Principles

- The spectral sensitivity of the sensor is optimized to detect emissions from naked flames.

Hardware

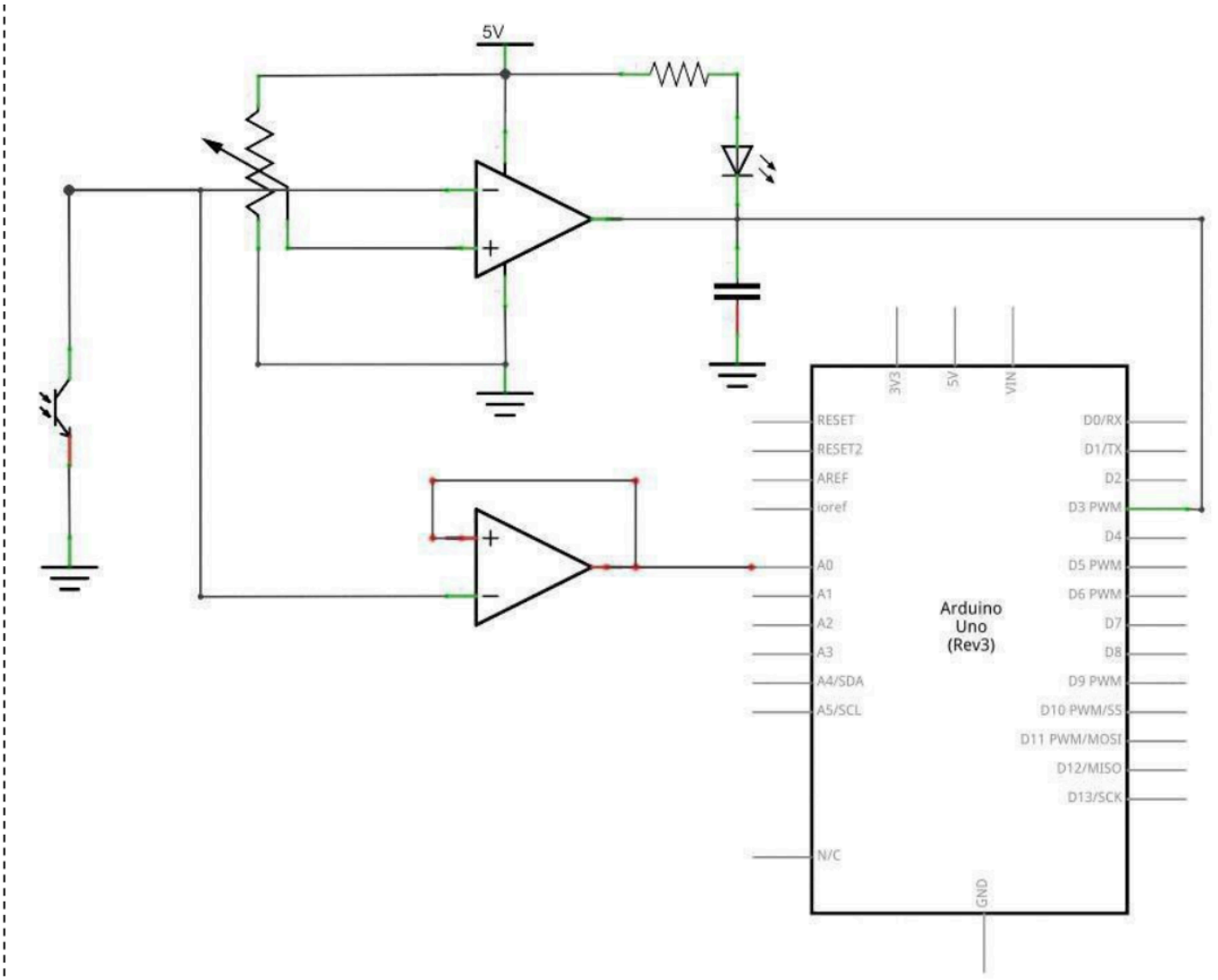
Sensor

- Typical spectral sensitivity: 720-1100 nm
- Typical detection angle: 60°

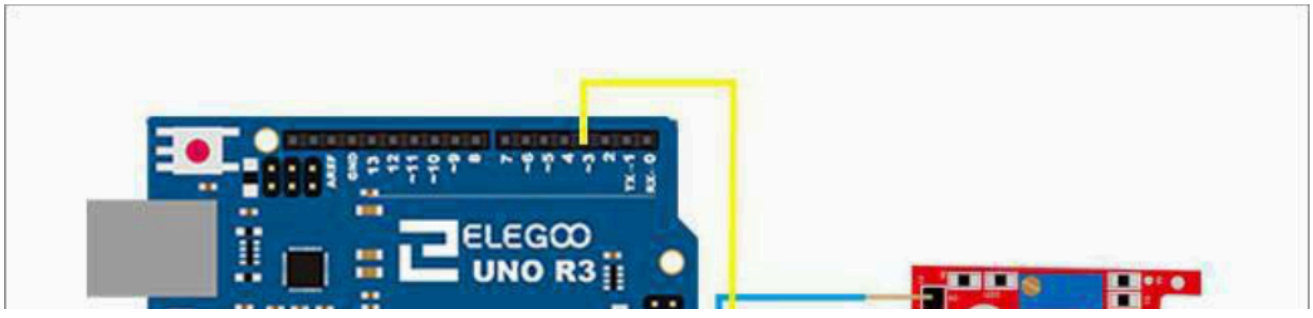
Module

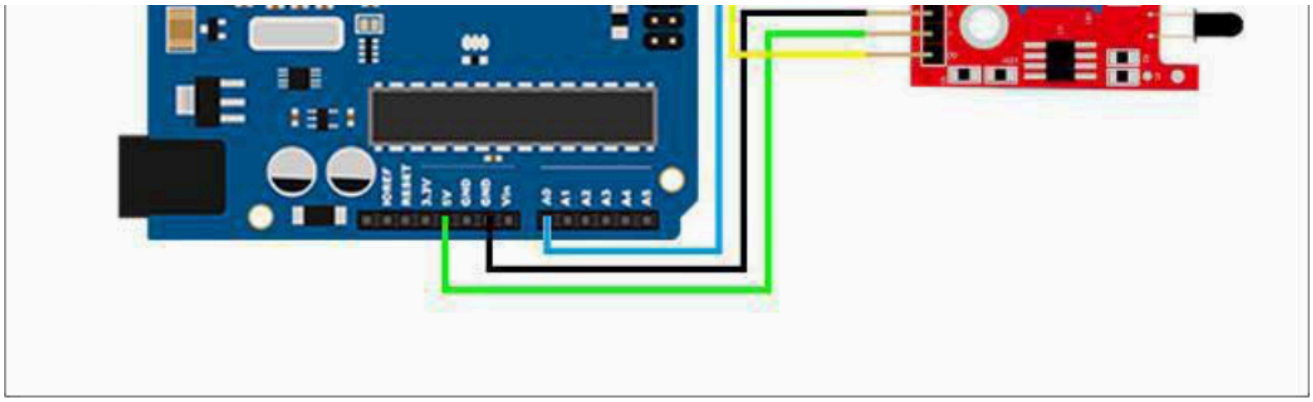
The module has a

Schematic



Wiring diagram





Software

- Read digital input, and display if it is HIGH or LOW.
- Read analog input, and map the value from 0 to 2.

```
int sensorReading  = analogRead(sensorPin);
  int digitalSensorReading = digitalRead(digitalSensorPin) ;
  int range = map(sensorReading,  sensorMin, sensorMax, 0, 3);

  digitalWrite(ledPin,  digitalSensorReading);
  switch (range) {
  case 0:    // A fire closer than 1.5 feet away.
    ...
    break;
  case 1:    // A fire between 1-3 feet away.
    ...
    break;
  case 2:    // No fire detected.
    ...
    break;
  }
```

Related

- Arduino Modules - Flame Sensor | Arduino Project Hub