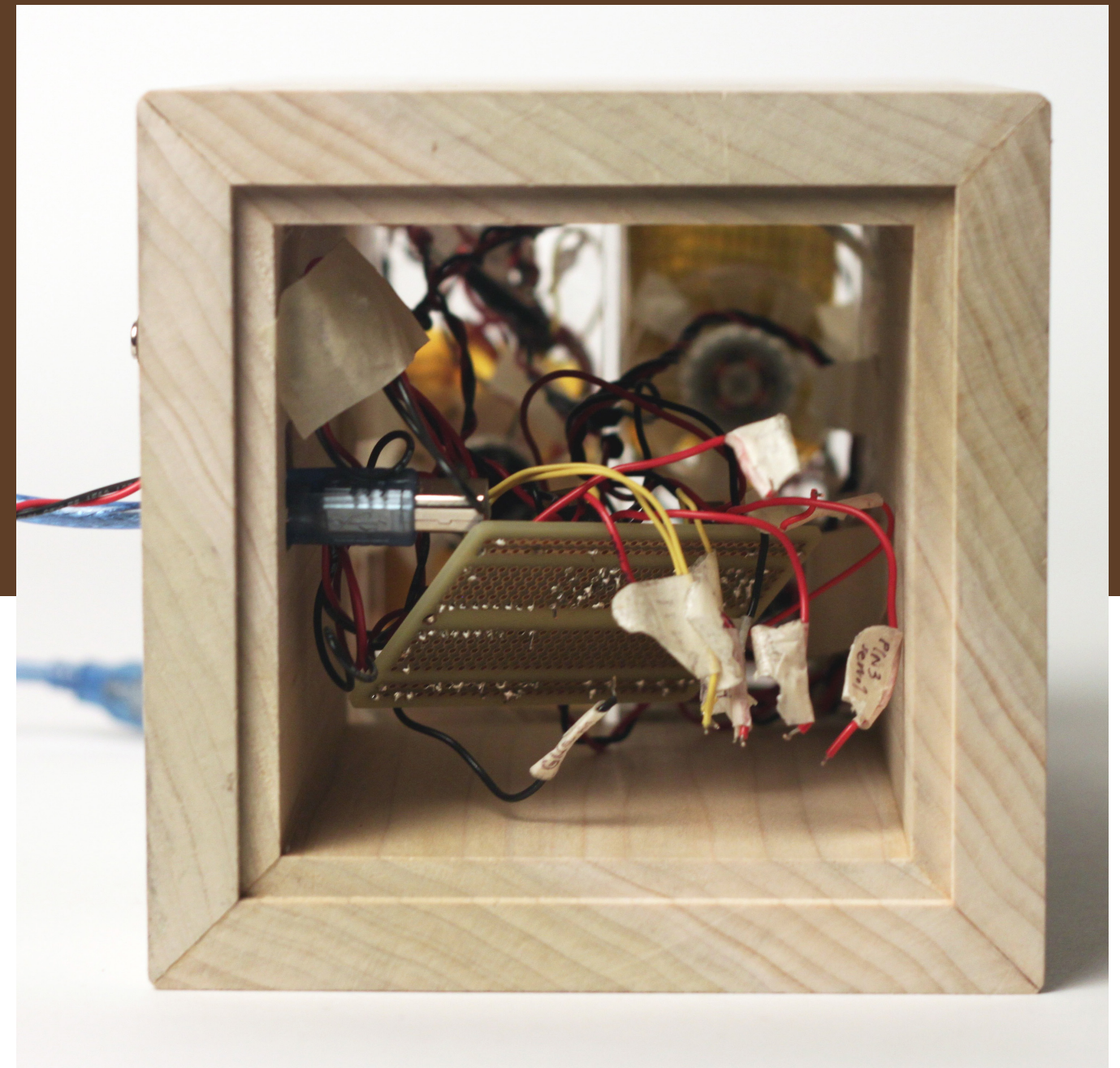
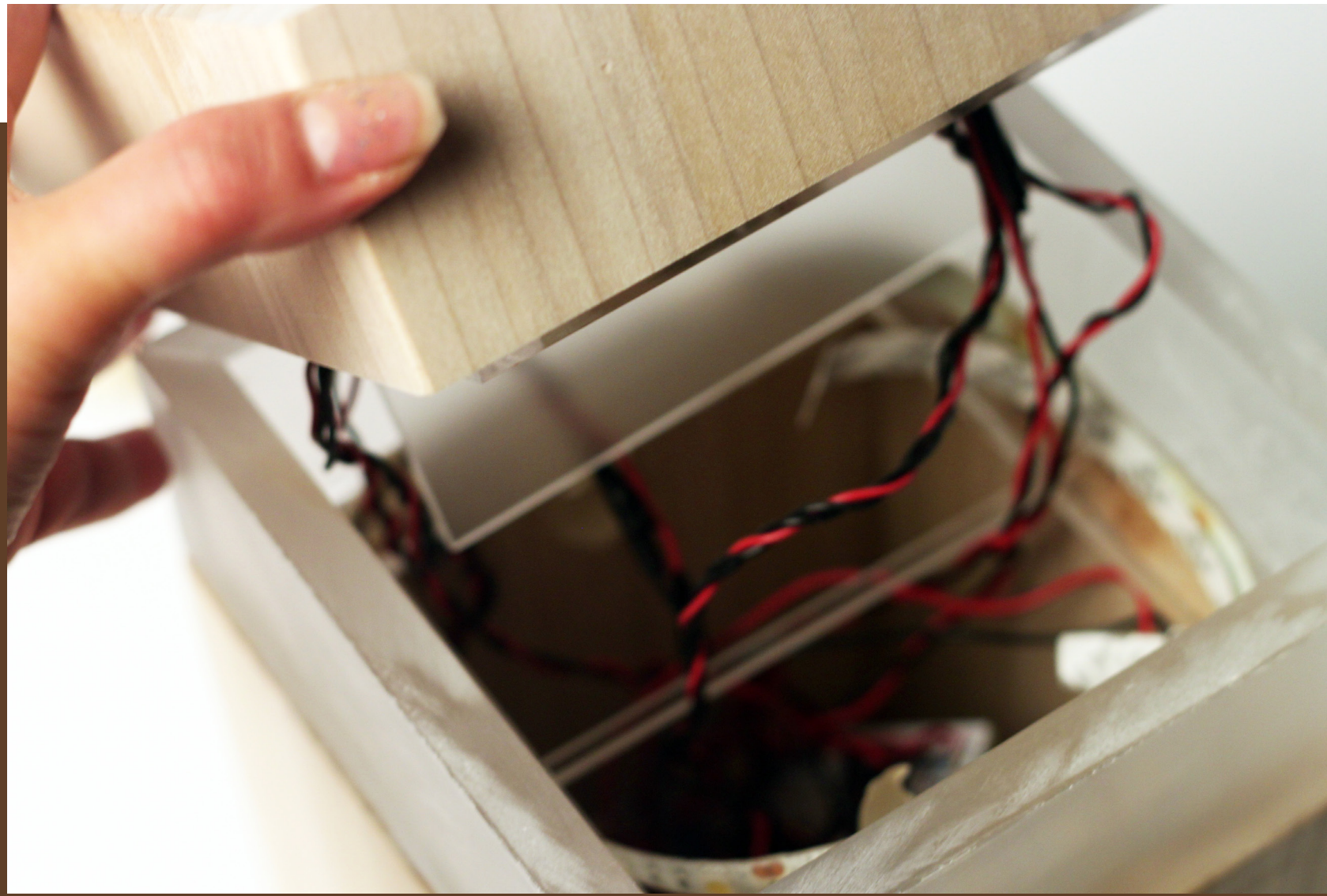


Making the hinge

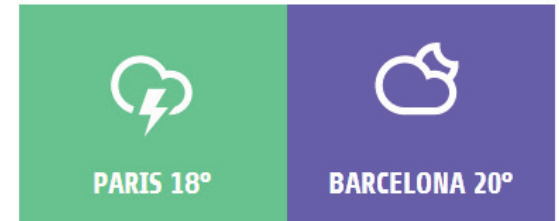


Glueing everything together

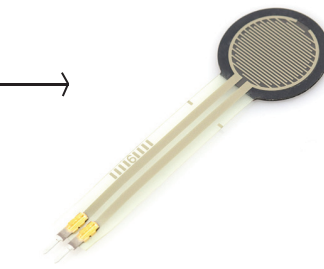
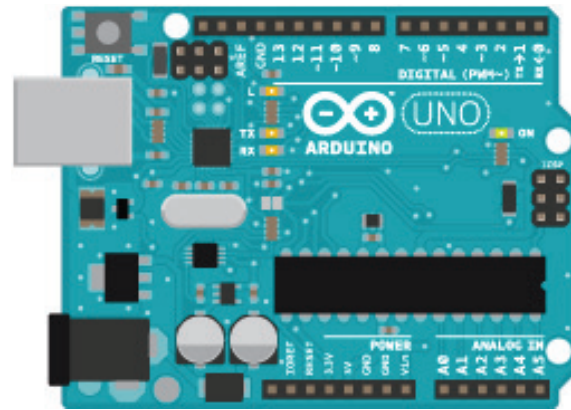




Scraping weather API from different countries (depends on the users' country code inputs)



Arduino + processing code calculates 'sadness level' of user in current location and multiplies that number with the difference between weather conditions between home and current location to use as values for each output.

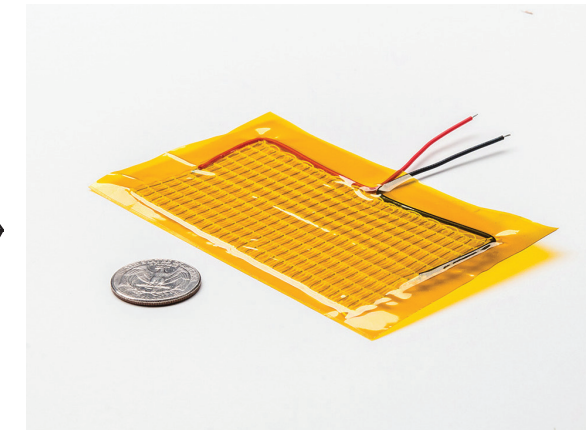


The FSR sensor that is under the pillow triggers all outputs to start once the user lays their head down on the pillow.



x 2

Opens trap door either for morning mode or night mode to let out scents



x 2

Heats up essential oils to diffuse scent around room



x 2

Blows air through gauze with heated essential oil to help spread the scent



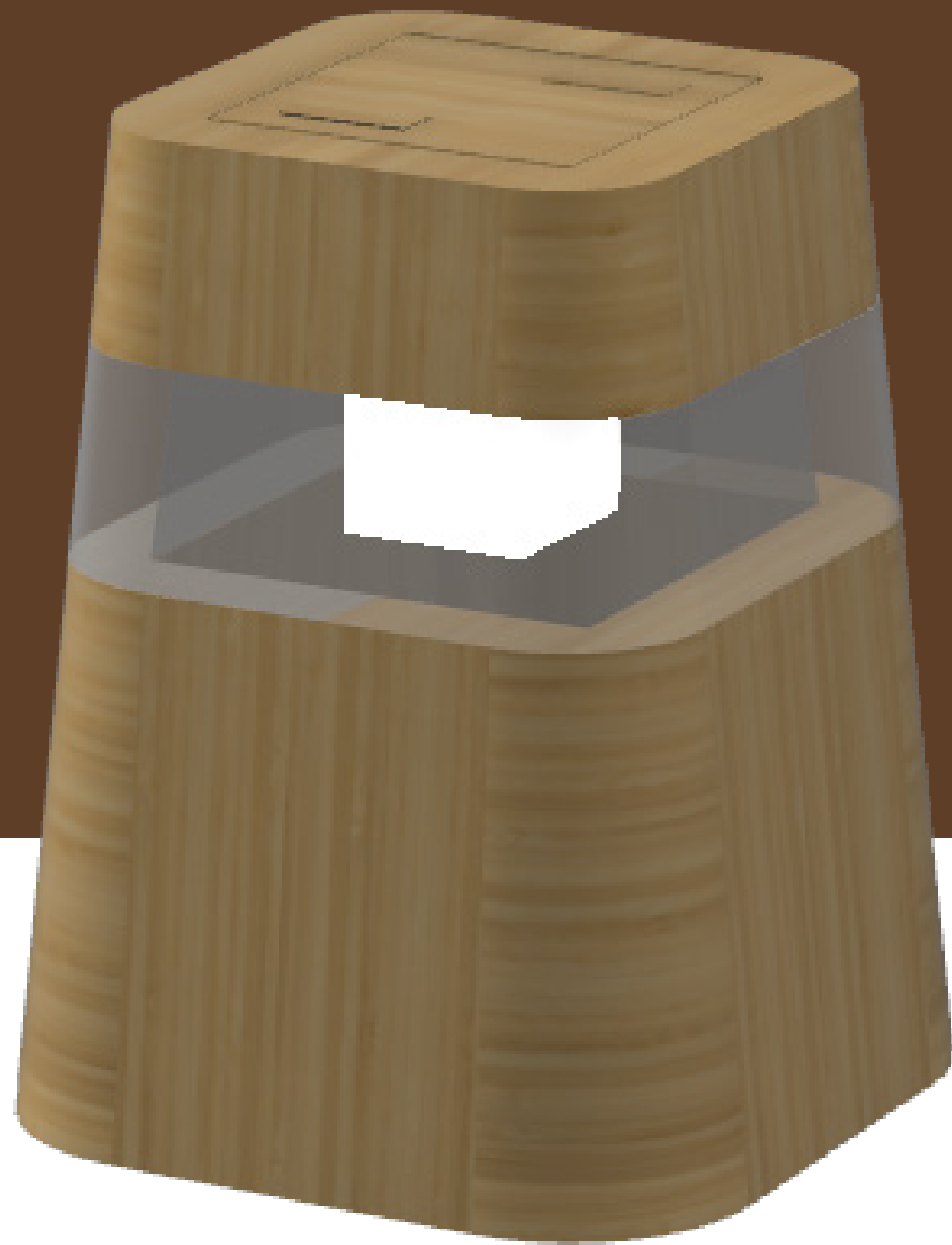
Makes the product glow a warm yellow to create a homey atmosphere

Final Product:



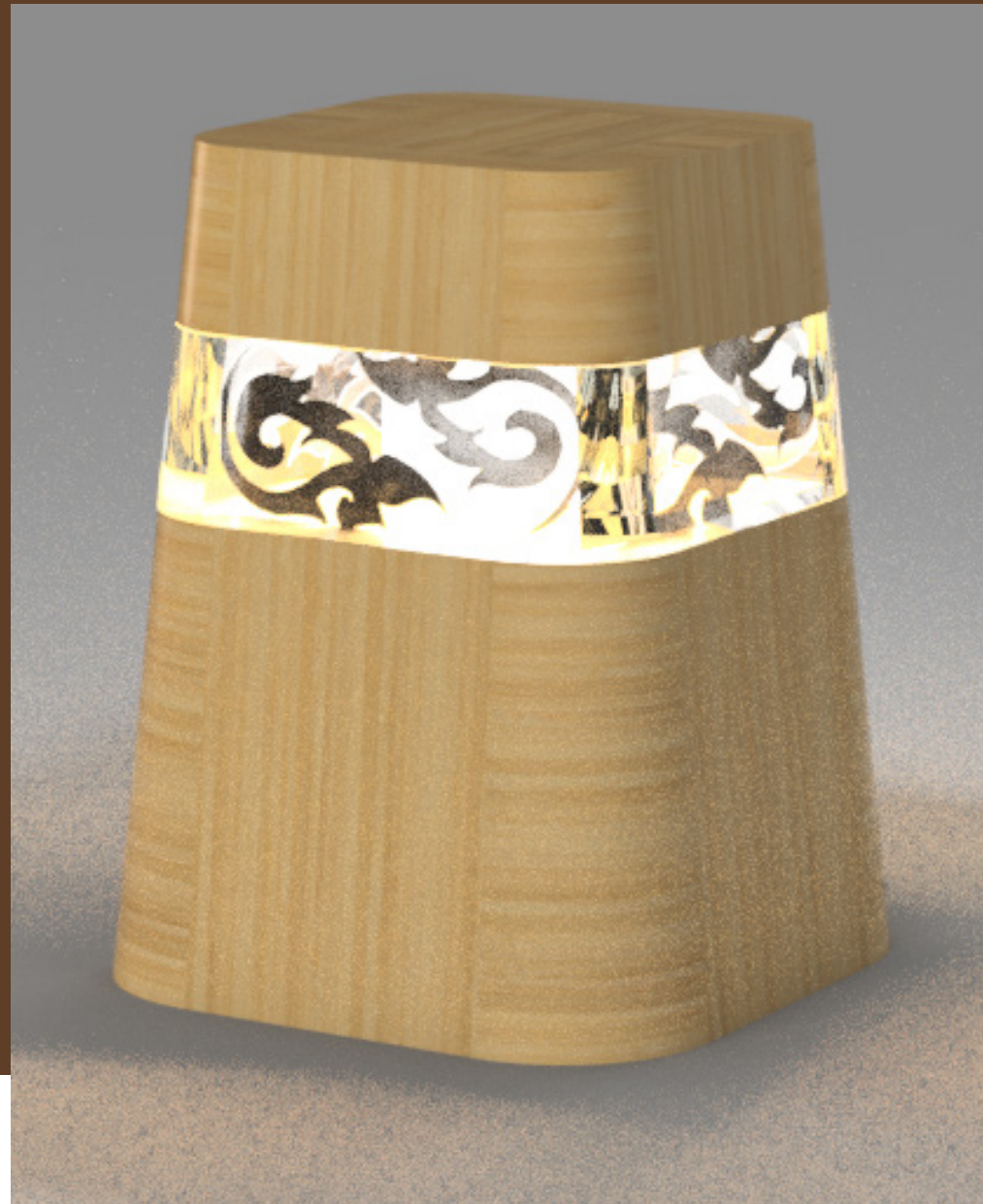
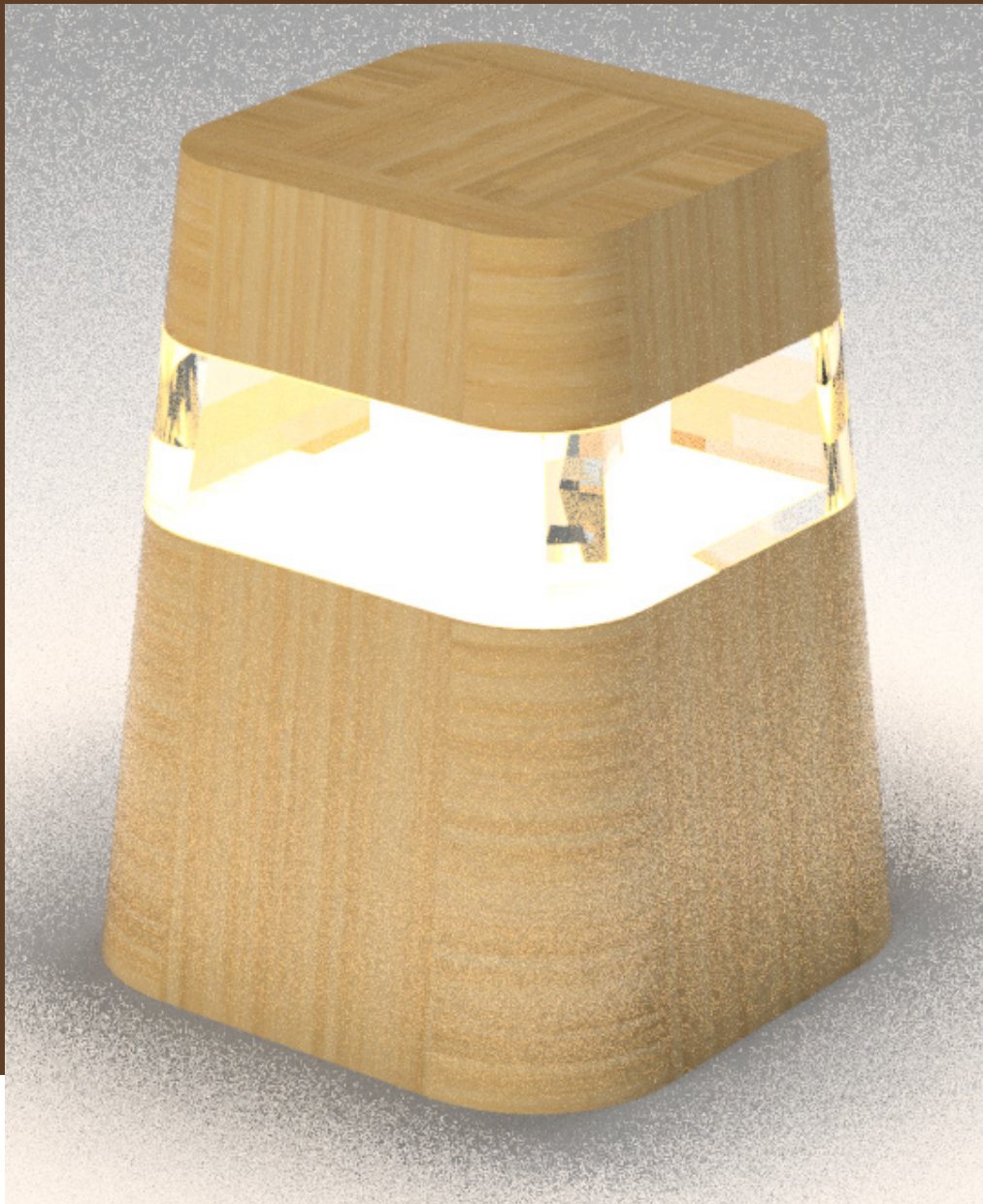
This final product is made from poplar wood, clear acrylic and frosted acrylic. I decided on this simple form since if this product is to be used by people from all over the world, it should be able to blend in nicely with any kind of environment it is in, especially if it is going to be traveling around a lot. I decided to frost the acrylic because it filters the light from the LED so that it is softer on the eyes. This iteration scrapes API from both the home location and the current location of the user - they can plug in their city code into the system themselves. It then calculates the 'sadness' level that the user might be in and multiplies that by the difference between the weather conditions of their home/current locations to input those values to the outputs. This iteration diffuses a scent (that can be chosen by the user) from essential oils that are heated by electric heated pads and blown up by mini DC fans, and also plays a night/day ambience sound file (that users can pick themselves) to create a home-like atmosphere for the users.

Final Design:



My final design has softer curves, and tapers in towards the top. This form is more friendly, and suitable for the bedroom setting. Users have a lot of freedom to customize this product: the pattern on the inside of the acrylic, the scents and sounds they want to use for morning mode and night mode, and the countries in which the program scrapes API from. This is so that the product feels very personal to the user, like a mini travel buddy that they can take around with them to make them feel more at home anywhere they go.

Pattern Customization:



The product comes with no pattern, but users can slip in patterns that remind them of home behind the frosted acrylic, so when the light turns on, the pattern shines through and softly illuminates onto their bedroom walls.

