How to build your own flex sensor

You will need:

- Velostat
- Copper tape
- Foam
- Soldering kit
- Silicon wire (thin threaded wire is also fine)
- Tape of some sort

You need 30-40cm
of wire x2

About 11cm

About 4cm x 12cm

Solder the wire to
the copper tape

X2

Peel off the back
of the copper tape
and stick it in the
middle of the foam

Place the velostat over the top of one of the copper strips, ensure so copper or wire are covered by it

Sandwich the velostat between the 2 copper stips

Tape it up!
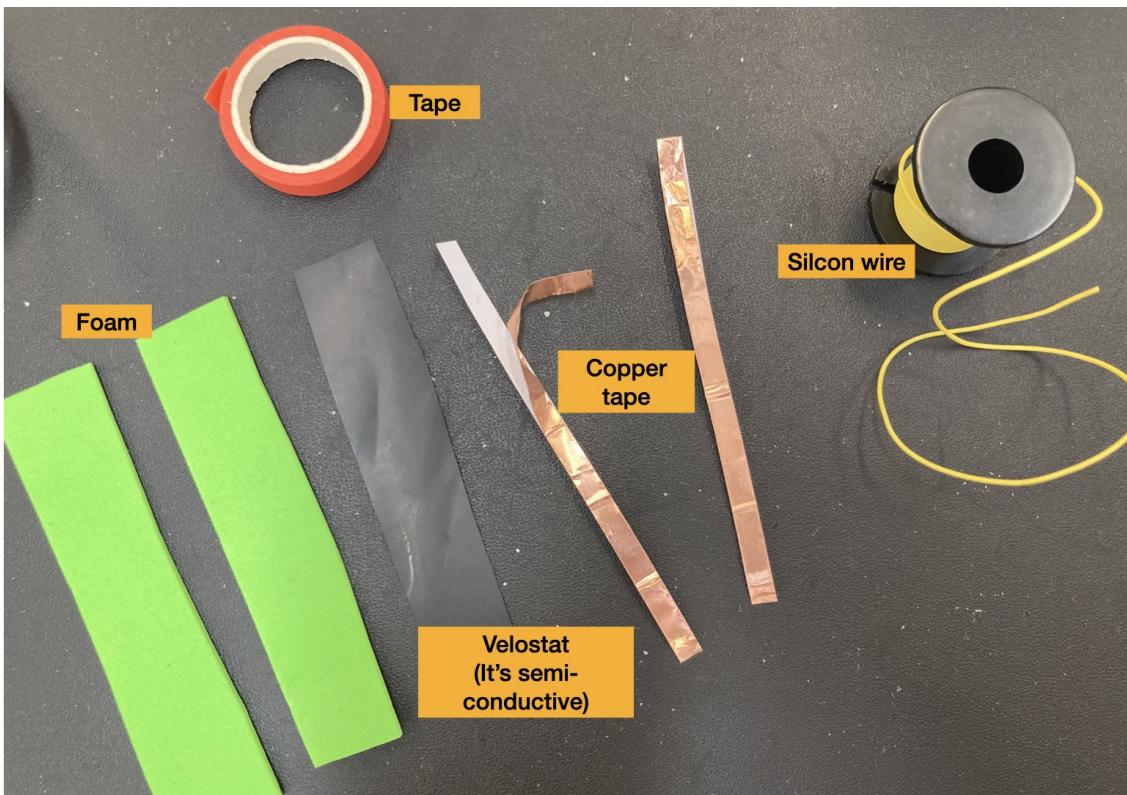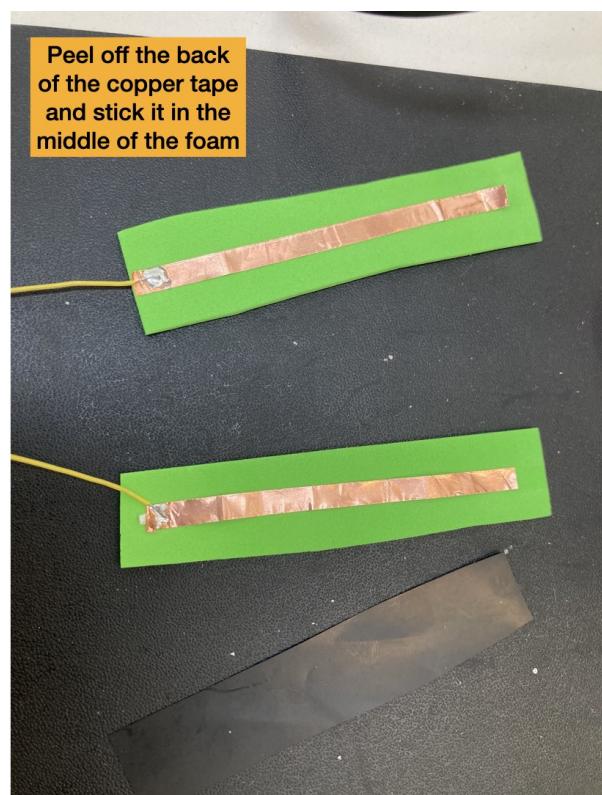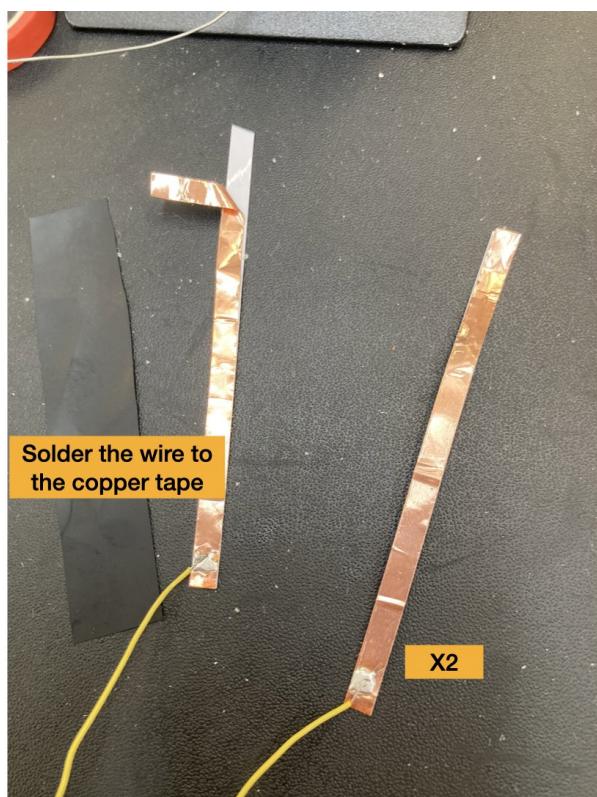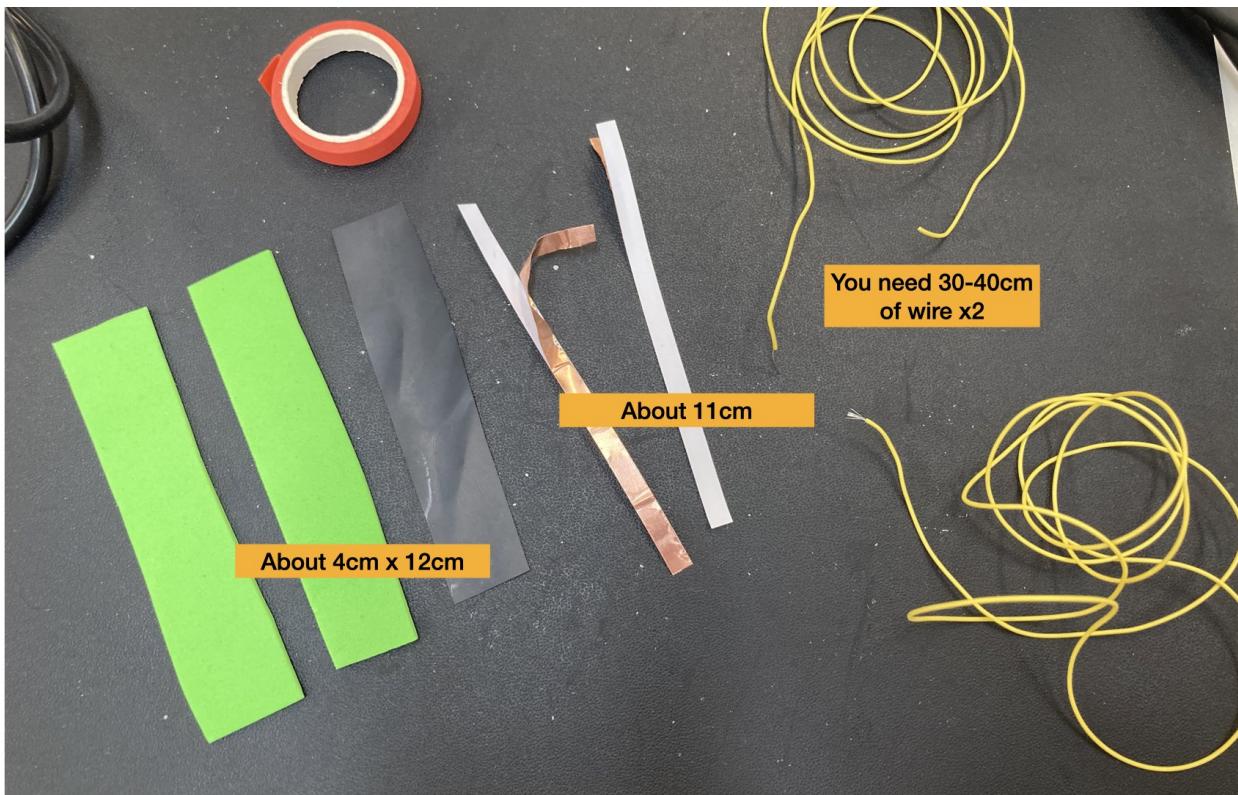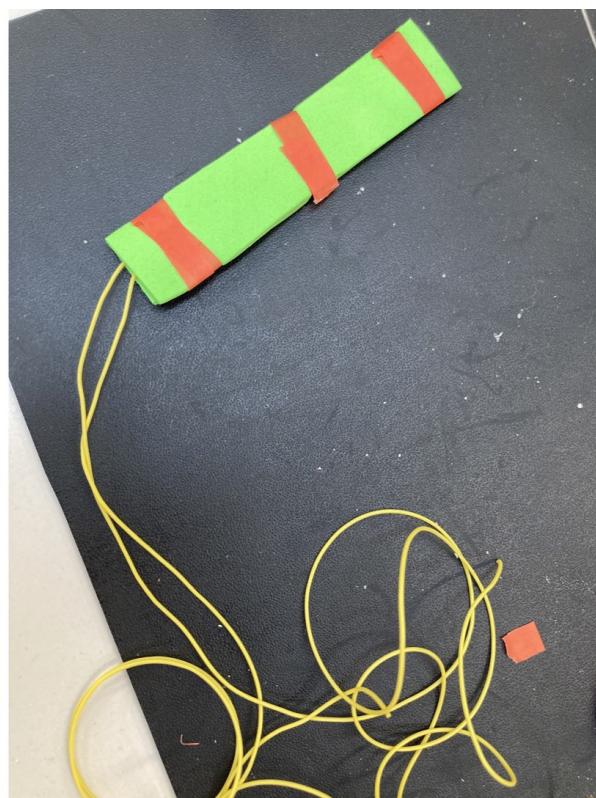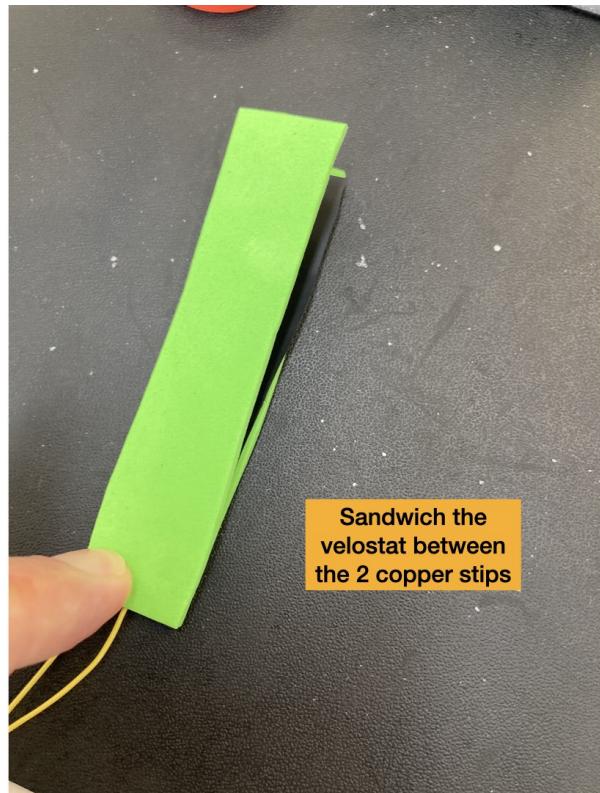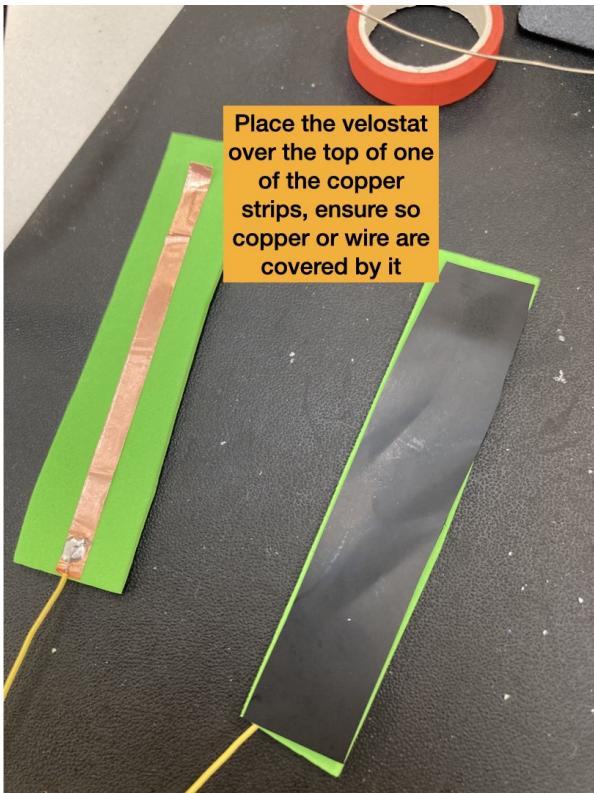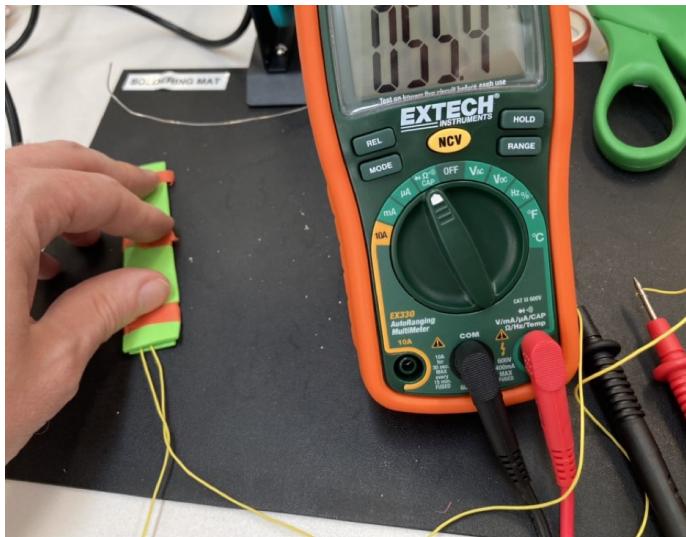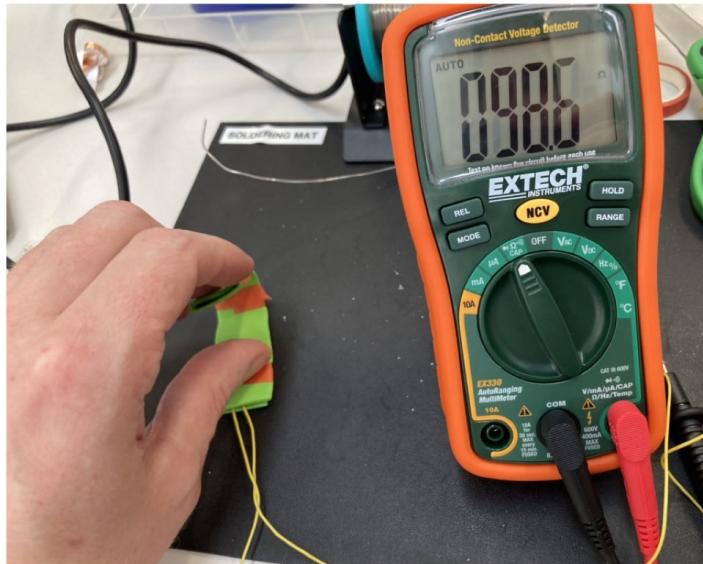
Arduino wiring:
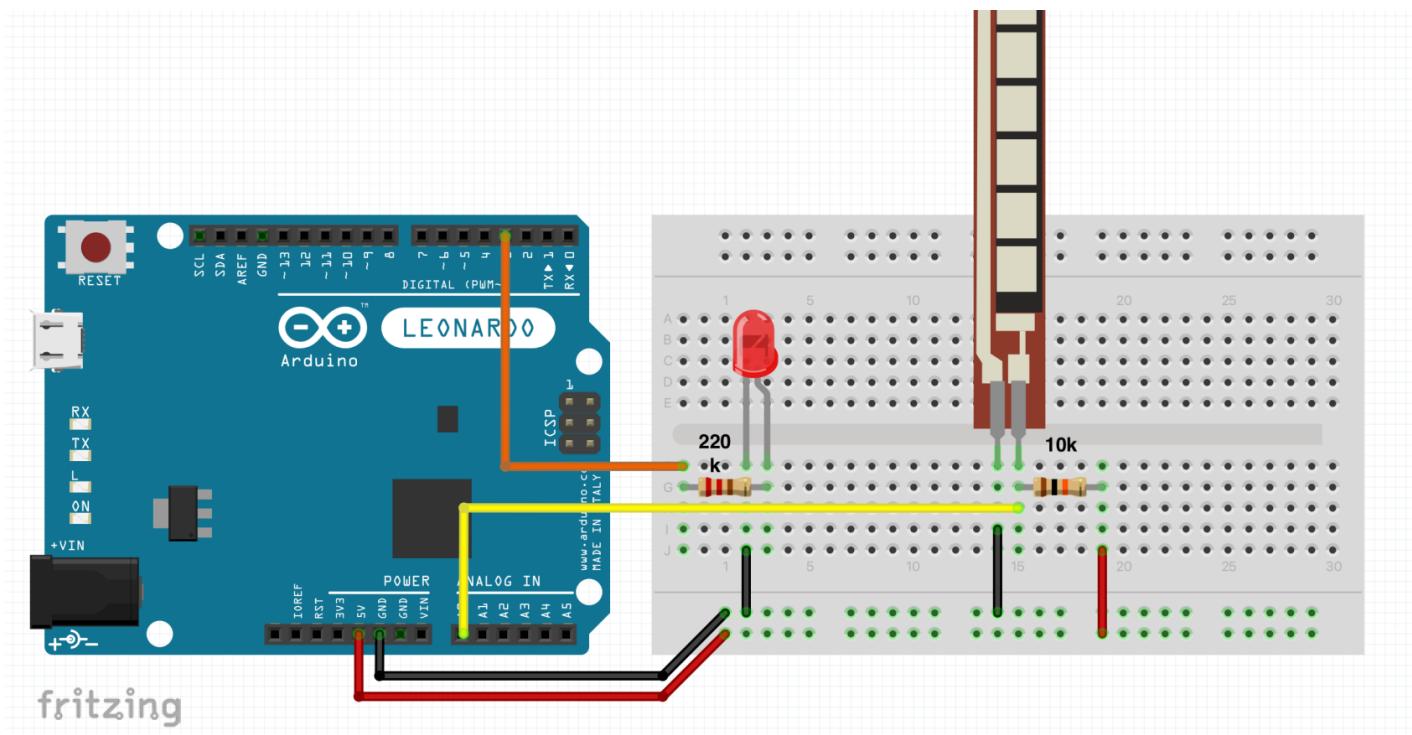
Arduino code:

```
/*

Simple code to light up an LED based on resistance sensor
Matt Jarvis - Creative Computing  Institute
```

```
*/


int ledPin = 3;   // pin 3 has PWM
int flexPin = A0; // pin A0 is analog input


int value;    // save analog value



void setup(){
  pinMode(ledPin, OUTPUT);  //Set pin 3 as 'output'
  Serial.begin(9600);      //Begin serial communication
}

void loop(){
  value = analogRead(flexPin);       // Read and save analog value from resistor device
  Serial.println(value);             // Print value to serial
  value = map(value, 700, 900, 0, 255); // Map value from analogue (0-1023) to digital (0-255) (PWM)
  analogWrite(ledPin, value);        // Send PWM value to led
  delay(100);                        // Small delay
}
```