

## Supplementary information

### **Development of face mask attachable wireless piezoresistive nanocomposite sensor for monitoring respiratory health**

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#### Circuit program for acquiring signals from sensor

```
int analogPin = A5;
int raw = 0;
int Vin = 5;
float Vout = 0;
float R1 = 100;
float R2 = 0;
float buffer = 0;

#include "MegunoLink.h"
TimePlot MyPlot;
void setup()
{
  Serial.begin(9600);
}

void loop(){
  // for (int i=0; i<1000; i++){
    raw = analogRead(analogPin);
    //}
    if(raw)
    {
      buffer = raw * Vin;
      Vout = (buffer)/1024.0;
      buffer = (Vin/Vout) - 1;
      R2= (R1 * buffer)/(100);
      // Serial.print("Vout: ");
      //Serial.println(Vout);
      Serial.print("R2: ");
      Serial.println(R2);
      MyPlot.SendData("X", R2);
      delay(0);
    }
  }
```

Polynomial fit for percolation curve

