

## Review: iDuOptic's LabCam iPhone camera adapter

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A few words (sic) on my experience with the iDuOptic's LabCam iPhone camera adapter ([www.ilabcam.com](http://www.ilabcam.com)) for those that may be interested. I've been using the standard 10x version since the end of March and recently started using the Pro 15x version.

To get the obvious "elephant in the room" issue off the table (now there's a strange image), yes at US\$209 the LabCam is expensive (Pro is US\$329). But for me the value is in excellent results and even more in reduced frustration—in a professional, not hobby, environment the frustration issue would be even more important in time savings and productivity.



It doesn't make much sense to invest good money in a microscope and then ruin the images you collect with a cheap plastic lens and poorly aligned adapter. Sure, you can cobble together a DIY solution with a cardboard tube and electrical tape, and that may be an adequate solution for some purposes. And, yes, you can get a plastic adapter for \$25 from Amazon that will do the job reasonably well. I had one and, for the money, I was satisfied with it. But it drove me freakin' nuts trying to get the adapter lens and the iPhone lens properly aligned. Admittedly, that may be more of a review of how I work than how the adapter works, but the LabCam solves that problem so well it's simply no longer an issue and my sanity is no longer a problem. (Some would disagree.)

A bit off topic, the LabCam adapter can be used as a stand-alone macro lens. It's not ideally suited because the focal plane is almost inside the device meaning you have to get very, very close. But, if you're willing to deal with that, it does work very well with the caveat that, like any macro setup, the depth of field is very narrow. I found that a rubber band is useful to keep the phone from falling out of the adapter if you're working in the field and holding it at strange angles. Also, you can use the \$3 CameraPixels app to take a stack of no-muss no-fuss iPhone images that can then be combined in ZerenStacker or equivalent to produce an attractive in-focus image or a 3D image pair.

I can't write about the LabCam without (bad pun alert) focusing on the iPhone, too. The LabCam is designed specifically for the iPhone and, for that matter, for specific iPhone models. That's why it's a brilliant product but that's also one of its liabilities. Because it's designed for, say, your iPhone 7+, your phone snaps into the LabCam and is perfectly aligned, ready to take pictures. But that also means that if you trade in your 7+ for an 8+ or

an iPhone X your LabCam is obsolete. For me, the LabCam/iPhone combination works so well on the scope I've already decided I'll just keep the iPhone I have, even if Apple eventually seduces me into buying an iCamera 20++ with a mobile phone and new software magic inside.

The phrase, "...works so well on the scope..." reminds me that I now generally use my scope with the LabCam and iPhone as a digital eyepiece. I leave the LabCam on the scope and just pop in my phone when I'm ready to go to work. And *that* reminds me that the LabCam adapter comes with adapter-adapters so it fits in 23.2, 30, and 32.5mm holes. When I bought the little Vision Scientific stereo scope\* I was surprised that it had big 32.5 mm eyepieces. But, no worries, the LabCam adapters solved the problem and I've put it to good use. *\*Reviewed in the [June 2019](#) issue of Micscape.*

The LabCam Pro is \$100 more than the standard model. But for the extra money you get coated optics (you astronomers out there will understand why that matters), a slightly larger field of view, and 15x magnification instead of 10X. If I was a professional doing pathology research the improvements would undoubtedly be worth the extra cost.

A few random closing thoughts:

1) The LabCam design neatly solves the stray light problem that fades images when light sneaks in the other eyepieces. I used to hang a plastic ice-tea cap over the second ocular when using the 'el cheapo' Amazon solution. That solved the problem, but the cap was also in the way and always seem to fall off at the wrong time. The LabCam uses the second eyepiece as a support so the adapter hangs level on the scope and neatly covers the hole.

2) The iPhone screen is large enough and colorful enough that it makes a very effective way to show kids (and adults who act like one) the wonders of the otherwise invisible microscopic world.

3) The LabCam is already being used in remote locations as diagnostic tool. I'd love to see an accessory nosepiece that would improve the working distance for healthcare providers in remote locations and (selfishly) for me so I can use the LabCam more easily as a very portable macro lens.

In short (really), the LabCam is a precision-built device that is well worth the price as a frustration-free microscope camera adapter, especially when used in a professional environment.

*Example images below.*

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