//CHECK POINT 3

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(2000);

}

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 可變電阻量測值(歐姆) | analogRead讀值 | 推測電壓(V) | 推測電阻值(歐姆) | SerialMonitor輸出 |
| 1M | 4092 | 2.5 | 1232592.62 |  |
| 80k | 2700.45 | 1.65 | 814564 |  |
| 65k | 2075.66 | 1.26 | 624593 |  |
| 50k | 1667.38 | 1.02 | 502798.34 |  |
| 30k | 988 | 0.57 | 2941000 |  |
| 15k | 505.28 | 0.31 | 153151.5 |  |