

## Flame Sensor Module(SE033)



### 1.Introduction

This is a flame sensor module that can be used to detect whether a flame source exists or not. It's sensitive to IR wavelength at 760nm~1100nm. Usually, the detection angle is about 60 degrees.

### Specification

- Operation voltage: 5V for analog, 3.3V for digital
- Both digital and analog output pin
- Adjustable sensitive
- Detect IR wavelength: 760nm~1100nm
- Size: 30\*15mm
- Weight: 3g

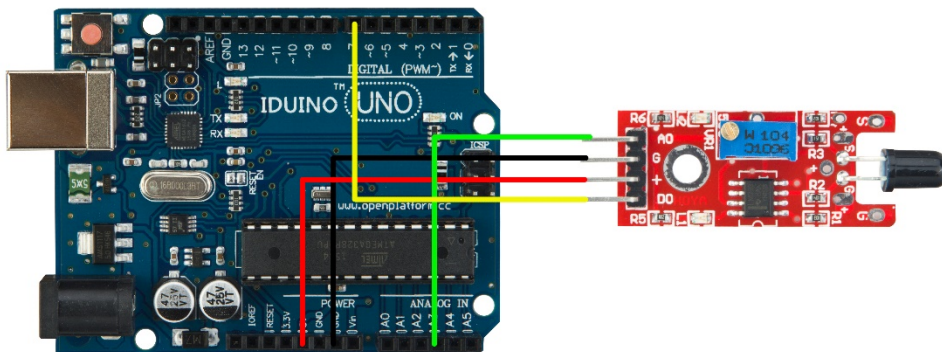
### 2.Pinout

Pin	Description
A0	Analog output pin, real-time output voltage signal on thermal resistance
D0	Digital output pin, output Low or High signal when the temperature reaches a certain threshold
+	Power(5V for analog, 3.3V for digital)
G	Ground

### 3.Example

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Here is an example for how to use both the analog pin(A0) and digital pin(D0), connect the circuit as below, upload this sketch, open the Serial Monitor, you will see the real-time value of the thermal resistance, and once the flame closing to it, the value will change. If the value reaches a certain threshold, the D0 pin will output High signal meanwhile the LED13 turns on. And threshold can be adjusted by potentiometer.



\*\*\*\*\*Code begin\*\*\*\*\*

```
int Led = 13 ;// define LED Interface
int buttonpin = 3; // define the flame sensor interface
int analog = A3; // define the flame sensor interface
```

```
int val ;// define numeric variables val
float sensor; //read analog value
```

```
void setup ()
{
  pinMode (Led, OUTPUT) ;// define LED as output interface
  pinMode (buttonpin, INPUT) ;// output interface defines the flame sensor
  pinMode (analog, INPUT) ;// output interface defines the flame sensor
  Serial.begin(9600);
}
```

```
void loop ()
{
  sensor = analogRead(analog);
```

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```
Serial.println(sensor); // display tempature

val = digitalRead (buttonpin) ;// digital interface will be assigned a
value of 3 to read val
  if (val == HIGH) // When the flame sensor detects a signal, LED
flashes
  {
    digitalWrite (Led, HIGH);
  }
  else
  {
    digitalWrite (Led, LOW);
  }
  delay(1000);
}
*****Code End*****
```

