Hardware Testing Instructions

For the Awesome Shield PCB Assembly (PCBA) v1.0.

Materials

1. Awesome Shield v1.0 PCBA
2. Arduino / Genuino Uno board, flashed with the tester sketch (https://github.com/awesomeshield/sketch-library/tree/master/tester-production)
3. Peripheral board for testing “Grove” 4-pin connectors (see Appendix 1)
4. 4-pin “Grove” cable

Procedure

1. Connect the PCBA to an Arduino / Genuino Uno board, flashed with the tester sketch (https://github.com/awesomeshield/sketch-library/tree/master/tester-production).
2. Set the toggleSwitch to the “on” position. The LED should turn on.
3. Rotate the knob as far as possible in the counter-clockwise direction. The LED should now light up white.
4. Rotate the knob as far as possible in the clockwise direction. The LED should change from white, through red, green, and blue as you rotate the knob. It should turn white again when you have finished rotating the knob.
5. Set the toggleSwitch to the “off” position. The LED should turn off. Leave the LED switched off for the rest of the test.
6. Press the button. The buzzer should make a noise.
7. Hold the button down, and cover the light sensor. The buzzer sound should increase in pitch when the light sensor is covered.
8. Gently connect the supplier peripheral PCB to port1 using the supplied 4-pin connector cable. Each of the three LEDs on the peripheral PCB should light up. It is not necessary to snap the cable all the way into the connector, as long as all three LEDs on the peripheral PCB light up.
9. Repeat step 8 with port2 and port3.
10. Ensure that the peripheral board and 4-pin cable are disconnected from the PCBA.
11. Gently but firmly disconnect the PCBA from the Arduino / Genuino Uno.
12. Ensure that the legs on the headers were not bent during connection or disconnection to the Arduino / Genuino Uno.

Appendix 1: Peripheral PCB Description

The peripheral board is for testing the “Grove” 4-pin connectors. It has three indicator LEDs, and a 4-pin connector.