//CHECK POINT 4

const byte potPin=14;

float val;

float sensorValue;

float sensorVoltage;

float R1;

float R2;

float ResisterValue;

void setup()

{

Serial.begin(9600);

pinMode(potPin,OUTPUT);

ResisterValue=990000;

sensorValue=0;

sensorVoltage=0;

R1=0;

}

void loop()

{

int i;

int Vin=2.5;

for(i=0;i<=19;i++)

{

sensorValue=sensorValue\*0.7+0.3\*analogRead(potPin);

delay(0.5);

}

Serial.print("sensorValue:"); //印出讀值

Serial.println(sensorValue);

sensorVoltage = sensorValue\*2.5/4095; //印出電壓值

Serial.print("sensorVoltage:");

Serial.println(sensorVoltage);

R1 = sensorVoltage\*ResisterValue/Vin; //印出R1值

Serial.print("R1:");

Serial.println(R1);

delay(3000);

}

|  |  |  |  |
| --- | --- | --- | --- |
| analogRead讀值 | 推測電壓(V) | 推測電阻值(歐姆) | SerialMonitor輸出 |
| 1309 | 0.8 | 378457.09 |  |
| 1828.84 | 1.12 | 552671 |  |
| 2043.81 | 1.25 | 617635.75 |  |
| 2880.37 | 1.76 | 870441.19 |  |
| 3038.23 | 1.85 | 918147.31 |  |
| 4041.75 | 2.47 | 1221407.87 |  |