

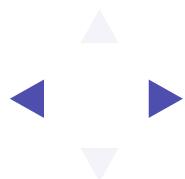
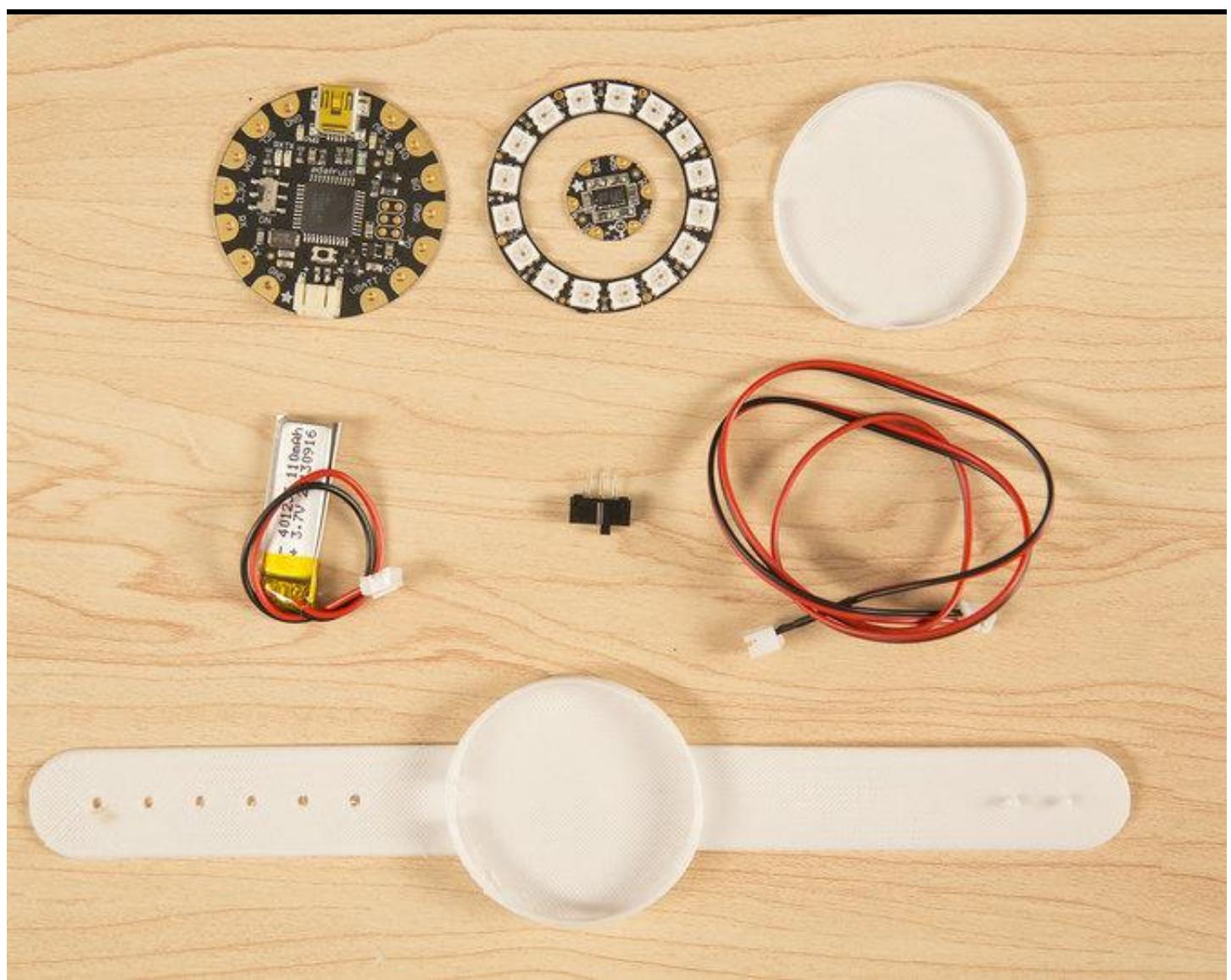
LightWatch

A wearable light display for body stress.

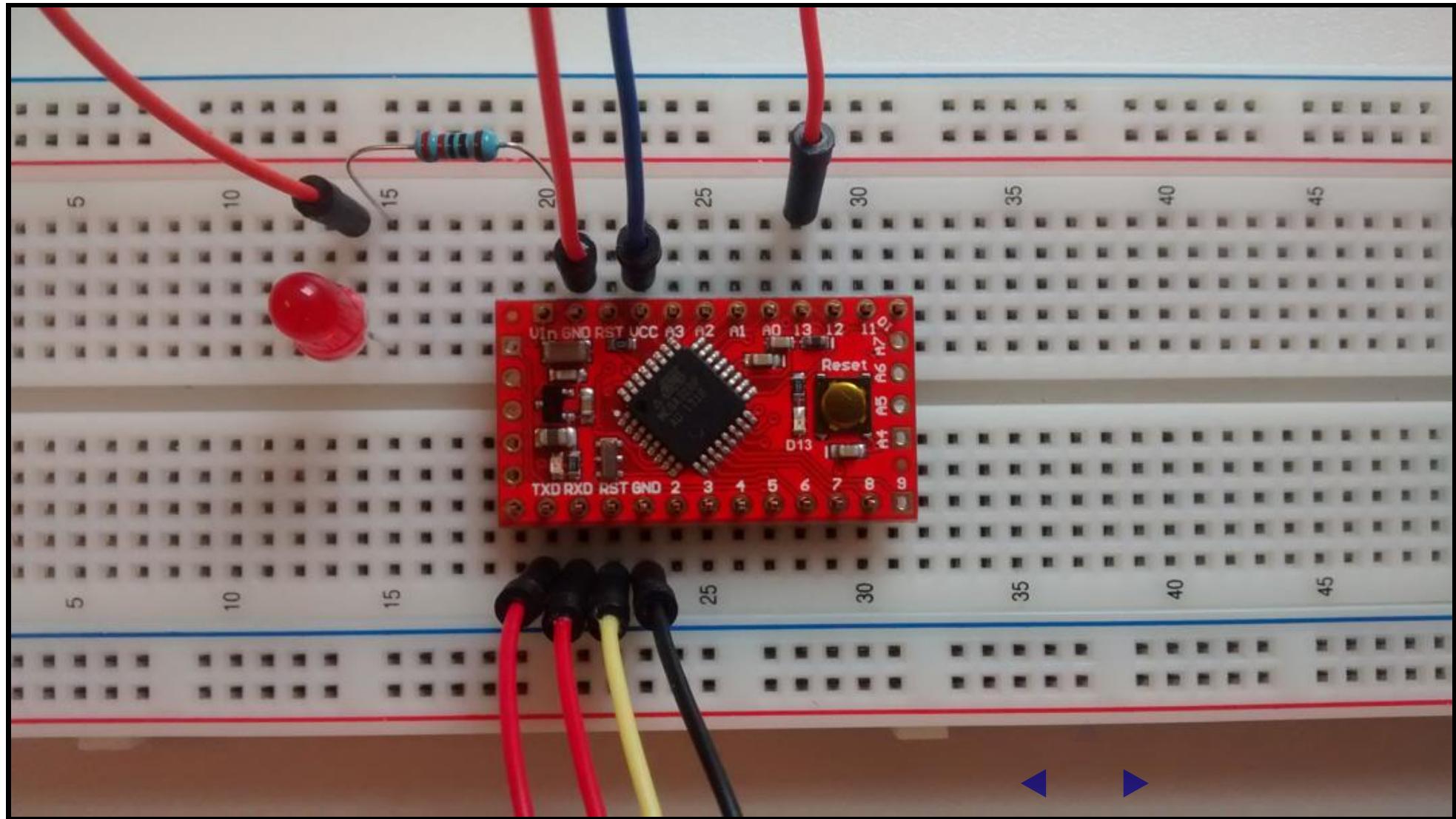


3D Printed Flora Band

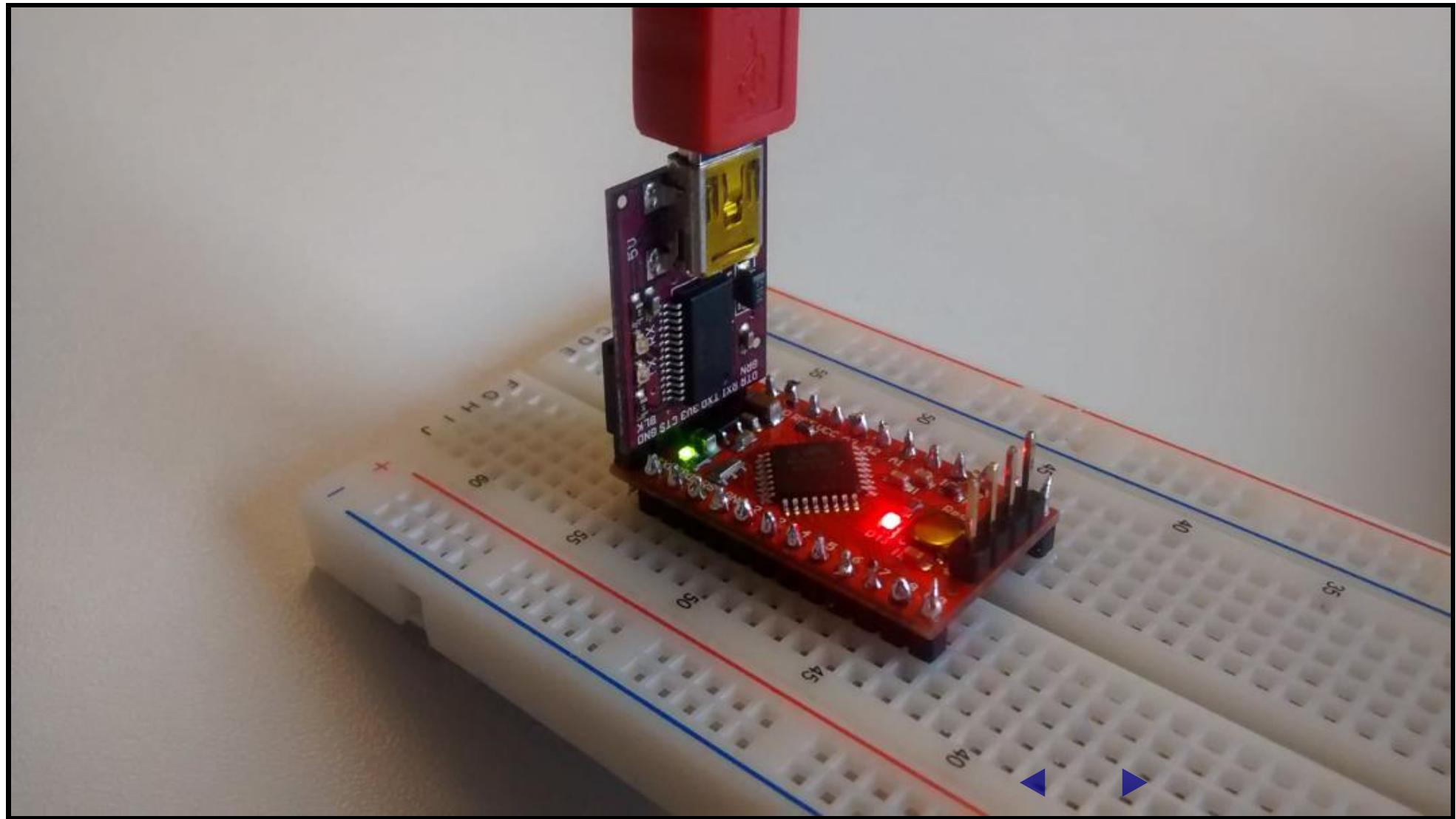
be a flexible motion-activated LED arm/wrist b



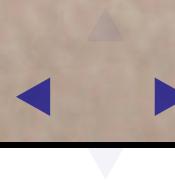
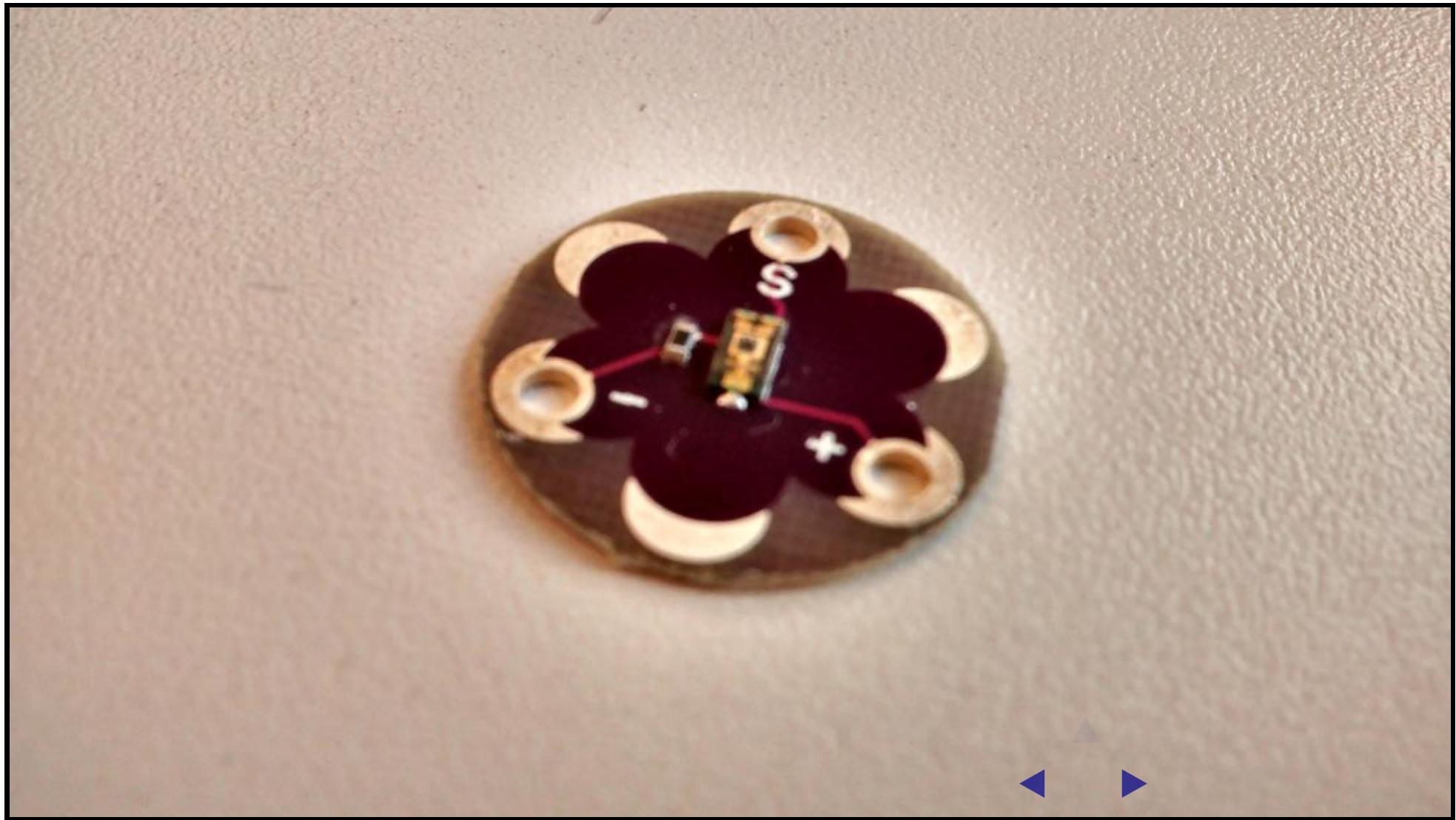
Initial Attempt



Hello, World!



Light Sensor Hardware



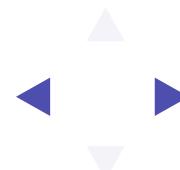
Light Sensor Test Code

```
#include <EEPROM.h>

const int ledPin = 13;

void setup() {
    Serial.begin(4800);

    int value;
    for (int i = 0; i < 1024; i=i+2) {
        value = EEPROMReadInt(i);
        Serial.println((String) i + " " + (String) value);
    }
    Serial.println("-----");
}
```

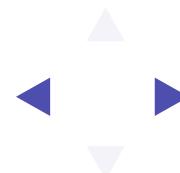


Light Sensor Recording Code

```
int address = 0;
void loop() {
    if(address >= 1024)
        return;

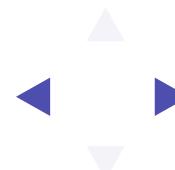
    sensorValue = analogRead(A0);
    EEPROMWriteInt(address, sensorValue);
    address = address + 2;

    Serial.println((String) sensorValue + " " + (String) EEPROMReadInt(address
        delay(3000);
}
```

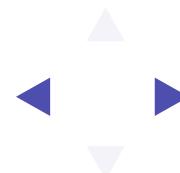
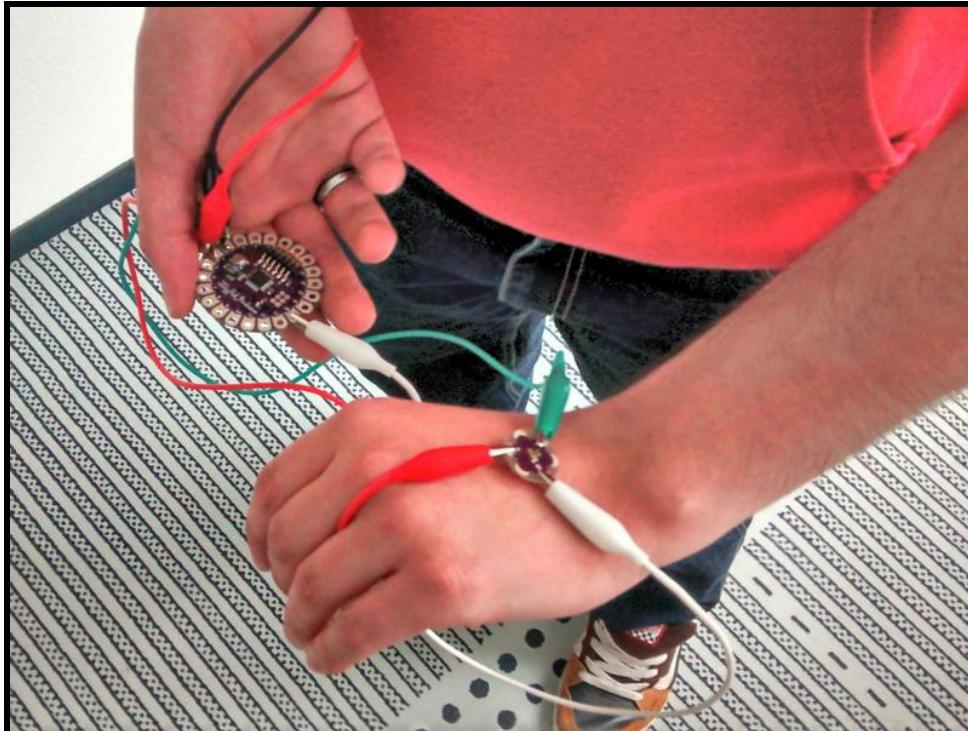


EEPROM helper functions

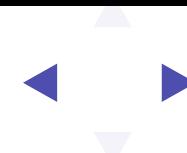
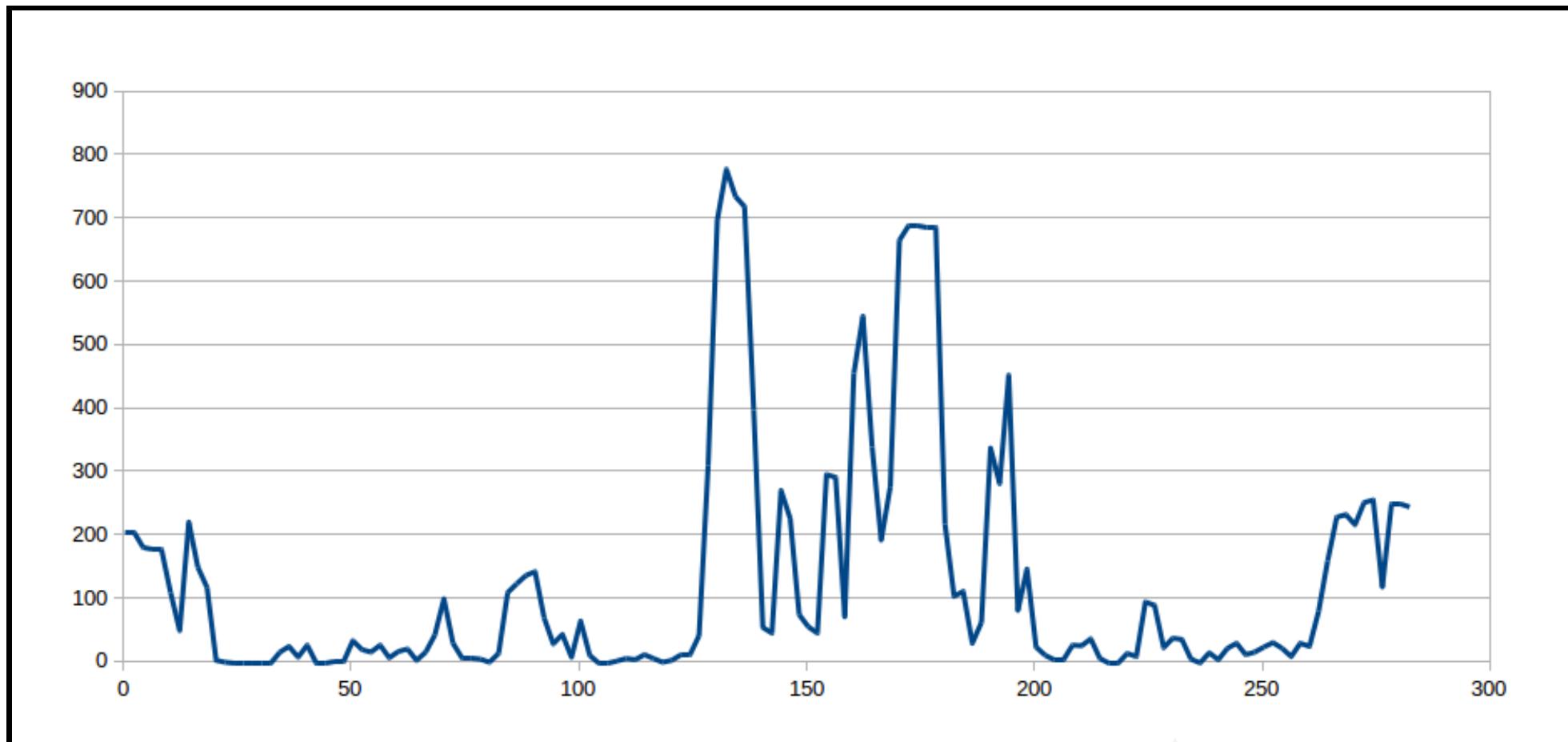
```
void EEPROMWriteInt(int p_address, int p_value) {  
    byte lowByte = ((p_value >> 0) & 0xFF);  
    byte highByte = ((p_value >> 8) & 0xFF);  
  
    EEPROM.write(p_address, lowByte);  
    EEPROM.write(p_address + 1, highByte);  
}  
  
unsigned int EEPROMReadInt(int p_address) {  
    byte lowByte = EEPROM.read(p_address);  
    byte highByte = EEPROM.read(p_address + 1);  
  
    return ((lowByte << 0) & 0xFF) + ((highByte << 8) & 0xFF00);  
}
```



Light Sensor Test Run



Light Sensor Test Results

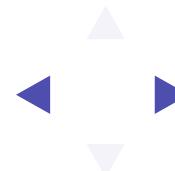


LED Test Code

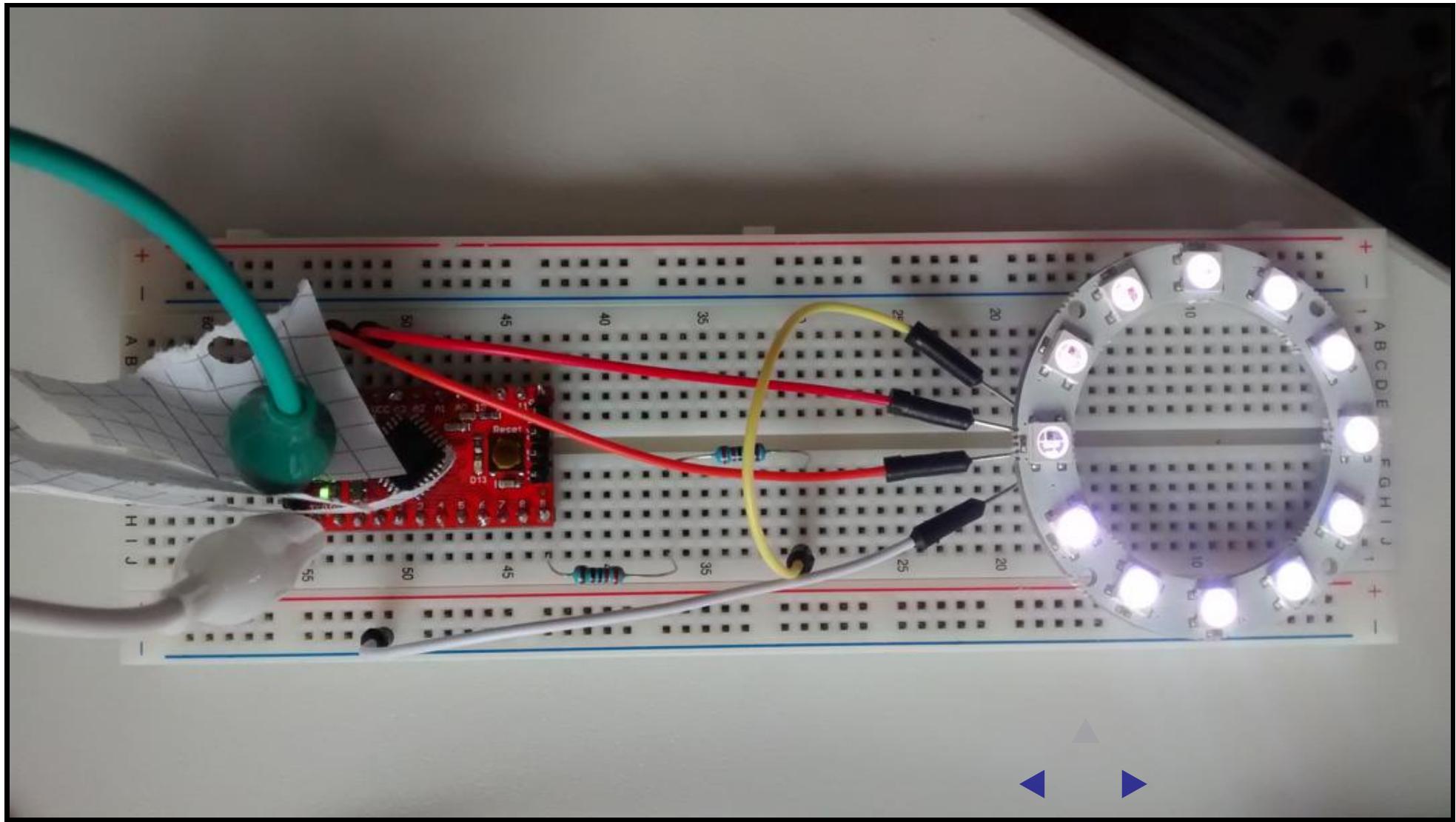
```
#include <WS2812.h>
int LED_COUNT = 12;
WS2812 LED(LED_COUNT);

void setup() {
    LED.setOutput(9); // Digital Pin 9
    Serial.begin(9600);

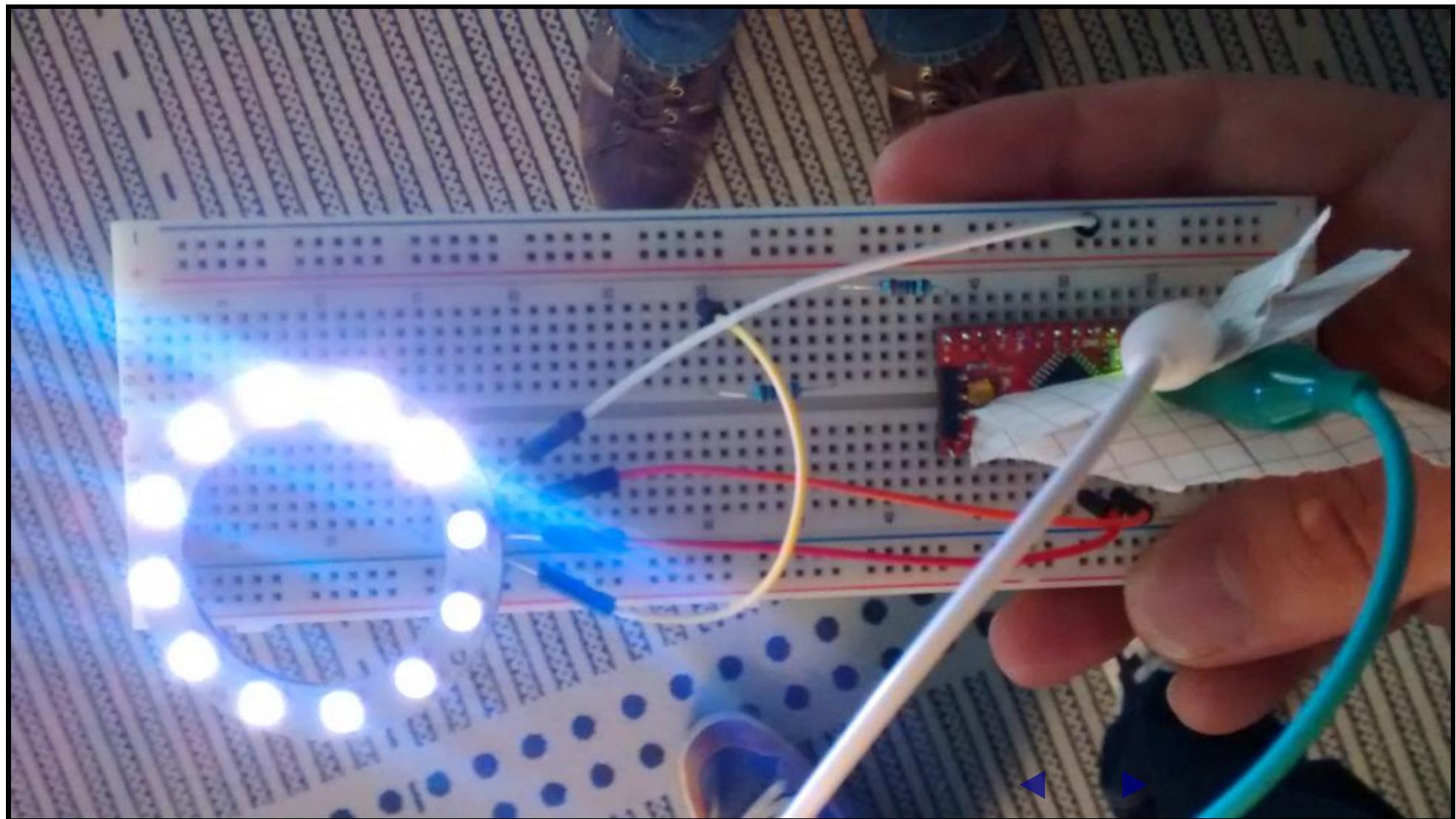
    cRGB color;
    for (int LED_ID = 1; LED_ID <= 12; LED_ID++) {
        color.b = LED_ID * 21;
        color.g = LED_ID * 21;
        color.r = LED_ID * 21;
        LED.set_crgb_at(LED_ID - 1, color);
    }
    LED.sync();
}
```



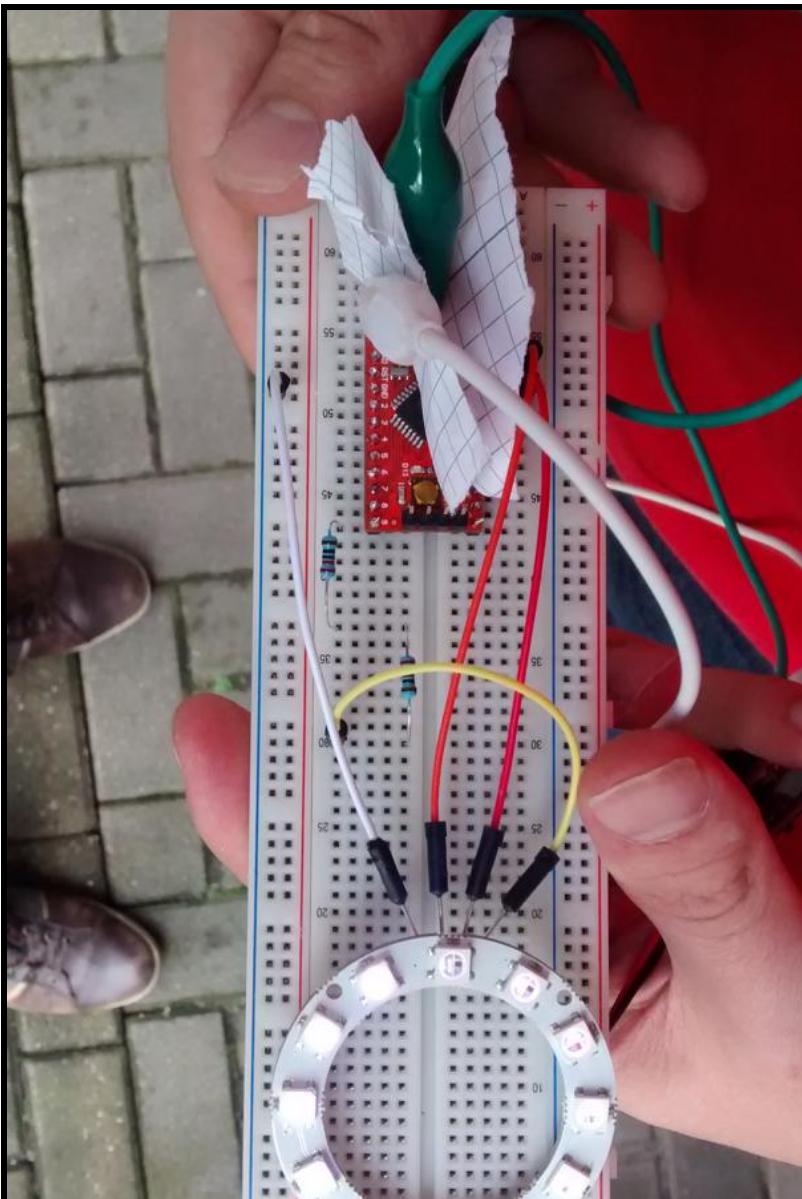
LED Test Results (1)



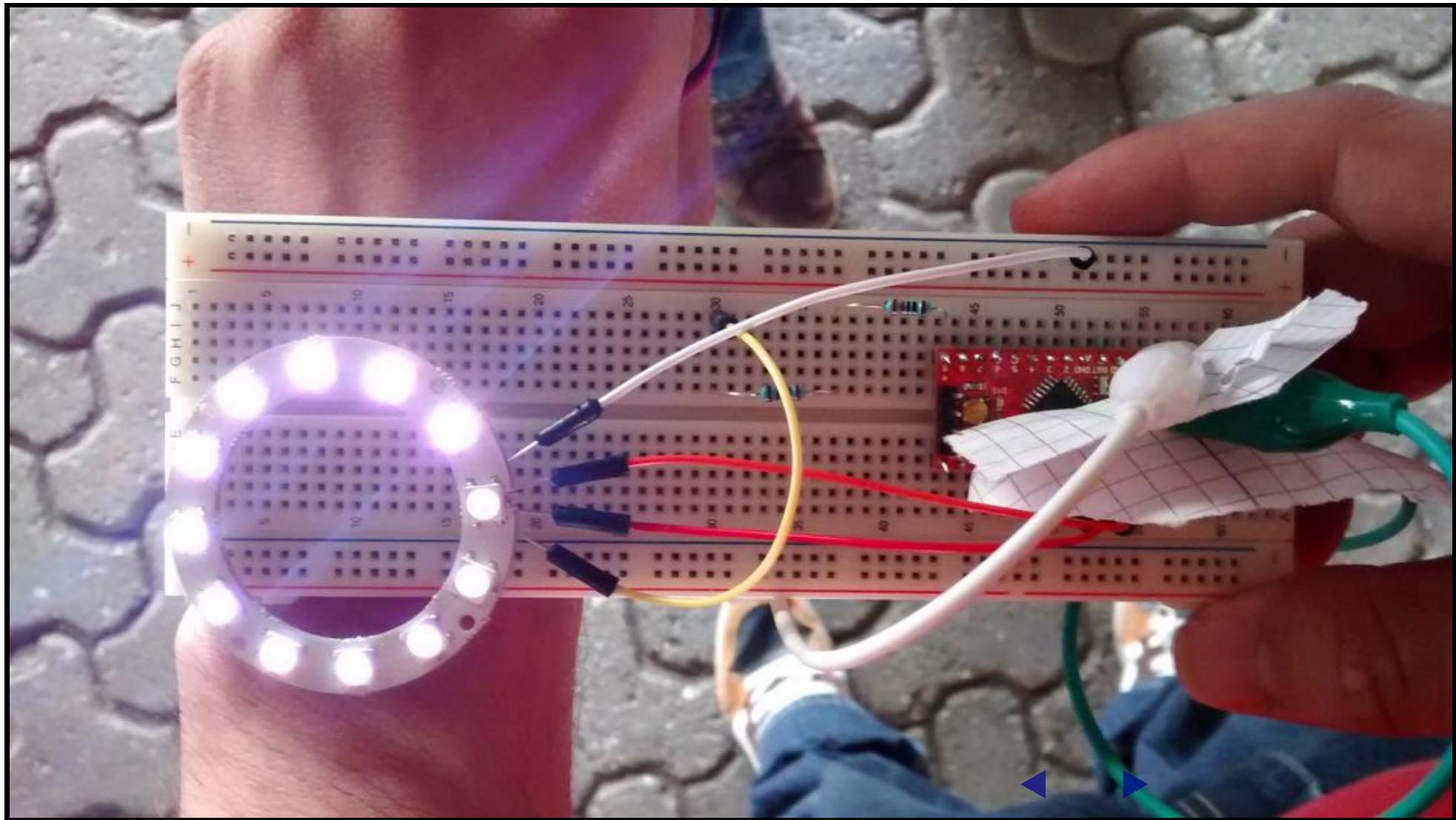
LED Test Results (2)



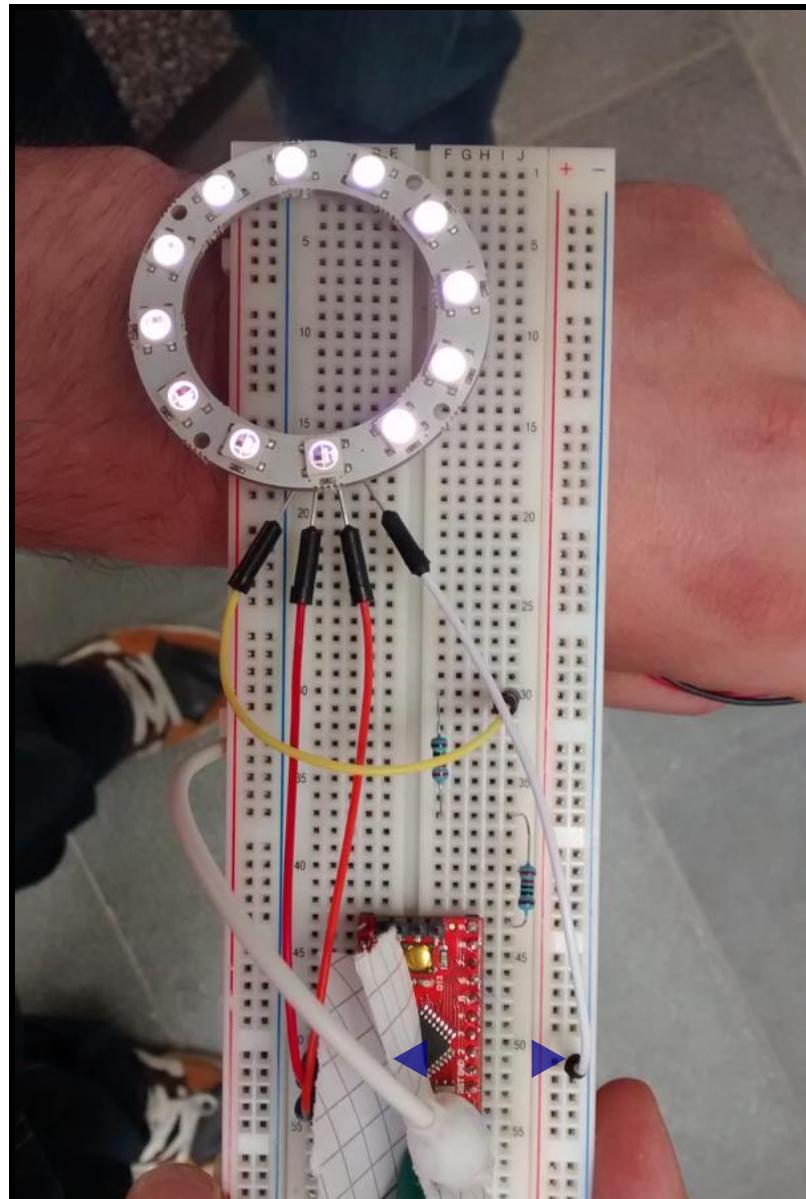
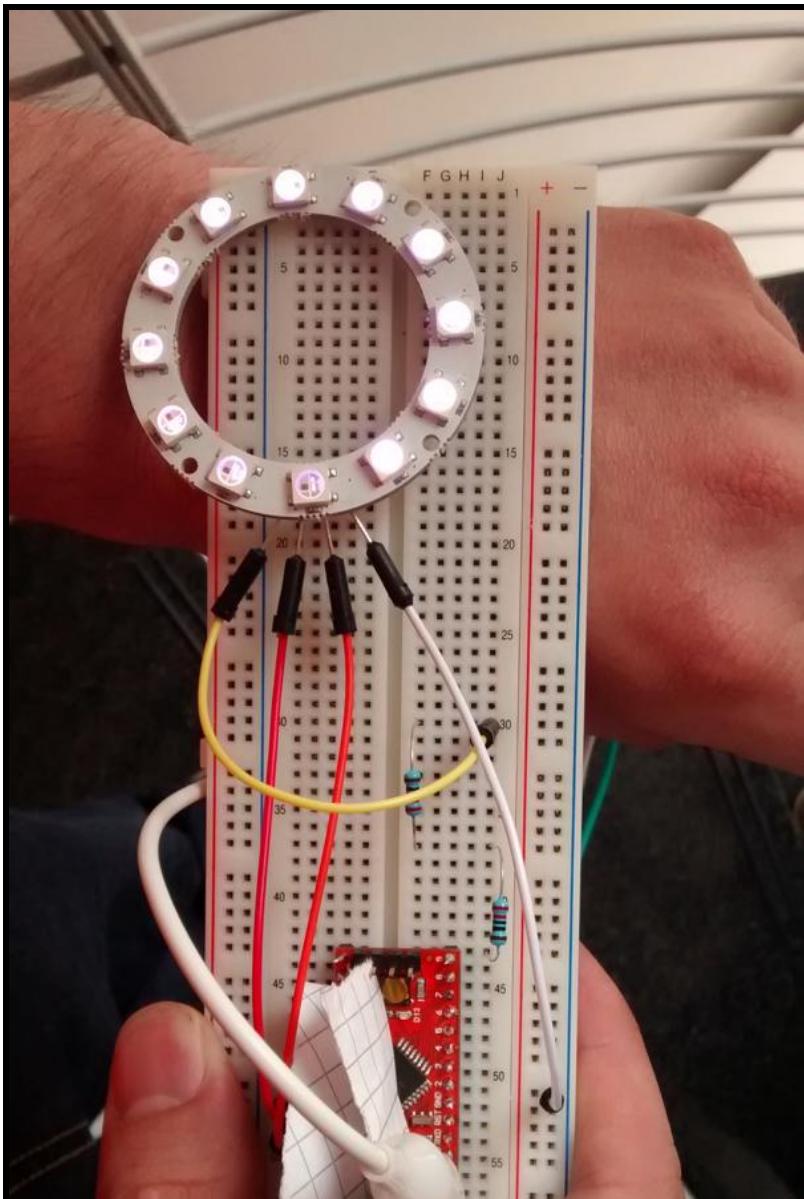
LED Test Results (3)



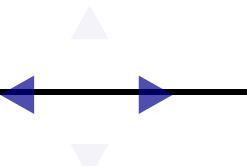
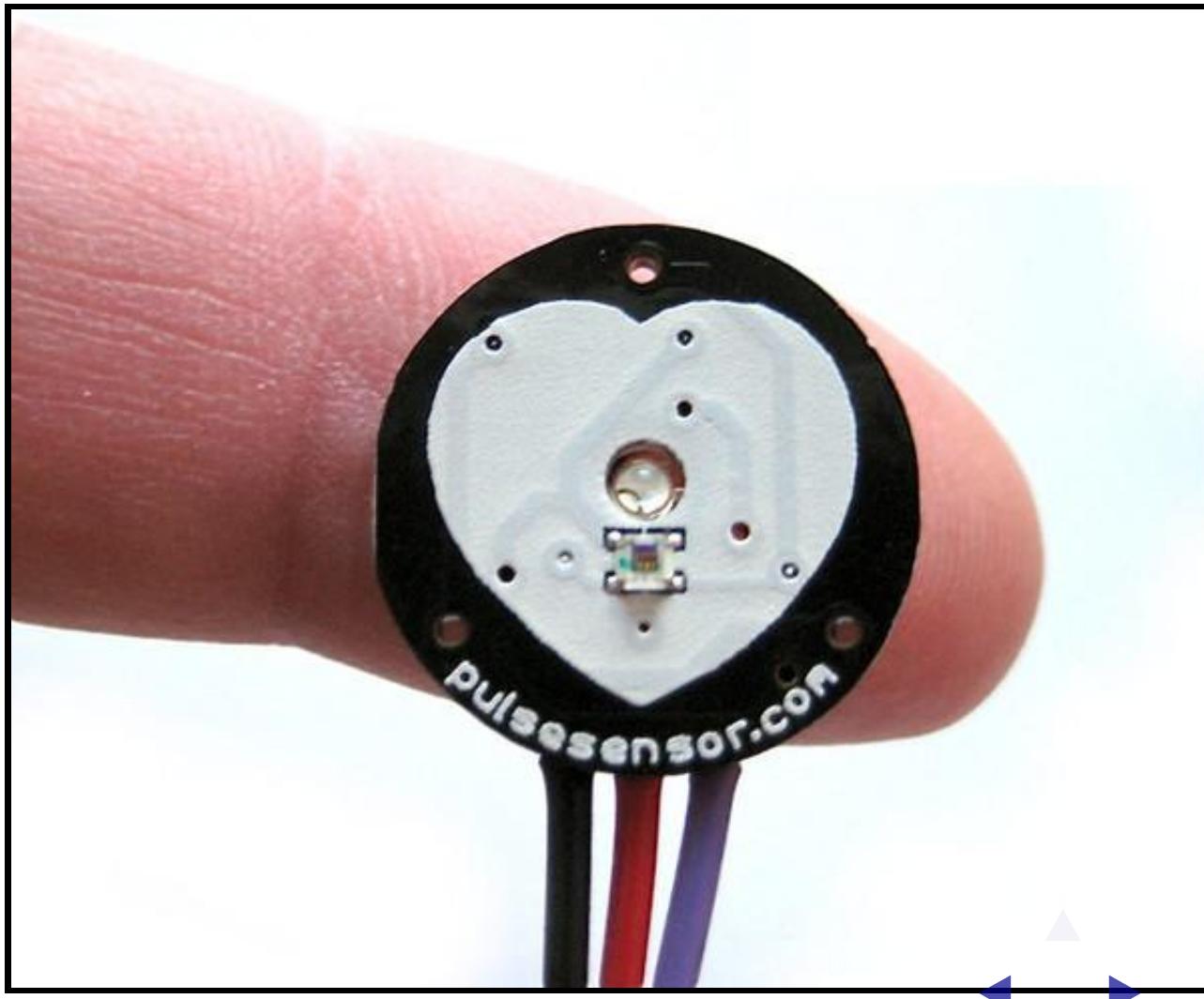
LED Test Results (4)



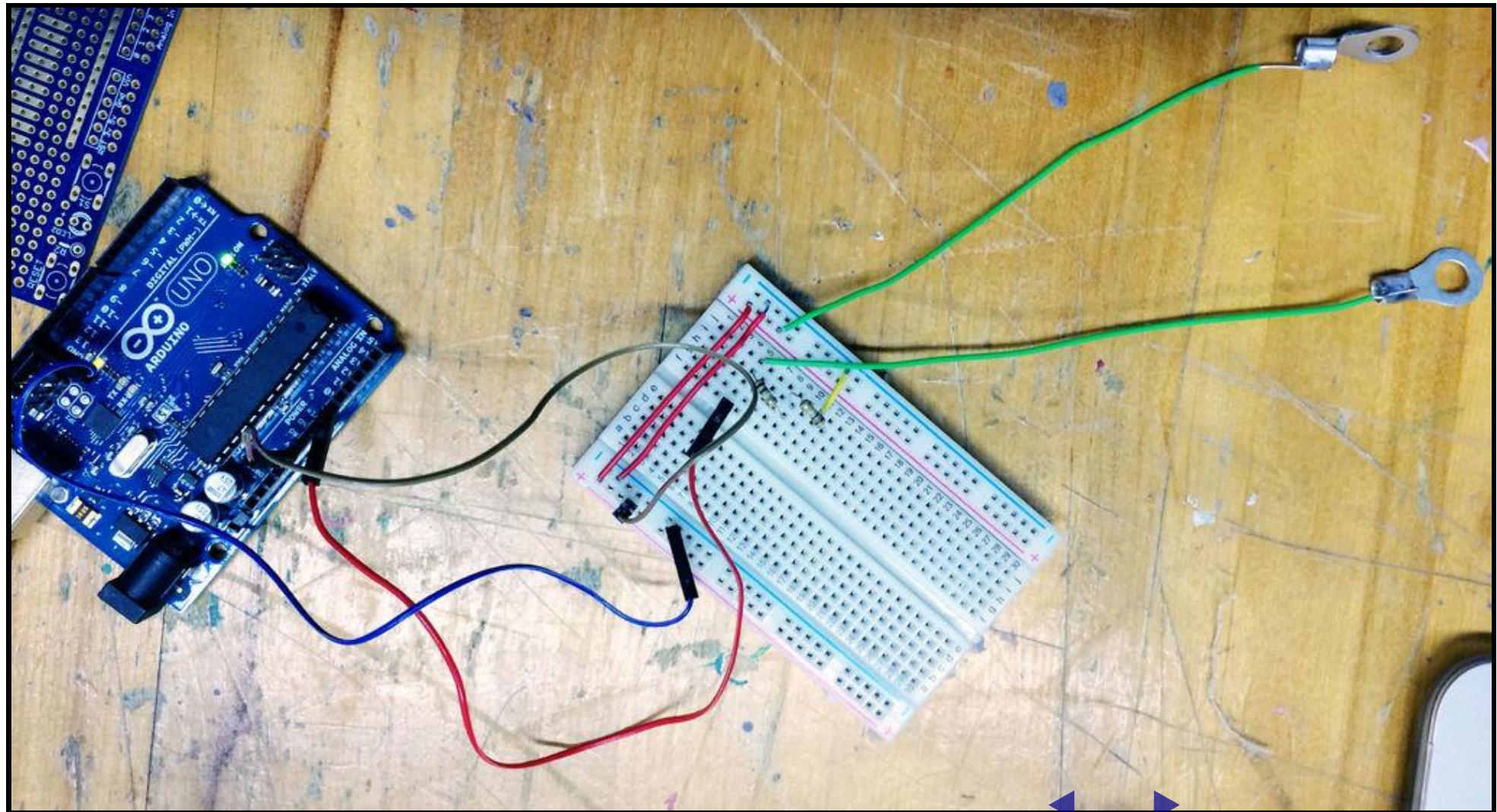
LED Test Results (5)



Pulse Sensor



GSR Sensor



Ende

