

Photo by pedrik on Flickr (2016), CC-BY

Easy Online: Document capture to video

Tips for online teaching

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The task

You want to write on paper, and have that writing be captured by a camera while recording a video that you can share later, or while live streaming on video conference. You think you need a document camera, and who knows what kind of complex software to work with it. Well, you don't. You have an excellent camera in your phone!

The tools

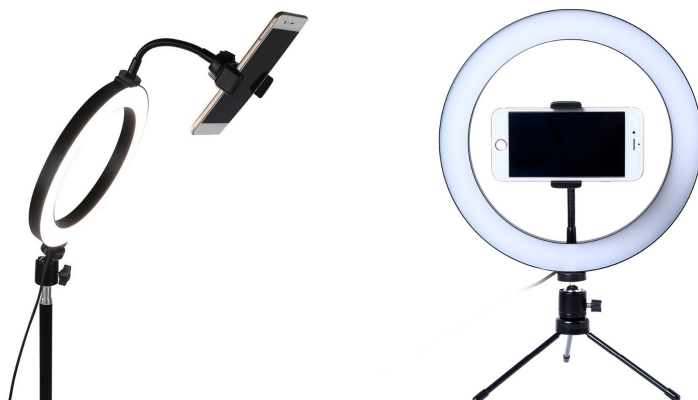
- Your smart phone, with its USB cable
- A phone holder or stand, like those used by vloggers
- A ring light (a.k.a. halo light), with adjustable tripod stand
- QuickTime, Webex, or Zoom.

Do it the easy way

Instead of buying an expensive document camera or other gadget to capture your writings on paper while recording or streaming video, use your smart phone. The key to quality document capture is the lighting. So the only equipment you need to buy is a “selfie” ring light, with a phone stand and tripod. (You can find one in Amazon for less than \$50.)

Set-up

- Ring lights often come with a swivel head: you should be able to adjust the light so it is above the document, illuminating down and at a slight angle towards you. Experiment with a height that is comfortable. If you have desk space, you may use a tabletop tripod.
- The phone can be held outside or inside the ring. Depends on the stand you buy.



Selfie ring lights with phone holder in different positions.

Get ready

These instructions are for an iPhone; other phones have similar gestures and settings:

- Video resolution can be low: 720p HD at 30fps (Settings>Camera>Record Video).
- Rotate phone to landscape mode before setting on the stand.
- Place paper with some test writing underneath, and adjust the camera zoom.
- Lock the camera's focus: tap and hold on the screen until you see “AE/AF LOCK.”
- Adjust exposure: tap and slow-drag up or down to the desired level.
- Remove the test document, and place your clean sheet of paper in its place.

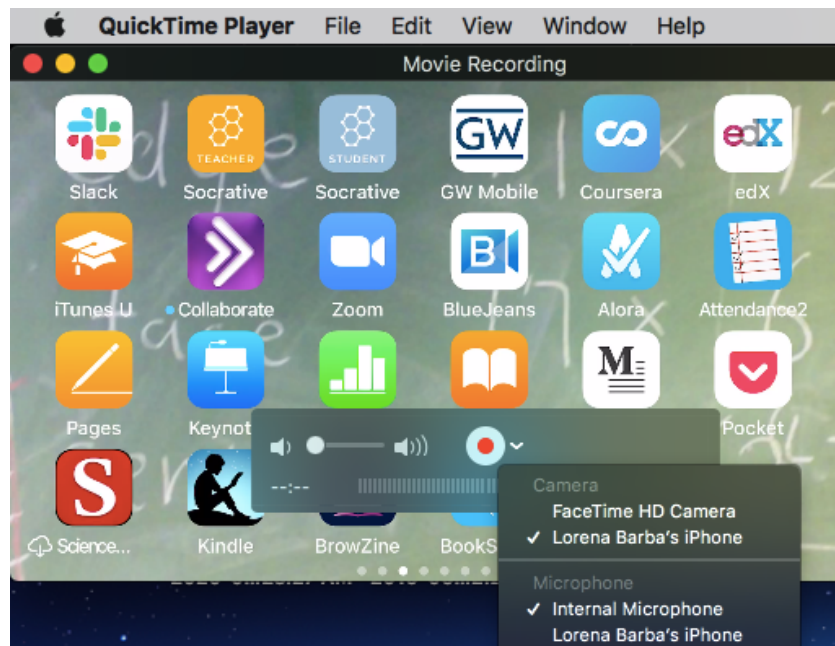
Options for capturing video

QuickTime on iPhone/Mac

You can mirror the iPhone screen on your laptop using QuickTime:

- connect the iPhone to the Mac using the USB cable
- open QuickTime on the Mac, click on File>New Movie Recording
- next to the red record button, click on the down arrow and find the iPhone in the camera list.

You can now record a video to share it later, or you can start a video conference and share your computer screen, showing the mirrored phone screen.



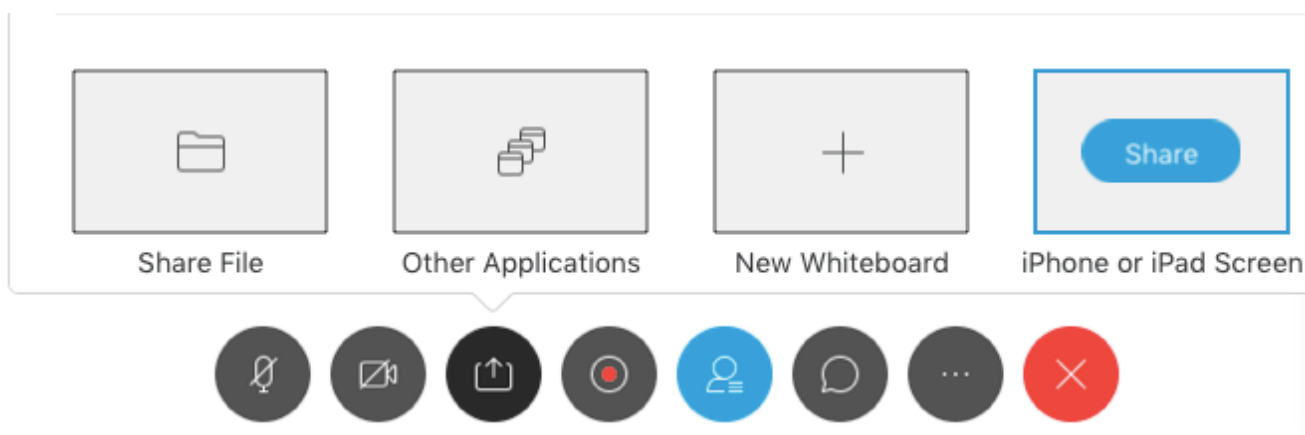
Screenshot of my laptop mirroring the screen of my iPhone via QuickTime. The down arrow next to the record button brings the dialog to choose the phone as video source.

Webex

GW has a subscription to the Webex video-conferencing service: <https://gwu.webex.com/>
You can pre-record a video on Webex to share it later by starting a meeting with just yourself in it, share our screen, and begin recording.

- connect the phone to your laptop using the USB cable
- start your Webex meeting using “My Meetings” or “My Personal Room”
- click the sharing icon (third from left, see screenshot below), then scroll down all the way to find the option to share your phone screen
- with your phone’s camera active and showing your document, start the recording
- begin writing and narrating your work and stop the recording when done

Your recording will appear after some processing time in the “My Recordings” section of your Webex account. One advantage of using Webex like this is that your narrated video will also get automatic captions!



You can also use the Webex mobile app to record the video from your phone, directly. Once logged in using your GW credentials, you can tap the green “Start Meeting” button, then “Start.” Tap the camera icon to start your video, then tap on the three-dots icon to find the option to start recording. No need for a laptop!

Zoom (<https://zoom.us/>) has a very similar way of sharing your phone screen during a meeting, and you can record the meeting with just yourself in it to pre-record a lecture video, in the same way.

Watch this short demo by YouTube user ProfessorNordell [2min37s]:

<https://youtu.be/Q-Rh1B1caFU>