

Line Sensor Array [RKI-1032]



Users Manual

Robokits India

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Thank you for purchasing Line Sensor Array. This unit has been carefully engineered and tested to provide superior performance. This document covers the features and operation of Line Sensor Array.

This is an easy-to-use module with 7 reflective sensors. All Photodiodes have ambient light protection feature however sunlight/any other IR light source of same wavelength can directly affect working of the sensor array.

It can be easily used with a microcontroller as it gives TTL compatible outputs. The output pins can be directly connected to microcontroller pins which give active low output when white line is detected. The main use of this module is for very fast line following.

Line Sensor Array Features

- Simple interface (VCC, GND, 7 Outputs)
- Open drain pulled up TTL compatible outputs
- On Board 5V Regulator
- Operating voltage from 5V - 12 V
- 7 Sensor in an array form
- Indicator LEDs on top side for current status of sensor
- Less sensitive to external ambient light
- Can Detect color difference
- Adjustment via potentiometer for best result
- Reverse Polarity protection

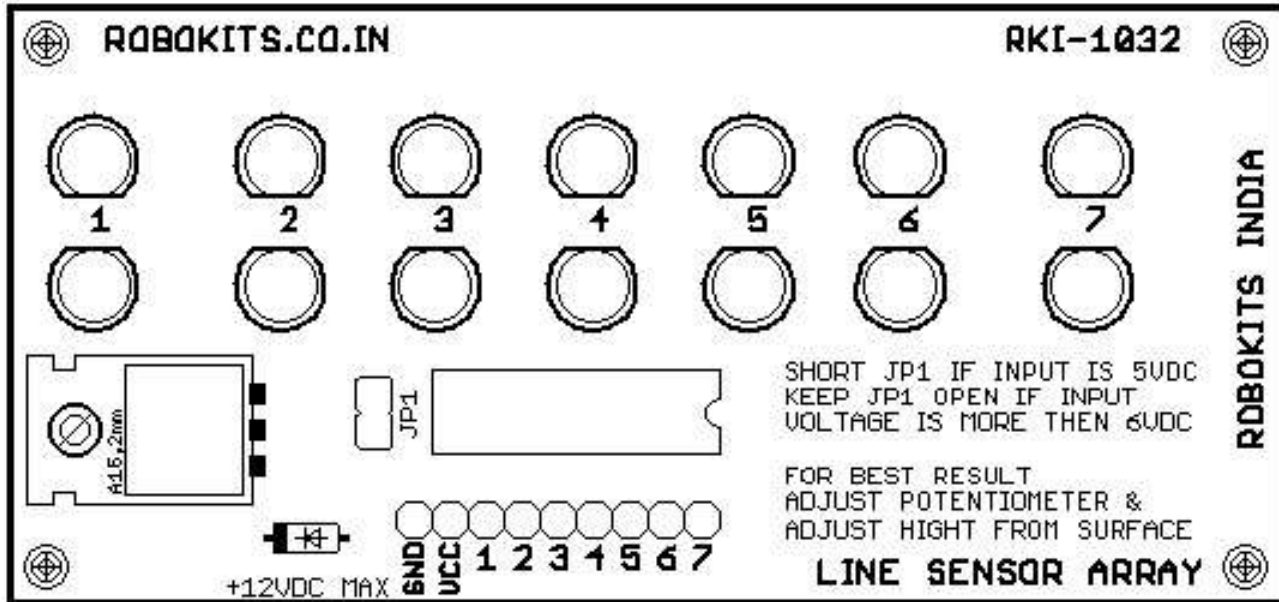
Jumper Function

- Jumper J1 can be used to select input voltage.
- If you are giving input of +5V keep the jumper closed.
- If you want to give more than 5V remove the jumper. This will enable the onboard 5V regulator.
- The board requires about 300ma of current. So if your 5V supply is not enough to drive both your microcontroller board and the sensor board you can directly plug in your +VE battery supply to VCC pin
- Make sure you are not giving more than 5V to VCC pin when the jumper is closed. This may damage the board permanently.

Interface

- Pin 1 is Ground. Do not forget to short this pin with your microcontroller board ground grid.
- Pin 2 is VCC. You can supply either +5V directly from the board or battery voltage. Please read the above section carefully before giving the voltage.
- Pin 3-9 are output pins. These pins provide active low outputs. This means it will provide Ground to microcontroller pins when the sensor is sensing light color.

Board top layout



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Service and Support

Service and support for this product are available from Robokits India. The Robokits Web site (<http://www.robokits.co.in>) maintains current contact information for all Robokits products.

Limitations and Warrantees

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