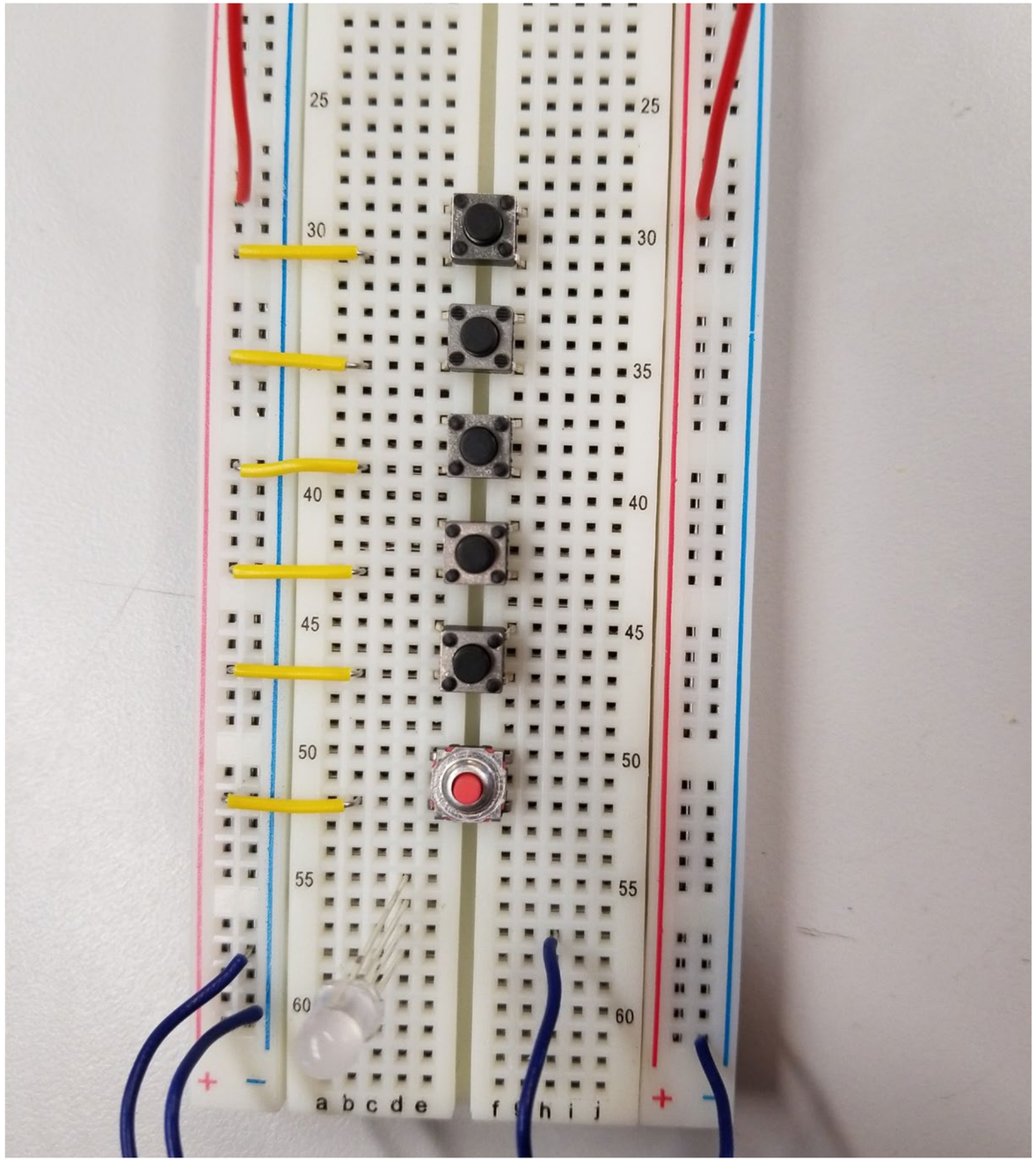
Etude 3: LoopyLooper

Cart 360 - Fall 2018

Valerie Bourdon

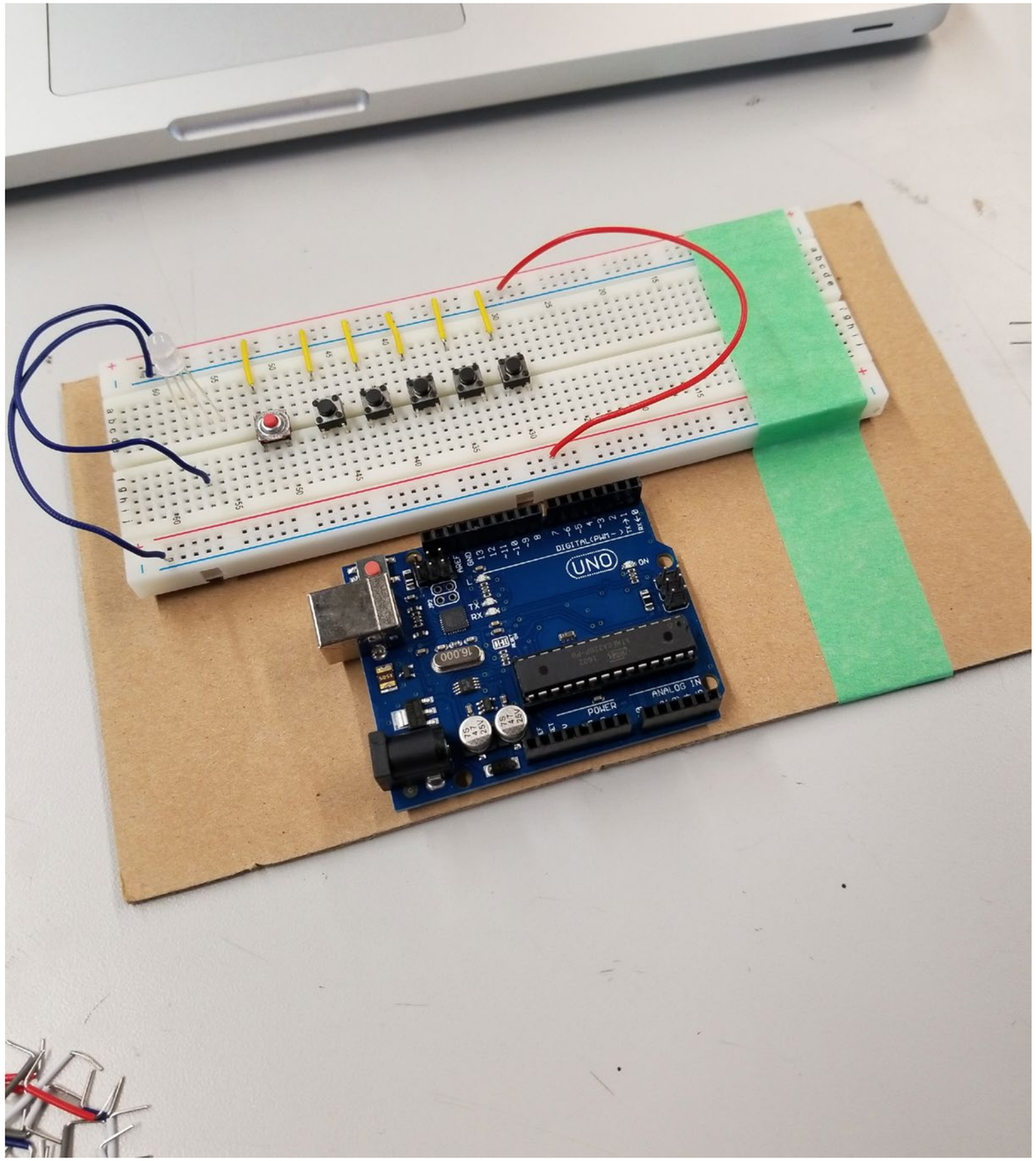
Part One: Documentation

Gathering initial materials. These first photos are from early October, when we were first assigned this etude.

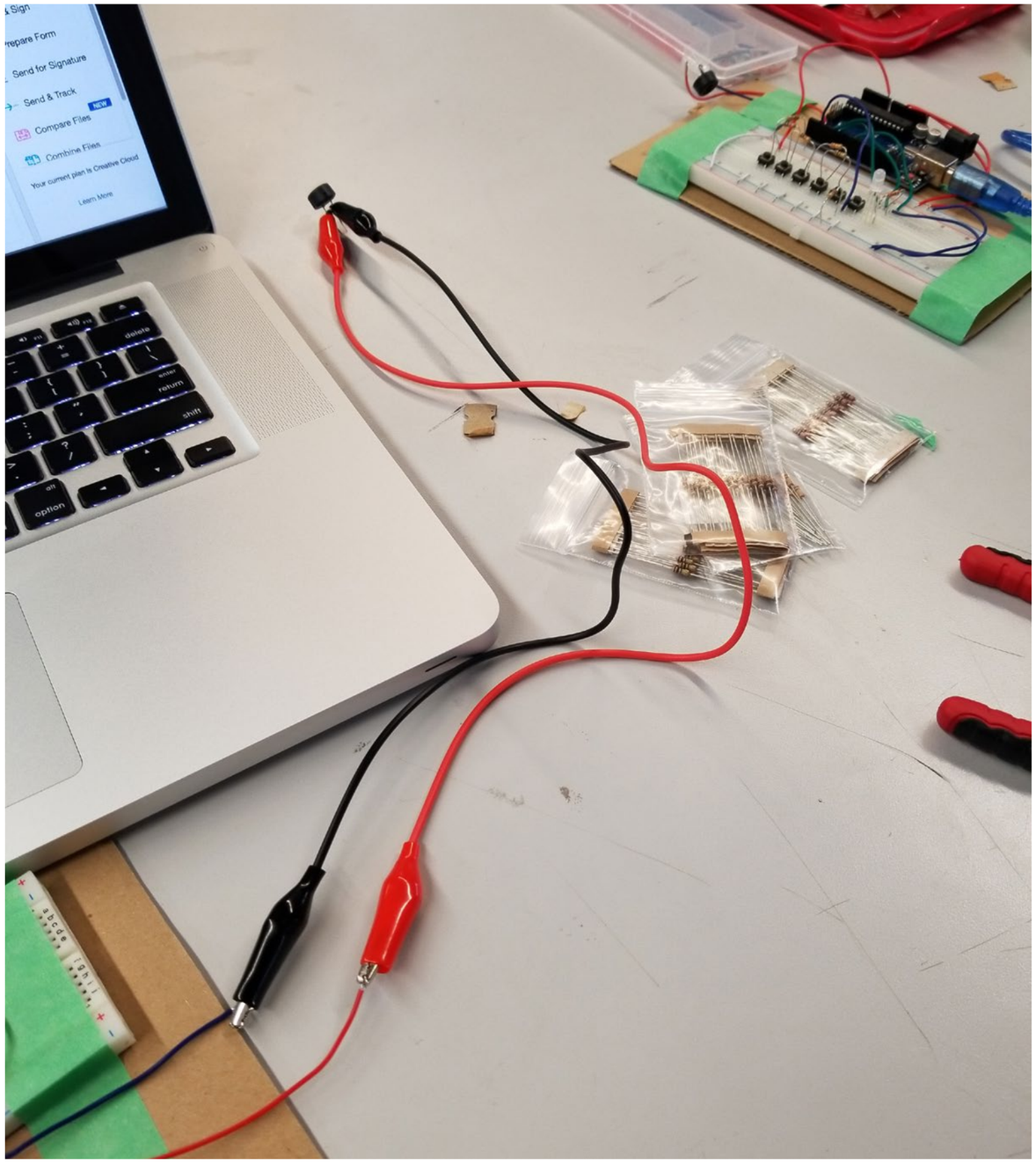


Set up of the buttons from power. Initially, I believed that the buttons were in series, so the resistors would have an additive effect.

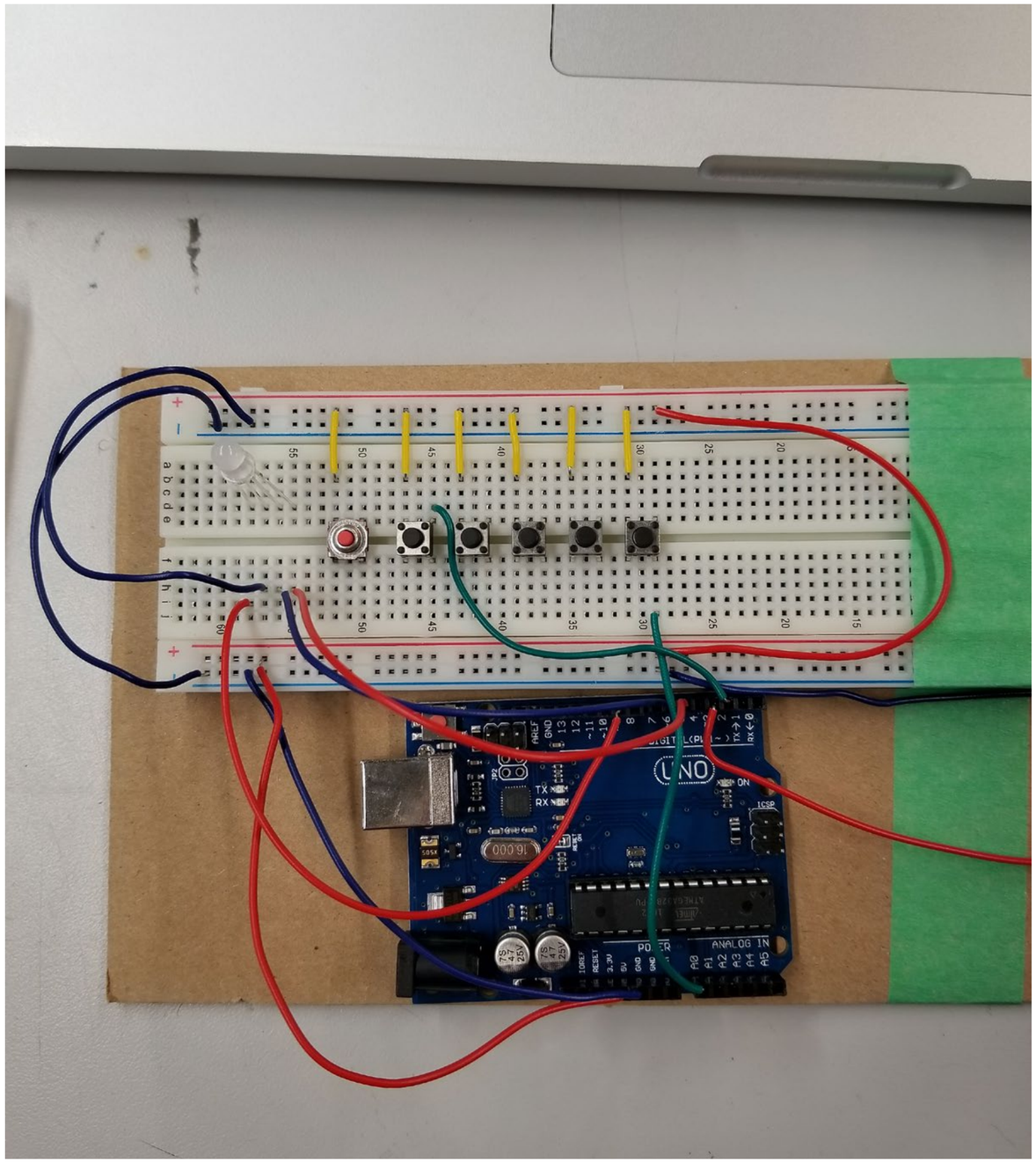
Later, I realized that each button was receiving power in parallel, and that they were all being powered separately by the arduino's 5V. It was actually the different strength of the resistors after each button that produced different strengths.



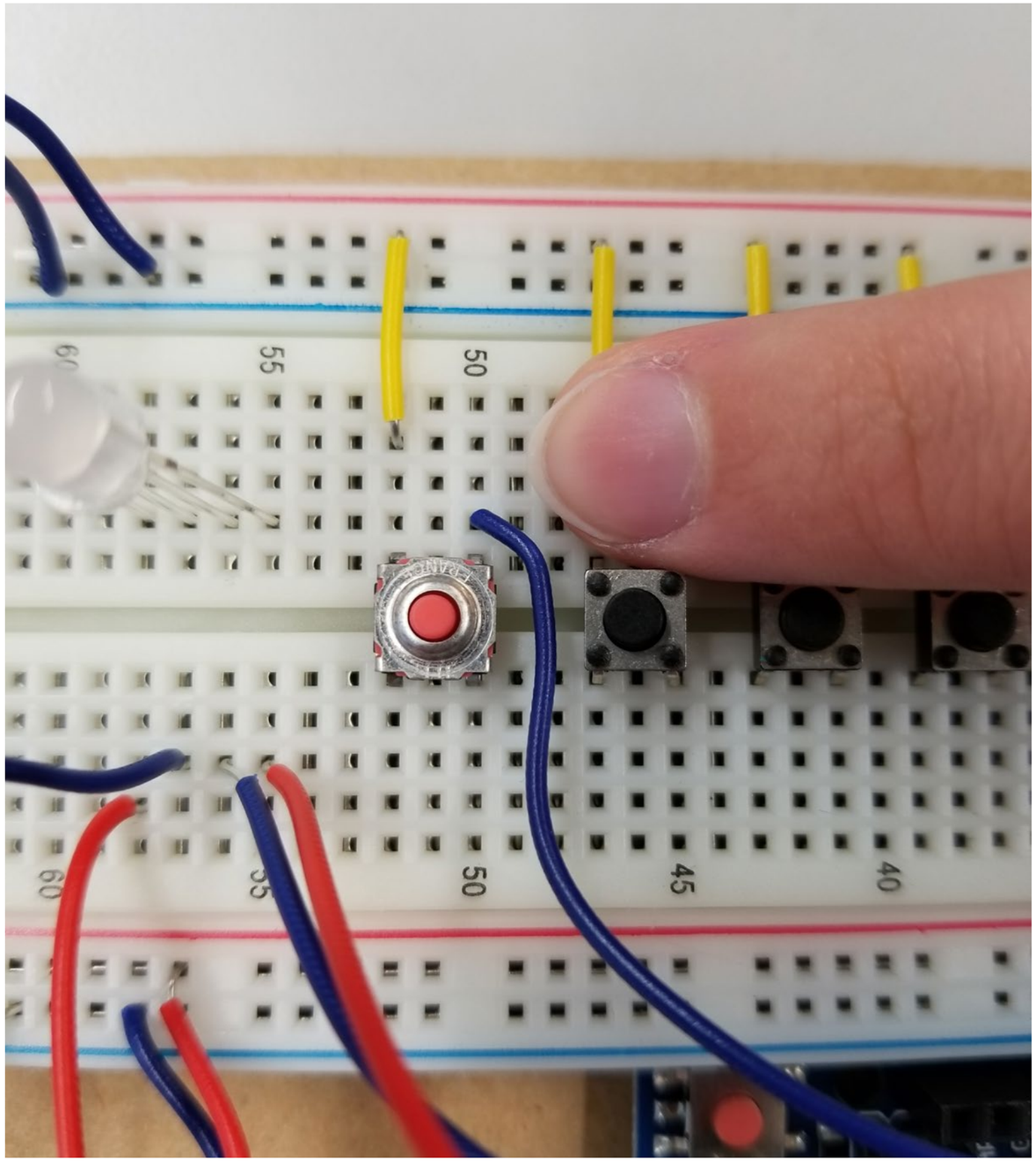
I taped down the breadboard to a piece of cardboard with the arduino for simpler building.



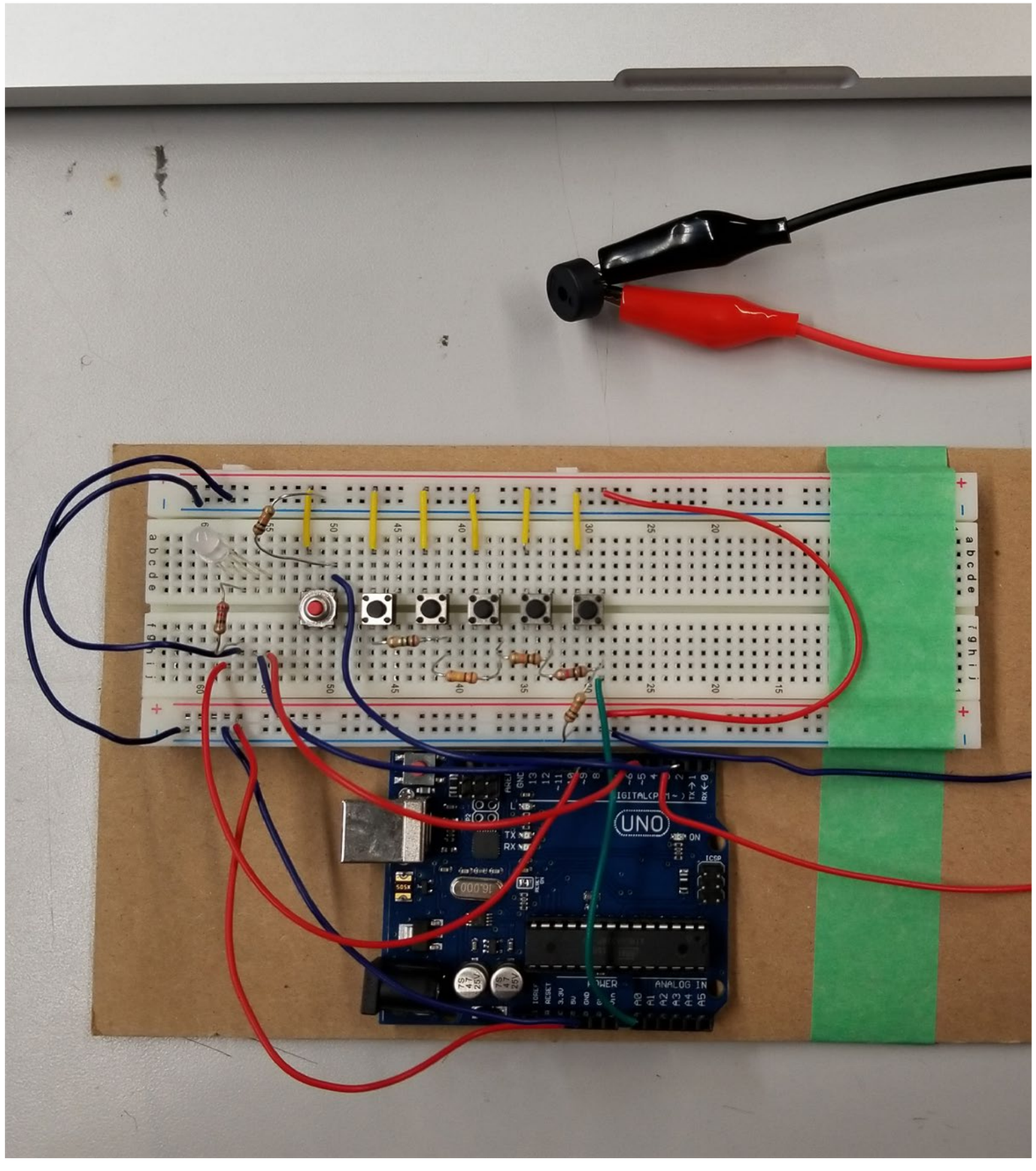
At this time, I was very unfarmaliar with the Piezo. I used clamps to connect it to the circuit, since that's how it was depicted in Fritzing.



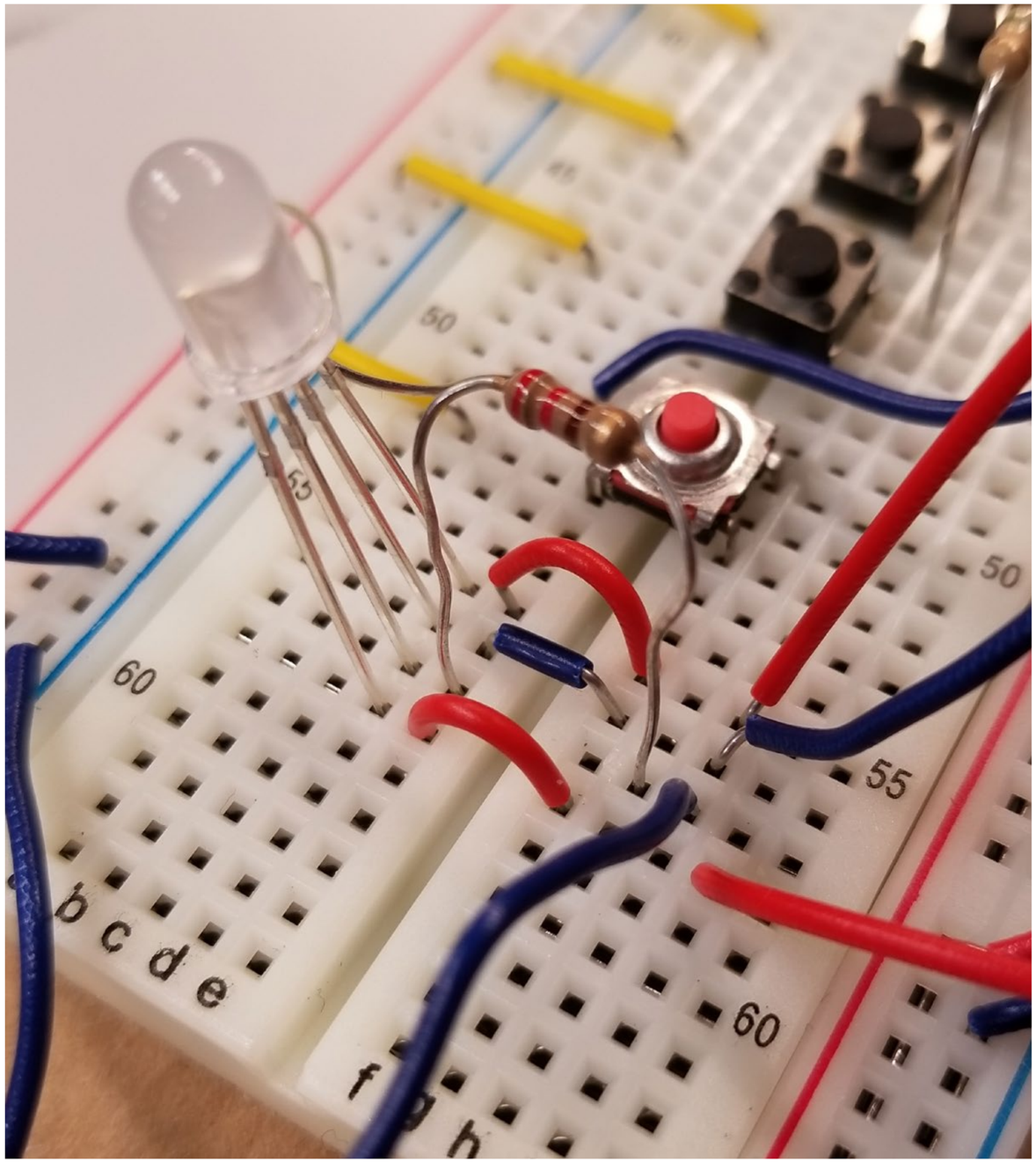
This was my initial final circuit, following Fritzing, before I started fixing my mistakes.



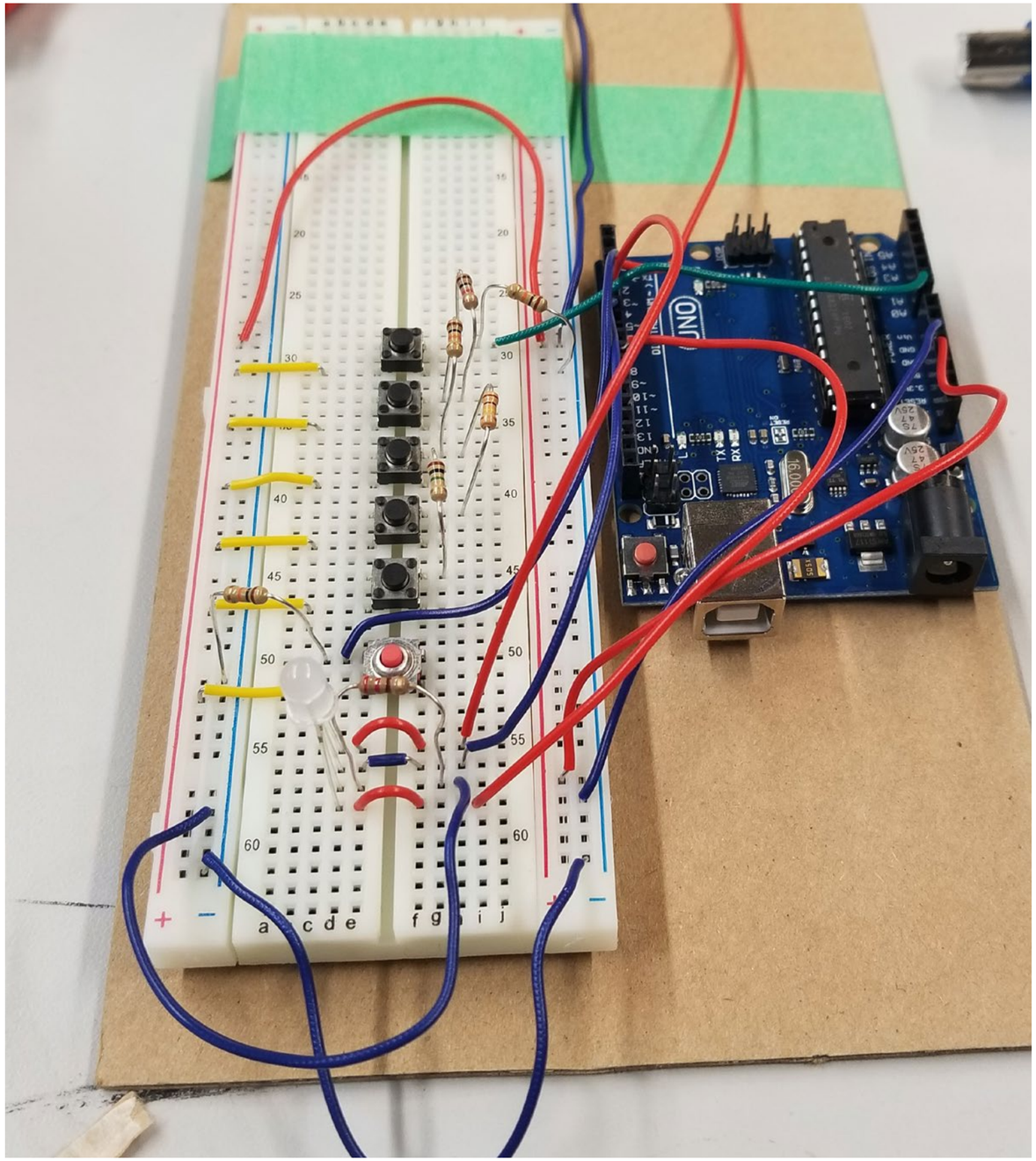
I noticed that I put the green wire into a black button instead of my red button. Here I have fixed it with a blue wire.



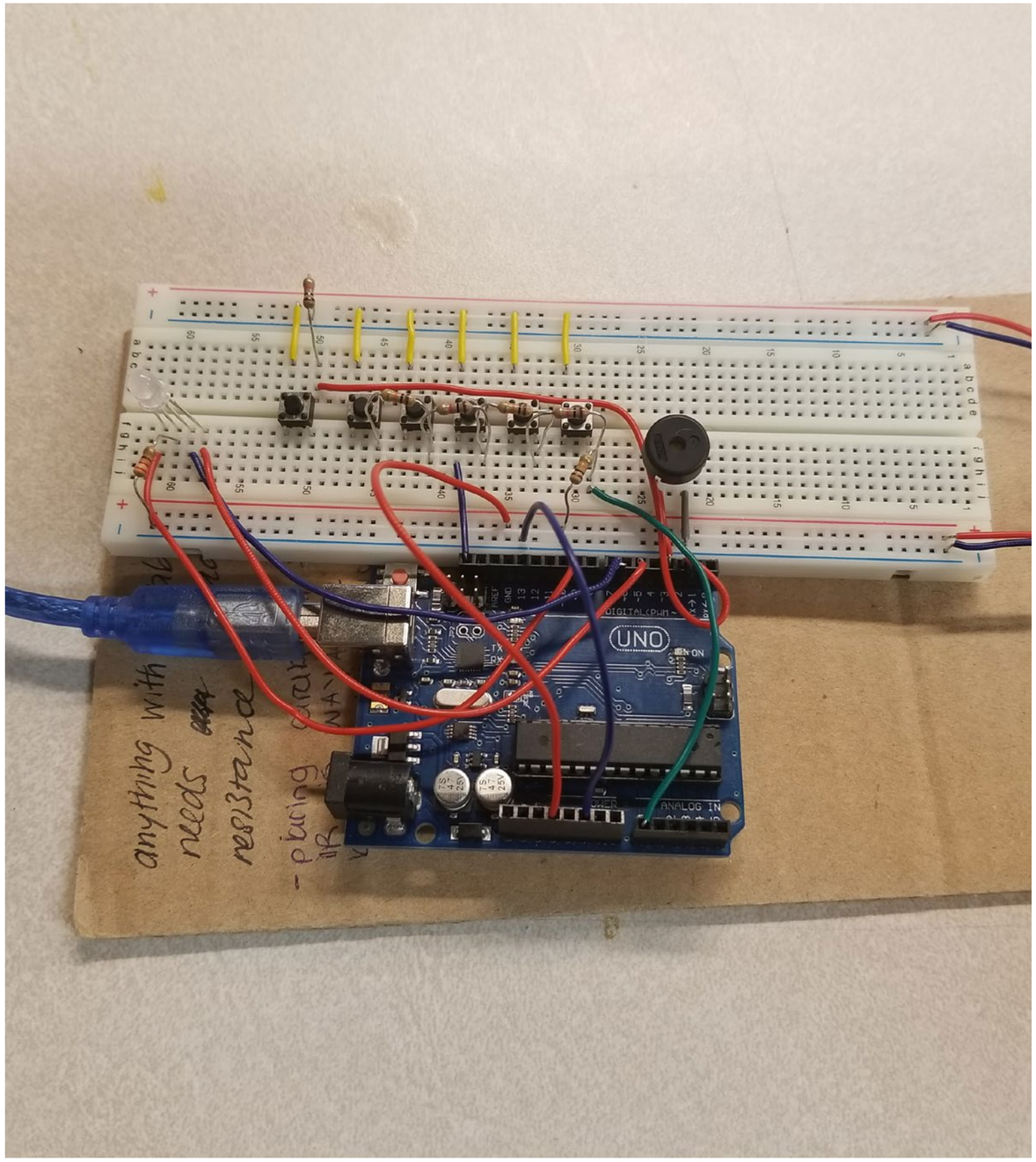
Here was what I thought would be the final circuit, when I realized the LED would not work in the current configuration.



I realialized that I'd have to connect the two sides of the breadboard to allow power to the LED.



This was my final working circuit in early October.



After the etude was reassigned, I looked back on my old photos and rebuilt the circuit based on them. I also optimised some components such as the LED. I moved it to the same side as the power and ground, and used the resistor as the wire going into ground. I also connected the piezo right into the breadboard this time around.