IR Infrared Obstacle Avoidance Sensor Module Arduino Raspberry Pi Smart Car

Manufacturer Description:

The light sensor module have strong adaptable to the environment, having a pair of infrared transmitter and receiver, transmitter launch a certain frequency infrared, when meet obstacle in the detection direction, the infrared receiver is reflected back by the receiver tube, after processing through the comparator circuit, the green indicator light will illuminate while the signal output interface output digital signal (a low-level signal) can be adjusted via potentiometer knob detection distance, the effective distance range 2 ~ 10cm, working voltage is 3.3V-5V. The detection range of the sensor can be adjusted by the potentiometer, with little interference, easy to assemble, easy to use features, can be widely used robot obstacle avoidance, obstacle avoidance car assembly line count 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 output low signal OUT port, the module detects the distance 2 ~ 30cm, detection angle 35 °, the distance can detect potential control to adjust, adjust potentiometer clockwise, the detection distance increases; counterclockwise adjustment potentiometer, detection distance decreases.
2, the sensor active infrared reflection detection, target reflectivity and shape of the detection distance of the key. The minimum detection distance which black and white max; small area of the object distance is small, a large area from the Grand.
3, the sensor module output port OUT can be directly connected with the microcontroller IO port can also be driven directly to a 5V relay; Connection: VCC-VCC; GND-GND; OUT-IO
4, the comparator using LM393, job stability;
5, can be 3-5V DC power supply for the module. When the power is turned on, the red power indicator light;
6, with 3mm screw holes for easy mounting, installation;
7, the circuit board size: 3.2CM * 1.4CM
8, each module in the delivery has threshold comparator voltage adjustable via potentiometer, 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);