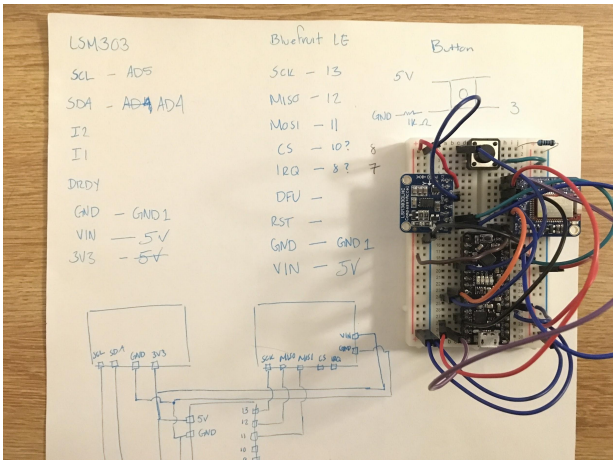
CS353

Lab 4
Bluetooth Accelerometer



Video Description

The way that this circuit is able to send data wirelessly relies on the bluetooth sensor that we have attached to the microcontroller. This sensor then takes input from the machine that is connected to. Now, by using a second device to connect to the bluetooth network, we can use our machine's keyboard to type text that will be sent to it. Now, having an accelerometer and magnetometer we are able to send their data collected via the connected networks. However, I unfortunately was not able to implement a button just yet. I struggled to find a way to combine both sources of data and have it output as one.

Project idea

My idea would be to create a smart watch. I would require bluetooth, accelerometer, piezo, and a vibrating motor. The bluetooth will serve as a way to transfer/communicate the data collected with a personal device. The accelerometer will serve as a way to calculate steps taken, if the user has fallen, and to make gestures. The piezo will be used to notify the user with a chime in case of a notification or as an alarm/stopwatch. The vibrating motor will work along with the piezo for notifications and alarms. An IR sensor can be used to provide a rough estimate of the user's heart rate and blood oxygen levels.