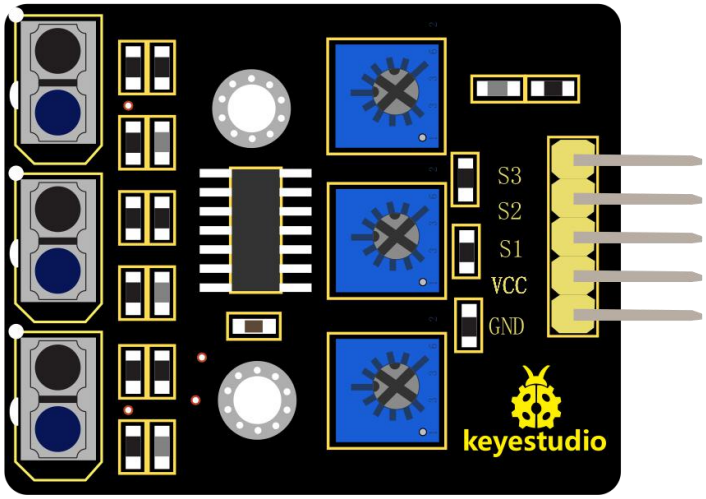
Keyestudio 3-channel Line Tracking Module

(Black and Eco-friendly)



Description

In the smart car DIY process, we often use a line tracking sensor to make the smart car follow a line.

The keyestudio 3-channel line tracking module actually is an infrared sensor. The component used is a TCRT5000 infrared tube.

The working principle is to use the different reflectivity of infrared light to color, converting the strength of the reflected signal into a current signal.

During the detection, black is active at HIGH level, and white is active at LOW.

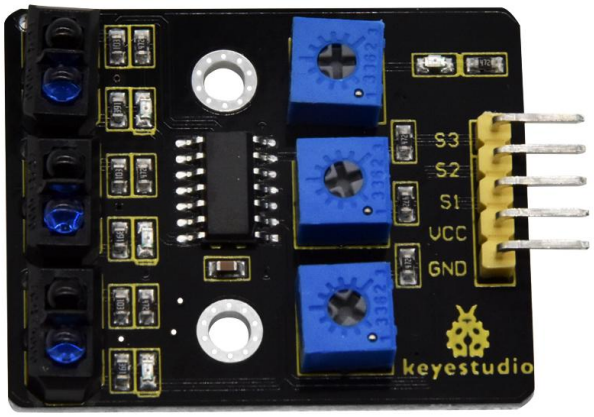
The detection height is 0-3 cm.

We have integrated three groups of TCRT5000 infrared tubes on a single board, convenient for wiring and control.

Turn the adjustable trimpot to adjust the module's sensitivity.

The module comes with two 3mm positioning holes for mounting on other devices.

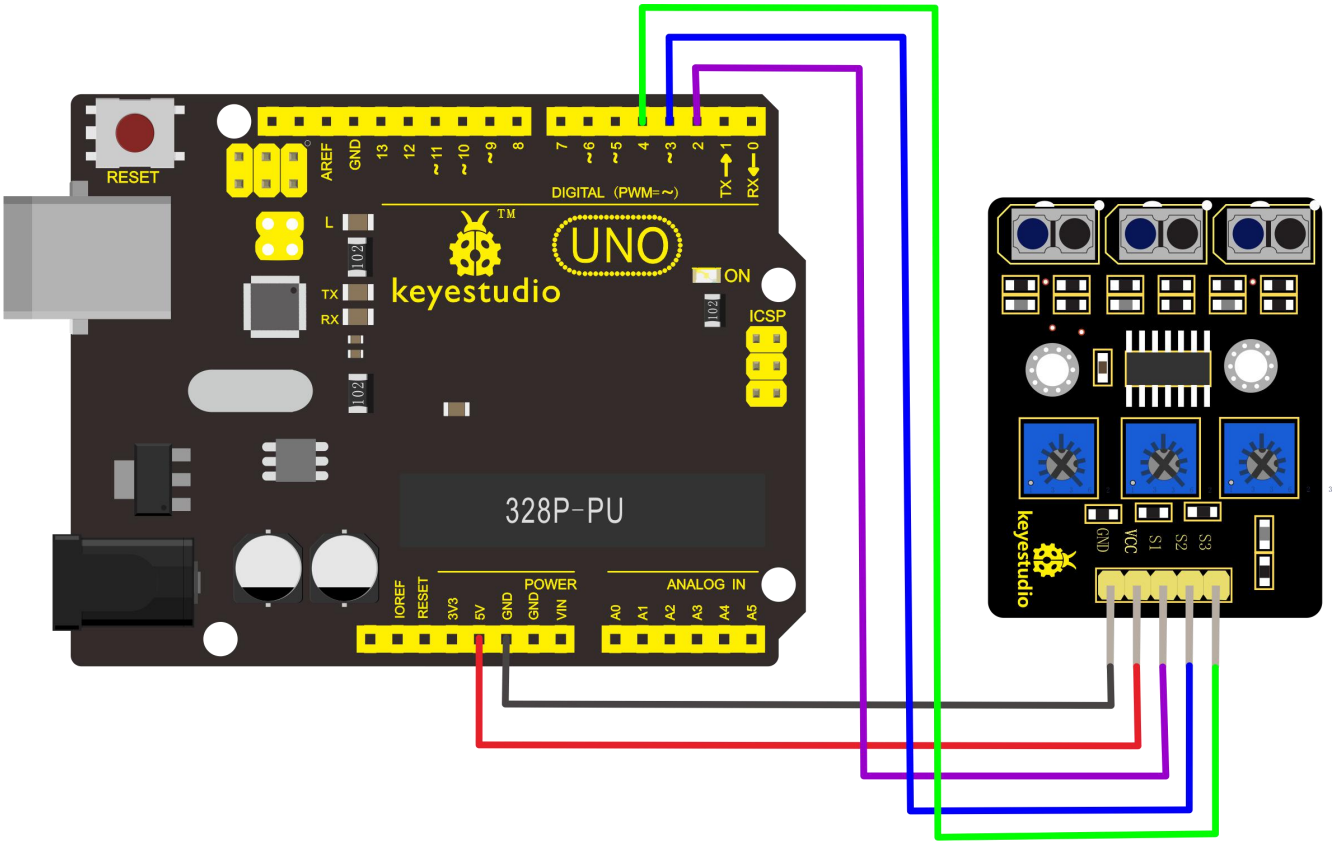
Note: before testing, turn the potentiometer to adjust the sensitivity. The sensitivity is the best when make the LED at the threshold point between ON and OFF.



Technical Parameters

- Operating voltage: DC 3.3-5V
- Detection height: 0—3cm
- Interface: 5pin of 2.54mm pitch
- Positioning hole diameter: 3mm
- Dimensions: 42mm*31mm*7mm
- Weight: 6.6g
- Environment attribute: ROHS

Wiring Diagram



Test Code

```
**********
int sensor1 = 2;
int sensor2 = 3;
int sensor3 = 4;
int val1;
int val2;
int val3;
void setup()
{
```

```
    Serial.begin(9600);
    pinMode(sensor1, INPUT); // set sensor to input mode
    pinMode(sensor2, INPUT); // set sensor to input mode
    pinMode(sensor2, INPUT); // set sensor to input mode
}

void loop()
{
    val1=digitalRead(sensor1);
    Serial.print("val1:");
    Serial.print(val1);
    val2=digitalRead(sensor2);
    Serial.print("    val2:");
    Serial.print(val2);
    val3=digitalRead(sensor3);
    Serial.print("    val3:");
    Serial.println(val3);
    delay(200);
}
```

****

Test Result

Done uploading the code to control board, open the serial monitor and set the baud rate to 9600.

When the tacking module detects black line, output 1; detecting white line, output 0. As figure shown below.