

Re: Optical Sensor (different from the 2-d sensor)

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Source: <http://sci.tech-archive.net/Archive/sci.electronics.design/2008-07/msg01023.html>

- *From:* Howhurley <howhurley1@xxxxxxxxxxxxxx>
 - *Date:* Tue, 8 Jul 2008 08:42:34 -0700 (PDT)
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On Jul 7, 3:05 pm, Tim Wescott <t...@xxxxxxxxxxxxxx> wrote:

Howhurley wrote:

Hi again. I am looking for an optical sensor, probably LED based, maybe laser diode, that can be mounted on a thin PCB. It needs to be fairly small. I am designing a small retroreflective system from inside a slot machined into a molding with a piece of reflective tape approx 3 ft away.

Any takers on this one?

LEDs and lasers both emit light.

Do you mean you want a sensor designed specifically for use with a retroreflector?

You're probably stuck with using a PIN photodiode and LED, and doing your own optics.

But your request is so vague it's impossible to tell.

How bright are the other lights in the room? How many of these devices will be in the room working together? Does it have to work while looking at it's brother right next to the reflective tape? How wide is the slot? How much accuracy can you pay for? Etc.

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Tim Wescott
Wescott Design Services <http://www.wescottdesign.com>

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I want to project an LED or laser beam perpendicularly out of a .33 inch aluminum slot. I want to "see" the reflection from reflective tape. up to 3 ft away and tell when the beam is broken. I was thinking that I could modulate the frequency of the transmitter and use a uP with the capability to have a fairly small window so I can eliminate extraneous "noise."

I probably could put the detector on the opposite side instead of the tape.

I was also thinking, if I did that, I could use a couple line collimated lasers, frequency modulated, so an individual receiver would be able to tell if the source was interrupted.

Thanks again for your response.

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