

## Infrared Barrier Module

The sensor module light is adaptable to the environment; it has a pair of infrared transmitting and receiving tube. Tube infrared emit a certain frequency, when detecting direction meet with obstacles (reflecting surface) it will reflected infrared receiving tube. After the comparator circuit processing, green indicator will light up, at the same time signal output interface to output digital signal (a low level signal). The sensor detection range can be through the potentiometer to adjust and have small interference. It is easy to assemble and easy to use.

### Applications

- 1) Robot obstacle avoidance
- 2) Obstacle avoidance car
- 3) Line count
- 4) Black and white line tracking

### Technical Specifications

**Working voltage:** 3.3–5 V

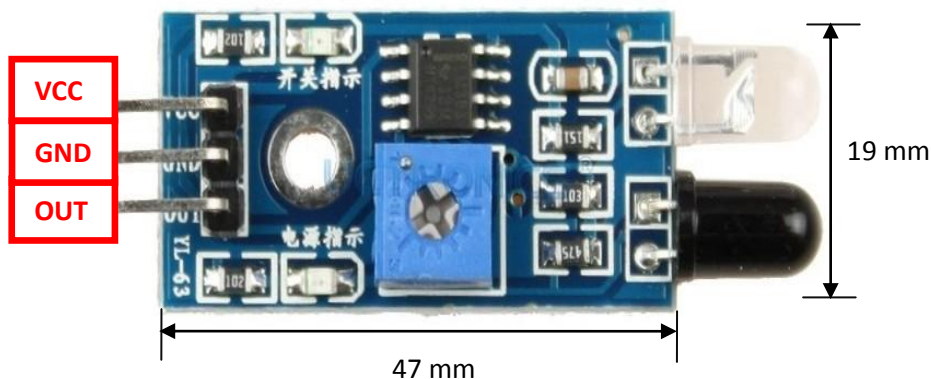
**Effective range:** 2–30 cm (depends on object reflectivity)

**Potentiometer adjustment direction:** clockwise (detection distance increase), counterclockwise (detection distance decrease)

**Dimensions:** 47mm L × 19mm W x 80mm H

**Weight:** 1.66 oz (47 g)

### Dimensions & Pin-out



**Connecting mode:** VCC-VCC, GND-GND, OUT-IO

#### Module interface specification:

1. VCC port can connect to voltage between 3.3 V to 5 V converters
2. Ground port can connect to external GND
3. Output port can connect to IO port directly or can drive 5 V relay



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When power on, the red power indicates light lit. When the module detects obstacles in front of the signal, the green indicator on the circuit board light level and at the same time the OUT port output have low level signal, the detection module from 2~30cm at 35° detection angle. Sensors is active infrared reflection detection, therefore the reflectivity and shape of the target are the key of the detection range. White is a minimum detection range while black is maximum detection range. Small area of the object distance will result large distance.