Make Your Own Wearables Workshop: Key Tips

PRESSURE SENSOR TEST

What is Velostat?
“….piezoresistive material, meaning its electrical resistance decreases when pressured. When sandwiched between two conductive layers, it has a wonderful range for making pressure and bend sensors. It can also be used for resistive sensing over distance, position sensing.”  (http://www.kobakant.at/DIY/?p=381)

To Read Velostat Sensor Values
• Connect one end of [velostat sensor] (https://learn.adafruit.com/firewalker-led-sneakers/make-velostat-step-sensors) to GND and one to D9/A9.
• Connect Flora board to computer using USB cable.
• In the Arduino IDE, make a new sketch with the following code:

```c++
#include <Firewalker.h>

#define SENSOR_PIN A9

Firewalker firewalker(SENSOR_PIN);

void setup() {
  // Initialize values
  firewalker.begin();
}

void loop() {
  // Read step value from analog pin
  firewalker.updateSensorValue();

  // Print analog input to serial port
  Serial.println(firewalker.getSensorValue());

  // Add a short delay
  delay(200);
}
```
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• Choose the correct board (Tools->Board->Arduino Flora) and serial port (Tools->Port->something with USB), and run the sketch.
• Open the Serial Monitor (Tools->Serial Monitor) to read values from the velostat sensor. Try pressing/stepping on the sensor to determine what the "step on threshold" and "step off threshold" values are for you!