Project 3 - Useless Machines (Chindogu)

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Artistic Statement

The goal of this project was to build a useless and/or silly machine that explores the [Japanese art of Chindogu](#) famously created by [Kenji Kawakami](#). For this project, our group chose to create a useless birdhouse. The end goal was to be able to detect vibrations of a bird landing on the peg of the birdhouse, and subsequently suck the peg in (or shoot it out) and close its door. I'd say we accomplished our goal, however, it could've been done more elegantly as we'll soon explore.

Process

Initially, we had planned to include multiple levels to our birdhouse to help conceal the arduino/wiring. Unfortunately, due to some errors with measuring the wood thickness, this wasn't quite possible. However, we were able to salvage some of the middle section's parts to create our door.
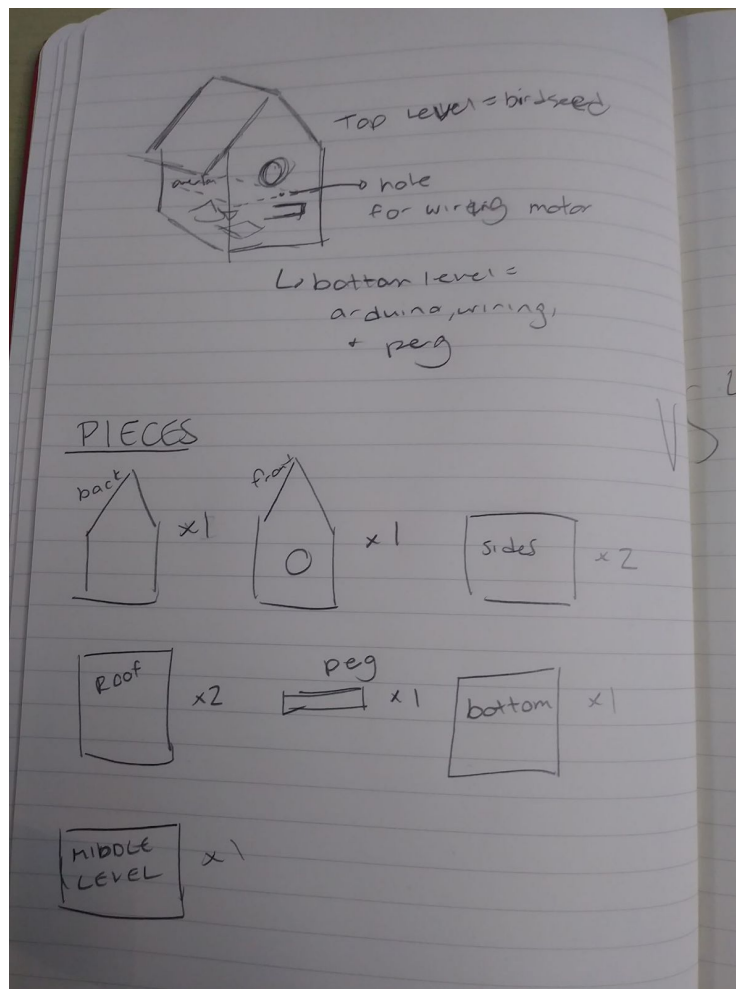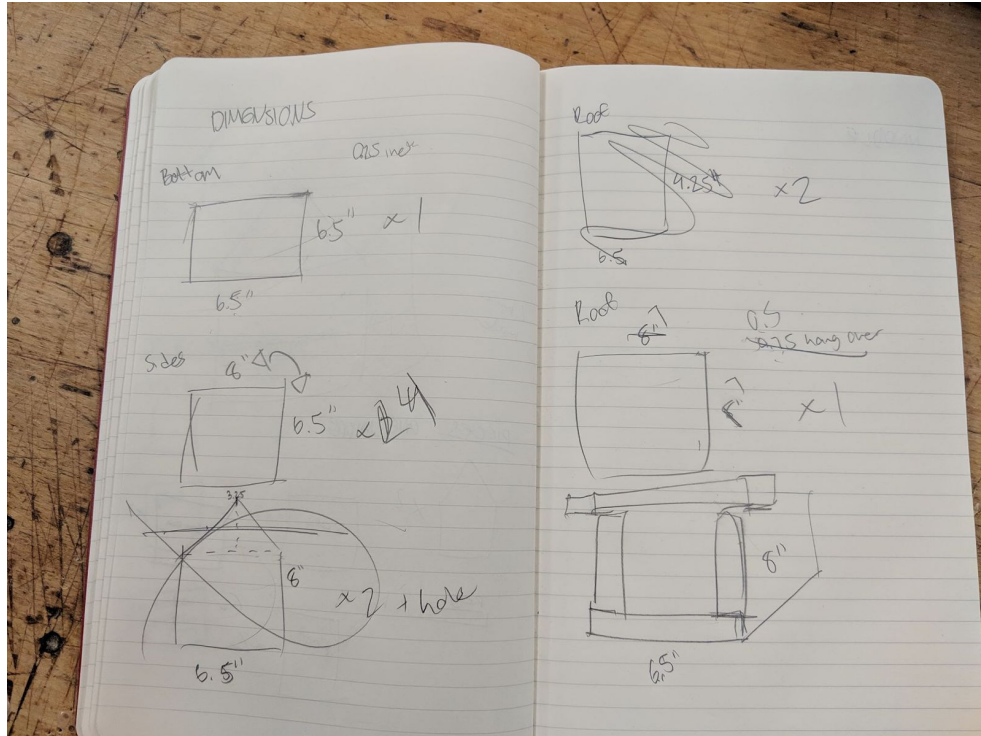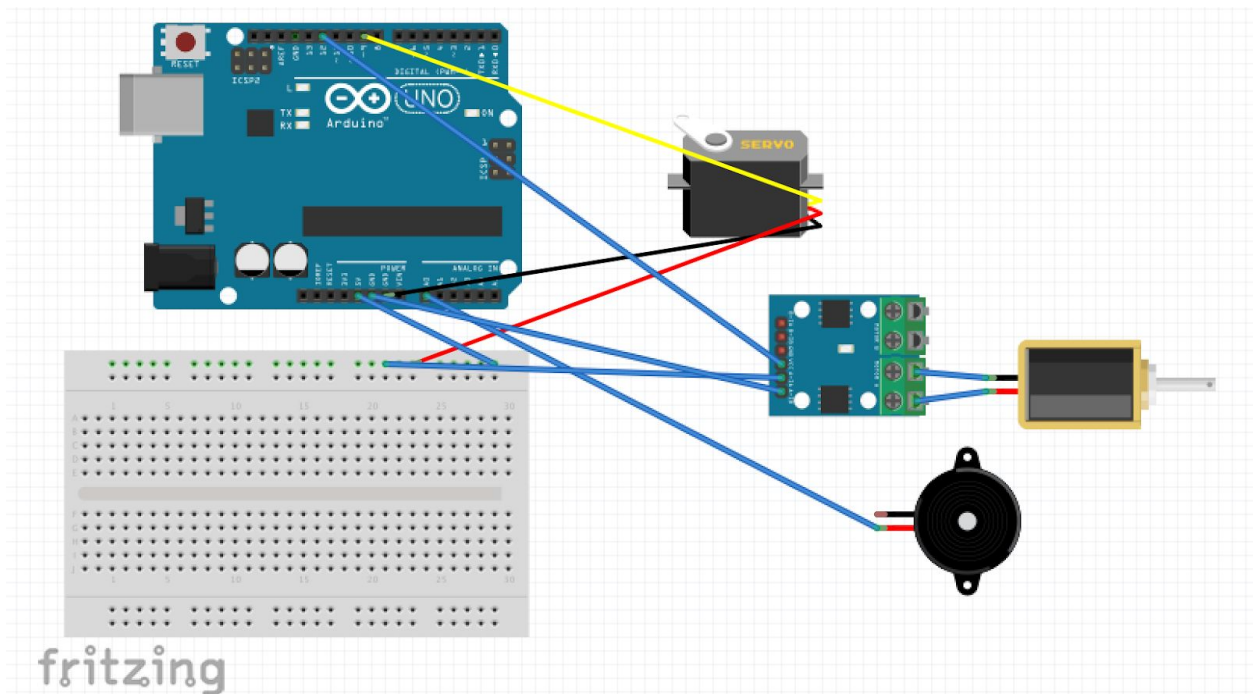
Drawing out our measurements

Preparing to make our cuts

Middle piece that eventually ended up being scrapped

Circuit Diagram

Unfortunately, a day before we had to show this project to the class, I (Jelani) mistakenly snapped the Piezo Element which was used to detect vibrations. Because of this, I had to modify the code to run automatically, but prior to this mishap the code was performing as intended with the vibration sensing. We made use of the Arduino Knock Tutorial to accomplish this.

Links (Gallery + Video + Code)

Gallery: https://imgur.com/a/ZEt3WJM
Video: https://streamable.com/cj5pi
Code (Piezo and non-Piezo): https://github.com/JelaniThompson/chindogubirdhouse