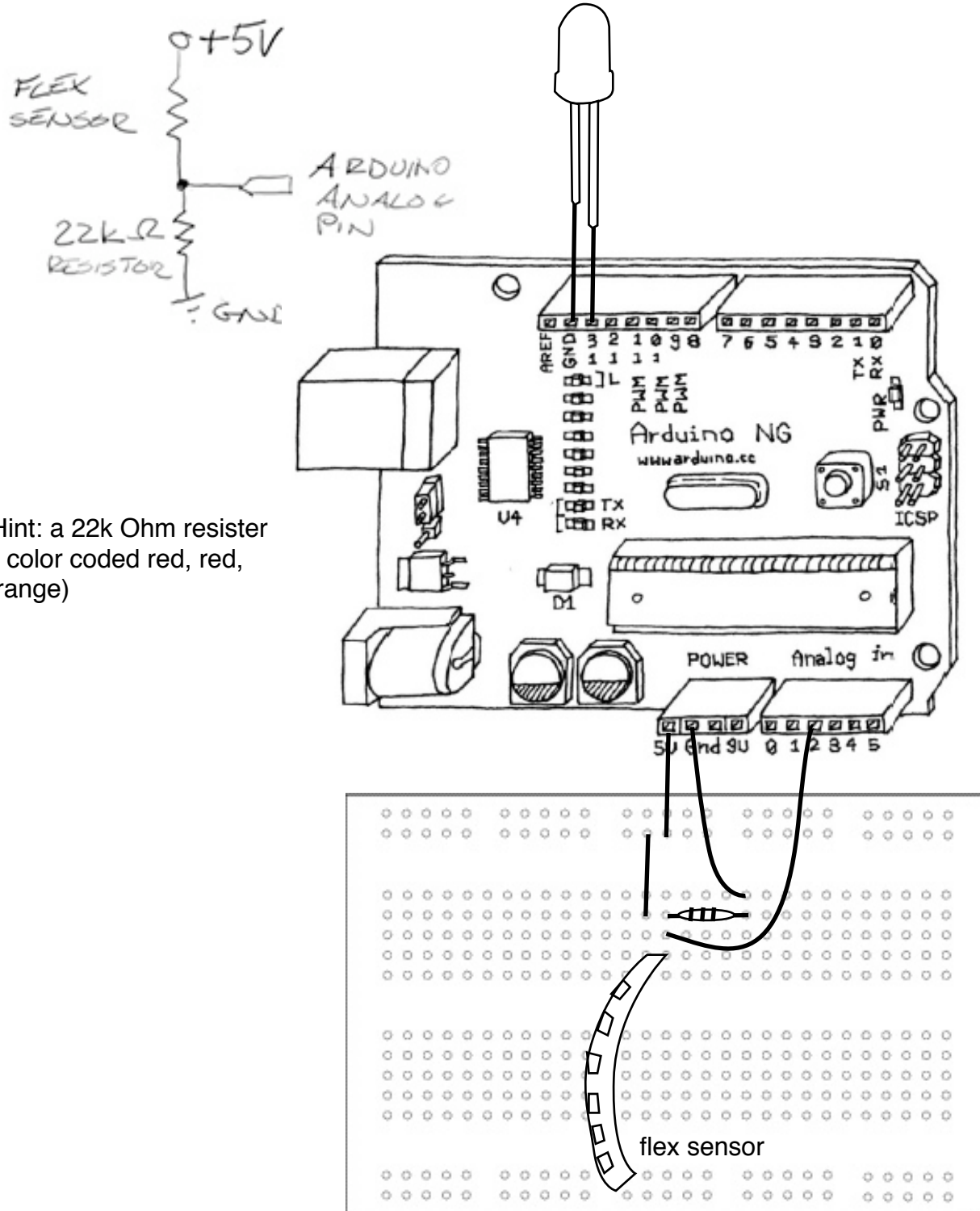# Flex sensor

The Flex sensor changes resistance between 10k Ohms (straight) and 40k Ohms (bent). Follow this schematic to patch a flex sensor to your Arduino board. Then put an the long lead of an LED in pin 13 of your digital in/out, and the short lead in Ground.

+5V

FLEX
SENSOR

ARDUINO
ANALOG
PIN

22kΩ
RESISTOR

GND

(Hint: a 22k Ohm resister
is color coded red, red,
orange)

Arduino NG
www.arduino.cc

POWER   Analog in

flex sensor

int = integer, the value of all numbers will be calculated in whole numbers, no decimals
int variable = value

```
int ledPin = 13;              // declares a variable for the pin for the LED
int analoginPot = 2;          // declares a variable for the analog input pin
int potval = 0;               // declares a variable for reading the pin status

unsigned long ledCounter = 0; // a special integer variable for really big numbers
int toggle = 0;               // declares a variable for a light switch, sets value to either 1 or 0

void setup() {
 pinMode(ledPin, OUTPUT);     // declares pin 13 as the output
 Serial.begin(9600);          // necessary if we want to report back to screen later in the script
}

void loop(){
  potval = analogRead(analoginPot);  // reads input value of analog pin 2
  Serial.println(potval);
  potval = (potval - 764);           //subtract the lowest value received by your sensor

 ledCounter ++;                       // adds 1 to our variable, represents time btwn on and off
 if (ledCounter > (potval * 10)) {    // multiplies potval variable times 10
                                      // if condition is met it does the following...
  ledCounter = 0;                     // resets counter
  Serial.println("blink");            // prints the word "blink" in the Serial monitor

  if (toggle == 0){                   // checks if light is switched on or off
    digitalWrite(ledPin, HIGH);       // light (LED) turns on
    toggle = 1;                       // changes the switch for next time
                                      // ...so that next time through it sets toggle to off
  }
  else if (toggle == 1){              // if toggle value is 1 and not 0 then ...
    digitalWrite(ledPin, LOW);        // turns light on
    toggle = 0;                       // changes the switch for next time through
  }
 }
}
```