sparkfun
START SOMETHING

SHOP   LEARN   BLOG   SUPPORT

Find a Retailer   Need Help? ▾

🛒 0   LOG IN   REGISTER

☰ PRODUCT MENU   find products, tutorials, etc...   🔍

EDUCATION   AVC   FORUM

HOME / PRODUCT CATEGORIES / INFRARED / OPTICAL DETECTOR / PHOTOTRANSISTOR - QRD1114

{ }   ▦

Optical Detector / Phototransistor - QRD1114

● SEN-00246 ROHS ✔ ⚡ 3D

★★★★☆ 3

DESCRIPTION

This sensor uses an infrared emitted diode combined with an infrared phototransistor to detect the reflected infrared signal. Ideal for sensing black-to-white transitions or can be used to detect nearby objects (.5-1cm).

Documents:

- Datasheet
- Hookup Guide
- Bildr Tutorial

‹   ▶   ›

© images are CC BY 2.0

🐦 📘 📌 ⇆ SHARE

Optical Detector / Phototransistor - QRD1114 Product Help and Resources

TUTORIALS   VIDEOS   SKILLS NEEDED

QRD1114 Optical Detector Hookup Guide

MAY 5, 2016

Use this IR LED/phototransistor fusion to sense objects in close proximity or even the color of a surface!
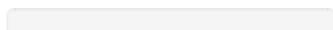
COMMENTS 38   REVIEWS ★★★★☆ 3

Customer Reviews

★★★★☆ 4 out of 5

Based on 3 ratings:

5 star		0
		3

Currently viewing all customer reviews.

1 of **1** found this helpful:

★ ★ ★ ★ ☆ **Good but not as sensitive as wanted.**

about 3 years ago by **Member #659229** ✔ verified purchaser

The sensor isn't super sensitive, with the recommended resistors it sits around 1020 in ambient lighting, when you put something close to it it will only change 2-10 digits usually. if light is shining on the sensor it will drop down dramatically (500-900) range. This makes it easy to see if something breaks the light going to the sensor. For our project we had it enclosed in a tube & to sense if there is a ball there or not. So we put an LED across from the sensor so if the ball broke the light it would be obvious to the sensor.

★ ★ ★ ★ ☆ **Good Product**

about 3 years ago by **Member #654788** ✔ verified purchaser

Good product

★ ★ ★ ★ ☆ **works ok when object is very close, a bit flaky with shadows.**

last year by **Member #686378** ✔ verified purchaser

I bought these for embedding in a "pinewood derby" race track to detect when the cars pass over the finish line, and it seems to be working well for this after a few tweaks..

I was very worried when prototyping by the fact that the object has to be REALLY close (about half an inch) to reliably "trip". I had to play around quite a bit with how much of a "drop" to treat as a real detection, and how much of a delay, as if I made the drop too big, and moved slowly, it wouldn't register.

Also, this using an infrared detector, it gets a bit flaky in light/shadows. Many times my prototype would "trip" if a shadow inadvertently fell across it, or if a light was shined on it. I ended up having to build a "hood" to try to block as much as possible.

It is working well now that it is mounted in the track under the shelf, will update after the official raceday where we run hundreds of heats.

Thank you Sparkfun.

START SOMETHING.

SUBSCRIBE TO NEWSLETTER

SUBSCRIBE TO NEWSLETTER

In 2003, CU student Nate Seidle blew a power supply in his dorm room and, in lieu of a way to order easy replacements, decided to start his own company. Since then, SparkFun has been committed to sustainably helping our world achieve electronics literacy from our headquarters in Boulder, Colorado.

No matter your vision, SparkFun's products and resources are designed to make the world of electronics more accessible. In addition to over 2,000 open source components and widgets, SparkFun offers curriculum, training and online tutorials designed to help demystify the wonderful world of embedded electronics. We're here to help you start something.

About Us

About SparkFun

Help

Customer Service

Shipping

Return Policy

What's on your mind?

For which department?

General

Please include your email address if you'd like us to respond to a specific question.

✉ email address

SUBMIT

Jobs
Contact

Programs
Become a Community Partner
  • Community Stories
Custom Kit Requests
Tell Us About Your Project
Sell Your Widget on SparkFun
Become a SparkFun Distributor
Large Volume Sales

FAQ
Chat With Us

Community
Forum
SparkFun IRC Channel
Take the SparkFun Quiz
SparkFun Kickstarter Projects
Distributors

SparkFun Electronics ® / Niwot, Colorado / Customer Service / Site Map / Terms of Service / Privacy Policy