33024-MP

Reflective Obstacle Detector

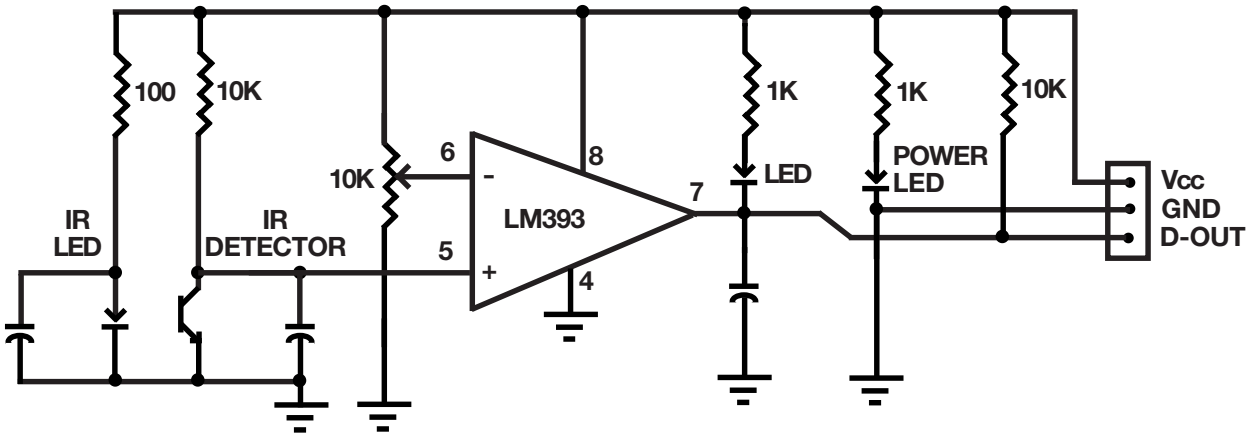
General

Reflective Obstacle Sensor for Microcontrollers

The sensor has a I/R LED and a I/R detecting photo transistor. Transistor is connected to a LM393 voltage comparator IC with adjustable trigger level. The detection distance is a function of target reflectivity and shape. The LED indicator turns on when an object is detected (Output switches LOW). The output can be connected directly to a microcontroller port or add a driver transistor to the output, & it could switch a relay or other loads exceeding 20mA.
Power: 3.3V to 5V
Supply Current < 1mA (LEDs off)
LEDs: 2: Red for Power and Green for Detection
Output: Digital TTL Current sink 20mA, 10K Pull-up
Connections: 3Pin, .1Pitch Header.
L: 47mm OA **W:** 14mm **H:** 8mm **WT:** .02

Operation

1: Adjust potentiometer clockwise to increase the detection distance;
counterclockwise to reduce the detection distance.
2: The detection distance is a function of target reflectivity and shape.
Dark objects: Minimum detection range
White objects: Maximum detection range
Small objects: Close detection range. Large objects: Farther detection range
3: Module has the threshold voltage set for general use.
Only adjust if needed



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