

Arduino Infrared IR Line Following Tracking Sensor (Single Bit)(3-Pin)

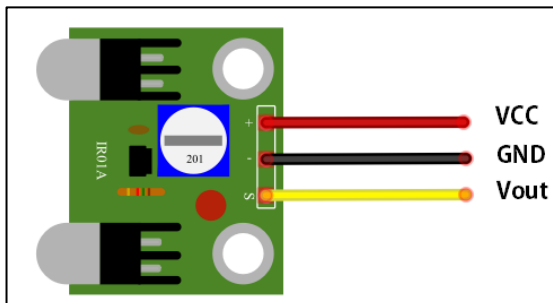


Infrared tracking is a missile guidance system which operates using the infrared electromagnetic radiation emitted from a target in order to track it. These missile systems are often known as 'heat-seekers' as infrared is radiated strongly by hot bodies such as people, vehicles and aircraft. This sensor is for line tracking purpose. It differentiates white and black color, and it outputs via TTL signal. Utilizing it enable your mobile robot to have intelligent such as line following, or anti collision, or anti-edge falling. Good performance if the object have reflective surface. There is a variable resistor on-board for user to tune the threshold of white and black color. You can even combine several sensors to meet your specific requirements. The sensor come with 3 pins, respectively is VCC, OUT and GND. The VCC and GND is the power for the sensor to operate. The OUT is the digital output signal from the sensor. When sensor detected obstacle or white surface, the output will be LOW and the output will be high if it no obstacle or black surface detected. It can be interface with any microcontroller with digital input such as PIC, SK40C, SK28A, SKds40A, Arduino series for line sensing, or even short distance obstacle detection. Also, not to forget, interface with relay module offer non-contact switch.

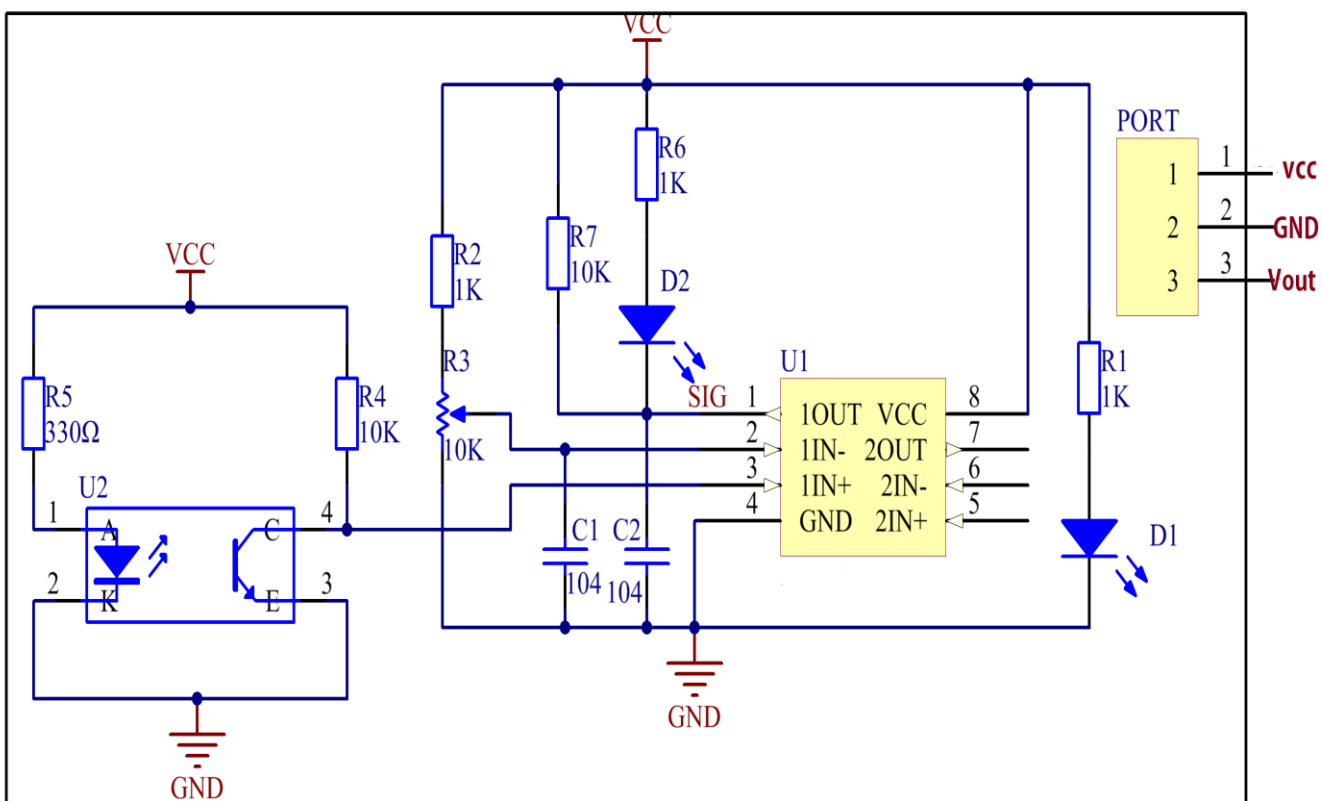
Specifications:

- Detection distance: 1.5cm
- Power supply: 3.3 to 5VDC
- Operating current: 18 to 20mA at 5V
- Operating temperature range: 0°C ~ + 50°C
- 3-wire output interface
- Output: TTL(Black or no Obstacle = Logic HIGH, White or obstacle = Logic LOW)

Pins Out:



Schematic:

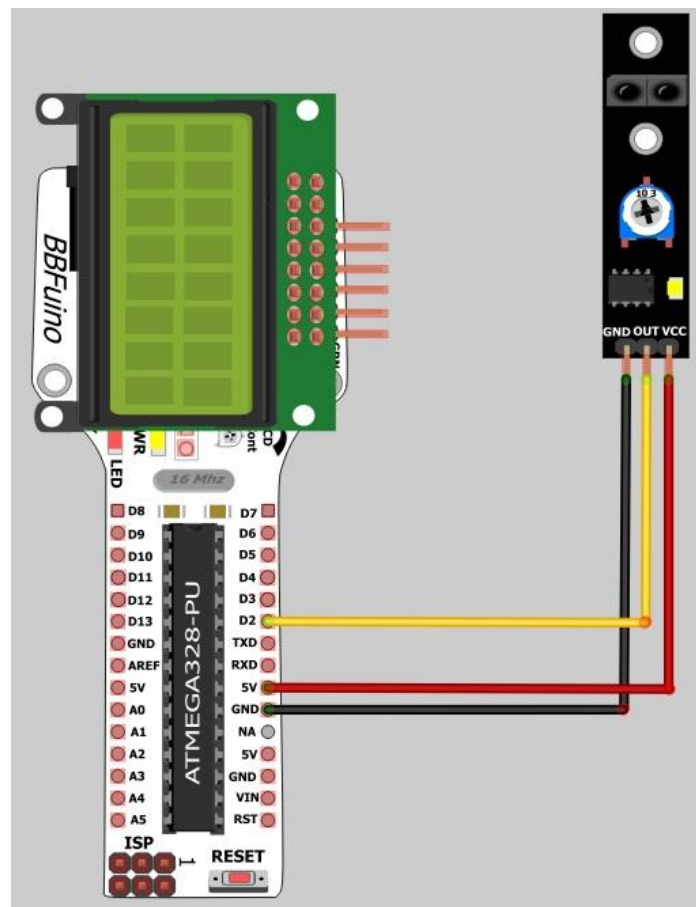


Here is a guide/example on using IR Line Tracking Sensor:

Component Needed:

- BBFuino board
- IR Line Tracking Sensor
- Jumper wires-3 ways

Connection:



1. Make a connection as shown in figure.
2. Then, upload the code. You can get the code from *application1_sketch*.
3. It also can be interface with any microcontroller with digital input such as PIC, SK40C, SK28A, SKds40A, Arduino series.