Group name: GreenHouse
Group number: 13
Group members: Olivia Dorencz, Qian Zhang, Kiahna Tucker, Laura Morgan, Hok Yin Shum
Testing time: 3:00pm; Thursday, November 15, 2018

Testing Plan:

Equipment used: Laptop computer, heat gun
Setup: Arduino is connected to laptop computer in order to provide power supply to arduino. The laptop is connected to the access point named “Greenhouse”, which is generated by the ESP8266.

1. With arduino connected to laptop, demonstrate that values from two temperature sensors, humidity sensor, and light sensor can be read at room temperature values. The room temperature is approximately 70 degrees, the humidity is between 5% to 25%, and the light level is between 400 to 450.

2. Demonstrate that covering light sensor decreases the value read from the light sensor. When the light sensor is uncovered, the value reading is between 400 to 450. When the light sensor is covered, the value reading is between 100 to 150.

3. Apply heat to one of the temperature sensors using the heat gun (at roughly 100° F) and demonstrate that the value read increases. When temperature is above 80° F, relay should turn on and close circuit, turning red LED on.

4. Test the soil moisture sensor. First hold the sensor in the air, and a zero reading is expected. Second, place the sensor in a pot with semi dry soil, and a low moisture(60% or lower) is expected. Finally place it in a pot with moisture soil, and a high moisture (80% to 100%) is expected

5. Open a browser on the phone, connected to 192.168.4.1. Present that the information is sent from the ESP8266 to the web page. The information is a counter increments every 2 seconds.