



Rx Snapchat Spectacles for DIY and STEM

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<https://learn.adafruit.com/prescription-snapchat-spectacles>

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Overview and Getting the Glasses

Disclaimer: This isn't sponsored by Snapchat or Rochester Optical.



I use a lot of cameras. Cameras come in a variety of sizes because they're needed for a variety of situations.

- Need a tiny camera to fit in a tiny space? You can buy one from the Adafruit shop.
- Need a rugged camera to put on a mountain bike? GoPro and other producers have them in spades.
- Have the room for a larger tripod mounted one? Buy a DSLR.

But what if you wanted a camera attached to your head? Obviously you'd want hardware from a social media company!

..... Wait... what?



Snapchat Spectacles

That's right, Snapchat has released their Spectacles, a line of sunglasses with a tiny camera and microphone mounted into the frames. They're well-designed, integrated with their app (more on that later), and reasonably priced at \$129.99 - [if you can find them](#) ().

But what if you're like me, and wear prescription glasses?

[I sent mine off to Rochester Optical.](#) ()

Prescription - or Just Clear Lenses

I wear prescription glasses, so I entered my information on their website at checkout, and then mailed in my Spectacles in the original tube. You will need your pupillary distance (PD), so if visiting your optometrist, you might have to ask for it. The whole process took about a week, and then they appeared at my doorstep. Big thumbs up, it was uncomplicated.

If you've got perfect vision or prefer contacts, you can save some money on the order and opt for clear lenses.

Make sure to label the packaging with a LiPo battery warning label, and then inform your postal carrier.



Spectacles and App How-To's

Using the Glasses

First, you'll want to pair your glasses to your device. Swipe down on the main screen, tap the gear icon to open the Menu, and scroll down to Spectacles.

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You're paired!

Recording

To begin recording, tap the button over your left temple once. It'll record for ten seconds.

If you'd like to record for 20 seconds, tap once more. For 30 seconds, tap a third time.



A small LED will light up inside the frame to let you know you're rolling. When it's finishing, it'll blink to indicate.

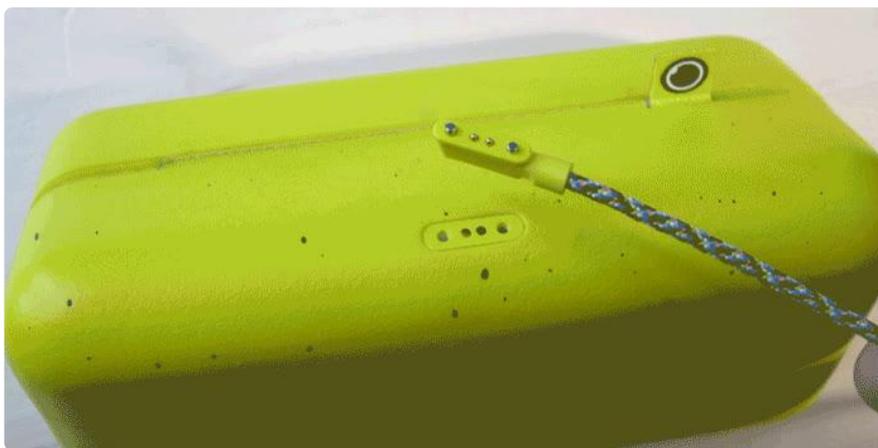


Charging

There are magnetic connectors under the left arm that mate with either the case, or directly to the magnetic charging cable.

There's a decent sized battery within the case that's large enough to fully charge the Spectacles 4x.

The included cable isn't for data, it's only for charging. All syncing has to be done over Bluetooth, or in the case of HD over WiFi.



You can tap the button on the side of the case to see remaining charges.



I'm fairly rough with my regular glasses, and I get them in bulk for backup, so my Spectacles live inside this case unless they're on my face. They can sync from within the case as well.

Retrieving the footage

Video recorded is saved directly to the Spectacles, and then background synced over Bluetooth to your Snapchat app. Video for the day is grouped into a Story, which can either be exported by individual clips, or as a whole.

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Tap the Spectacles circle at the bottom of the screen, and then tap into a memory to view it as a continuous loop of clips.

Click Edit & Send, and you can flick through the clips comprising the story. Tap the Export button on each clip to save the video separately.

You can also click the line icon in the top right to Export Story.

The footage that comes out is 544x544, and 29.97 FPS. It's a decent data rate, so it can be expanded to fit in a 1080 height without too much artifacting. There is the

option to import HD, but that only effects Snaps themselves, and not the exporting of footage (covered on the next page.)



The footage is a circle within a square.

Filming Tips

- Don't wear a hat, and watch the hair. You can see in my clips I've got a wide brimmed hat (to protect from snow), but it bleeds into the clip. Likewise, stray hairs can easily obscure the image. I'd recommend reviewing the footage you're filming every now and then to check for issues.



- Treat your neck like a tripod. Focus on what you're filming, and try to stay still to keep it clear.
- Get as close as is possible. These have wide angle lenses, so anything more than a foot and a half away is going to be more difficult to see.
- Use good lighting. As always, good lighting makes a world of difference.



HD Export Issue

HD Export

In my investigations, I've found that at the moment, you can't export HD footage from the Snapchat App to your phone. What this means is that you're limited to SD footage, at the framerate of 29.97.

While you can certainly see the HD footage within the Snapchat App, only the SD currently exports for download.

I've reached out to Snapchat and they're aware of the bug, so I'll update this once it's resolved.