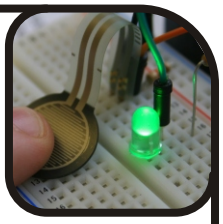
Squeezing (Force Sensitive Resistors)



The Pieces

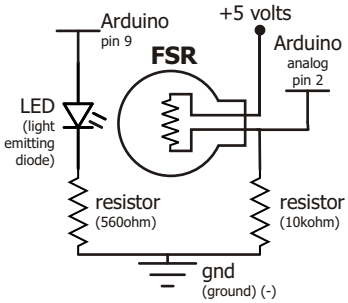
Force Sensitive Resistor
(Interlink 402)
x1

10k ohm Resistor
(brown-black-orange)
x1

Green LED
x1

560 ohm Resistor
(green-blue-brown)
x1

The Schematic



The Theory & Code

Force Sensitive Resistor (FSR)

An FSR is a great sensor, which is easy to implement. It is very similar to a potentiometer, except rather than varying its resistance in relation to shaft position its resistance varies with pressure. The resistance is high (infinite) when there is no pressure and low when the pressure is high (250 Ohm with 10 kg force).

.: for a tutorial with all the technical details visit: http://tinyurl.com/**p7kueo :.** (ladyada.net)

Testing

This sensor is very easy to test, simply use a multi-meter. Attach one probe to each pin, and measure resistance. Squeeze the sensor to see the resistance change.

Test Circuit

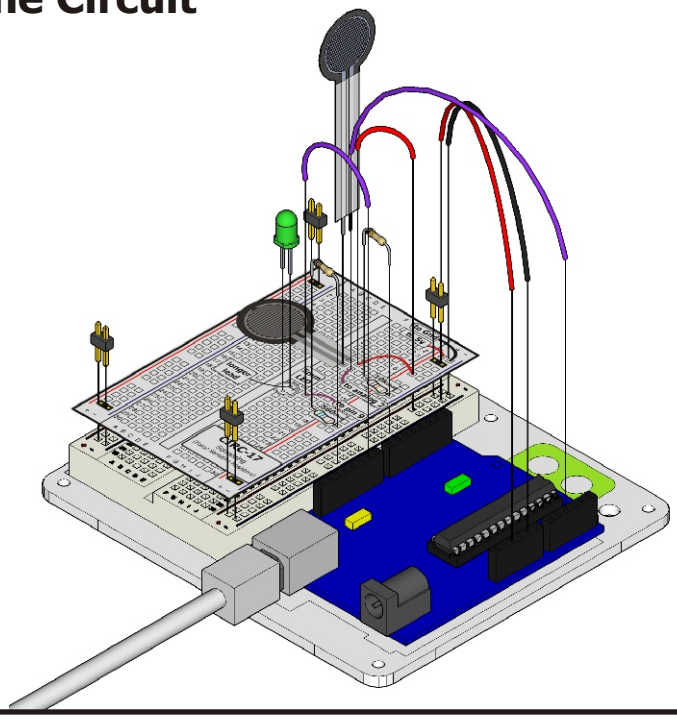
Cut out the breadboard layout sheet below and make the circuit on your breadboard. Next download the code available here: http://tinyurl.com/**l7u7co.** Upload to your board, squeeze the sensor and watch as the LEDs brightness changes. Also if you would like to see raw values, open the serial monitor and set it to 9600.

Technical Details

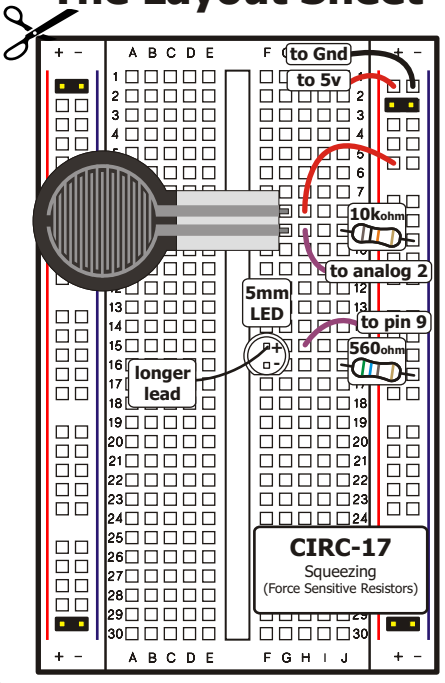
.: Interlink 402 Datasheet: http://tinyurl.com/**lyed9b :.**

Resistance vs. Pressure	
force	FSR Resistance
0 g	infinite
20 g	30 k ohm
100 g	6 k ohm
1 kg	1 k ohm
10 kg	250 ohm

The Circuit



The Layout Sheet



.: **Instructions:** print out, cut out, get making :.
.: for more details visit: http://tinyurl.com/**ncoq4g** :.