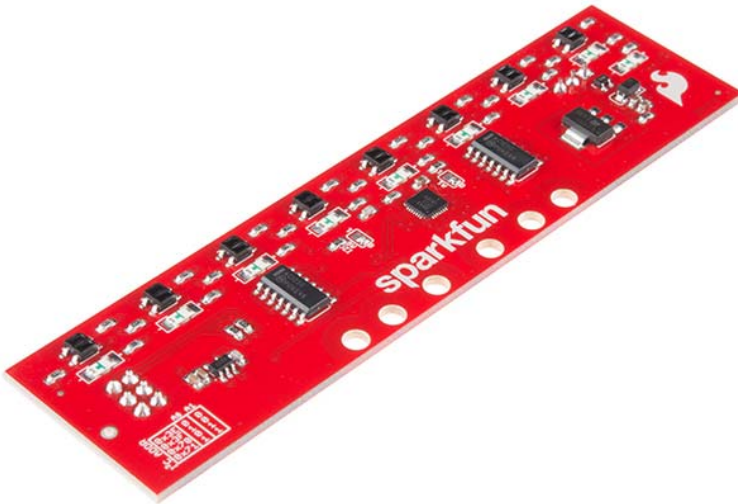# SparkFun Line Follower Array

SEN-13582 RoHS
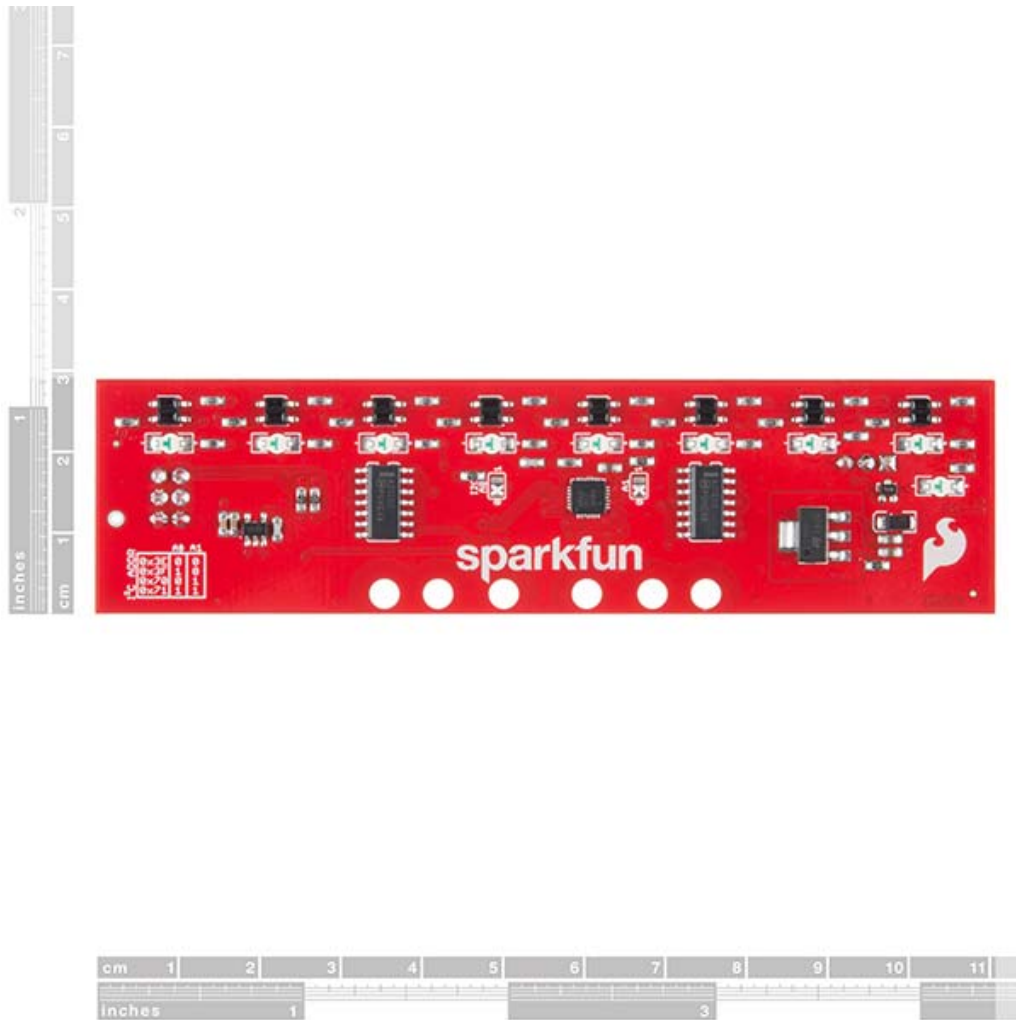
Description: The SparkFun Line Follower Array is a long board consisting of eight IR sensors that have been configured to read as digital bits! We have designed the SparkFun Line Follower Arrays to follow a dark line of about ¾ inch width or smaller (spray paint or electrical tape) on a light background. Each array features visible LEDs that point upward when the board is attached (properly) so you can see what the robot sees, brightness control right on the board, and an I²C interface for reading and power control. Here at SparkFun, the RedBot Shadow Chassis was used as a test platform but really this was designed as an add-on for almost any bot.

The line follower functions by taking an 8-bit reading of reflectance for use with following lines or reading dark/light patterns and can see from about ¼ to ¾ inches away. The IR brightness control and indicator can be adjusted with the on-board potentiometer and is capable of showing you the strength of the IR LEDs. Illumination can be turned on and off with software to conserve power, or left on all the time for faster readings. The SparkFun Line Follower Array requires 5V of power with a supply current range of 25-185mA with strobing disabled and 16-160mA with it enabled. Additionally we have added six mounting holes to the line follower with the two inner holes designed to fit our Shadow Chassis while the other four are general purpose.

Note: As you know our Sun emits quite a bit of infrared light, making the SparkFun Line Follower Array much less effective in direct sunlight. Plan your projects accordingly!

Features:

- 8 sensor eyes (QRE1113, like in our line sensor breakout)
- I²C interface
- Adjust IR brightness on the fly with a knob
- Switch IR on and off with software
- Switch visual indicators on and off with software
- Invert dark/light sight with software
- Based on the SX1509 I/O expander