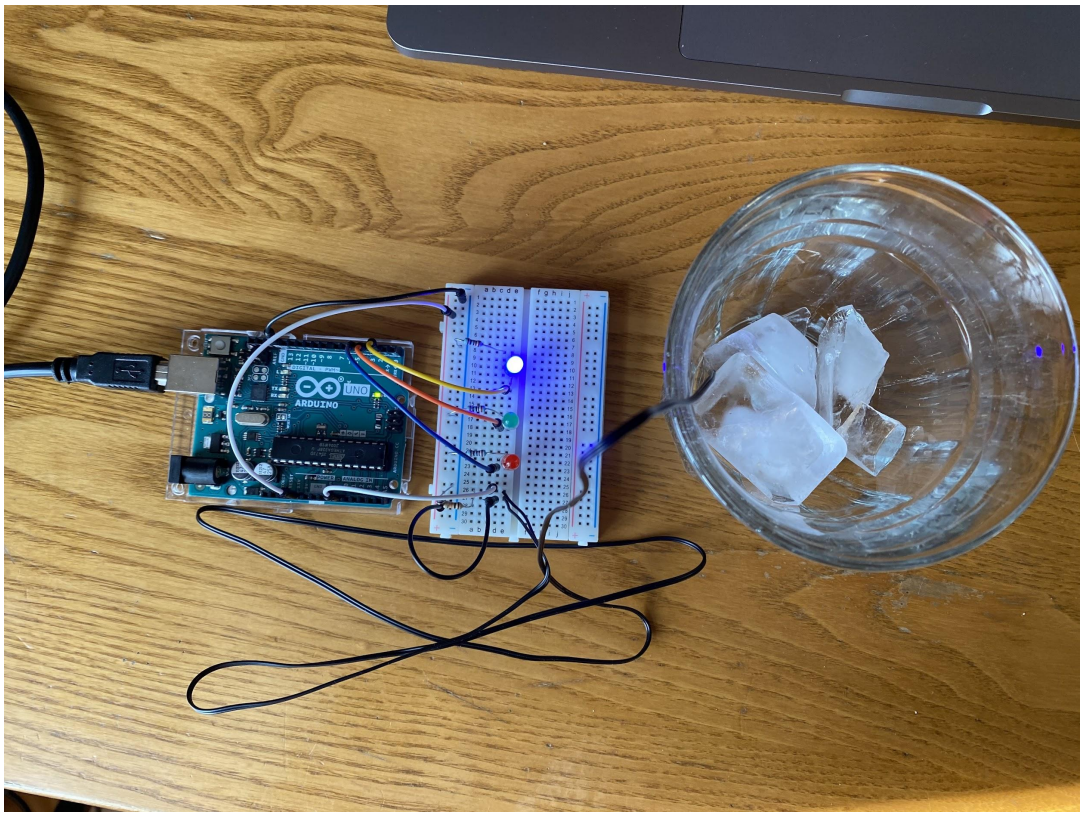
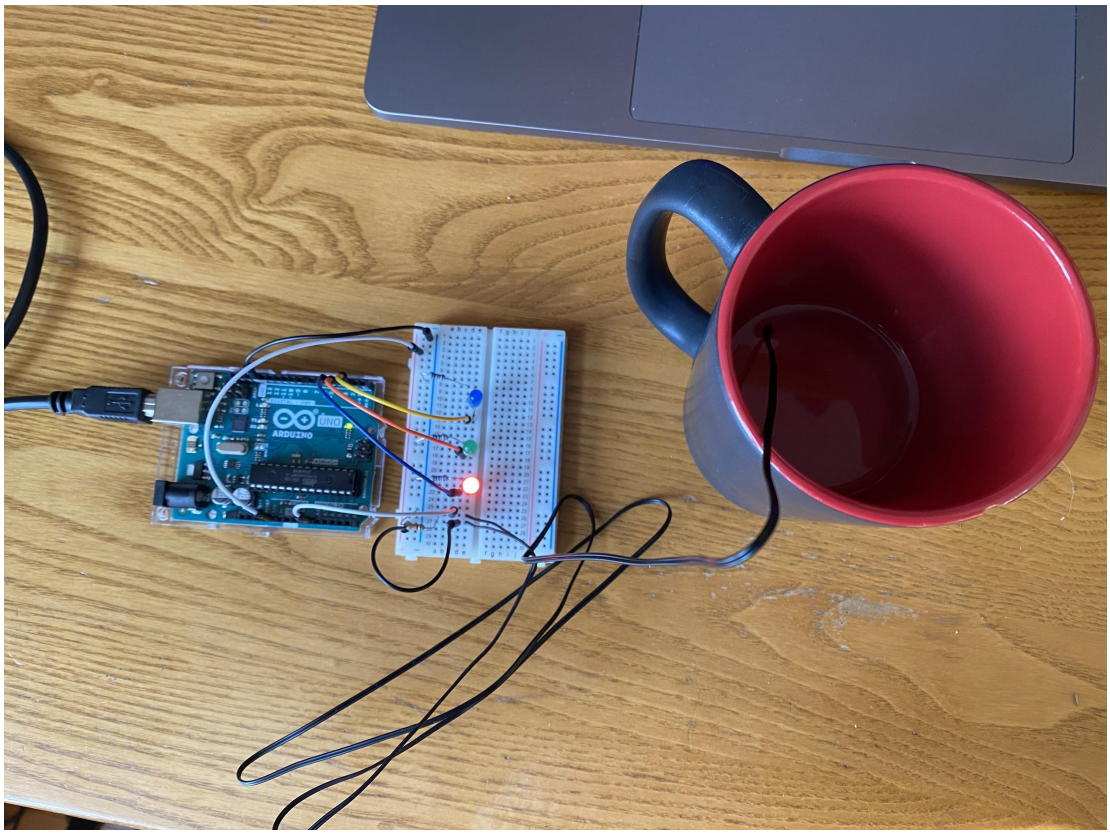
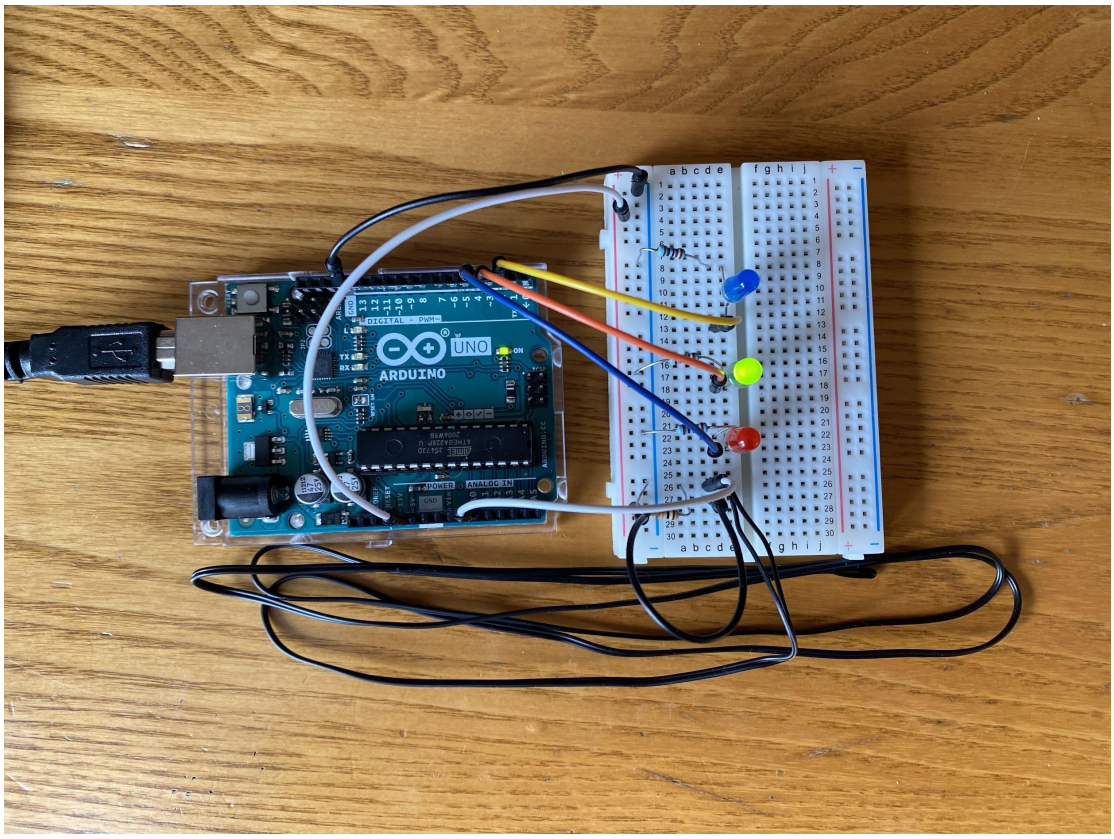
In this experiment a thermistor (NTCLE413E2103F102L) was used to take an analog reading of the surrounding area in order to be converted so that the temperature, thermistor resistance, and voltage at pin A0 could be monitored. Depending upon the calculated temperature in Celsius one of three RGB LEDs lights up. To test the experiment the thermistor monitored the room temperature, a cup of ice, and a cup of hot water.

Blue LED = Cold (Temperature < 15 C)
Red LED = Hot (Temperature > 40 C)
Green LED = Warm (15 C <= Temperature <= 40 C)

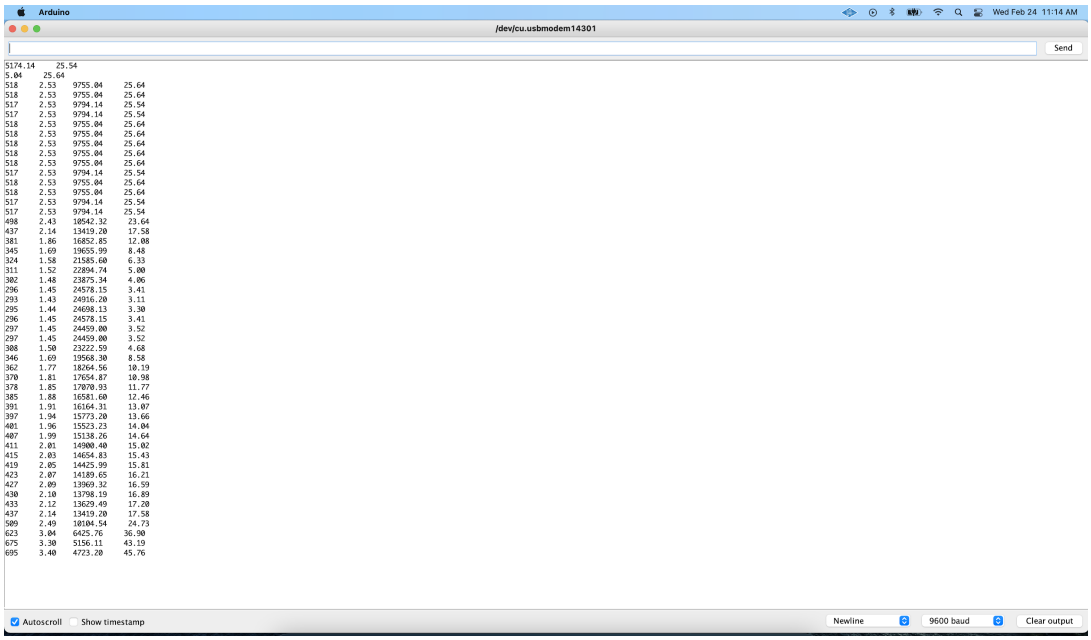




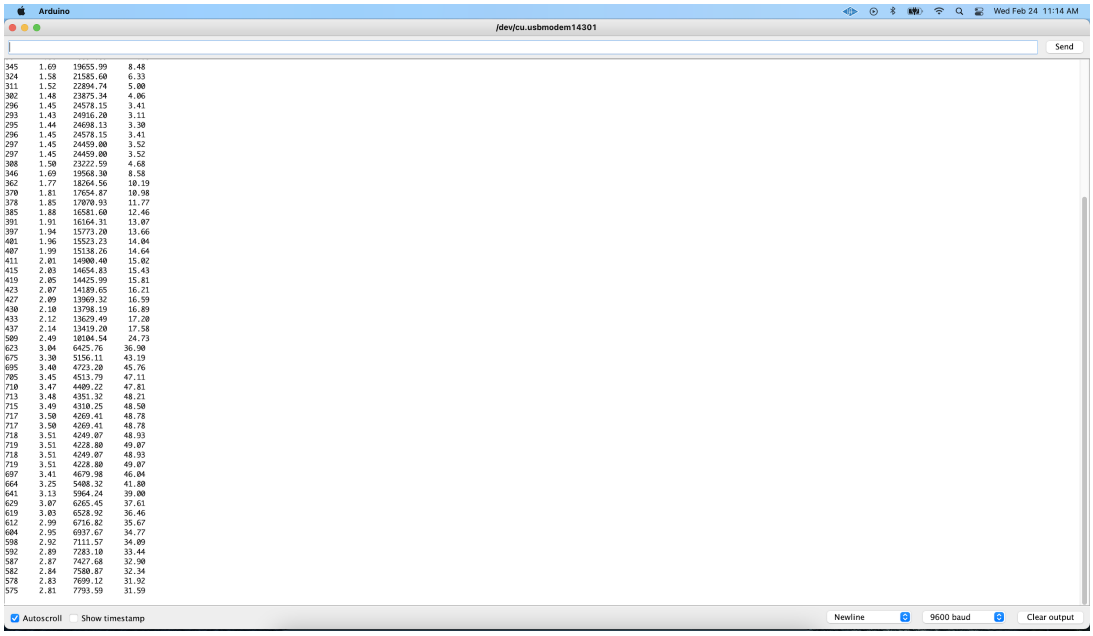
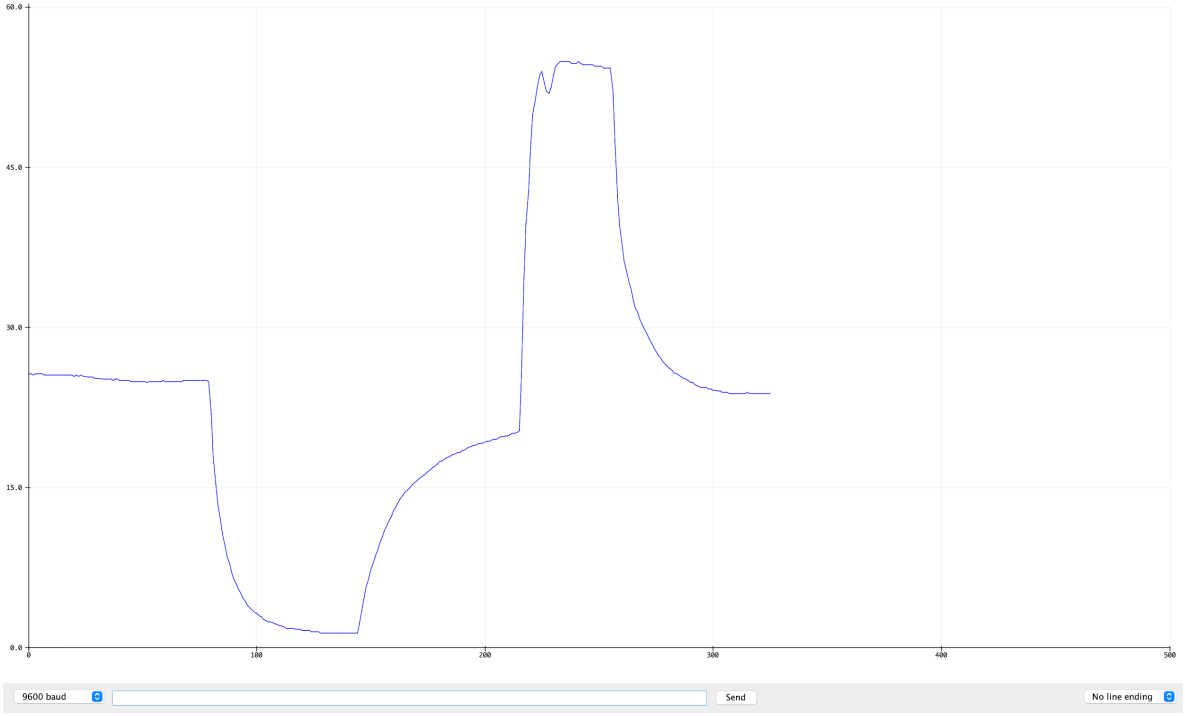


By opening the serial monitor and printing temperature, thermistor resistance, and voltage at pin A0 a numeric representation of the values can be monitored:

(Figure 1)



(Figure 2)



By opening the serial plotter and only printing temperature a graphical representation of the temperature can be monitored.