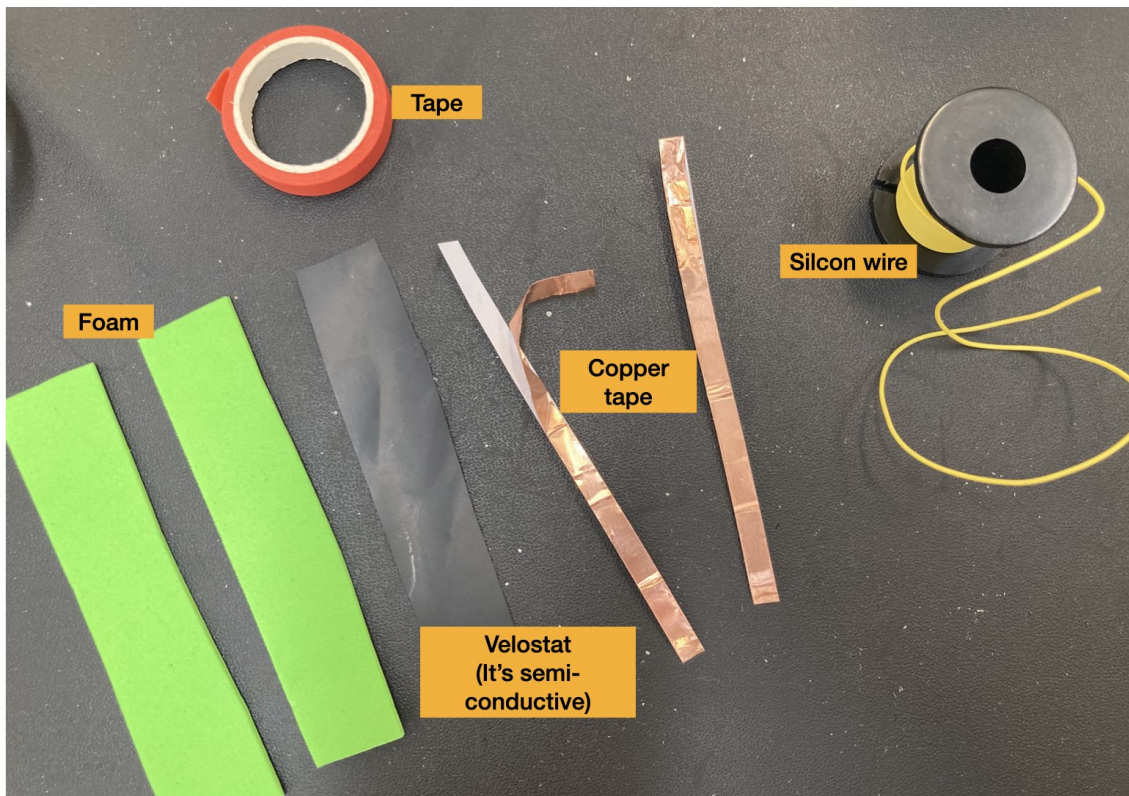
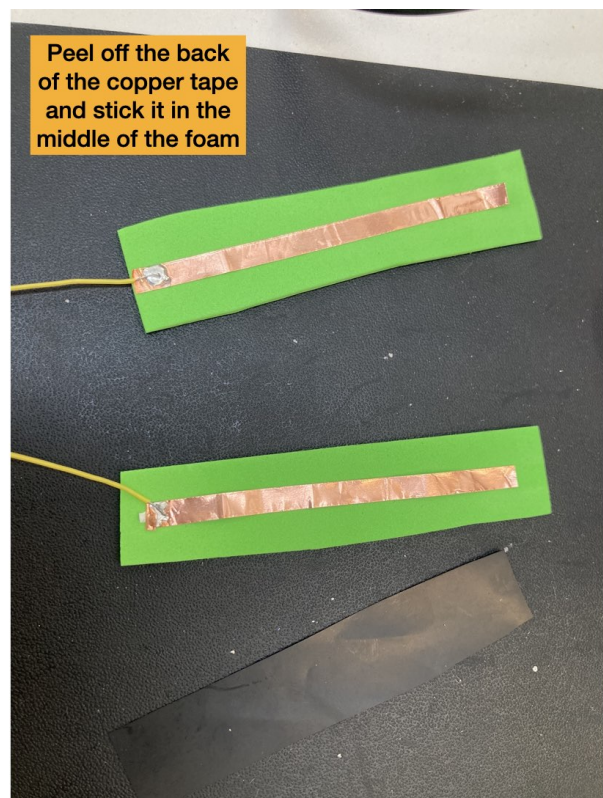
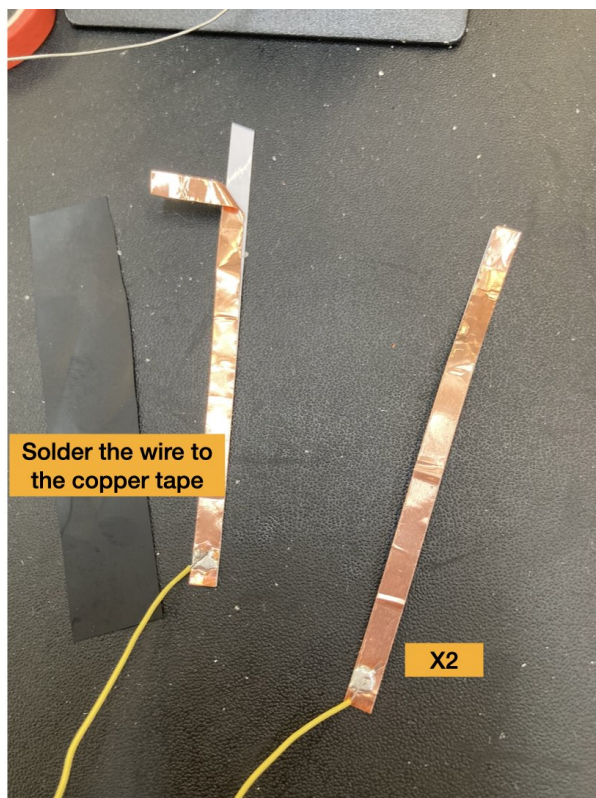
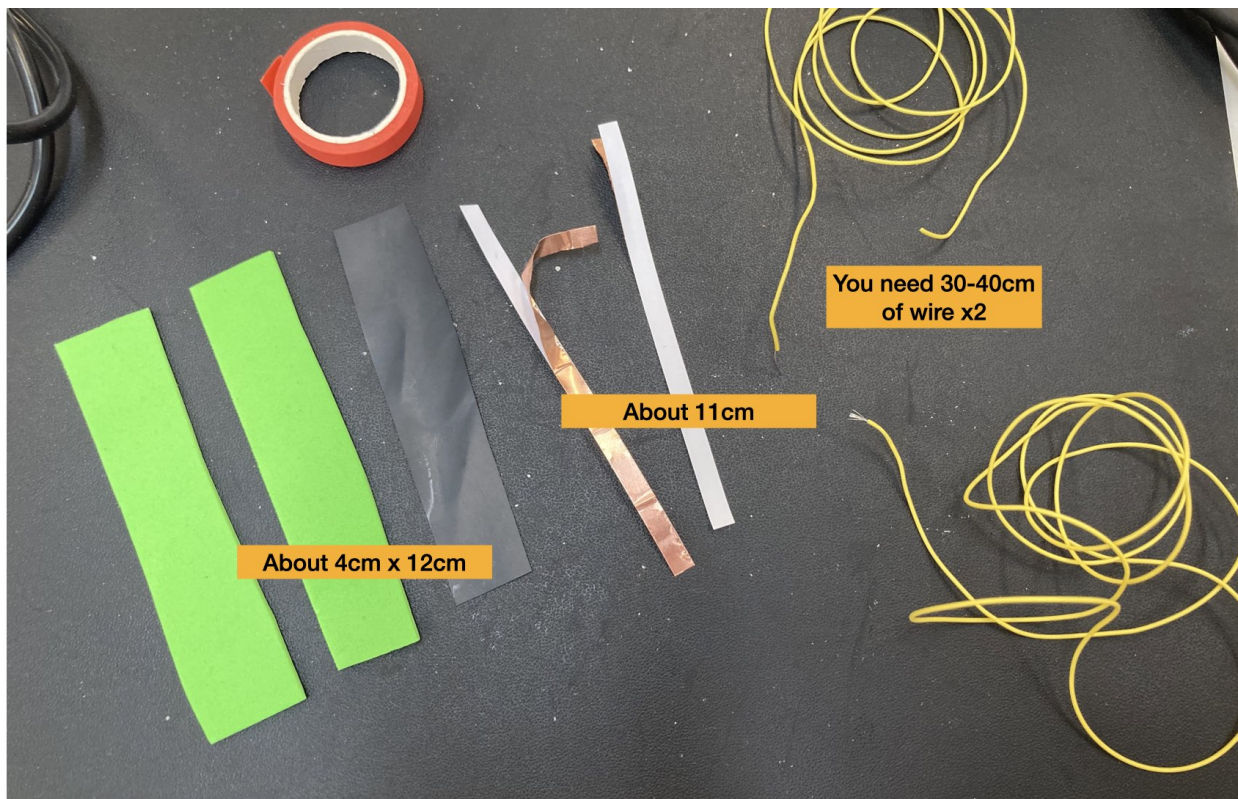


# How to build your own flex sensor

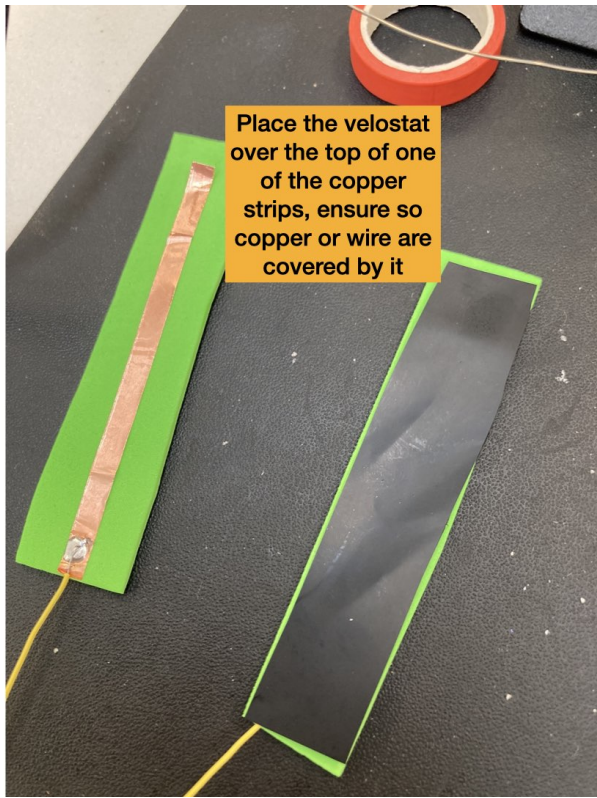
## You will need:

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

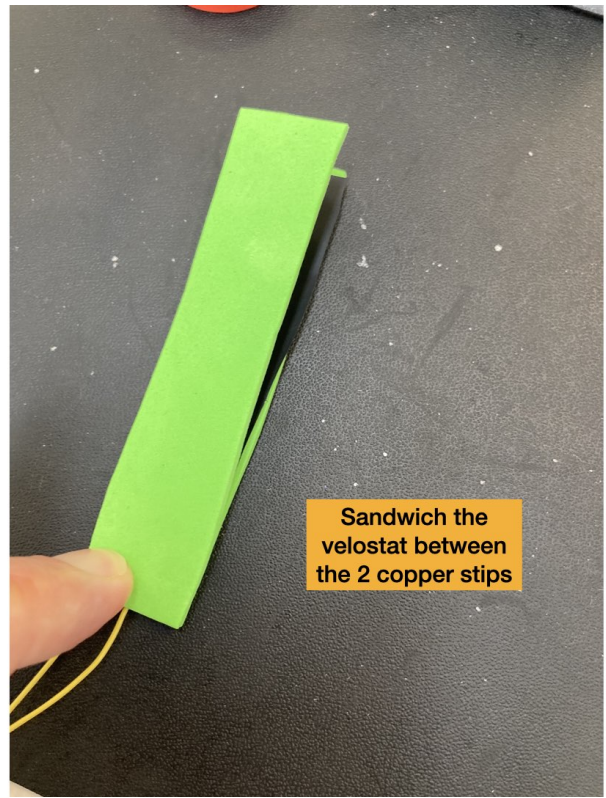




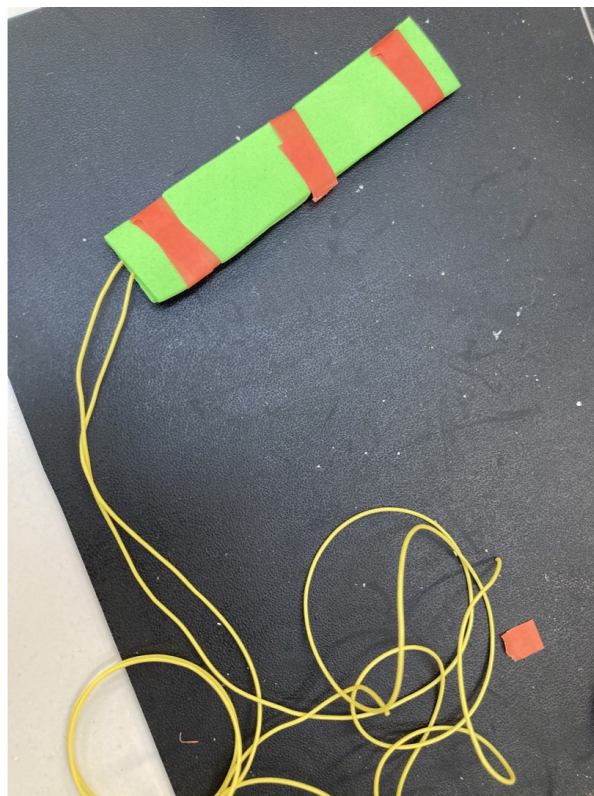




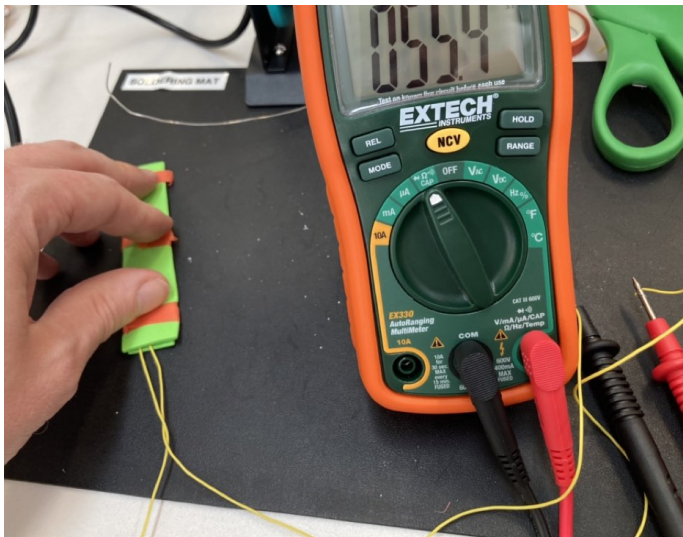
Place the velostat over the top of one of the copper strips, ensure so copper or wire are covered by it



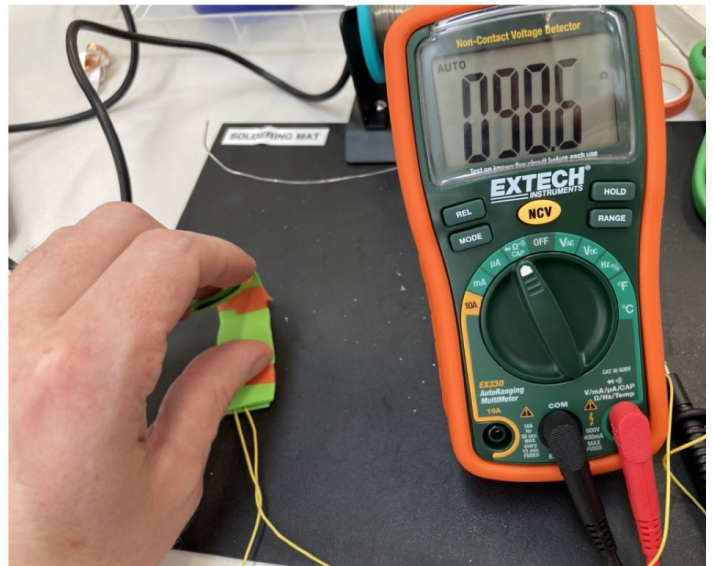
Sandwich the velostat between the 2 copper strips



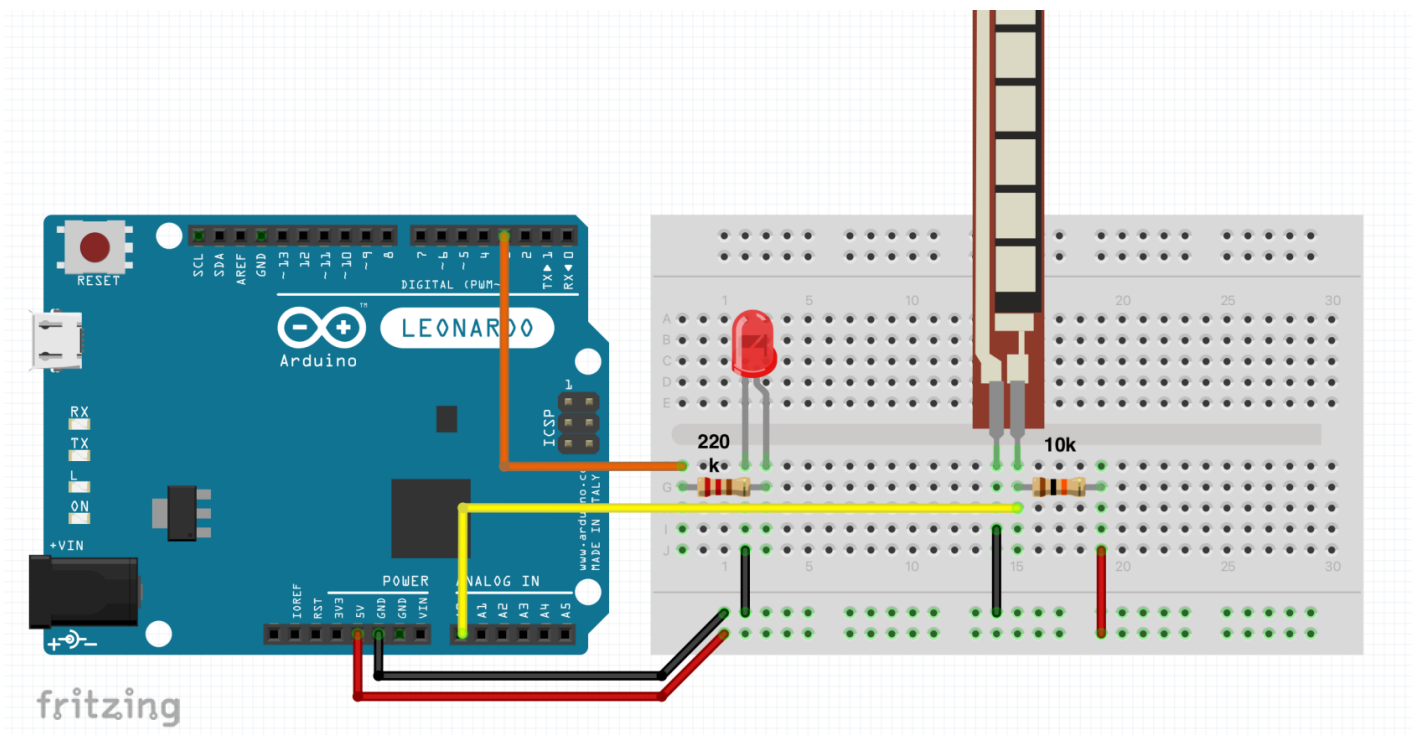
Tape it up!



Measure the resistance as you move the sensor



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
```

```
}
```

---

Revision #5

Created 23 October 2023 13:09:06 by Matt Jarvis

Updated 29 April 2024 22:24:58 by Tom Lynch