

SMARTPHONE PHOTOGRAPHY (GET THE MOST FROM YOUR PHONE)

BY

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INTRODUCTION

INTRODUCTION TO SMARTPHONE PHOTOGRAPHY

Ever since the original iPhone came out and totally changed the way we take photos, smartphones have been the go-to camera for the vast majority of amateur photographers. Even enthusiasts and pros are turning more to their smartphones to take photos for sharing purposes – and even to sell. Online magazines, blogs, and certainly social media platforms like Instagram celebrate this type of work, and plenty of people are cashing in on the tremendous popularity of mobile photography.

Certainly, not everyone with a smartphone is going to enjoy social media fame and have money rolling in as a result of the images they take. However, as mobile phone cameras become increasingly packed with features and third-party companies continue to create innovative add-on products to increase the functionality of smartphone cameras, everyday people can begin to take better photos, more often.

You Take More Pictures

Perhaps the greatest convenience of photography with your mobile phone is that your camera is always with you. Having your camera with you at all times means you have more opportunities to shoot. The more you shoot, the better you become, plain and simple! The more you pull out your phone and take photos, the faster your skills will improve.

This is especially true of one of the fundamentals of photography: composition. Sure, your phone camera is not as powerful as your Nikon D810, but that does not mean that you cannot practice the basics of taking a high-quality photo with your phone. In fact, mobile phones are the ideal tool for practicing composition because they are limited (compared to full-sized cameras) in their technical features. That means that you are forced to rely on your photographer eye to compose great photos. You are more apt to look for elements like light and shadow, colors and contrasts, and lines and textures that enhance the visual appeal of your images. That is a good thing!

Feedback is Abundant

A second benefit of using your mobile phone to learn photography is that it is easy to get feedback. Snap a photo and immediately show it to your friends to see what they think. Do a little post-processing, upload it to Flickr, Twitter, or Instagram, and see what your followers think of your work. Heck, you can even solicit feedback from your photography idols – just tag them in one of your posts and see if they respond with any pointers.

Beyond the ease with which you can get feedback, mobile phones allow you to easily connect with others who are interested in photography. Sure, the feedback, likes, shares, and comments are nice, but that consistent interaction with other photographers makes it easier for you to learn and grow as a photographer, not to mention be more consistent with taking and sharing your photos. Simply put, smartphone photography helps you engage with others and ignites your passion for photography in a way that is difficult to do with a traditional camera system.

Accessories Enhance Your Phone Capabilities

When mobile photography first became a thing, we were relegated to using low-quality cameras that had little or no functions or features beyond actually recording the image. That is not the case today.

Now, you can buy just about any accessory you can think of that makes your smartphone more like a big boy camera. You can get cases that make your phone more ergonomic and easy to handle. There are countless tripods and mounting systems that allow you to keep your phone steady for things like time-lapse videos and long exposures. You can even get an external flash for your phone that gets you better low-light performance.

Where smartphone accessories really shine, however, is in the vast array of lenses that are available for them today. Like any accessory, you get what you pay for. Unsurprisingly, cheap lenses produce cheap results. High-quality smartphone lenses, on the other hand, produce sharp, clear results that give DSLRs a run for their money.

Final Thoughts

If you are serious about improving your photography, consider the benefits that shooting with your mobile phone offers you. Not only is it more convenient to take photos, but you will practice your skills more and be able to get feedback on your photos

easier and more quickly too. Combined with high-quality accessories like Sirui mobile phone lenses, you are sure to see improvement in the quality of the photos you create.

CHAPTER ONE

THE BEGINNER'S GUIDE TO SMARTPHONE PHOTOGRAPHY

Photography has never been more accessible: people are constantly snapping shots. But taking great photos doesn't have to be a massive investment. With so many people owning smartphones or tablets, you can use the materials you already have to take great shots.

From nature to portraits, it's all possible with smartphones

Before You Snap the Shot

1) Frame the shot

Seems self-explanatory, but taking a bit of time to think about what you want inside the image can be HUGE. For instance, with landscape, is there anything you can include to help show the size?

Another trick is the rule of thirds. Imagine your photo as a blank canvas divided into parts: three horizontally, and three vertically. This 3x3 grid can help you frame it dynamically. Our natural inclination is to put the main object front and center. But when it's so centered, your eye sits there. Like a lazy couch potato, your eye doesn't move around the page. So the photo feels less dynamic, less interesting to look at.

But what if you shift the subject to the left or right side of the frame? Suddenly, your eye has to work out a little around the frame. Being off-center, there's a dynamism to your photo. Now the rule of thirds can be manipulated by cropping your photo afterwards. But taking a few minutes to play with how you set up the frame can make your edits afterward a lot easier.

2) Focus on the light

Okay, there's nothing more annoying than a cute group shot...blinded by a back light. And certain family members (who shall remain nameless) love taking photos with light in the background. What we often don't realize is how awesome our own eyes are focusing and seeing the contrast between shadow and light. Cameras are getting better, but they are no substitute. And they struggle with backlight.

So please, look around: Ask yourself, Where is the light coming from? Is the sun shining behind what you want to focus on? Which way are shadows falling? If shadows are falling towards you, move so the light is behind you.

The light is your friend, but you have to move with it.

The other issue with light: clashing kinds of light. Indoor lighting is often a lot warmer than natural light. If you take a shot with both kinds of light, you may get a weird mixture of blue and yellow, which almost never looks good. If you can, try to capture only one kind of light. Can't make it work? Take the photo into black and white, so you can avoid dealing with color all together.

Okay, but what if you're trying to capture a sunset or a candle? Be sure that your phone is focusing on the light, a tap on-screen to where the sunlight is can ensure the shot isn't overexposed.

Light is one of my favorite parts of photography, it's so hard to capture in any other medium. If you work with the light, you can show off so many beautiful things we see daily.

3) Tap for focus

So often, we just pull up the camera on our phones and snap! All done. Those little cameras can be pretty smart, and autofocus can be useful to figure out lighting for us. However, that isn't always the case.

Help your small camera out: Tap on your subject. That helps the camera know what you want to focus on, and can ensure you get the right amount of exposure/light on the image.

Feel like it's too dark or light? Sometimes, I'll tap on other areas of the screen that are lighter or darker, depending on what I'm trying to do. This helps the camera adjust so my shots come out better.

This too can be fixed a bit with post editing, but it's easier to tweak if you're closer to what you want.

After You Click: Post Editing

Hopefully, if you follow the above tips, you won't have to do as much post editing. If you're looking for apps with post editing ability, here are some functions you should look for:

Cropping: or an ability to trim down the image.

Tilt: I'm not always a straight shot, this helps ensure I get straight lines and a cleaner finish.

Exposure: Critical for lighting touch ups.

Highlight/Shadow: Sometimes you don't want to change the overall lighting, but you want to bring down the highlights, or shadows. Looking for apps that allow you to change only the ends of the spectrum can be super helpful techniques, especially for glare or ultra-dark parts of the photo.

CHAPTER TWO

10 TIPS FOR GOOD SMARTPHONE PHOTOGRAPHY

1 Know Your Auto Mode

Knowing how the automatic shooting mode on your smartphone camera works can greatly help you take good photos. Take the time to learn when it uses high ISOs, when it uses long shutter speeds, and adjust how you take photos accordingly. It especially helps to know when you decide to:

2 Override the Defaults

Smartphones can be pretty good when it comes to choosing settings, but not always. Metering can sometimes be pretty shoddy indoors and in cloudy conditions, which is where overriding some of the settings can come in handy.

If you think the white balance is off, change it. If the photo is underexposed, use the sliders found in most camera applications to boost it. If you'd prefer grain to blur, up the ISO used by the camera manually. Don't forget about the flash either, which is sometimes necessary.

If center-weighted metering isn't providing the right results, you might also consider switching to spot-metering, which some cameras allow you to do. Center-weighted looks at the entire image and meters according to what it sees, with a preference on the center

of the frame. When shooting subjects off-center, it can be a good idea to switch to spot metering so the area around the ‘spot’ you select is exposed perfectly.

3 Use Good Posture (or Even a Tripod)

A key method for reducing blur is knowing how to hold a smartphone camera in a stable way. Holding your arms outstretched or far away from your body can make them sway more when photographing. Moving your elbows into the sides of your body can give a bit of extra stability where needed, as can physically resting the smartphone on a stable object.

If you want perfect stability, it is possible to get a tripod attachment that you can slot your smartphone into. You’ll probably look a bit silly bringing a tripod out and about to use with your phone, but I have seen and achieved myself some fantastic shots with a tripod in hand.

4 Harness HDR Mode

Dynamic range – the range of light intensities a camera can capture in the one photo while preserving detail – tends to be a weak point in smartphone cameras. In scenes with both dark and bright areas, such as a shadowed forest, it’s difficult to capture detail in the shadows and highlights at the same time. This is where HDR mode, or high dynamic range mode, comes into play.

HDR mode takes two images of different exposures near-simultaneously, and then combines them to produce one image that has higher dynamic range than the sensor can normally achieve. On most smartphones, this is something you can and should enable when the scene you’re photographing has widely varying contrast. The difference in photos can be vast, especially on Samsung smartphones where the HDR mode is particularly effective.

HDR mode should not be used all the time, though. As it has to take two photos and combine them, trying to photograph a fast-moving subject in HDR mode can lead to nasty ghosting and other unwanted effects. Using HDR mode in darker conditions can also introduce blur, merely from the combination of two images with slow shutter speeds.

5 Use the Whole Sensor

Something that really irks me about smartphone OEMs is their choice to always default to a 16:9 image capture ratio even if the sensor itself is not 16:9. You won't have to do anything if you have a smartphone with a 16:9 sensor like the Galaxy S5 or HTC One M8, but if you don't, switching back to standard 4:3 can be beneficial.

Shooting in 4:3 on a 4:3 sensor not only gives you access to the full resolution of the camera, but it still allows you to crop down to 16:9 after the fact with more pixels to play with. Didn't frame the shot perfectly the first time? Well if you were shooting in 4:3 and using the whole sensor, you might be able to get a better photo out of your shot.

6 Edit

The final piece of the puzzle that often stops a photo captured with a smartphone from looking truly awesome is the post-processing stage. All the detail and necessary information has been captured, but it may not look as vibrant as you were after, or as sharp, or as beautiful.

It's easy to fix this: chuck the photo in an editing program on your computer, like Lightroom, or even use an app on the device itself and begin playing around. After moving a few sliders and ticking a few boxes, the results might astound you and your friends.

7 Check the App Store

You don't have to use the default camera application on your smartphone. Check the Google Play Store, App Store or Windows Phone Store on your respective device and look for a standout camera app. Look online to see what people are saying, because there are some gems out there that can add features and controls to the smartphone photography experience.

Camera Zoom FX, as silly as it may sound, is a really solid camera replacement for Android devices. If you're using a Windows Phone and it's made by Nokia, make sure you're using Nokia Camera. As for iOS, Camera+ and ProCamera are some applications to consider.

8 Never Zoom

Most smartphone cameras have the ability to zoom in while taking a photo. As the overwhelming majority of smartphones don't have an optical zoom module, this zoom feature digitally zooms, simply enlarging and cropping the output from the sensor before the photo is captured. To get the best photos from your camera, never use the zoom feature.

Zooming before capturing does not allow you to reframe the image after the fact: you're essentially losing data and reducing quality with no way backwards. Yes, the image will appear to show a picture in the distance closer than it would otherwise. However, you can very easily take the photo without zooming first, and then crop it afterwards. Taking the photo without zooming provides flexibility and the ability to change your mind later.

9 Go Macro

Smartphone cameras don't have the best bokeh from their wide-angle lenses, meaning it's hard to achieve DSLR-like background blur with medium range shots (unless you have some fancy tools like the Duo Camera on the HTC One M8). How do you achieve that pleasant blur? Simply get closer to the subject of your shot, utilizing the close macro range of the focus system.

Some of the best photos I've achieved with a smartphone have been macro-style, using the small amount of bokeh that's achievable to my advantage. On a f/2.4 camera system, like the LG G2 or Nokia Lumia 930, don't expect anything incredible; but if you're blessed with an f/2.0 system such as the Sony Xperia Z2, results can be surprising.

10 Light It Right

If you want to get serious about smartphone photography, it's crucial that your photos are lit well. Small sensors typically found in phones are not very capable when lighting gets poor, so it's always best to ensure your subject is well-lit when taking a shot. If you

can use your camera at ISO 100 or lower, you'll see less grain in the resultant image, and photos will look clearer and more impressive.

One way to achieve better lighting for your smartphone photos is to get strong artificial lights, but this probably isn't practical or worth it considering it's not a DSLR. The flash also tends not to be so great, so you can rule that out as well. This leaves natural light as the best source, and there are a few tips to getting the best shots in the lighting you have.

Like when photographing with any camera, ideally the sun should be behind the camera's lens, shining light onto the subject without entering the lens directly. Pointing a camera towards the sun will cause shadowing and a loss of contrast, so try not to do so unless you want the artistic effect. In cloudy conditions the sun can be diffused throughout the sky, so avoid shooting up to the sky if it's not a sunny day.

As mentioned earlier, it might also be worth exploring spot metering to get the exposure just right, especially when there's strong backlighting. Ideally you would not be shooting when there's strong backlighting as smartphone cameras typically have weak dynamic range, but sometimes it's necessary. And sometimes you can experiment with reflective surfaces to get light in just the right positions: often a simple white piece of paper will suffice at directing light from the sun (or an artificial light) on to your subject.

CHAPTER THREE

PHOTO TIPS: 10 WAYS TO TAKE BETTER PHOTOS WITH YOUR SMARTPHONE

A good photo is a good photo -no matter what device it's taken with

The rally cry of “get a real camera” can be heard echoing through the rafters of comment sections for many websites. We think everyone should have a dedicated camera, but a good photo is a good photo, regardless of the gear used to take it. Camera phones have some inherent strengths and weaknesses, and by emphasizing the good and downplaying the bad, you can take silence naysayers before they can get to the enter key. Here are some things to keep in mind when firing up the photo app on your iPhone, Droid, Lumia or whatever.

Crop, Don't Zoom

Many smartphone cameras offer a digital zoom function, but you're almost always best served by pretending it doesn't exist. Even in the live-view preview, you'll be able to see how noticeably your images degrade the second you start to zoom. The camera is simply extrapolating what's already there. It basically guesses what the image looks like. It gets ugly fast.

When you're cropping, however, you're actually just sampling pixel info that was actually recorded. Many smartphones have 8-megapixels of resolution and sometimes more. That means you can crop substantially and still have plenty of resolution left for display on the web. And the lack of gross upscaling artifacts will help mask the fact that it was taken with a phone.

Edit, Don't Filter

A screen grab from inside the SnapSeed app. It gives you actual image editing options rather than trying to cover up flaws with heavy vignetting or unnatural midtone contrast.

If you want your images to be unique, the last thing you should do is paint them with the same filters that literally millions of other people are using. For the record, I'm not anti-Instagram. I think the sharing element is fantastic, but the pre-determined "retro" washes are played out. And that goes for every other app slinging the same stuff.

I suggest getting a full-on image editing app like the excellent SnapSeed, Photoshop Express, or iPhoto. They'll let you make reasonable adjustments, like contrast, sharpness, and color temperature. Stuff you'd actually do with images from your big camera. It's also not crazy to dump your images into Lightroom or another piece of editing software if you don't feel the need to share them right away. OK, it's a little crazy, but people do it.

It's with this decision that you can actually begin to choose your own style, or even extend the style you've already developed outside of your smartphone. It's a heck of a lot more effective than picking your favorite Hipstamatic filter and slapping it on every photo.

Don't Add Fake Blur

The depth of field will always be one of the biggest challenges for a smartphone camera. Wide angle lenses and tiny sensors make any substantial background blur difficult to achieve. But faking it almost always makes things worse.

First, blur added with an editing app is usually applied uniformly across most of the frame. That's not the way a lens works, so it looks unnatural.

Second, it's hard to be precise when selecting the object you want in focus so you can end up with harsh transitions from sharp to blurry. It's distracting and a dead give away that you've been messing with the image.

If you want the viewer to focus on one specific thing, make it the central object in the frame. Try to keep your backgrounds as simple as possible, even if it means asking your subjects to turn around or move a few steps back. It's worth it.

Pick a Better Camera App

This one applies more to iPhone users than Android users, but in any case, the goal is more control. There are a couple of standard choices in this category and any of them will treat you better than the stock camera app. I like Camera Awesome (made by SmugMug) because it allows you to shoot in bursts and separates the AF lock from the exposure lock. It's also free. Other apps like Camera+ have similar options for more controlled shooting.

Whatever you pick, it's worth it to spend a little time really getting used to it. It seems silly to take out your phone and practice taking pictures, but you'll be glad you did it if

you manage to catch a great shot while others are still flipping through pages of apps or trying to turn off their stupid flash.

Ditch The Flash

The problem with many smartphone flashes is that they don't actually, well, flash. They're glorified LED flashlights, thrust into a duty they're not fully prepared for. They are bright, but the color temperature can be gross and they miss one of the primary duties of a strobe: freezing the action in the frame. The actual "flash" duration is much too long, so you end up with an image that's both blurry and terribly-lit. Not to mention how close it is to the lens, which makes those horrible demon eyes almost a given.

So, what do you do in the dark, then? Unfortunately, even with advances like Nokia's nifty PureView technology, there's only so far you can push a smartphone sensor in low-light. Often, your best bet is to seek out another light source. It likely won't be perfect or even flattering, but it can be interesting. In a dark bar? Look for a neon sign or a bright juke box. At a concert? Wait until one of the wacky swinging stage lights makes its way over to your area. Photography is about creativity after all.

If it comes right down to it, though, getting a bad flash picture can be better than getting no picture at all if you just want to remember a moment.

Keep Your Lens Clean

Your pocket is not a clean place, and the grime that lives within loves to glom onto your smartphone camera lens. The result are hazy, dark images that won't look good no matter how many retro filters you slap on them.

The lenses are now remarkably tough, so giving them a quick wipe with a soft cloth can't hurt (and your T-shirt will do OK in a pinch, but try not to make a habit of it). Once in a while, it's worth the effort to break out the lens cleaning solution and really get the grime off of it. It may not look dirty and you might not even notice it in your photos, but often a deep clean will make a difference.

Watch The Lens Flare.

Adding lens flare is another trend in mobile photography right now that's getting more overdone by the minute. But, this one can actually work for you if you do it the natural way. The tiny lenses are often more prone to wacky light effects than their full-sized

counterparts, so you can really play it up if you want to. A silhouette with a bright, flaring background can actually look very stylish.

If you want to control the flare in your shot, move the sun (or whatever bright light source is causing the refraction-based mayhem) around in the frame. As you get closer to the edge, you'll often see the flare spread out and become more prominent. This is especially true with the new iPhone 5, which is also prone to image-ruining purple fringing that should be avoided if possible.

You can also cup your hand around the lens in order to make a DIY lens hood, which will cut down on the amount of flare if the light source happens to be out to the side of the frame. It may even be able to get rid of it all together.

Make Prints

There's a disconnect that exists between digital and analog photography at the moment. Many photo enthusiasts barely make prints anymore, if at all. Putting photos to paper makes them tangible and take away some of the assumptions people often make when looking at photos online.

It sounds a bit crazy, I know, but I've found it to be true. Give it a try. Chances are, if the photo is good, you'll get the whole "you took this with your phone?" reaction that you're looking for.

Don't Forget The Rules Of Photography

Just because the camera can also make calls, doesn't mean you should ignore everything you know about balanced composition and expressive lighting. If you need to keep the rule of thirds or golden ratio layover on your screen at all times to help remind you, certainly turn it on.

CHAPTER FOUR

10 TIPS TO HELP IMPROVE YOUR SMARTPHONE PHOTOGRAPHY

The camera phone has changed the notion of traditional photography, mostly because it is easier to carry around a camera phone that fits in your pocket than it is to lug around the much bulkier DSLR. This phenomenon has brought about an influx of photo-sharing and photo-editing apps, and has probably had a hand in changing how professional photographers and photojournalists work.

Most of us underestimate the capabilities of our smartphone cameras; after all we understand little more about smartphone cameras than the megapixels it can take. In fact, by tweaking the settings, angle and lighting, plus the use of multi-featured apps and tools, you might be able to snap more interesting and beautiful pictures that capture the essence of the moment than you can with a camera.

In this post, we will look into a few handy tips that help improve your smartphone photography. Feel free to add your own tip in the comments section.

1. Know your phone camera settings

First off, don't rely on your phone's default auto mode. Of course, tapping on where you want the phone to focus on will give you a sharper focus on the subject. However, you can improve the overall quality of your images by tweaking the other aspects in an image. Although different phones have different settings, most should be able to let you control the focus, exposure, white balance and ISO.

Phone camera settings

Note that some cameras lock both the exposure and focus together so depending on where you focus, you may change the lighting of your photo. As for white balance, there are four settings to choose from. It is best to match them according to the environment you are shooting to light up your photos better.

For example, Cloudy and Daylight are more suitable for outdoor shoots whereas Fluorescent and Incandescent are used indoors. That said, you can choose to mix them up to create different tones and moods.

2. Set your resolution to high

It goes without saying that the higher the resolution of your photo, the better quality it is. When taking images with a smartphone camera, try to go as close as possible to the subject rather than zooming in when you take a shot. You will get better-resolution photos cropped than zoomed in.

Of course, with higher resolution photos, you come across the problem of having enough storage to store them all. You can solve this by storing your photos externally, rather than in your phone. Try photo-sharing apps or cloud storage services like Picasa or Dropbox, or you can even consider getting an Eyefi SD card to automatically do the photo transfers for you, via an Internet connection.

3. Yes back camera, No front Camera

Sure, the front camera makes it easier to take your selfies. It, however, doesn't eliminate the fact that the front camera in general has lower resolution specs than the back. This is mainly because the back camera is better equipped with more megapixels whereas the front camera's function is supposed to be for video conferencing.

Then again, why not use both? Frontback is an app that lets you take photos with both the front camera and the back camera. This allows the photo-taker to be in the activity alongside everyone else.

4. Lenses are the windows to your soul

You take all your photos through lenses so yes, they are integral to the photo-taking process. When you store your smartphone in your pocket or bags, your lenses are bound to get some dust on them. Give your phone camera lens a wipe every now to clear any grime or fingerprint stains. You might be surprised with what a simple act of cleaning can do to your pictures.

Lenses

To get more out of your phone camera, try attachable lenses. They give you special effects like macro or fish-eye shots, and all you have to do is snap one on top of your camera lens. Photojojo stocks a lens series compatible for both iPhone and Android, and you can find more choices from INK361 and Brando.

5. Tripods & Monopods got your back

Your phone camera's stabilizing function can only do so much and if you have ever been frustrated by a blurred snap, you will appreciate the clarity afforded to you by tripods and monopods. Tripods are great for shooting in slow-shutter speeds, whereas the monopod is a single long staff that lets you take a shot (usually of yourself) from a distance away – perfect for selfies.

Monopods

Most phone tripods are small and portable like the GorillaPod and Slingshot so you can always bring it on the go. There are also tripods which you can wrap around poles and bars to let you take photos from an impossible angle. For monopods, you can check out the lightweight and extendable Cellfie.

6. Go towards the light

One of the biggest problems with taking photos indoors is the lack of natural lighting. The right amount of lighting can make food look more appetizing, facial expressions more cheerful and environments more welcoming. As much as possible, try to take your photos under natural lighting. You can do this by going near windows or doors when taking photos indoors, and to sources of light like neon signs or street lamps when snapping photos outdoors.

light

Additionally, do keep in mind where your source of lighting is coming from. The general rules on lighting are the same here as it is in traditional photography – avoid back light when taking pictures of people unless you want to go for the silhouette effect. If you shoot your subject using side light, it can capture texture and depth.

While we are on the subject of low light photography, don't use flash. The camera flash you have on your phone is almost always too harsh and rarely helpful. Instead try increasing your camera's exposure and ISO levels. Alternatively you could use an external flash like iBlazer or Lightstrap. You can even download night photography apps Night Cam for iOS and Night Camera for Android for a better photo-taking experience.

7. Composition rules, period

Nothing beats composition as a way to take attractive pictures. Learn some basic composition like Rule of Third, leading lines, scale, framing to name just a few (for more info, check out this article). Once you think you've got the rules of composition down, break them, by playing with other aspects like lighting and angles.

Composition rules

Speaking of angles, shooting from a different angle can sometimes make your subject more flattering and interesting (there is a reason why selfies are shot from up above, not down below). It also presents a different point of view and sometimes highlight overlooked details. Don't be afraid to stand atop a chair or crouch down low to get that perfect angle.

8. panorama& burst modes

Most phones have a panorama mode. Even if yours don't, you can download an app to take or stitch your 180-degree photos like Photosynth (iOS) and Autostitch Panorama Pro (Android). They are great for taking landscape photos, provided you can keep your hand steady enough to grab a well-stitched shot. Also, moving objects don't make a good panorama.

Panorama& burst modes

Speaking of snapping photos of moving objects and people, they are not going to keep still for your phone camera. To not miss that perfect moment, activate your phone or camera app's burst mode. It will take multiple pictures at a time which will increase the possibility of snapping at least one clear image you can use. Safe to say, this is a great mode for catching kids and pets in motion – life stops for no one.

9. Third-Party camera apps

As mentioned before, your phone's camera has limited functions. Consider getting a third-party camera app to overcome those limitations. Some apps like Camera+ (iOS) and ProCapture Free (Android) have additional features alongside the normal phone settings. Others have more specialized functions like Slow Shutter Cam (iOS), Night Cam and Pro HDR (iOS, Android).

Third-Party camera apps

Many of these third-party apps are regularly updated with new features, filters, modes and options as well. This beats getting a new phone just to get more photo-snapping features to play with.

10. Photo-Editing Apps

Sometimes there is only so much we can control when taking a photo. A lot of the enhancement has to come from the use of photo-editing apps after the photos are taken. Some apps like Camera+ and Camera FV-5(Android) come coupled with a photo editor.

CHAPTER FIVE

A COMPREHENSIVE GUIDE TO SHOOTING GREAT PHOTOS ON THE IPHONE 7 PLUS

Here's everything you need to know to take great photos with your iPhone 7 Plus camera:

Understanding Your Lenses

Before we get into how you should best utilize the cameras on the iPhone 7 Plus, it's important to understand the gear you're working with. Different lenses offer different strengths and limitations, and the iPhone 7 Plus attempts to cover as much ground as possible.

The phone is lauded for having one of the most technically advanced camera systems on the planet, and its dual lens rear camera module consists of a wide angle 28mm f/1.8 lens and a telephoto 56mm f/2.8 lens. The 28mm wide-angle lens is great for close quarter photography like portraits or basic street photography stuff, and its f/1.8 wide-open aperture is excellent in low-light situations.

Plenty of the world's best street and portrait photographers actually prefer the width of a good 28mm because of how versatile a perspective it offers. The 56mm telephoto is sizably slower than the 28mm, and only offers f/2.8 – a pretty big difference. Mostly, its function is to support Apple's 2x optical zoom feature, but also help acquire information for photos taken in portrait mode

Classic Modes

The iPhone 7 Plus comes with the same standard modes we're all used to – Pano[rama], Square, Photo, Video, Slow-Mo, and Time-Lapse. New for the iPhone 7 Plus is Portrait mode, which can be selected from the same menu. None of these modes are really new, save for Portrait mode, which is generally self-explanatory. In case they're new to you, though, here's a basic rundown of each:

Time-Lapse

This video mode is interesting for, like, three things that I can think of: long car rides through the country, videos of the sky and wait, no, I take it back — it's only good for two.

The video mode takes a full-sized video and speeds it up a lot in order to condense hours-long journeys into mere minutes. The stabilization is pretty smooth and, when done correctly, it yields pretty interesting results.

Slo-Mo

When in camera mode, if you slide your finger left, you'll go to Slo-Mo mode, which is another video mode that literally just captures slow motion video. Simple enough, yes?

Video

The iPhone 7 Plus doesn't just cover regular old 1080p HD video at 30 and 60 frames per second, but also offers incredible 4K recording at 30 fps, too. There's also optical image stabilization and 2X optical zoom, if you know how to use it right.

Photo

Nothing has really changed in the classic Photo mode. You can still enable grid, AF/AE lock by holding down on your focus area, modify exposure to your personal preference, etc.

Optical Zoom

Part of the big deal regarding the iPhone 7 Plus's dual camera setup is that the 56mm lens allows for seamless optical zoom. In reality, it's not really zooming, but rather switching from the 28mm wider angle primary lens to the 56mm telephoto lens, which is technically called focal optical zoom.

The difference between optical zoom vs. Digital zoom is that digital zoom isn't actually "zooming." Digital zoom creates the illusion of zoom by isolating and blowing up pixels — which is exactly as disastrous as it sounds. Optical zoom is true zoom that doesn't rely on blowing up pixels or compromising image quality.

The problem with the iPhone 7 Plus — and what Apple "accidentally" forgot to tell everyone at the reveal — is that, in certain situations, the iPhone 7 Plus will disregard the optical zoom and opt for digital; usually during macro or low light situations.

There doesn't seem to be a way to override the switch to digital zoom so, instead, we'll just tell you how to use optical. If you want to ensure that you'll be using the optical zoom, make sure your subject is relatively well-lit. If the iPhone 7 Plus's sensor indicates that it's too dark to adequately expose the photo with the 56mm's f/2.8 lens, it'll default to the wider 28mm f/1.8 lens.

Either way, in order to access the 2X optical zoom, you have to open the camera app and then tap the "1x" button at the bottom of the frame. Unfortunately, after it has zoomed, you won't be able to tell whether it used optical or digital. You'll have to look at the level of noise and distortion and judge for yourself.

CHAPTER SIX

A STARTER GUIDE TO TAKING THE BEST PHOTOS WITH THE GALAXY S8

The Samsung Galaxy S8 hits store shelves today. In our short time with the new smartphone, it's become clear that it's one of the best for mobile photographers. It combines really fast autofocus, great low light performance, and improved image processing for an on-the-go shooting experience that would have been hard to believe a few years ago.

The good news is, if you've used a recent Android phone (and especially a recent Samsung phone), there are no major differences in how the camera app works. But there are lots of little things that you should know if you're planning to pick up and start shooting with an S8 today or anytime soon.

GETTING STARTED

There are three basic ways to launch the camera:

Swipe up on the camera icon from the lock screen.

Tap the camera app icon on your home screen or app tray.

Double tap the power button on the side of the phone.

I find double tapping the power button to be the most reliable way of quickly launching the camera. This is because you can blindly feel for it as you raise the phone up to eye level. I really miss using the home button for this shortcut, though.

SHOOTING PHOTOS

You have the app open. Great! That big white circle is the shutter button. You can choose to:

Tap it to take a photo.

Tap and hold to shoot a burst of photos.

Tap and drag the shutter button to the right to zoom, which is a useful alternative to pinching-and-zooming. Sure, the S8 doesn't have optical zoom like you find on the iPhone 7 Plus. But there's good reason not to be afraid of Samsung's digital zoom here, because it appears to be using some of what the company is calling "multi frame image processing" to make zoomed photos look halfway decent.

SETTINGS

This is the good, nerdy stuff. Here you can change the video resolution, or the size of the photos, and more. Just tap the gear wheel in the corner of the app and you'll find other things like 'Tap the screen to take a selfie'. Tap "Shooting Methods" in the menu, and from there you can toggle this option on for easier access to snapping selfies.

Tracking autofocus: toggle "Tracking AF" on and the app will lock on to and track (AKA keep in focus) any object that you tap in the viewfinder. It's especially helpful for shooting video of moving subjects.

Shape correction: both the front and rear camera on the S8 are fairly wide angle, which means they are prone to some distortion in the corners. (You'll especially notice this with subjects like buildings or closeups of faces.) Toggle this option on to reduce that distortion at a slight cost in resolution.

Save pictures as previewed: the selfie camera might act like a mirror, but it defaults to flipping the saved images to show how you really look. Flip this toggle to change that.

RAW photos: Tap "picture size" in Settings, and at the bottom is a toggle for "Save RAW and JPEG files." RAW files give you the the most accurate readout from the image

sensor, whereas JPEGs are always processed and compressed to look a bit better. The benefit of RAW files is that if you want to edit your photos, you're starting with a less altered version photo, meaning you can do more to the picture before the quality drops off. Some apps (like Adobe's Lightroom mobile or Snapseed) can edit RAW photos.

ALL THE FUN STUFF

Swipe up or down in the viewfinder area to quickly switch between the front and back camera.

In Selfie mode, tap the little icon next to the bear for a small suite of face altering options. There are sliders for adjusting skin tone, the size of your eyes, and even a tool that adds a fake spotlight to your face.

Swipe from left to right to access different shooting modes, like Pro (AKA full manual mode), Panorama, Slow Motion for video, or Selective Focus.

Samsung has a bunch of interactive Snapchat-style face-tracking lenses and stickers built right into the stock camera app. Tap the little bear icon to access those. You can also access filters (a la Instagram) here, and there's an iMessage-style store where you can download more kinds of image modifications.

Take selfie by placing your finger over the heart rate sensor on the back of the phone (which is on the opposite side of the camera module from the fingerprint sensor). It's super hit or miss, but it could be useful in a pinch, especially at arm's length.

Alternately, hold your palm out when lining up your selfie and the app will set a short timer to take a photo — similar to what LG did a few years ago on its phones.

You can turn on voice control in the settings menu, which will let you say words like “smile” or “cheese” or “record video.” Samsung really wasn't kidding when it said it wants you to control the S8 with your voice.

Samsung appears eager to bring augmented reality to the mobile photography experience, because on top of the Snapchat style lenses, there's also a small button on the bottom left of the viewfinder area (above and to the left of the video button) triggers Bixby — Samsung's digital assistant — in the camera app. Bixby can only basically do one thing right now, though: identify objects. Bixby will link you to more images of an object (or things like it), or link you up with an online store where you can buy whatever you're looking at, so it's not enormously useful. But the idea of a truly intelligent camera app is a powerful — perhaps someday soon, Bixby can perform tasks like recommending better composition for a particular photo.

EDITING

You can always download third party image editing apps for more robust control over the look of your photos, but Samsung has a decent image editor built right into the gallery tool. When you're reviewing your photos, just tap the "Edit" button and you'll see options like:

Effects, which is a bunch of Instagram-style filters

Advanced, which lets you modify the tone curve or color tinting of the image

Decoration, where you can add stickers or type and draw on an image. There's also a "covers" option here that lets you blur or pixelate certain parts of the photo.

That should be plenty to get you started with the camera on the new S8. If we missed anything, let us know in the comments.

Otherwise, happy shooting!

Special Segment: Ranking the Best Smartphone Cameras in the Market Today

It is no doubt that many smartphone manufacturing companies have put their best foot forward so as to produce phones with the best cameras. The industry is rife with competition. In every contest, however, there has to be a winner. That said, here are some of 2017's best smartphones in terms of their cameras. We have categorized them depending on your needs.

1. Best smartphone camera for both dim and bright light

If you are a photographer who works in different lighting environments, having a smartphone that takes clear photos regardless of the surrounding is essential. The king in this category is the Samsung Galaxy S8. Its ability to clearly bring out images taken from dark and well-lit environments set during both day and night is stunning. Additionally, the smartphone's camera can quickly focus on your intended subject. That could be useful for photos you need to take immediately.

2. Best Camera on Zooming In

In this book, I stated that most images taken by smartphones do not appear clear if they are zoomed in. The quality of the picture lowers, and this results in an undesirable photograph. What if you have to zoom in so that you can really close in on a distant object? The iPhone 7 Plus camera is then your best bet. Its optical image stabilization feature means that you can now take photos with lesser hand shake while improving your exposure. Amazing, right?

3. Best Camera on A Budget

In the world of smartphone photography, you almost always get what you pay for. Sometimes, the expense of a very high-quality camera could take a toll on our finances. We might want to squeeze out as much as possible from our smartphone's cost while still getting excellent features. If you're rather short on cash, then the Asus Zenfone 3 Zoom is the best fit for you. Its dual 12 megapixel back camera offers stunning clarity. With its dedicated color correction sensor, you are sure to get better photos of landscapes as well as portraits in a variety of lightings. However, this phone's camera is still of lesser quality than the iPhone 7's and the Samsung Galaxy S8's. All the same, it is a great alternative for anyone looking for a smartphone that will cost them less than \$400.