

Now that we are all set up, let's talk about how to start using your brand new shadow scope! This is the fun part, and it really is so simple to use once you get it all set up.

To start out, you need to find something cool to look at! We have a colony of *Daphnia magna* in the Stasevich lab, so that is what I will use. But also, you can grab a cup of some local pond water, try to grow planaria by soaking vegetables in water, or even grab some moss from outside and soak it in water. All of these would work well, and you should be able to visualize some organisms!

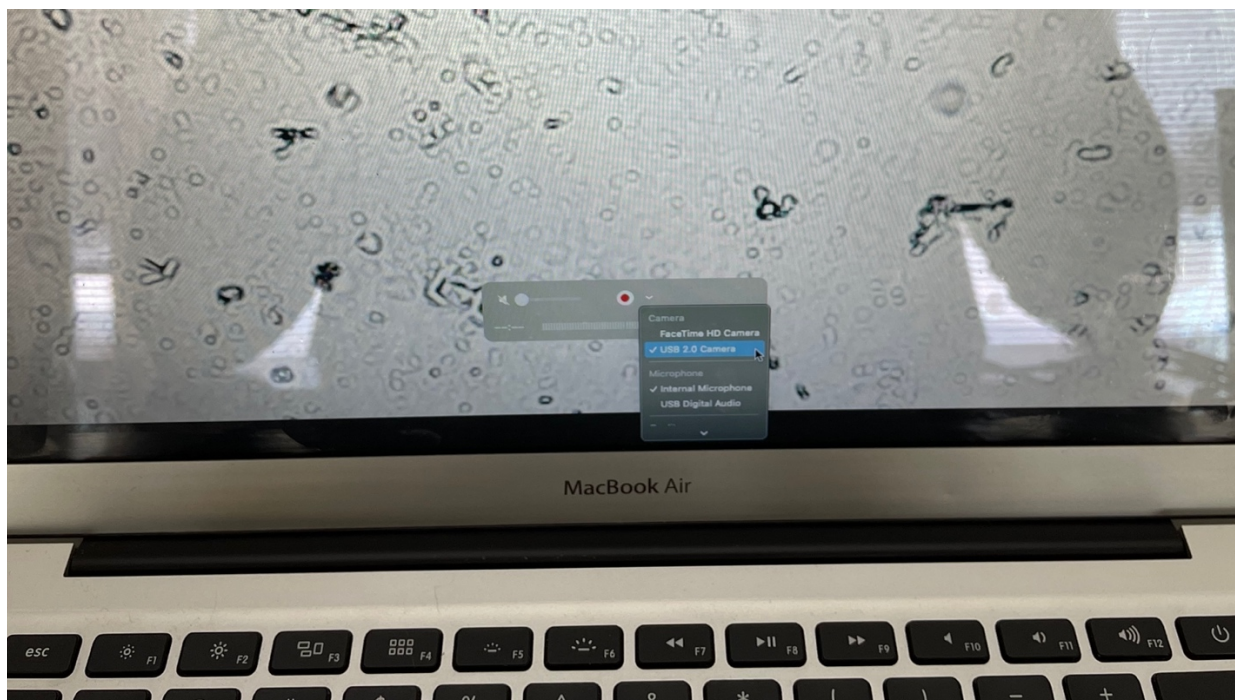
Once you figure out what sample you want to use, you need to transfer some of that water into the well we created with silicone on the light sensor from the camera! I used a pipette to transfer some daphnia onto the sensor. You can use a small spoon, or even use a straw. Put the straw into the water (DO NOT suck on it or use your mouth at all) and then put your finger on top. This will trap some water in the straw and allow you to transfer it to the sensor.



Next, I put the light blocker (limeade can) on top of the camera, plugged the scope into my computer, turned on the flashlight, and placed it on top of the scope.

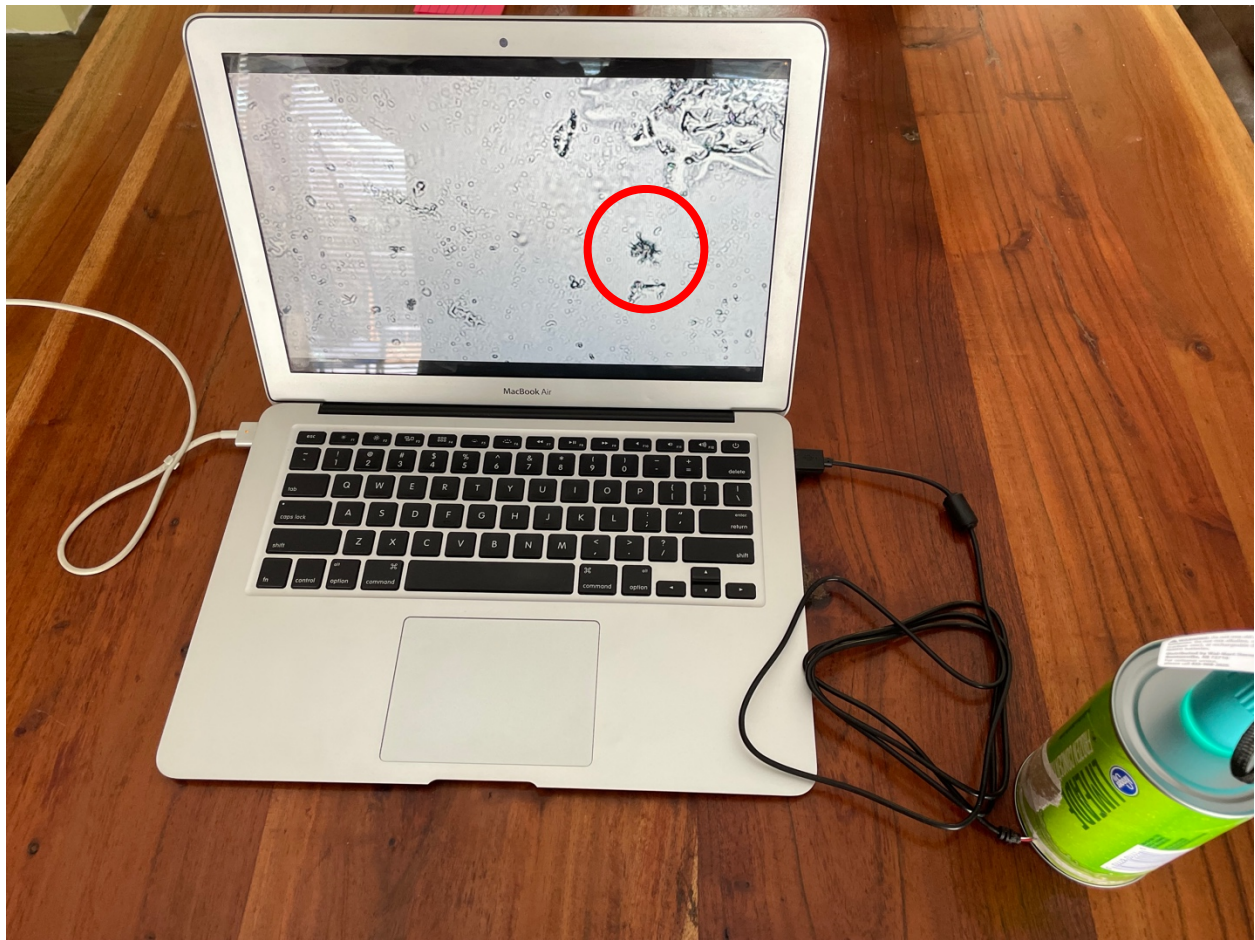


Next, I opened up the video recording software on my computer (QuickTime for Mac) and changed the settings to use the USB external camera we are using for our shadow scope.



Then, I waited for creatures to cross into the screen!

Here I got to see a cute, small daphnia:



And here I actually saw a copepod, which is an unexpected surprise and friendly neighbor living in our *Daphnia* culture:



And there you have it! That is how to purchase, build, and use your brand new Shadow Scope for under \$20!