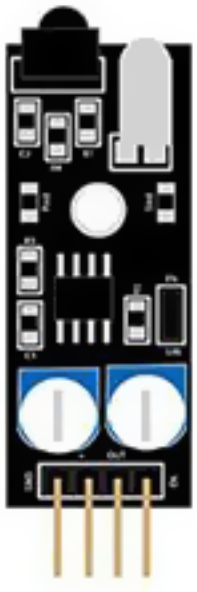
Collision Detection Module

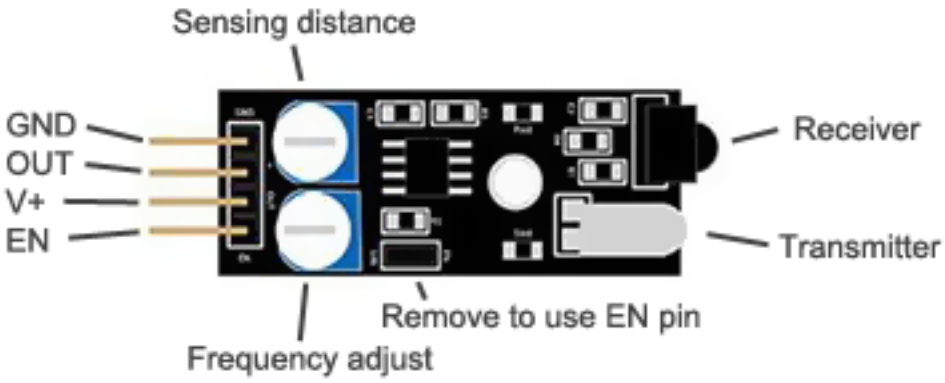


Infrared obstacle avoidance sensor is designed for wheeled robot obstacle avoidance with adjustable detection distance. The module consists of one infrared emitter and one detector. When there is an obstacle in front of the sensor, the infrared light from the emitter is reflected back to the receiver. The signal is squared up by a comparator to produce a digital signal. When there is no obstacle, the output is high. When obstacle is in range, the output is low. The sensitivity can be adjusted by means of potentiometer knob. Several sensors can be connected in parallel. Enable pin can be used for individual control. Remove jumper to use EN input.

Operating Voltage	5V
Maximum Current	20mA / 5VDC
Detection distance	2 - 4cm
Detection angle	35°
Dimensions	28mm x 23mm

Pinout and Connection to Arduino

Connect V+ to 5V. Connect output to pin 8 on the Arduino and Ground (-) to GND. To use EN pin, remove jumper and connect to an output on Arduino.



Arduino Example Sketch

The following Arduino Sketch will light the LED when an obstacle is detected.

```
int ledPin = 13;
int sensorPin = 3;
int val;

void setup ()
{
  pinMode (ledPin, OUTPUT);
  pinMode (sensorPin, INPUT);
}

void loop ()
{
  val = digitalRead(sensorPin);
  if (val == HIGH)
  {
    digitalWrite(ledPin, LOW);
  }
  else
  {
    digitalWrite(ledPin, HIGH);
  }
}
```