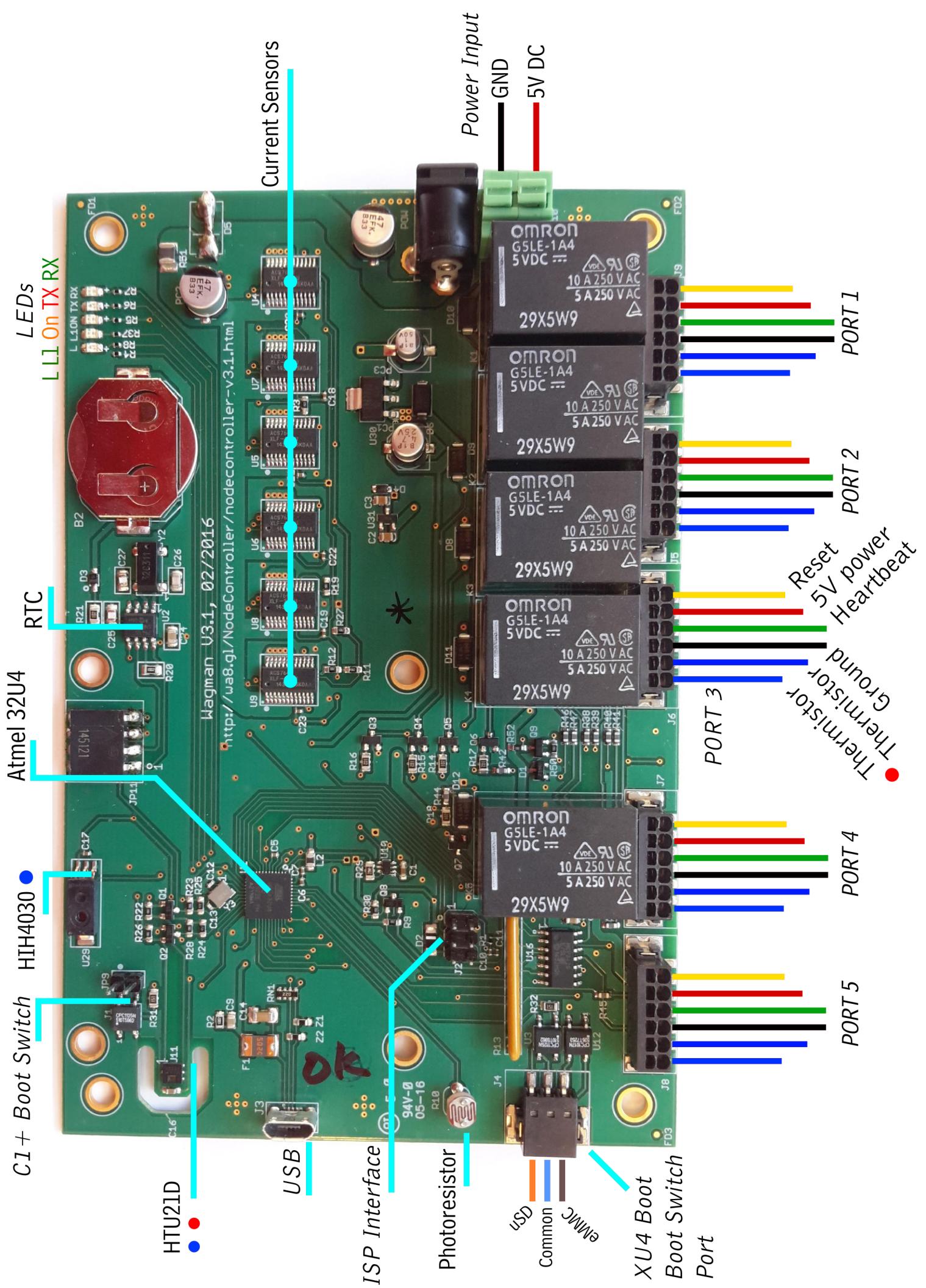


Wagman v3.1

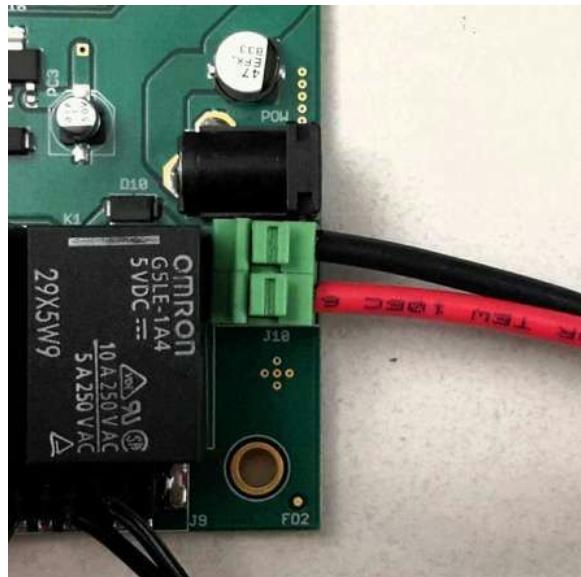
QA Test

2016 / 04 / 20



Test 1: Wagman Initialization

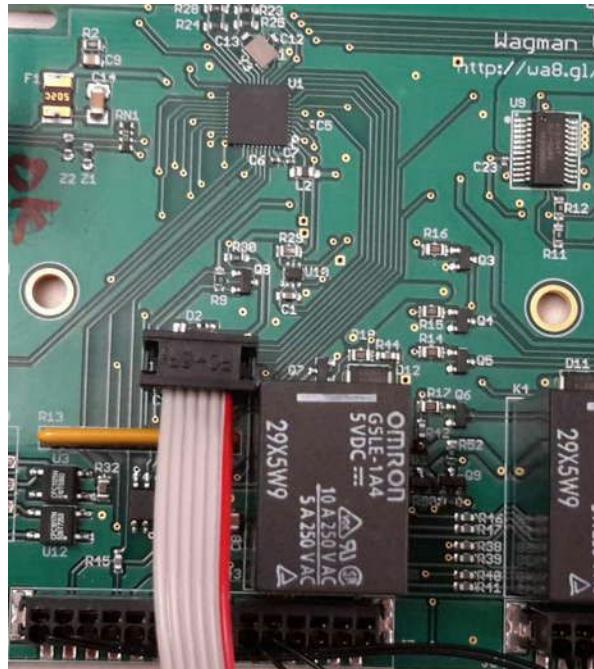
Step 1. Connect power.



Step 2. Verify "ON" light is on.



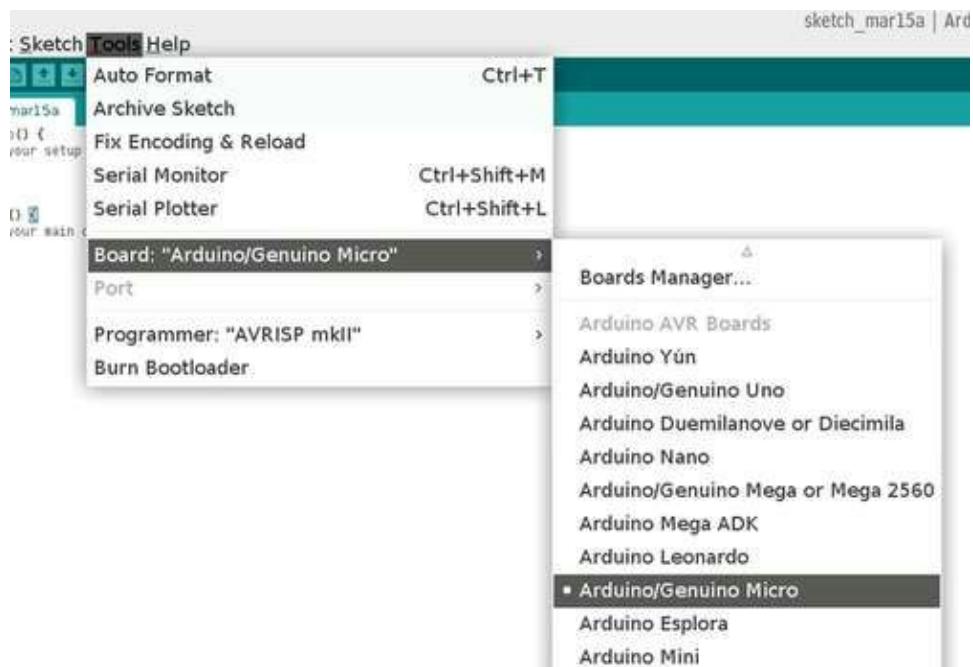
Step 3. Connect programmer.



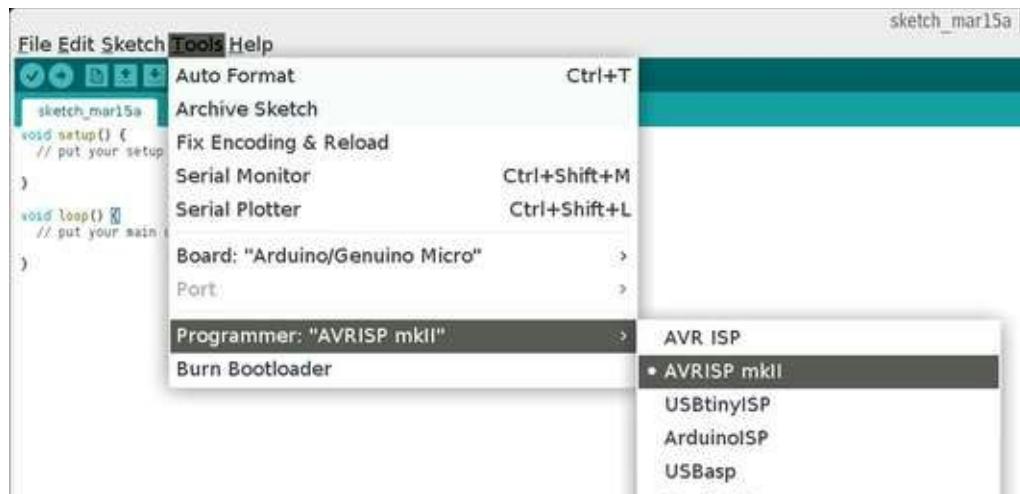
Step 4. Connect micro-USB cable.

Step 5. Run “Test 1: Arduino” program from desktop.

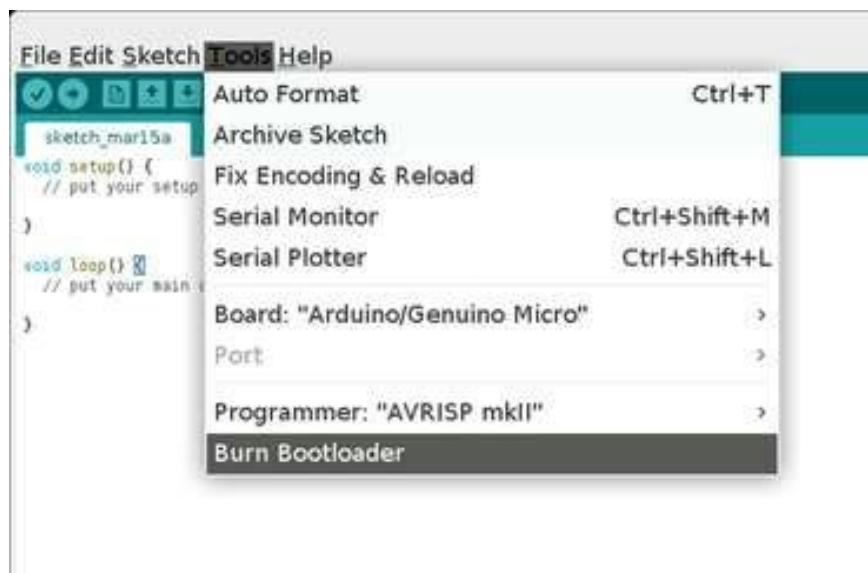
Step 6. Select Tools -> Board: “Arduino / Genuino Micro”.



Step 7. Select Tools -> Programmer: "AVRISP mkII".



Step 8. Select Tools -> Burn Bootloader.

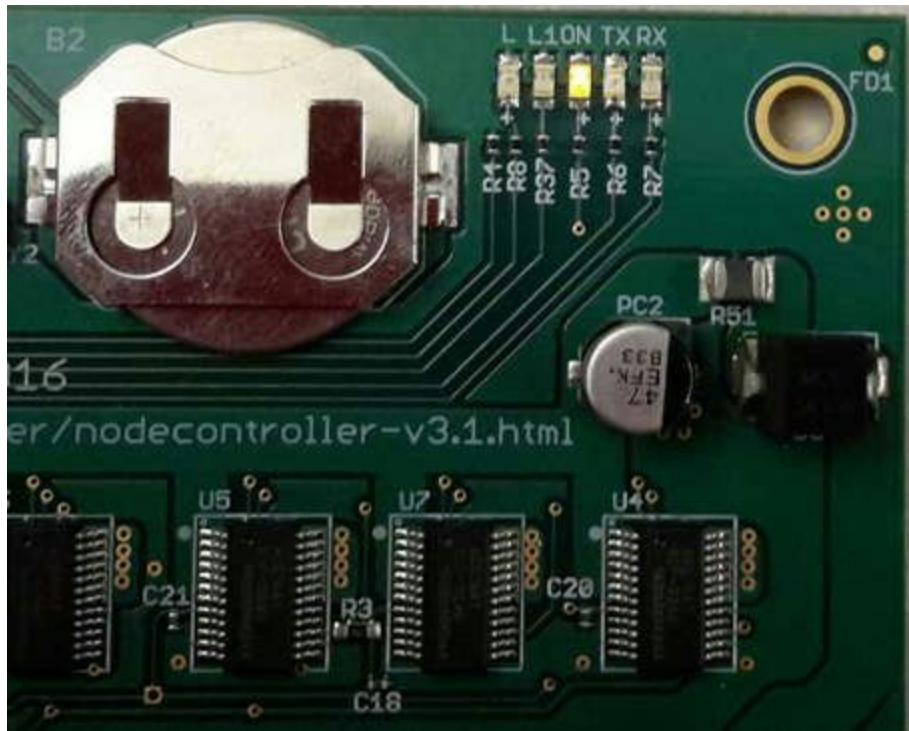


Step 9. Run "Test 1: Initialize" program from desktop. (Check for pulsing L and L1 lights.)

Step 10 (Final). Run "Test 1: Get ID" program from desktop. Place matching three-digit ID stickers given by program on the test sheet and Wagman.

Test 2: Wagman RTC

Step 1. Insert battery in Wagman with + side up / - side down.



Step 2. Run “Test 2: RTC Set” program on desktop.

Step 3. Disconnect power and micro-USB and wait 10 seconds.

Step 4. Reconnect power and micro-USB.

Step 5 (Final). Run “Test 2: RTC Verify” program on desktop and record results.

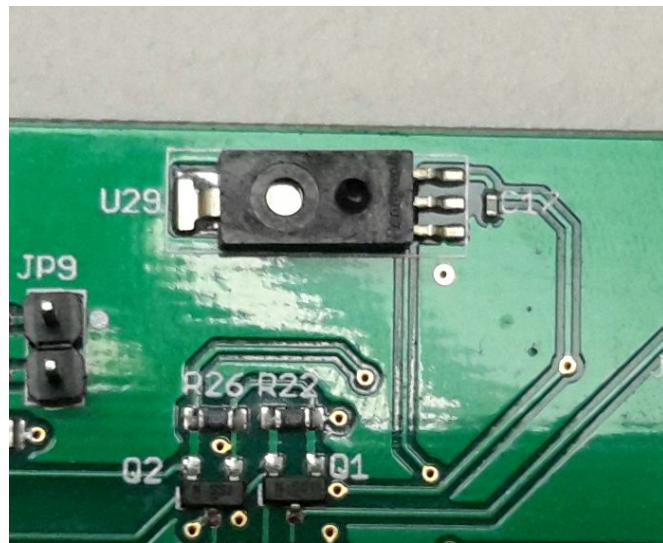
Test 3: Wagman Sensors

⚠ This test requires user interaction with the board! ⚠

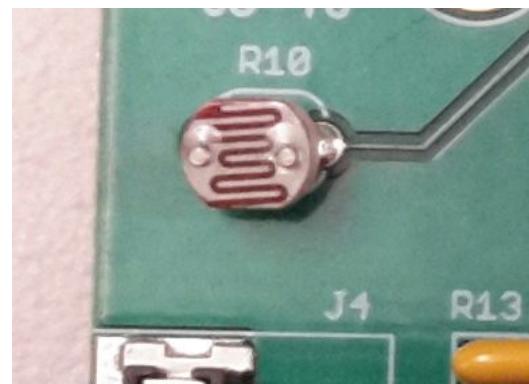
Step 1. Run “Test 3: Sensors” program from desktop. The program will prompt you to follow these steps:

Step 2. Watch for thermistor values printed.

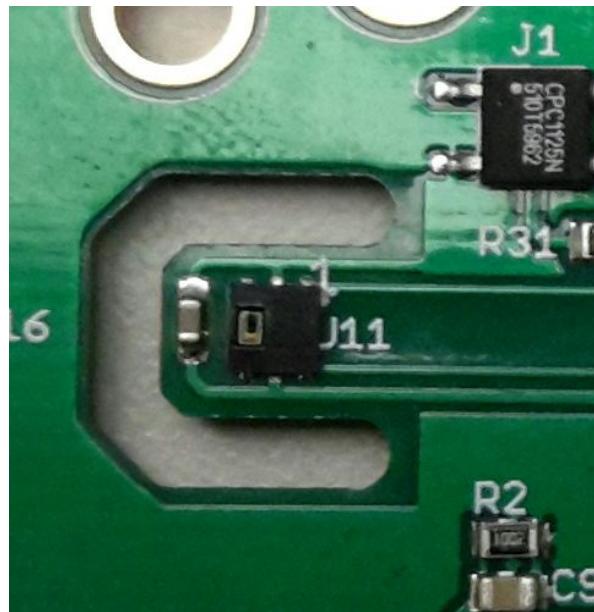
Step 3. Hold finger on HIH4030 sensor. (Humidity value should be higher at end.)



Step 4. Hold finger on light sensor. (Light value should be lower at end.)



Step 5. Hold finger on HTU21D sensor. (Temperature and humidity should be higher at end.)



Step 6. Listen for 5 clicks. (These occur when each of the five relays turns on.)

Step 7 (Final). Record and verify values displayed in program. These include

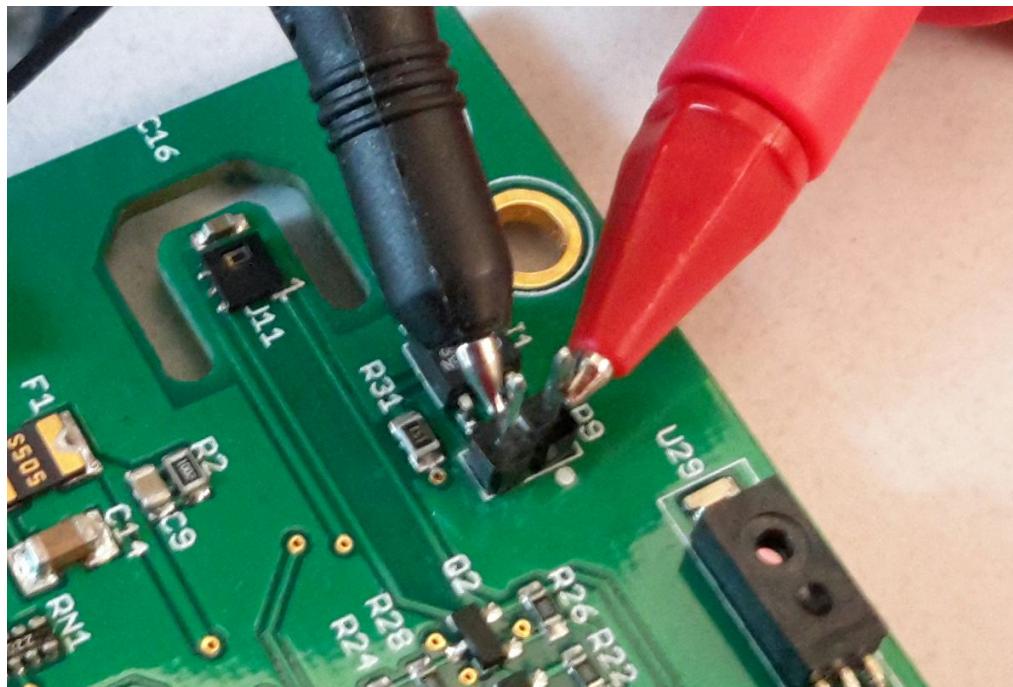
- Thermistor Values (5 total)
- HIH4030 Value
- Lightsensor Value
- HTU21D Temperature / Humidity
- Relay Clicks (5 total)

Test 4: Wagman C1+ Boot Switch

⚠ This test requires user interaction with the board and a multimeter! ⚠

Step 1. Run “Test 4: C1+ Boot Switch” program from desktop. The program will prompt you to test the jumper pins with the multimeter.

Step 2. Touch the multimeter probes to the pins of J9. (You should hear an alternating beep.)



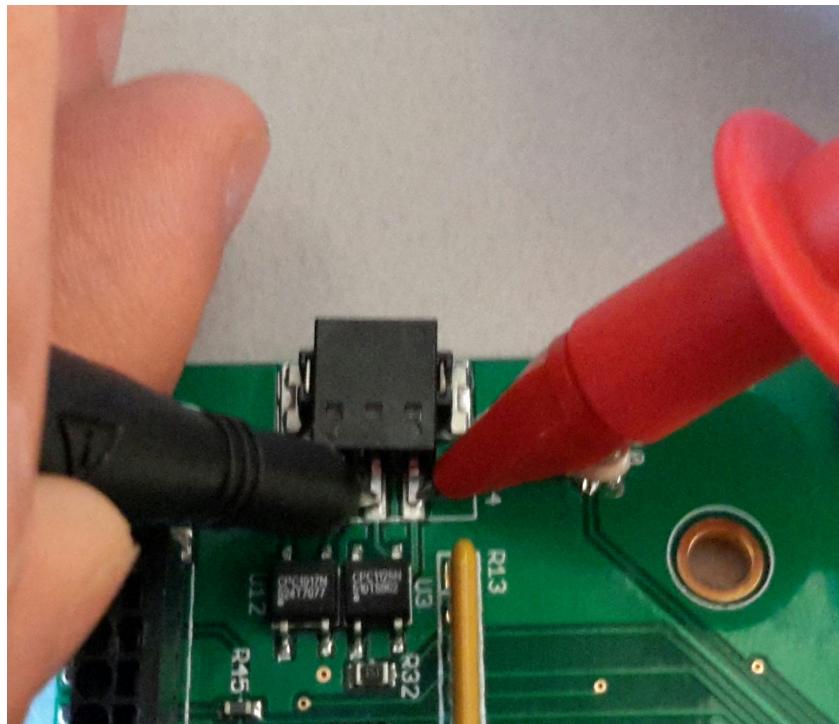
Step 3 (Final). Record whether beep was heard or not.

Test 5: Wagman XU4 Boot Switch

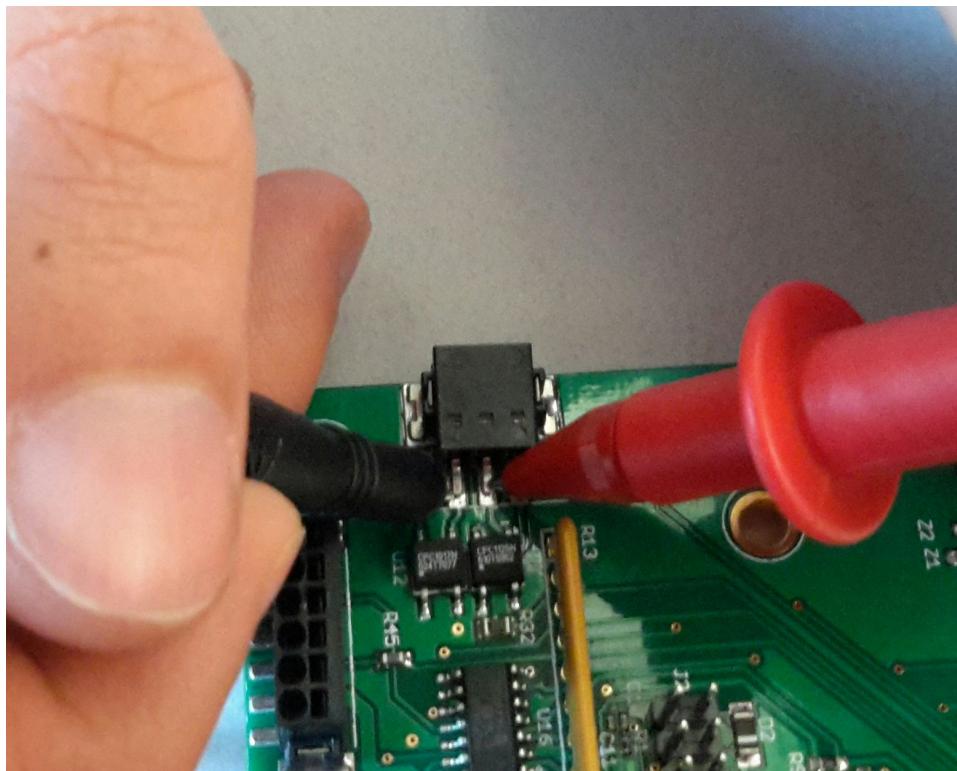
⚠ This test requires user interaction with the board and a multimeter! ⚠

Step 1. Run “Test 5: XU4 Boot Switch” program from desktop. The program will prompt you to test the boot selector (J4) with the multimeter.

Step 2. Touch the multimeter probes to pins 1 and 2 of J4. (You should hear an alternating beep.)



Step 3. Touch the multimeter probes to pins 2 and 3 of J4. (You should hear an alternating beep.)



Step 4 (Final). Record whether beeps were heard or not.