1. Introduction

With this module your DIY car or robot can walk only along one line way. When the detector move from white to black, it could output TTL signal. So if you draw one black line between in the two wheels of your car, it will walk along your expecting road.

**Specification:**

- Voltage: 3.3V to 5V
- Operating current: 20mA @ 5V
- Operating temperature range: 0°C ~ + 50°C
- Black for LOW output, White for HIGH output
- Size: 28x10mm
- Weight: 3.5g

2. Pinout

<table>
<thead>
<tr>
<th>Pin</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>Digital output pin, black is Low, white is High</td>
</tr>
<tr>
<td>V+</td>
<td>Power(5V DC)</td>
</tr>
<tr>
<td>G</td>
<td>Ground</td>
</tr>
</tbody>
</table>

3. Example

The example show that when the sensor detect black area, the “s” pin output Low TTL signal, then the LED13 turn off meanwhile the light “L” on this module turns on. On the contrary, LED13 turns on.

The connection as below:
int Led=13;
int buttonpin=3;
int val;

void setup()
{
  pinMode(Led,OUTPUT);
  pinMode(buttonpin,INPUT);
}

void loop()
{
  val=digitalRead(buttonpin);
  if(val==HIGH)
  {
    digitalWrite(Led,HIGH);
  }
  else
  {
    digitalWrite(Led,LOW);
  }
}