

Re: infrared wall to detect an object

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- *From:* Steve Hoyt <Info@xxxxxxxxxxxxxxxxxxxxxxx>
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Hernán Sánchez wrote:

Hi.

For a project that I'm building, I need an object detector that signals when something "cross" the virtual wall of light.

I create a virtual wall using a laser and two mirrors (one in front the other). The laser goes to the front mirror, it reflects the light back to the other mirror that is behind the laser, and it reflects back the light and so on. An the end, a photorresistor sense the laser light. When an object cross thru the light, the photorresistor change and a comparator signals that something is passing thru the virtual wall.

The problem is the photorresistor that it is sensible to natural light and of course the laser... it is dangerous for the eyes (an accident can happen). Another problem is with the mirrors, they need to be complete aligned to each other.

I want to change it to infrared light and a IR detector.. like those used in remote controls. But I need some IR leds with a small apperture to create a virtual wall.

Do anyone has some ideas, facts, experiences, suggestions and so on about what to do ? Is it a good idea ? Any led reference for it ?

Thanks

Hernán Sánchez
Medellín, Colombia

Hoyt Engineering has developed just such a presence sensor which is not yet available for public sale. What I am able to disclose is that this sensor rejects noise orders of magnitude greater than the received signal, including noise transmitted by other such sensors. Response time is 20mS or less and total power dissipation is around 1 mA for a sensing range of 1-2 meters. Component cost is less than 5 USD.

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I would be happy to provide you a solution in return for your honest application feedback. Please e-mail me directly to discuss further.

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