Fire/Flame Sensor Module
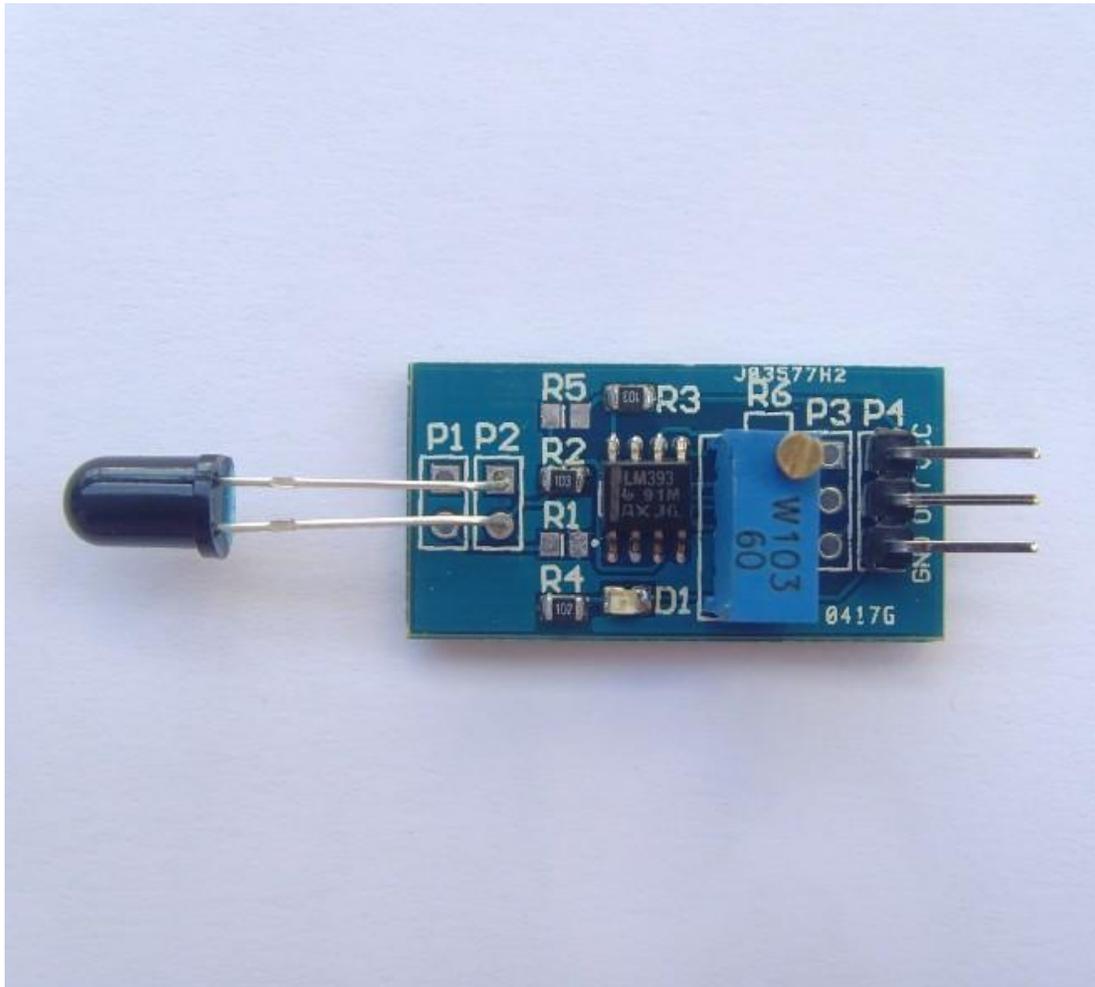
General Description:

Flame sensor is the most sensitive to ordinary light that is why its reaction is generally used as flame alarm purposes. This module can detect flame or wavelength in 760 nm to 1100 nm range of light source. Small plate output interface can and single-chip can be directly connected to the microcomputer IO port. The sensor and flame should keep a certain distance to avoid high temperature damage to the sensor. The shortest test distance is 80 cm, if the flame is bigger, test it with farther distance. The detection angle is 60 degrees so the flame spectrum is especially sensitive. The detection angle is 60 degrees so the flame spectrum is especially sensitive.

Specifications:

- On-board LM393 voltage comparator chip and infrared sensing probe.
- Support 5V/3.3V voltage input.
- On-board signal output indication, output effective signal is high level, and the same time the indicator light up, output signal can directly connect with microcontroller IO.
- Signal detection sensitivity can be adjusted.
- Reserved a line voltage compare circuit (P3 is leaded out).
- PCB size: 30(mm) x15(mm).
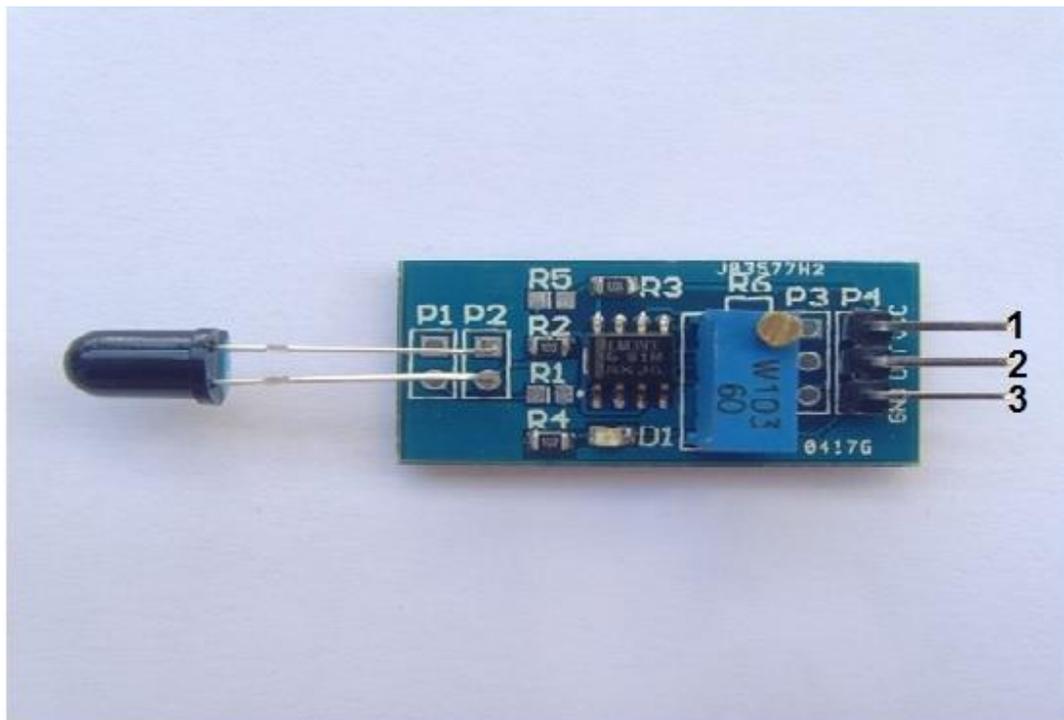
Pin Configuration:
1. VCC
2. Output
3. Ground

Schematic Diagram:
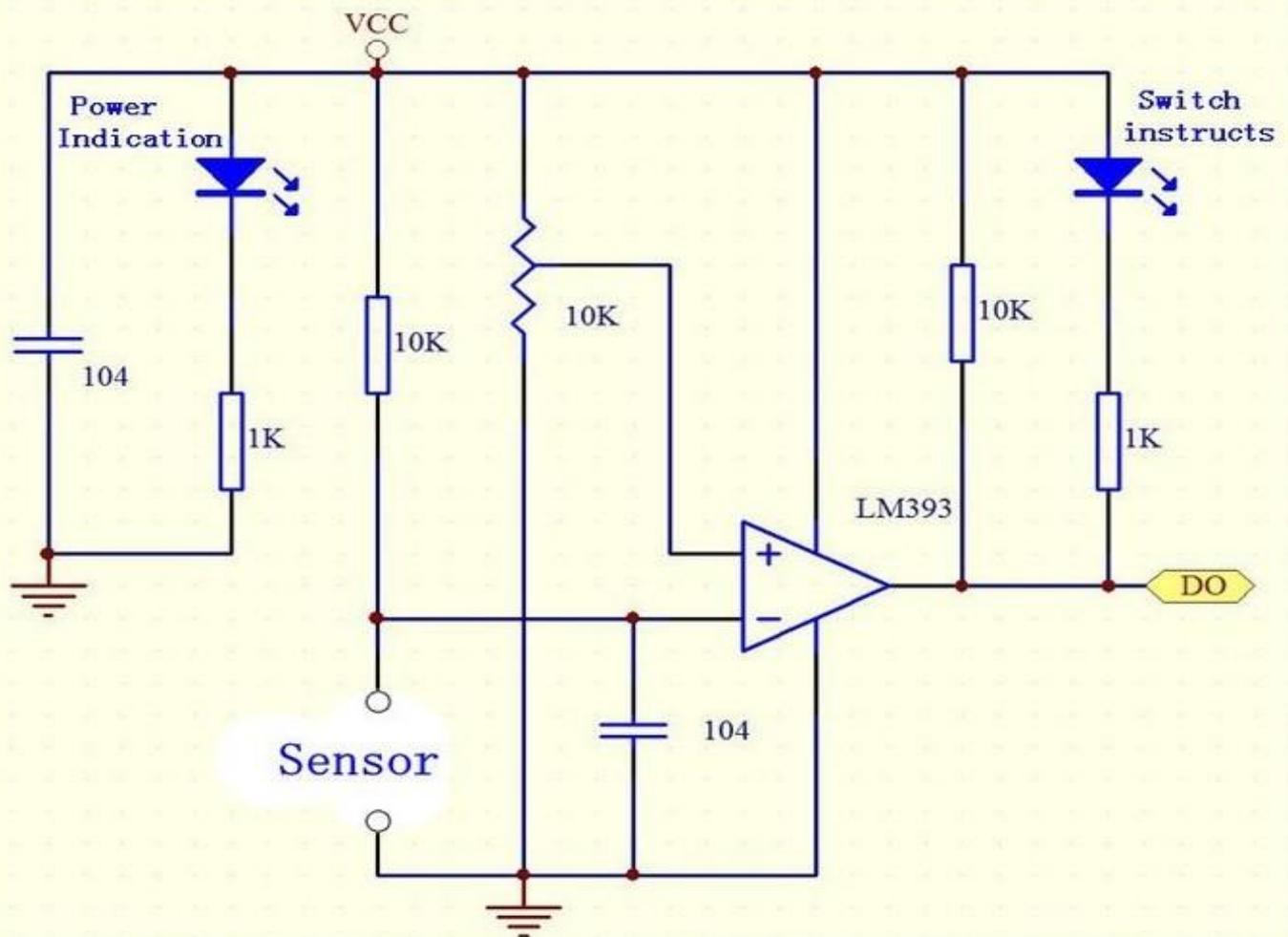
How to test:

1. Connect your Arduino microcontroller to the computer.
2. Connect the VCC pin of your module to the to the 5V pin of your Arduino.
3. Connect the GND pin of your module to the GND pin of your Arduino.
4. Connect the Output pin of your module to the A0 pin of you Arduino.
5. Enter this program to your Arduino Integrated Development Environment (IDE):

```
void setup()
{
    Serial.begin(9600);
}
void loop()
```

```
        {
            if (analogRead(A0) < 250) Serial.println("No Fire");
            else Serial.println("There's a Fire!");
            delay(100);
        }
```

6. Click the Upload Button
7. Lastly, click the Serial Monitor button.

Testing Results:

When there is no fire:
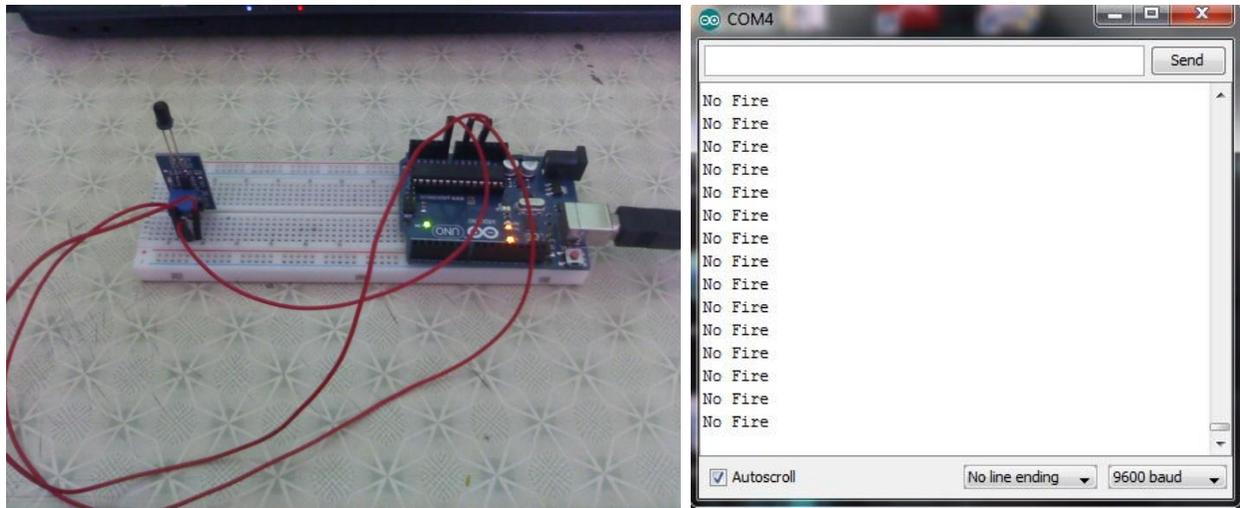
When exposed to the fire of an ignited lighter: