

# IR FLAME SENSOR MODULE



## SPECIFICATIONS

The KY-026 consist of a 5mm infra-red receiver LED, a LM393 dual differential comparator a 3296W trimmer potentiometer, six resistors and two indicator LEDs. The board features an analog and a digital output.

Operating Voltage	3.3V to 5.5V
Infrared Wavelength Detection	760 nm to 1100 nm
Sensor Detection Angle	60°
Board Dimensions	1.5cm x 3.6cm [0.6in x 1.4in]

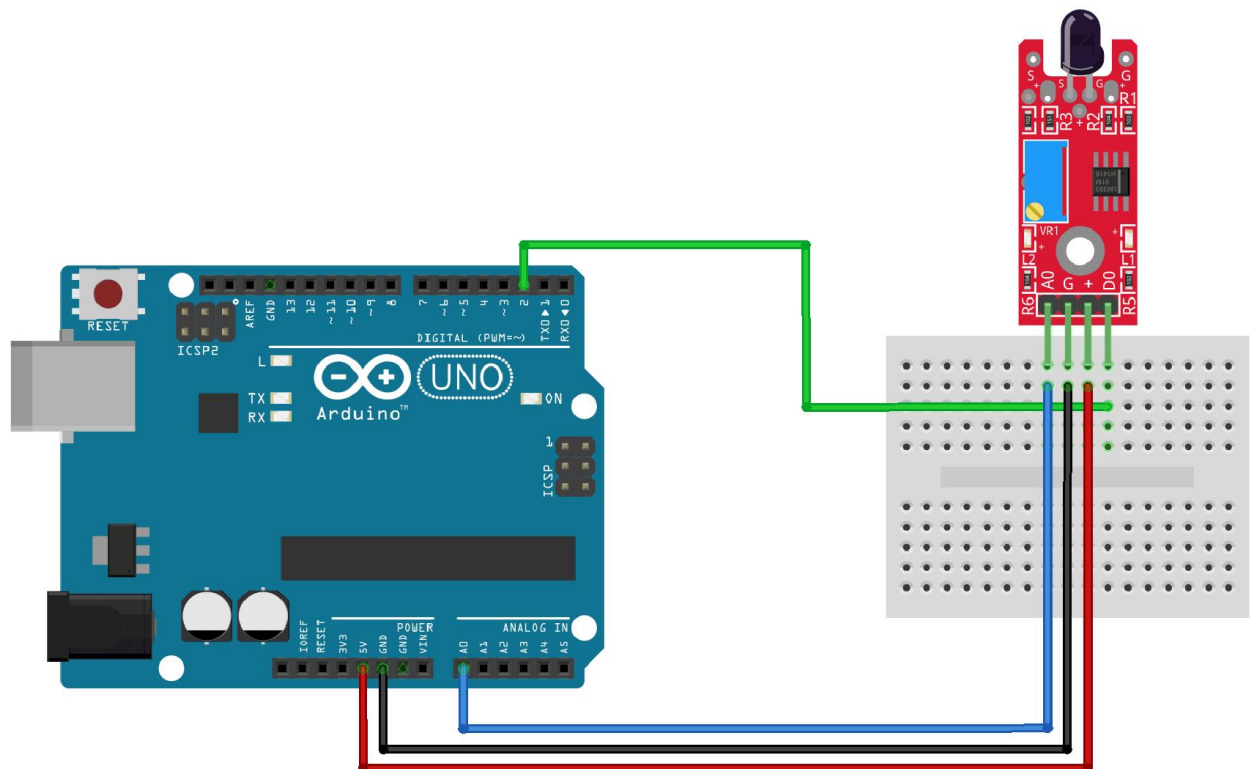
### Connection Diagram

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Connect the board's analog output (A0) to pin A0 on the Arduino and the digital output (D0) to pin 3. Connect the power line (+) and ground (G) to 5V and GND respectively.

KY-026                      Arduino

A0	A0
G	GND
+	5V
D0	3



fritzing

### Example Code

In this Arduino sketch we'll read values from both digital and analog interfaces on the KY-026, use a lighter or a candle to interact with the flame detector module.

The digital interface will send a HIGH signal when fire is detected by the sensor, turning on the LED on the Arduino (pin 13). Turn the potentiometer clock-wise to increase the detection threshold and counter-clockwise to decrease it.

The analog interface will return a high numeric value when there's no flame near and it'll drop to near zero in the presence of fire.

```
int led = 13; // define the LED pin
int digitalPin = 3; // KY-026 digital interface
int analogPin = A0; // KY-026 analog interface
int digitalVal; // digital readings
int analogVal; //analog readings

void setup()
{
  pinMode(led, OUTPUT);
  pinMode(digitalPin, INPUT);
  //pinMode(analogPin, OUTPUT);
  Serial.begin(9600);
}

void loop()
{
  // Read the digital interface
  digitalVal = digitalRead(digitalPin);
  if(digitalVal == HIGH) // if flame is detected
  {
    digitalWrite(led, HIGH); // turn ON Arduino's LED
  }
  else
  {
    digitalWrite(led, LOW); // turn OFF Arduino's LED
  }

  // Read the analog interface
  analogVal = analogRead(analogPin);
  Serial.println(analogVal); // print analog value to serial

  delay(100);
}
```