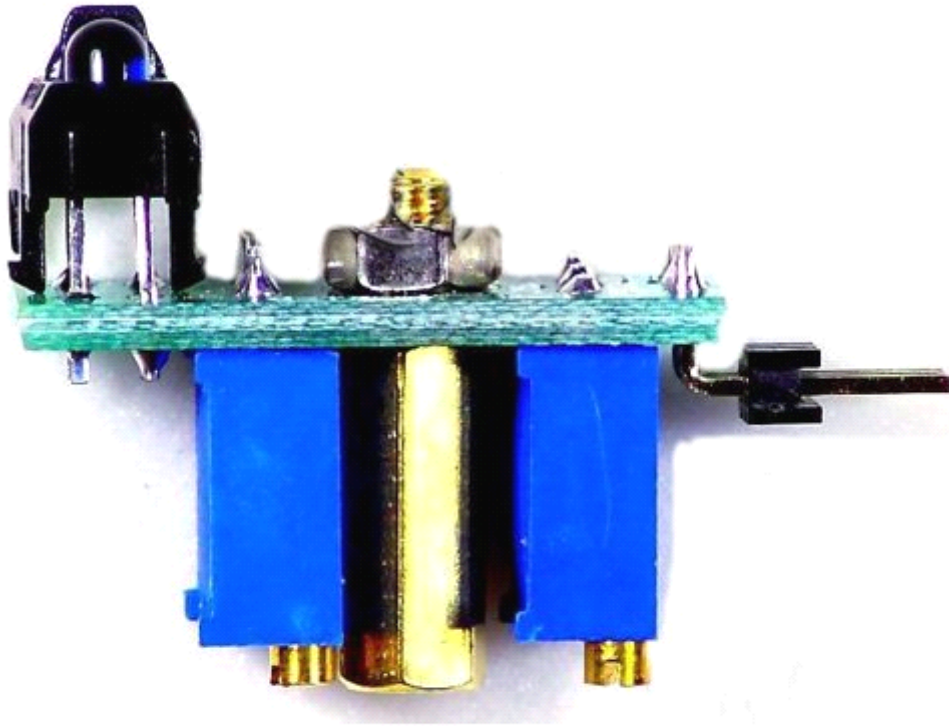


TCRT5000 Photoelectricity Trailing Module



Compact structure, small size, light weight, flexible

It has SMD pad to weld chip resistance with it after well adjusted.

With place for welding receiving and sending digital potentiometer, it can be adjusted according its surrounding environment so that sensor can work in best condition. Fixed resistor(plug-in or chip resistor)can be welded on it. Signal can be input via IO receive port or via AD sampling port.

Tip: Naked eye can not sense infrared ray from Infrared Emitting Diode,which has caused some difficulties in debugging. However,if you use the phone with a camera, you can see infrared since camera is infrared-sensitive.

Model cars tracing module

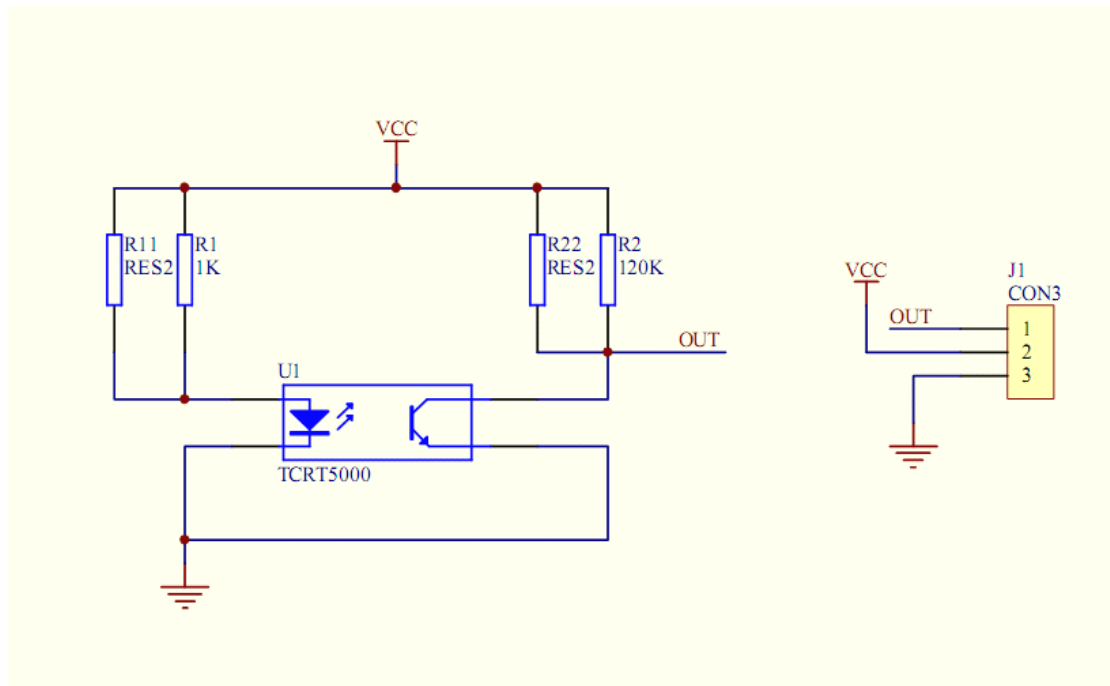
Output: analog signal (which can also receive via IO port)

Photoelectric Tube Type: TCRT5000

Detection range: 10-20MM

Two variable resistors are welded with it, with a screw Copper Cylinder.

Schematic Diagram :



1、 Fittings :

- 1、 PCB ×1;
- 2、 TCRT5000 photoelectricity gemitate transistors;
- 3、 ×1resistance ×2pcs;
- 4、 Cu pillar ×1pcs;
- 5、 screw ×1 set;

2、 Adjusting :

1、 Melody the adjustable resistor W102 (which is to control the infrared transmitting tube) to 150 ohm ~ 250 ohm;
Melody the adjustable resistor W105 (which is to control the infrared receiving tube) to 5K ~ 15K。

2、 Place the infrared tube at where is about 1cm far from the black and white flat surface, then move between the black and white line, and watch whether output an

alterative voltage (if not, keep first step)。

3、Place the infrared tube at black and white line and adjust W105 (anticlockwise output voltage descend, clockwise output voltage increase) and make output voltage at about 4V.

Don't reach the max output or it will be difficult to adjust。

4、Place the infrared tube at white line and adjust W102 (anticlockwise output voltage increase, clockwise output voltage descend, better below 100 ohm), make output voltage at 0V。

5、Then return the black line, watch the output whether reach the required value, if not, keep adjusting
(repeat 3、4 steps)。

Notice:

- 1、Take care of the positive and negative poles。
- 2、Power supply voltage : 5V。
- 3、Keep transmitting tube resistance W102 more than 100 ohm。