Smartphone Photography

FOCUSED CAMERA

Introduction

This e-book will cover basic tips and suggestions that can be used no matter which smartphone brand or model you currently own, such as compositional and lighting tips, as well as some basic usage settings and suggestions.

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Smartphone camera
technology has increased
dramatically, to the point
where some theorize that
eventually phone cameras
might overtake traditional
cameras (film, DLSR,
mirrorless). Economically you
can't beat the price of a
smartphone camera when it
comes in a package deal –
phone, computer/internet,
and camera all-in-one.



Smartphones are also extremely convenient and compact so you can always have them with you. Although a smartphone camera will have limitations, as a hobbyist or photography enthusiast, you can get great results with one. So let's get started!

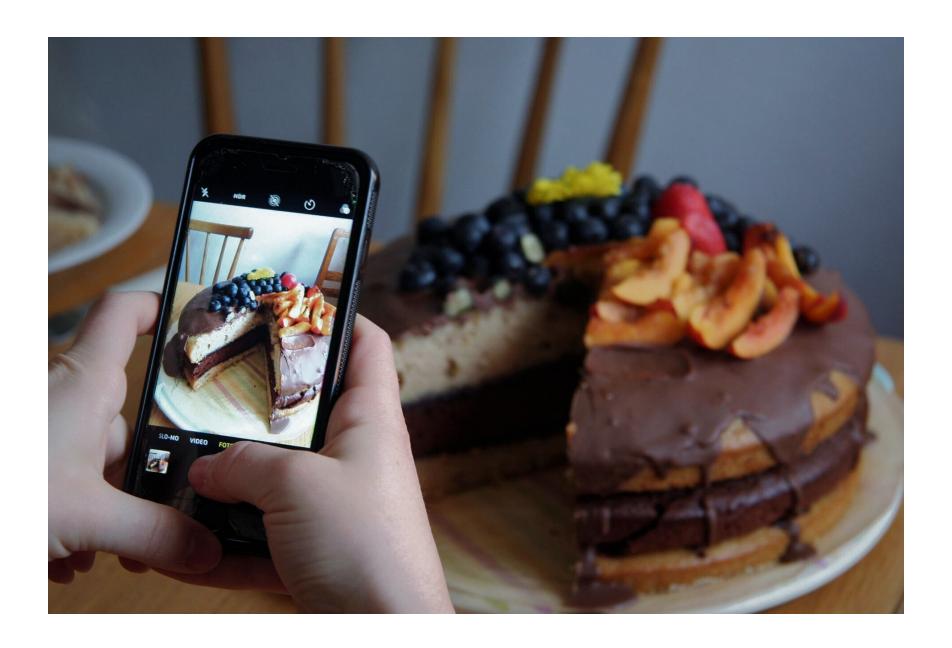
What makes taking photos with your phone camera different than a traditional camera?

The main difference between a smartphone and a DSLR camera is the lenses are built into the phone. On a DSLR you can change out lenses for different types of photography and there are almost limitless options. A smartphone has at least two camera lenses and more recent phones have 3 or more. An older phone or basic phone camera will have the rear-facing camera lens and the front, or selfie lens. A newer or higher-end phone will have the front, or selfie lens, and two or more lenses on the back. The lenses on the back will often consist of an ultra-wide (great for indoors/tight spaces and landscape photos), a wide angle (for day-to-day photos), and a telephoto (a long-distance lens for subjects that are far away making them appear closer such as sports and wildlife). To fulfill the need for more types of lenses for smartphone photography enthusiasts a large number of clip-on lenses are available. So if your phone does not have a lens type you want, chances are you can buy a clip-on lens. There are clip-on lenses for everything from fish-eye to macro (extreme close-up photos) to telephoto (long distance). You can see some excellent examples from a company called Moment available online.

One of the main constraints in smartphone photography is the limited ability to control depth of field. Depth of field is how much blur you have in front of and behind your subject. Portrait photographers especially want the background behind the subject to be blurry and less defined. Depth of field is how they accomplish this effect and it is controlled mainly by the lens and the lens aperture (the size of the opening inside the lens). Smartphones typically do not have mechanical variable aperture controls (hardware). Instead, they opt for software that uses a depth sensor on the camera to mimic the results of changing aperture. Most high-end or recent smartphones have depth sensors called various names ToF, LiDAR, TrueDepth, etc. There are also many free photo editing apps that can be used to add blur and mimic this effect. With these options available there are now wedding photographers that use smartphones!

Another possible limitation of a smartphone camera is the sensor size and the resolution of the image it produces. This is really only an issue if you plan to take your images and enlarge them to huge sizes. Newer phones are producing better and better resolution so this is becoming less of an issue and for most hobbyists it will not be a problem.

The takeaway here is that unless you are a professional, your smartphone is capable of taking amazing photos and the only real limitations are your imagination. How you take the photo will be more important than the type of camera you have.



Are there different ways to frame a subject? How do you handle framing your subject when using a smartphone?

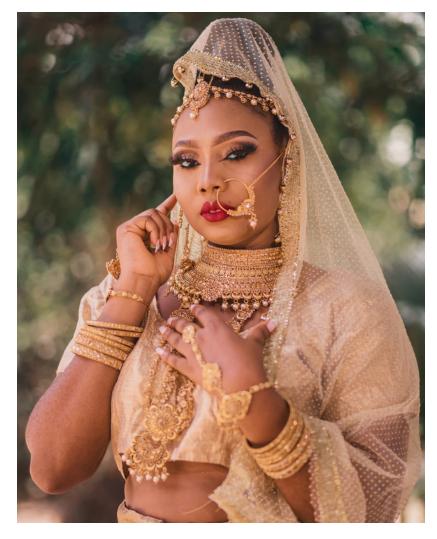
How you take the photo is more important than getting involved with technical aspects. The "how" of taking a photo is called composition. Composition is the art behind a photograph. A photograph will have a much greater chance of being a good photograph when there is some thought put into the process. There are many compositional techniques, but three of the most commonly talked about are foreground/background, rule of thirds, and leading lines.

When setting up to take a photo consider the foreground (area in front of the subject) and the background (area behind the subject). Rotate your position to move left or right to get a pleasing and non-distracting background. Check for any objects or distractions in the foreground that might draw attention away from the subject. If possible put some space between the subject and the background.

In these sample photos notice the shadows on the wall behind the subject in the first photo.

This would have been a much better photo if the bride had been moved away from the wall. It would be even better if it was taken outside in natural light. More on natural light in a minute!





The rule of thirds is another compositional tool that divides the image frame into thirds horizontally and vertically. Most smartphone cameras and camera apps have a way to turn on the rule of thirds grid so you can use it as you take photos. The idea is to put the main subject on one of these lines or the intersection of two of the lines. Using these grid lines can also help you keep your shots level.

The rule of thirds will also help you add negative space to your photos. Negative space is the area around and between subjects and helps your subject stand out. Unless the subject fills the frame, it is best to leave some negative space or "breathing room" around vour subject. Many photographers suggest 1/3 of the photo should be the subject and two-thirds should be negative space. The rule of thirds can help you accomplish this.



Another common compositional technique is leading lines, especially in landscape photography. Leading lines are natural or human-created "lines" that lead the eyes into or through a photo. They create a sense of depth. A wooden pier leading out into the ocean is a good example. A path going into the woods is another. Leading lines are everywhere – rows of books, fences, roads, staircases, telephone poles and wires, etc. Once you start looking for them you will see them everywhere!

If you want to learn more about composition there are many excellent resources. One of the best ways to study composition is to study the master painters. There are hundreds of years of examples and expertise from these men and women. Trying to copy one of their works in photographic form is a terrific way to practice and hone your compositional skills. Additionally, we offer a 30-day Composition Lesson book for a 1-month crash course in the basics of photographic composition.

What are some actionable things people should keep in mind when taking a photo on their smartphone?

One important aspect of phone photography to keep in mind when you are shooting is that the cameras are offset. They are not in the center of the back of the phone. This means that if you rotate the camera in the other direction or even upside down you can get totally different viewpoints.

Lesson number one is to change perspective! A new or unique angle can make the subject stand out and make the image more memorable. You can do this by rotating the camera or holding the camera higher or lower as well. Getting higher or lower can also create the illusion of depth or emphasize the size of the subject. In the photo below this section, I wanted something unique, so I stuck the camera corner "inside" a hydrangea bloom.



Another aspect of your phone camera is its automatic focus. It tends to automatically focus on the foreground of your image. However, there will be times when the subject is not in the foreground. It is a good idea to learn how to "manually" focus on the subject. On most camera apps you tap where you want the focus point to be.

Don't be a "lazy photographer" as industry professionals call it. This means don't stand in one place and take photos from the same height, same distance, and same orientation all the time. Zoom with your feet! It is tempting to use the zoom feature of the camera (and sometimes it is the only option), but whenever possible let your feet take you closer. If you cannot get closer (say it's a grizzly bear), then you are actually better off keeping your distance but still do not use the zoom. Take the photo from a distance at regular size. Later use an editing app and crop the image to frame up the subject. Most digital cameras use a digital zoom which can make your photos look pixelated. Cropping the original size file will more often give you better quality.

How do you handle lighting? How do you know if you need the flash?

It would be difficult to find a great smartphone photo with flash. Flashes are harsh and the subject often looks washed out or overexposed. It alters color too. Whenever possible, natural lighting is preferable and keep the flash on the phone set to off.

The best natural light is bright, but indirect light. Indoors this could be near a window, but not directly in a beam of sunlight.

Outdoors this could be early morning or early evening, a sunny but overcast day, or a bright sunny day in the shade (avoid dappled shade). Indirect light is flattering on most subjects from people to flowers and won't create harsh shadows.



This does not mean you should never use the flash. In a well-lit situation, the flash can help as a fill-in for shadows under or behind the subject. If you see shadows you want to eliminate, turn your camera flash on for that shot, and then turn it off again.

Your phone's flash will seldom be helpful at night. The flash will not be strong enough or it will look uneven and unnatural.

When you have a situation where you think you might need a flash, try setting the camera's exposure manually. Tap your screen to focus on the subject. This tapping action will also automatically set the exposure and it will also bring up a little icon (usually looks like a sun) and a scale. Swipe up or down on this scale to brighten or darken respectively.

If, despite your best efforts, you have an over- or underexposed photo, you can try to fix it by using the exposure tool in photo editing apps. Just don't overdo it or your image may look grainy and pixelated.

Should you use the "selfie" camera? Will that affect quality?

The selfie or rear-facing camera lens is usually a lower megapixel resolution. Therefore photos taken with it will not have the same image quality as the photos you take with the rear-facing camera lenses.

I only recommend using the selfie camera when there is absolutely no other way to get a photo of yourself, or yourself and the surroundings. If you are at a tourist-type location, find another group of people and offer to take their group photo, then ask if they will take yours for you.

Of course, selfies can be fun and there may be no other option, so if you want to use this camera lens, go for it! It is better to have the image in a little lower quality than no image at all.

Should you use any special photo settings? If your phone has different modes like portrait mode, should you use them?

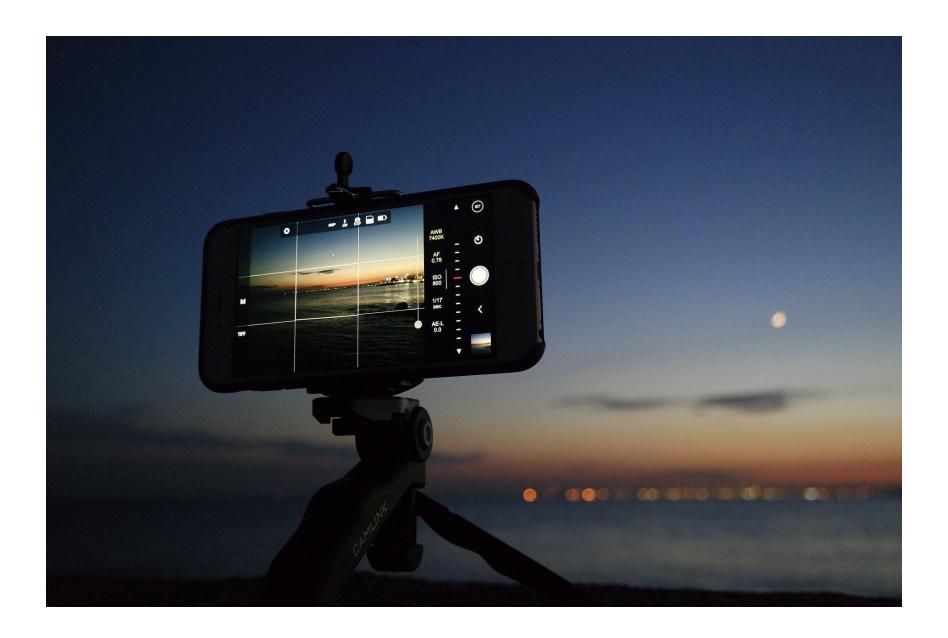
Modes can be helpful if your camera app offers them. By selecting a mode you are giving the smartphone a "clue" as to the subject and what to prioritize. If you select landscape mode, the software will turn off any blur effects and give you the best range of focus using the best camera lens from its available options to help you capture a wide vista.

If you select portrait mode (which can be good for pets, flowers, and any other singular subject that is not moving), then the camera will select a more flattering lens for people (not super wide angle) and the software may offer more blur behind the subject.



Many cameras offer an HDR mode. HDR stands for high dynamic range. Dynamic range is the ratio of light to dark in a photograph. Our eyes are capable of high dynamic range – more capable than any camera or smartphone – so the purpose of HDR is to create an image that looks more like what your eyes see than what the camera actually sees. In HDR mode, the smartphone takes three photos. These three photos are at three different exposures – one standard, one brighter, and one darker. It then puts these three photos together into one photo, melding the best parts of each together. This is a great mode to use for low-light or backlit images, photos in bright sunlight (it can even out highlights and harsh shadows), and landscapes. It does not work well with moving subjects (since it takes three photos the resulting compiled photo will be blurry). It also does not work well when you intentionally want high contrast or vivid colors. The HDR feature will reduce contrast and if colors are already saturated it will make them look washed out.

Smartphone cameras may also offer a "night mode." Night photography can be very tricky and requires knowing a lot of settings and technical aspects of photography when using a traditional camera. Therefore, for amateurs and enthusiasts, a smartphone camera can be an excellent choice for any low-light situation and in some cases can produce better photos than that person might be able to produce with a traditional DSLR (until they have learned the settings/technical tricks for night photos, at which point the DSLR or mirrorless would be a superior choice).



Panorama mode is another option on many smartphones. As you move your phone camera you can create extra wide images. You can also turn your camera sideways and use this feature to create extra tall images (like skyscrapers) as well. The most difficult part of this process is moving the camera along at a consistent and steady pace. The resulting image should be satisfactory for an enthusiast; however, to truly get a crisp high-resolution panorama you are better off using a DSLR (or your phone) to take multiple images across the scene and then stitch them together in an editing program. Many editing programs can do this automatically with just a few steps.



A few more quick tips!

Have a fast-moving subject? Hold down the button when you take the photo and it will take a burst of images. You have better chances of getting a good shot!

Take a lot of photos and don't have a lot of storage on your phone? Consider uploading them to cloud storage sites. There are many that offer storage (some up to 1TB) for free before you have to start paying fees.

Carry your phone with you everywhere? Your phone camera lenses will get dirty in that pocket or down in your bag. Keep a cleaning cloth or camera lint cloth in your pocket too. Do not use your clothing; it might scratch your lens! Clean off lint, dirt, and smudges before you take your photos so you get the best image quality.

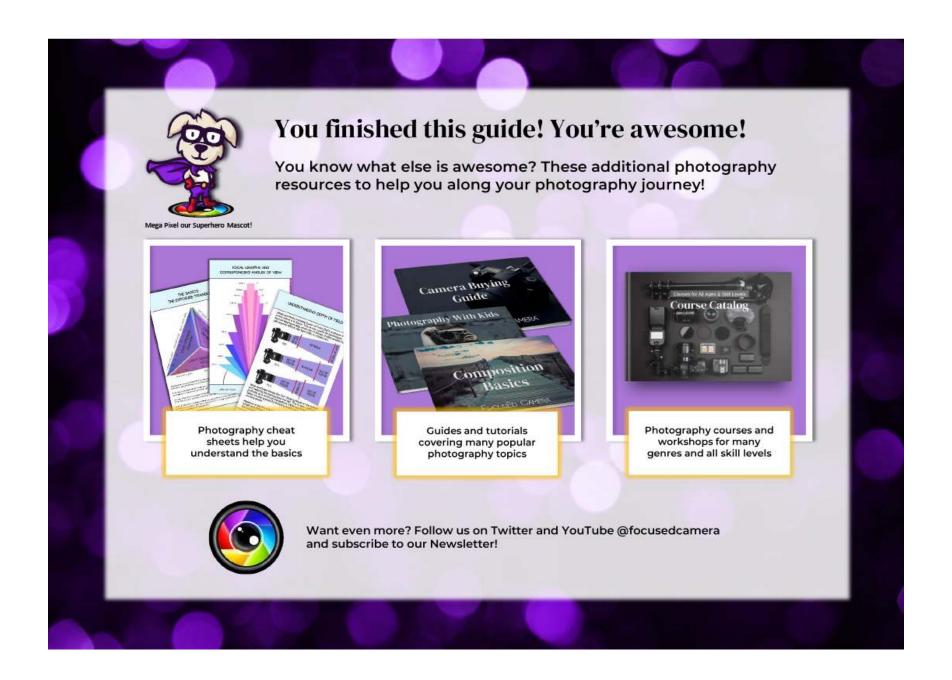
Worried that editing your photos is "cheating?" It's not. In the days of darkroom photography, editing of a photo was done by dodging and burning as well as other techniques. Editing your photos is not cheating, just don't overdo that saturation slider!

And the "best" tip of all for any type of photographer who wants to improve?

Practice! Practice! Practice! Take photos daily and remember that even mundane subjects (like your breakfast) can be fun if you put some imagination into how you photograph it. For example, this image here is 1/2 a blueberry on a purple sticky note, then edited in Photoshop. If you need ideas do a search online for "photography prompts" and you will see lots of ideas. FocusEd Camera has created a year's worth of photography prompts in calendar form.



Overall, a smartphone can be an excellent way to get into photography as a hobby and if you already use your phone for photography it is easy to take some simple steps to up your game. Remember, the only real limitation is your imagination so get out there, take some photos, and don't be afraid to experiment!



About the Author

Cheryl Ritzel, founder of FocusEd Camera, is an esteemed instructional coach. Her exceptional talents have garnered recognition and accolades throughout her career. Cheryl's company and her remarkable work have been featured in prestigious publications such as ICM Magazine, Business Insider, Dogster, Spectrum News, and Yahoo News, and on the social media channels of Lensbaby, Canon, and Adaptalux.



You don't need a fancy camera to get started with photography.

Smartphone camera technology has increased dramatically, to the point where some theorize that eventually phone cameras might overtake traditional cameras. Smartphones are extremely convenient and compact so you can always have them with you. Although a smartphone camera will have limitations, as a hobbyist or photography enthusiast, you can get great results with one.

This e-book will give you tips and tricks to get the best photos from your smartphone regardless of brand or model.