Smartphone Filmmaking Guide
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In 2018, Steven Soderbergh released *Unsane*, a feature length film shot entirely on iPhone. For months, I’d been saving money and applying for grants to support the camera rental for my next documentary project on memory care. As I sat in the theater watching Soderbergh’s iPhone shots projected across the big screen, the world of filmmaking broke wide open. Smartphones are changing access to filmmaking, and I hope this primer on smartphone filmography will enable more medical students and doctors to join in.

*Reality changes; in order to represent it, modes of representation must change.*
- Bertolt Brecht

Smartphone

Use whatever smartphone you have. Documentary requires a readiness to film that bulky equipment sometimes hinders. The beauty of smartphone filmmaking is that it uses something you already carry around all day. One thing to keep in mind, however, is that some accessories are phone specific. If you are planning to get into smartphone filmmaking in a serious way, it could make sense for you to have a separate phone that you use exclusively for filming so there is no unnecessary wear and tear or damage to it. Otherwise, be prepared to invest in new accessories or adapters when you upgrade your phone.
Phones that are currently supported with a wide variety of filming accessories:

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<th>iPhone X/XS</th>
<th>Pixel</th>
<th>Note 8</th>
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<td>iPhone XS Max</td>
<td>Pixel XL</td>
<td>Note 9</td>
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<tr>
<td>iPhone XR</td>
<td>Pixel 2</td>
<td>Galaxy S8</td>
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<tr>
<td>iPhone 8</td>
<td>Pixel 2 XL</td>
<td>Galaxy S8+</td>
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<td>iPhone 8 Plus</td>
<td>Pixel 3</td>
<td>Galaxy S9</td>
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<td>iPhone 7</td>
<td>Pixel 3 XL</td>
<td>Galaxy S9+</td>
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<td>iPhone 7 Plus</td>
<td>Pixel 3a</td>
<td>Galaxy S10</td>
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<td>iPhone 6/6s</td>
<td>Pixel 3a XL</td>
<td>Galaxy S10+</td>
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<tr>
<td>iPhone 6/6s Plus</td>
<td>Pixel 4</td>
<td>OnePlus 6</td>
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<td></td>
<td>Pixel 4 XL</td>
<td>OnePlus 6T</td>
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If your phone isn't on this list, it doesn't mean that you won't be able to use it to film. If you are in the market for a new phone, however, and you plan to explore filmmaking, it may make sense to pick a phone that has a wide variety of filming accessories it is compatible with.

Memory also matters. High quality video footage takes up a lot of storage on your phone. If you want flexibility to film whenever the occasion arises, you'll want to have a phone with adequate storage and create a workflow for regularly transferring your footage from phone to computer (or external hard drive).
Apps

Yes, there is a camera app built into most smartphones, but the true key to having filmic quality smartphone footage is an app with more capability than the native camera app. You want an app that will allow you to have more control over the exposure, focus, and quality of the images you are capturing.

Filmic Pro is the best app I’ve encountered for smartphone filmmaking, and I recommend it for both documentary and scripted work.

The app takes some time to learn, and the quick start guide and user manual are really helpful in acquainting yourself with its capabilities. There are also a wide variety of instructional videos online you can turn to.

Lenses

So you’re all set and filming with Filmic Pro on your smartphone, but how about that cinematic look of movies like Sean Baker’s Tangerine (also shot entirely on iPhone)? That look was thanks to an anamorphic moondog lens. Lenses are what take smartphone filmmaking to the next level.

Two big creators in this field are Moondog and Moment.

Some things to keep in mind:

- Many lenses are phone specific so make sure you are purchasing lenses (or appropriate adaptors for the lenses) compatible with your phone.
- Many lenses require a phone case adaptor or lens mount. For this reason it may make sense to only buy lenses from one company when you start so you only need one adaptor/lens mount.
- Different projects will require different types of lenses.

Here is a brief rundown on some of the types of lenses available and what they can achieve:

Tele: Good for close up shots. Because the iPhone I use already has a wide shot, I tend to use this lens the most. If you are only able to invest in one lens to start, I would start with this lens since it is very versatile.

Wide angle: Good for establishing shots and setting a scene. Allows you to take in a lot and orient your viewer to the setting. This is a good second lens to purchase.
Anamorphic: Cinematic look, 240:1 aspect ratio, enhanced flare effect, oval bokeh. This lens is really fun but definitely a very distinct, artistic look. It also requires extra steps of “de-squeezing” your images. I’d reserve this for once you are familiar with the above two lenses.

Macro: For super up close detailed shots. Think dew drops on a blade of grass.

Fisheye: Fun, point of view, fisheye distortion lens. Most likely the last lens on your list unless you have a very specific project you would like this effect for.

Audio

Audio in film really, really matters. Viewers will be forgiving of grainy, out of focus images here and there. These less than perfect visuals can be interpreted as artistic. Viewers are not forgiving of bad audio, however. Poor audio quality can ruin a beautiful film.

One of the biggest areas for innovation right now is high quality audio recording rigs for iPhone filmmaking. In the meantime, achieving high quality audio, especially when working solo, requires some jerry rigging. Here is what I do:
**Shotgun mic:**

I combine a [shotgun microphone](https://en.wikipedia.org/wiki/Shotgun_microphone) with a [Zoom H1 Recorder](https://www.zoom.co.jp/en/products/h1). This mic is used to capture audio from whoever (or whatever) I am focusing my camera on.

**Wild mic:**

I have a second [Zoom H1 Recorder](https://www.zoom.co.jp/en/products/h1) that I typically use to capture ambient noise. I will either set the recorder to record and place it somewhere in the environment where I am filming or put it in my or a subject's front pocket.

**Native mic:**

I always record sound with my phone while I’m recording video because it allows for audio syncing later.

**Lavalier mic:**

These are very expensive and can be finicky but good for high quality sit-down interviews. I similarly plug the [lavalier](https://en.wikipedia.org/wiki/Lavalier_microphone) into a recorder.
Stabilization

One of the most important pieces of equipment for documentary smartphone filmmaking is a gimbal. A gimbal is a pivoted support that keeps your phone steady even as you move around. I use a DJI Osmo Mobile 2; however, there are newer models available and other brands.

If you are using the gimbal with lenses, you will likely need a counterweight. This is because the added weight from the lens destabilizes the phone in the gimbal.

A grip can also be useful when you need to shoot action shots from lower angles. A grip can also be used in conjunction with a tripod for still shots.

Additional Accessories and Recommendations

Lens Filters: Lens filters allow you to capture images in a more diverse range of lighting. If you are filming outside in bright sunlight they are a must. You will need a filter mount and filters.

Batteries: The zoom recorders require batteries so I use rechargeable Eneloop batteries and charger. Check to verify if your recorder requires AA or AAA batteries.

External hard drive: The files captured via Filmic Pro are high quality and take up a lot of space. Having an external hard drive to store and organize your footage can keep your phone from running out of space. I like LaCies.

Equipment bag: The beauty of smartphone filmmaking is how portable the equipment is. Finding a great bag to protect and transport your gear will make filming easier and ensure you never forget important equipment.

Editing: There’s lots of editing software out there. I personally prefer Adobe Premiere, which is available via a monthly Creative Cloud subscription. If you are a student, check to see if your university already has a contract with Adobe for students to access Creative Cloud for free.
Releases

Finally, laws differ by state and country so I cannot provide specific advice; however, it is important for you to look into laws pertaining to filming where you live. Whether a documentary or a scripted film, draft releases for appearances and locations and gain permission and signatures before filming.

Recommended Starter Kit for Beginners

1) Whatever phone you already have
2) Filmic Pro ($14.99)
3) 58mm Tele Moment Lens ($119.99)
4) Lens Adapter Case ($39.99)
5) DJI Osmo Mobile 2 ($79)
6) Universal Counterweight ($19.99)
7) Zoom H1n Recorder ($119.99)
8) Memory card ($8.49)
9) Shotgun Mic ($59)

All images included in this guide were shot by Bessie Young, MFA, MS.