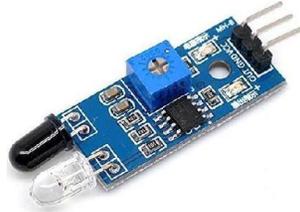


IR Infrared Obstacle Avoidance Sensor Module

Arduino Raspberry Pi Smart Car



Manufacturer Description:

The light sensor module has strong adaptability to the environment, having a pair of infrared transmitter and receiver. The transmitter launches a certain frequency of infrared light. When it meets an obstacle in the detection direction, the infrared light is reflected back by the receiver tube. After processing through the comparator circuit, the green indicator light will illuminate while the signal output interface outputs a digital signal (a low-level signal). This signal can be adjusted via a potentiometer knob to detect the distance. The effective distance range is 2 ~ 10cm, and the working voltage is 3.3V-5V. The detection range of the sensor can be adjusted by the potentiometer, with little interference. It is easy to assemble and easy to use. It can be widely used for robot obstacle avoidance, obstacle avoidance car assembly line counting, and black-and-white line tracking and many other occasions.

Parameter:

1. When the module detects an obstacle in front of the signal, the circuit board green indicator light levels while continuing to output a low signal from the OUT port. The module detects the distance 2 ~ 30cm, detection angle 35 °, the distance can be detected and potential control can be adjusted. Adjust the potentiometer clockwise, the detection distance increases; counterclockwise adjustment of the potentiometer, the detection distance decreases.
2. The sensor actively reflects infrared light for detection, target reflectivity and shape of the detection distance of the key. The minimum detection distance is black and white max; small area of the object distance is small, a large area from the ground.
3. The sensor module output port OUT can be directly connected with the microcontroller IO port. It can also be driven directly to a 5V relay. Connection: VCC-VCC; GND-GND; OUT-IO
4. The comparator uses LM393, ensuring job stability.
5. It can be powered by a 3-5V DC power supply for the module. When the power is turned on, the red power indicator light is on.
6. It has 3mm screw holes for easy mounting and installation.
7. The circuit board size is 3.2CM * 1.4CM.
8. Each module in the delivery has a threshold comparator voltage adjustable via a potentiometer. In special circumstances, please do not adjust the potentiometer.

Interface:

1. VCC external 3.3V-5V voltage (5V microcontroller and can be directly connected to 3.3V MCU);
2. GND an external GND;
3. OUT small board digital output interfaces (0 and 1);