

Re: Help please with optics for simple video system

Source: <http://sci.tech--archive.net/Archive/sci.optics/2005-10/msg00004.html>

- *From:* "Adam Norton" <AnortonREMOVETHIS@xxxxxxxxxxxxxx>
 - *Date:* Fri, 30 Sep 2005 23:24:30 GMT
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I agree that a video viewer would not be ideal. Do not forget that seleting the lens and setting up the camera is only half the battle. Illuminating metal parts for macro photography or videography is notoriously difficult. A reflection off a flat face directly into the lens will wash out the rest of the image. Either the source must be positioned carefully each time you set this up, or you need a broad, diffuse source which may not be bright enough. Another thing to consider is that a video image gives you no depth perception, which I presume is desirable when trying to line up a tool with a thread.

Eric, have you considered some good, long-range binocular magnifiers like dentists and surgeons use? These are not the same as binocular magnifiers that use a simple single lens. You can use them in front of your regular distance glasses that correct your astigmatism.

—
Adam Norton

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(Remove antispam feature before replying)

"Richard J Kinch" <kinch@xxxxxxxxxxxxxx> wrote in message
news:Xns96E19C4134050someconundrum@xxxxxxxxxxxxxxxxxxxx

> Eric R Snow writes:

>

>> Well, I think it will be simple. I'm a machinist nearly 50 years old.

>> It has become hard to see fine detail even with proper eyewear and

>> lighting. Comes with age.

>

> The only thing that "comes with age" is presbyopia, which is a simple
> refraction error, easily corrected with reading glasses. Your eyes aren't
> "weak" or "dim" if that's all you have.

>

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- > No video display is going to come anywhere close to a direct, magnified
- > eyeball view. Sampling an image does not improve it. Spatial resolution
- > and contrast and dynamic range suffer.
- >
- > Get an ophthalmological (medical doctor) exam.
- >
- > I use 1.25D reading glasses, 3.25D glasses, a set of 12 inch f.l. headgear
- > magnifiers, and a 1 inch f.l. magnifier, as needed, to inspect work such
- > as
- > you describe. The glasses are \$1 at the dollar store, the header \$20 at
- > <http://www.use-enco.com/> , and the top-quality magnifier is stripped from
- > a
- > once-expensive-but-now-junked SLR film camera viewfinder.

• *Follow-Ups:*

- ◆ ***Re: Help please with optics for simple video system***

◇ *From:* Eric R Snow

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