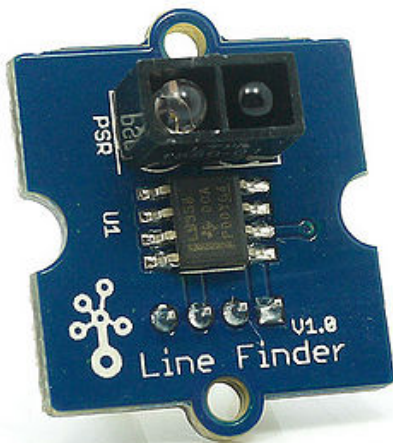


## Grove - Line Finder



Line finder Grove is designed for line following robotic. It consists two parts - an IR emitting LED and an IR sensitive phototransistor. It can output digital signal to a microcontroller so the robot can reliably follow a black line on a white background, or vice versa.

### Specification

- Power supply :5V DC
- Digital output mode: TTL (High when black is detected, Low when white is detected)
- Connector: 4 pin Buckled Grove interface
- Dimension: 20mm\*20mm
- ROHS: YES
- Comparator: MV358
- Photo reflective diode: RS-06WD

### Demonstration

The brick will return HIGH when black line is detected, and LOW when white line is detected. Using the adjustable resistor the detection range can be changed from 1.5cm to 5cm. If the sensor can't tell between black and white surfaces, you can also use the adjustable resistor to set a suitable reference voltage.

Includes important code snippet. Demo code like :

Demo code

```
{  
  
//-----  
//Name: Line finder digital mode  
//Function: detect black line or white line  
//Parameter: When digital signal is HIGH, black line  
//           When digital signal is LOW, white line  
//-----  
int signalPin = 3; // connected to digital pin 3
```

```
void setup() {  
  pinMode(signalPin, INPUT); // initialize the digital pin as an output:  
  Serial.begin(9600); // initialize serial communications at 9600 bps:  
}  
// the loop() method runs over and over again,  
// as long as the Arduino has power  
void loop()  
{  
  if(HIGH == digitalRead(signalPin))  
    Serial.println("black");  
  else Serial.println("white"); // display the color  
    //delay(1000);          // wait for a second  
}  
  
}
```