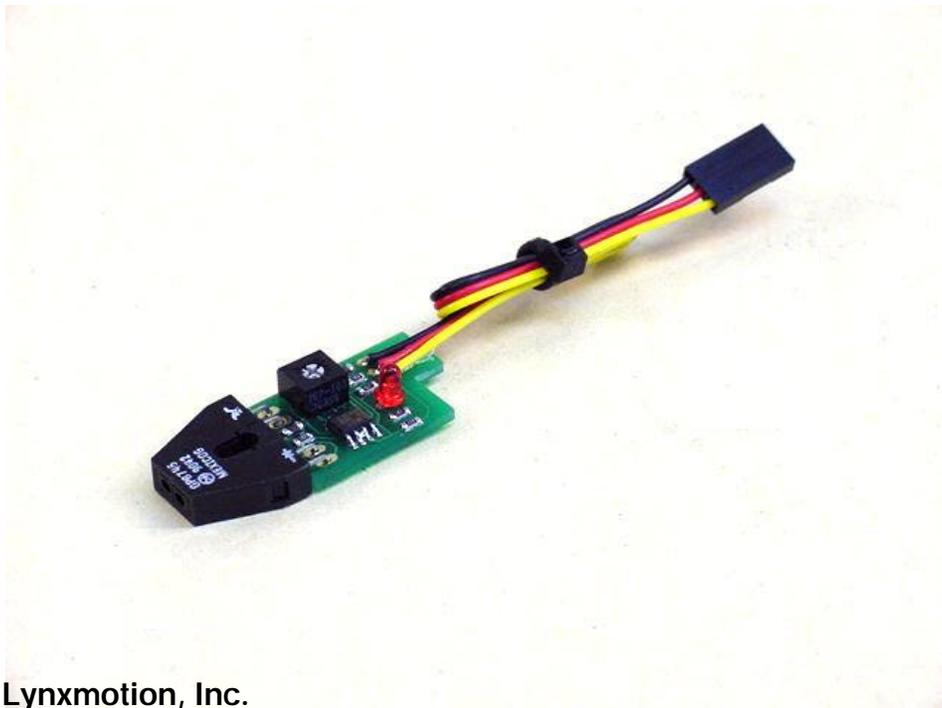




# Single Line Detector

## Reflective IR Sensor



### **Lynxmotion, Inc.**

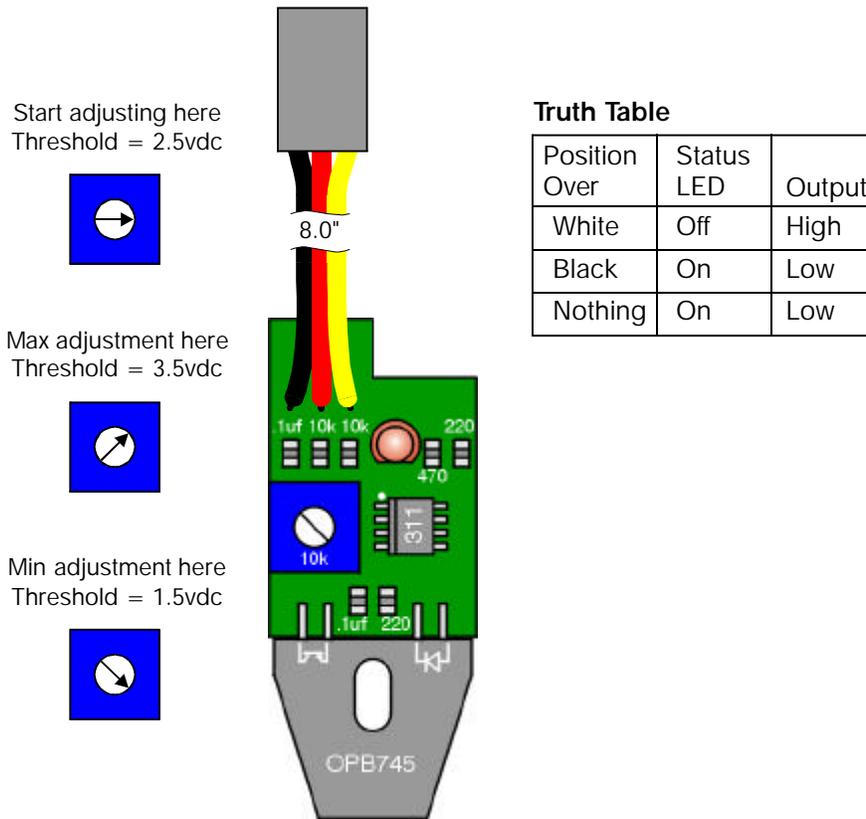
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Assembly Manual SLD-01 Ver 1.0

## Using the SLD-01 Reflective IR Sensor

### Information

The Single Line Detector is an Infrared reflective sensor, that can be attached to a sumo, or other mobile robot. The sensor delivers a stable TTL compatible high or low voltage depending on the color of the surface it is positioned over. Use two or more sensors to make a custom line following robot. There is a status LED to make setup or troubleshooting a breeze. The sensor has an 8" connector that can plug directly into our First Step or Next Step microcontrollers. The circuitry could also be useful as a surface detector to keep your robot from going off the edge of a table, or tumbling down the stairs. This is a time tested rock solid circuit that will perform flawlessly.



### How Does it Work?

When the sensor is positioned over a black or dark surface, or if nothing is there for the light to reflect off of, the status LED is on and the output is LOW. When the sensor is positioned over a white or light surface the LED goes out and the output is HIGH. The sensor can be mounted about 1/8" from the surface for most applications. If the sensor is too close to, or too far from the surface it will not operate correctly. This area is the operating range. The sensor will work when positioned perpendicular to the surface but the operating range is limited. If you angle the sensor a bit to the surface the operating range is increased and will perform more reliably.



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