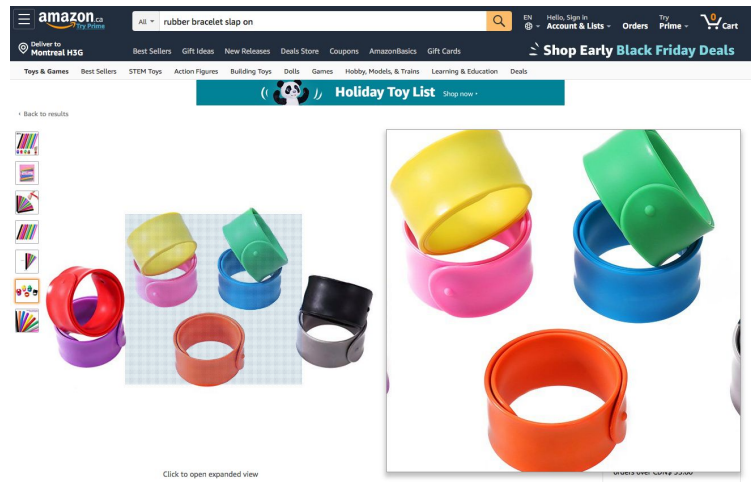
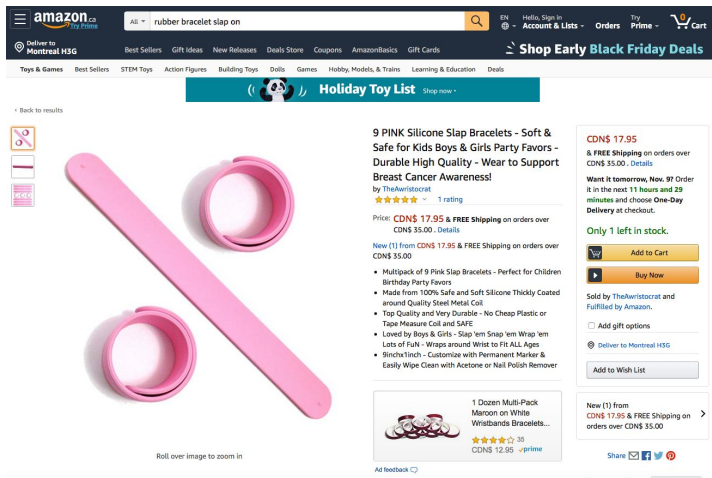
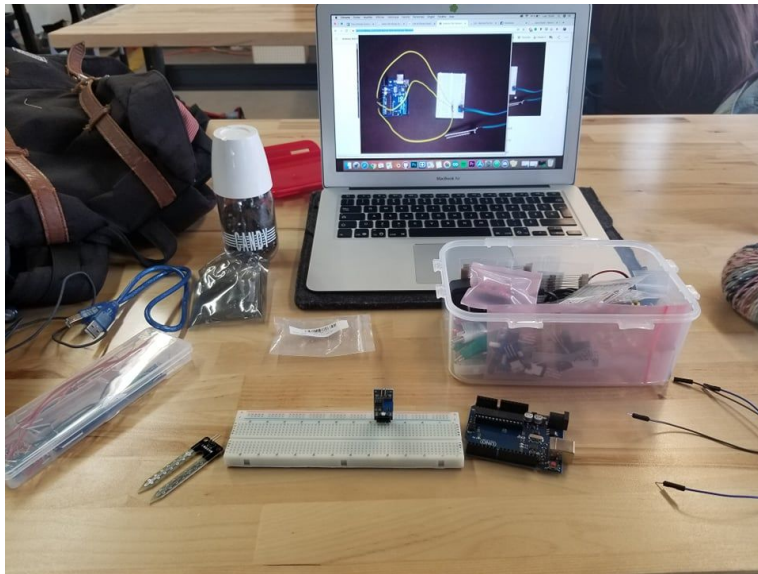


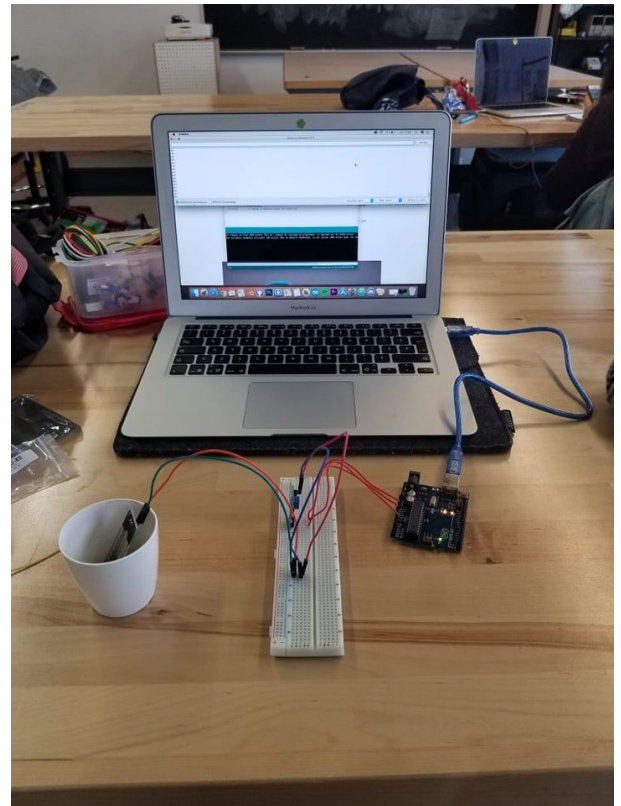
DOCUMENTING MY PROTOTYPE



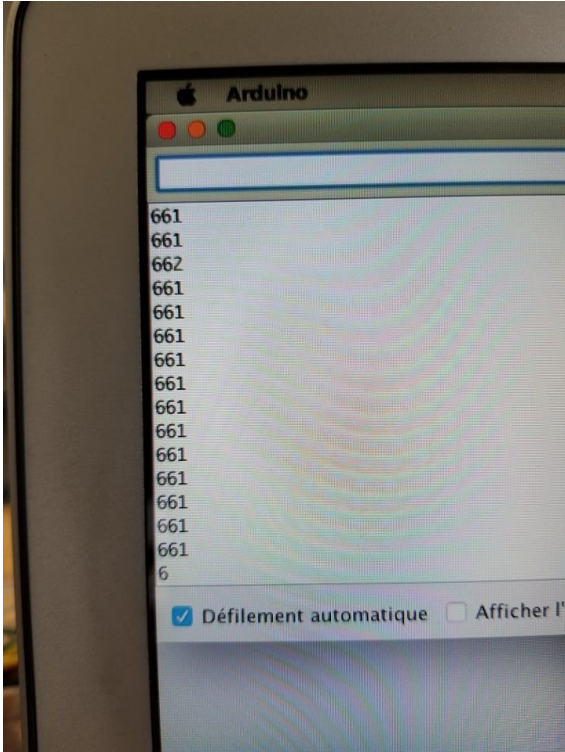
For my bracelet I will use this kind of slap on rubber bracelet



Step 1: link the sensor with the arduino and to the computer



DOCUMENTING MY PROTOTYPE



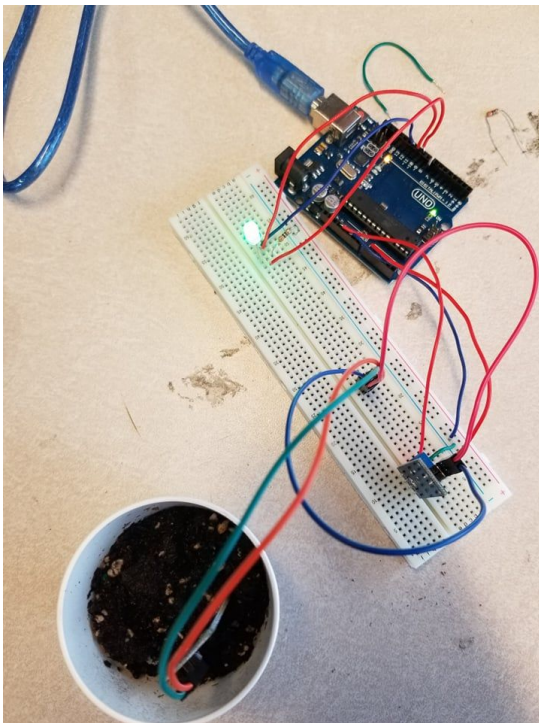
Step 2: analyzing data

When I first plugged in everything, my circuit was not properly done and I had a really high variation of data. 660 when dry and 200 when humid.

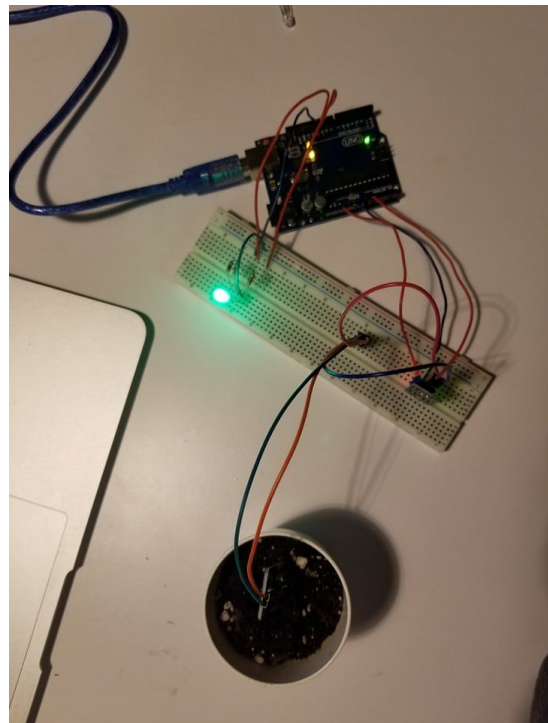
I eventually modified my circuit and have now a smaller range of data: around 330 for dry and 190 for humid.

In the first version I had three resistors on the pins of my LED, but I change it for one resistor before the sensor and one on the power of the LED.

Step 3: adding the LED



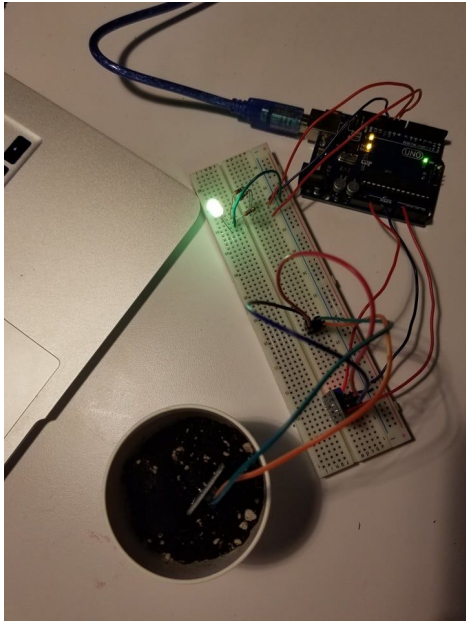
This version was before I changed my original circuit



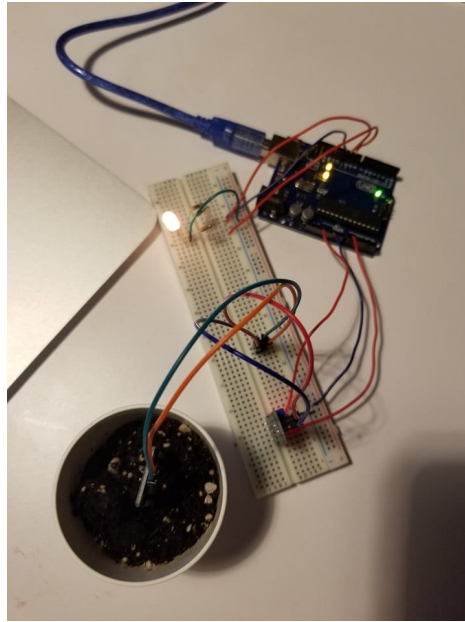
This version was after I changed the resistors

DOCUMENTING MY PROTOTYPE

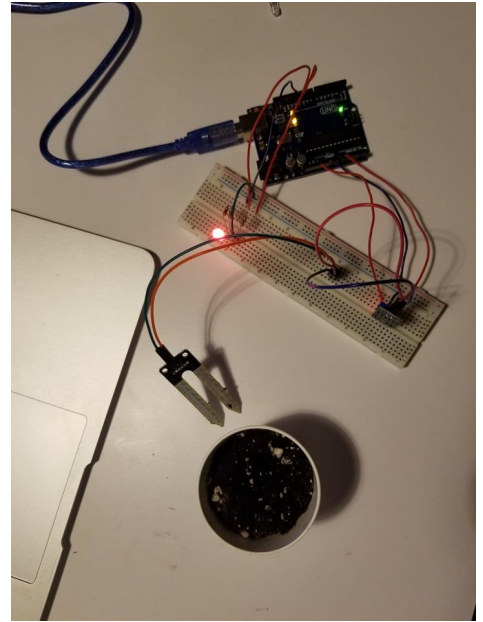
Step 4: making the LED change color depending on the level of humidity of the soil



green: humid



yellow: mid-way



red: dry

In these captures, the second level is represented by a yellow light, but in the most recent version the light is blue.

Step 5: make the red light blink when the soil has been dry for more than a certain amount of time

See video in the video folder on my Github.

ASSIGNMENT_PHYSICAL_PROTOTYPE > Video > Blinking_light.mp4

Note: The code used for the blinking lights is not optimal right now. For the final version, it will be modified and I will use a larger sample of data to create averages and use them to create my level of humidity. Instead of using the “live data” I will use a timer to take only a sample every 5 minutes for example, and then analyse if I should treat it, or wait a longer period of time before the next sample. This will make my code more efficient and less heavy.