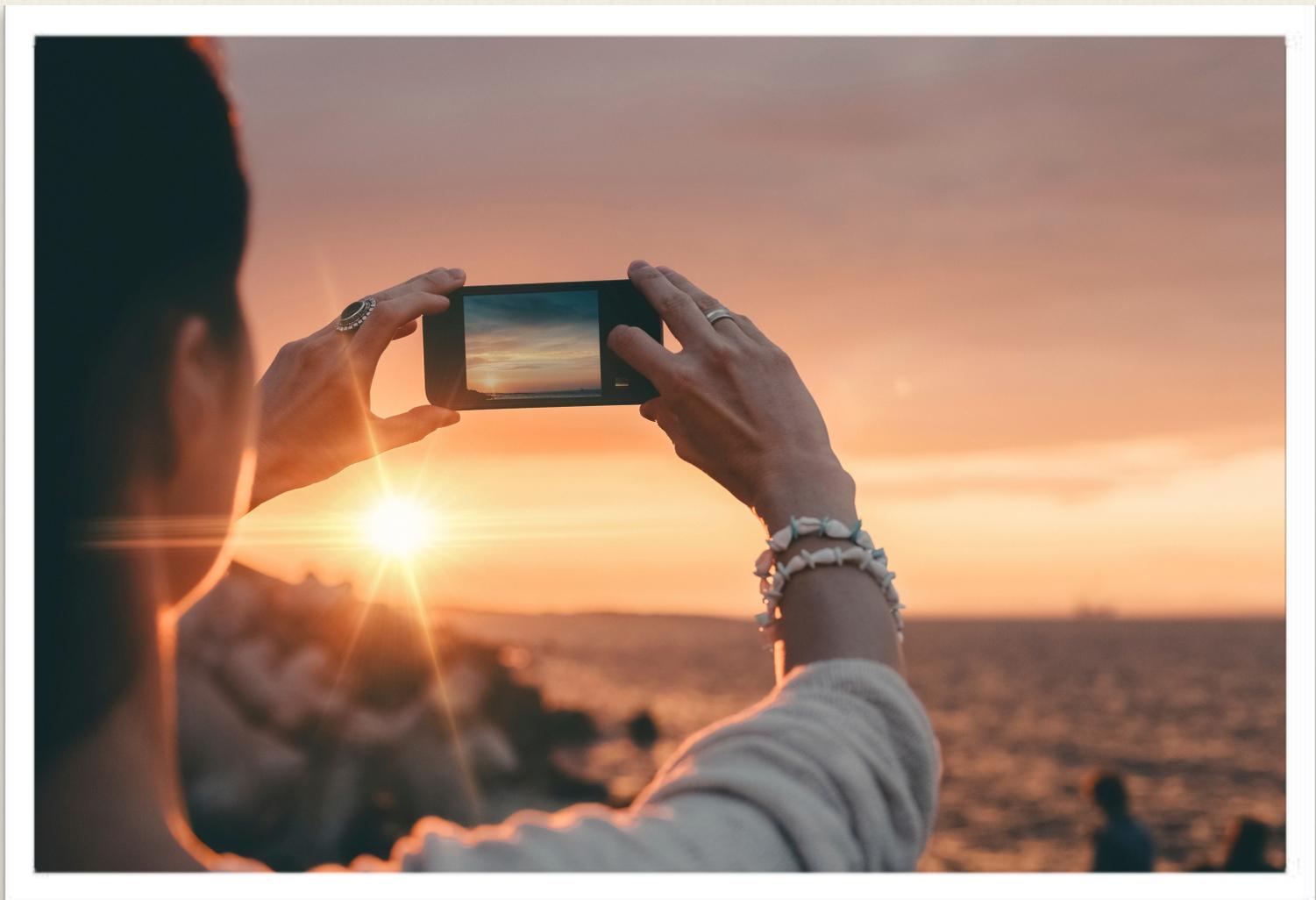




iPhone 7 Plus Digital Photography: The Unofficial Mini-Guide



JASON R. RICH

iPhone 7 Plus Digital Photography: The Unofficial Mini-Guide

iPhone 7 Plus Digital Photography: The Unofficial Mini-Guide covers how to use the iOS 10 and iOS 10.1 edition of the Camera app that comes preinstalled on the iPhone 7 Plus. You'll also discover how to take professional-quality photos in a wide range of shooting situations.

Much of the information covered also applies to the iPhone 7, as well as older iPhone models that are running iOS 10 (or later).

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Discover What's New Within the iPhone 7 Plus

Released in September 2016, the iPhone 7 Plus is Apple's top-of-the-line smartphone. It's chock full of awesome and powerful features that make it easy to communicate in a variety of ways, and that provide the tools needed to enhance your organization and productivity. Aside from making and receiving calls, as well as sending and receiving text messages, one of the most popular uses of the Apple iPhone is to take, edit, organize, and share digital pictures.

As a digital camera, the iPhone 7 Plus offers one, seven-megapixel, front-facing camera, as well as two rear-facing, 12-megapixel cameras - a wide-angle lens, and a telephoto lens (shown in Figure 1). So, for the first time ever, between using the optical telephoto (zoom) lens, and the digital zoom capabilities built into the Camera app, it's possible to achieve up to 10x zoom. This offers twice the zoom capabilities of other iPhone models.

The resolution of all digital cameras is measured in megapixels. One megapixel is equal to one million individual pixels (or colored dots) that comprise an image. Thus, the higher the resolution, the better quality the image will be. A better quality image means it will showcase more detail, better depth perspective, and more vibrant colors. Thus, the rear-facing cameras that are built into the iPhone 7 Plus utilize 12 million individual pixels within each picture that's taken.



Figure 1 - The iPhone 7 Plus features two rear-facing cameras, and a Quad-LED True Tone flash.

When taking pictures in low light situations, for example, the iPhone 7 Plus is also equipped with a Quad-LED True Tone flash, and a more “intelligent” HDR (High Dynamic Range) shooting mode option.

You’ll also discover that Apple’s latest iPhone model includes a 5.5” Retina HD display, which serves as the Camera app’s viewfinder, and then allows you to view your images in vivid detail using the Photos app which also

comes preinstalled with iOS 10. Plus, based on which iPhone 7 Plus system configuration you opted to purchase, you have 32GB, 128GB, or 256GB of internal storage space that can be used to store your entire digital photo library.

This guide focuses on how to take professional-quality photos using the cameras built into the iPhone 7 Plus that’s running the iOS 10 or iOS 10.1 operating system. Released in Fall 2016, iOS 10.1 introduces the new Portrait shooting mode to the Camera app when it’s used with an iPhone 7 Plus.

In addition to quickly getting you up to speed on all of the Camera app’s features, functions, and capabilities, you’ll also discover strategies for taking better photos in a wide range of shooting situations, which you can then edit and share in a variety of ways using the apps that come preinstalled with iOS 10 (or iOS 10.1), or by taking advantage of optional third-party apps that are available from the App Store.

Digital Photography Is Both a Skill and an Art Form

The cameras built into your iPhone are as powerful as most point-and-shoot digital cameras that are currently on the market. To function properly, they require a

tremendous amount of computing power. If you want to become a skilled photographer using your iPhone, it's important to understand that digital photography is both a skill and an art form.

The skill aspect of digital photography involves understanding how to operate your camera, which in this case, is your iPhone. You need to fully understand how to launch and use the Camera app, as well as become familiar with all of its built in features and functions. Using this technology, you need to understand what icons and menu options to utilize, in order to achieve the desired results.

The art form aspect of digital photography involves tapping your own creativity. It's your responsibility as the photographer to choose your subjects, frame your shots, best utilize the available light, and select the most creative shooting angle and perspective, so that you will be able to consistently capture shots that are visually interesting to look at.

There's an age-old saying that states, "a picture is worth a thousand words." Based on the creative decisions you make when taking a photo using your iPhone, you should always have several goals in mind. You want each photo to:

- Tell a compelling story using visuals. A good photo should not require a text-based caption or a verbal explanation in order for the person viewing the image to understand what they're looking at.
- Illicit some type of emotion or thought from the person who will be viewing the image.
- Capture your intended subject(s) in a visually interesting way.
- Showcase something that your viewers can easily relate to.
- Capture moments in your life that you want to remember, document, and potentially share with others.

The best way to become a skilled photographer is to practice taking pictures in a wide range of shooting situation, so when the time comes and you need to capture the perfect shots in your everyday life, you'll already know exactly how to set up

the Camera app based on the current situation, and you won't waste valuable time fumbling with the app's features, functions, menus, or command icons.

The first part of this mini-guide explains how to use the Camera app that comes preinstalled on your iPhone. You'll become acquainted with all of the app's features and functions, and learn how and when to use them in order to take great photos in a diverse range of shooting situations.

Then, once you understand how to use the Camera app on the iPhone (which is the skill aspect of digital photography), this guide focuses on the art form aspect of picture taking. It will help you to develop your creativity when it comes to taking awesome photos. You'll learn picture taking strategies that you'll quickly be able to implement, and that will allow you to begin taking eye-catching, attention-getting photos on a consistent basis. In a nutshell, this mini-guide takes the guesswork out of picture taking using your iPhone.



How to Launch the Camera App

Sometimes, the need will arise to quickly launch the Camera app, so you can begin taking photos, and not miss out on time-sensitive photo opportunities. There are six ways to launch the Camera app that comes preinstalled on your iPhone 7 Plus, including:

1. From the Lock screen (shown in Figure 2), swipe your finger from right to left across the screen.
2. From the Home screen (shown in Figure 3), tap on the Camera app icon to launch the Camera app.



Figure 2 - Swipe from right to left across the Lock screen to quickly launch the Camera app while the iPhone 7 Plus is still locked.

3. From the Home screen, press and hold down the Camera app icon to make the Camera app's Peek menu (shown in Figure 4) appear. From this menu, you can quickly take a Selfie, Record Video, Record Video in Slow-Mo (slow motion), or Take a Photo.
4. From the Control Center menu, tap on the Camera app icon (shown in Figure 5). To access this menu, place your finger near the very bottom of your iPhone's screen, and swipe upward. This can be done anytime, from the Home screen, or while any app is being used.

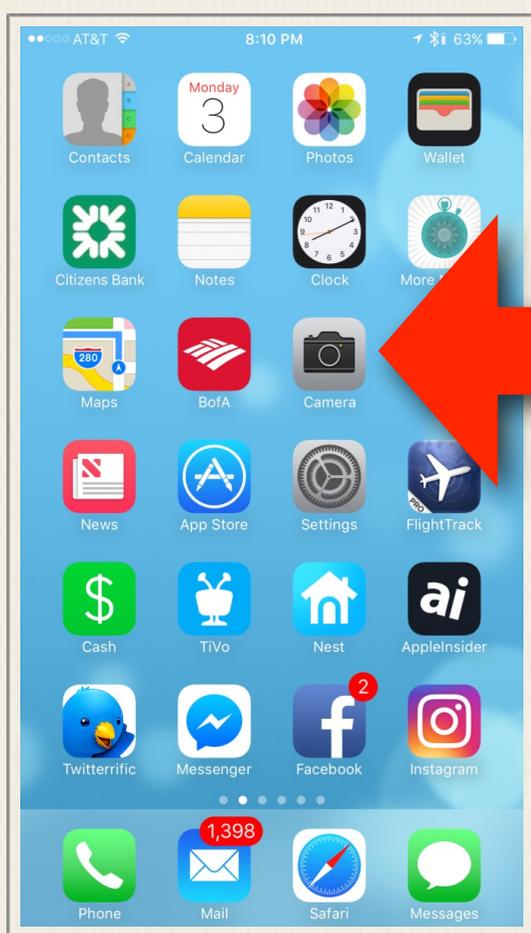


Figure 3 - Tap on the app icon for the Camera app that's displayed on your smartphone's Home screen to launch the app.

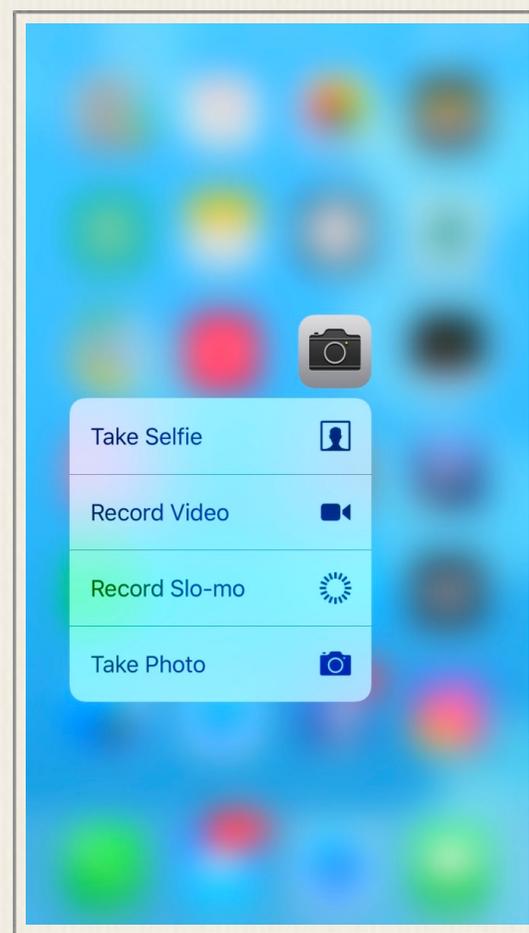


Figure 4 - Access the Camera app's Peek menu by pressing and holding down the Camera app icon on the Home screen.

5. From the app switcher (shown in Figure 6), scroll horizontally through the apps that are currently running in the background on your iPhone 7 Plus, and select the Camera app (if it's already running) by tapping on the app's preview screen. To access the app switcher, quickly press the Home button twice at any time.
6. Using Siri, issue a verbal command, such as "Launch Camera app," or "Open Camera app," and/or speak a command, like "Take a photo," in order to control the iPhone's camera using voice commands.

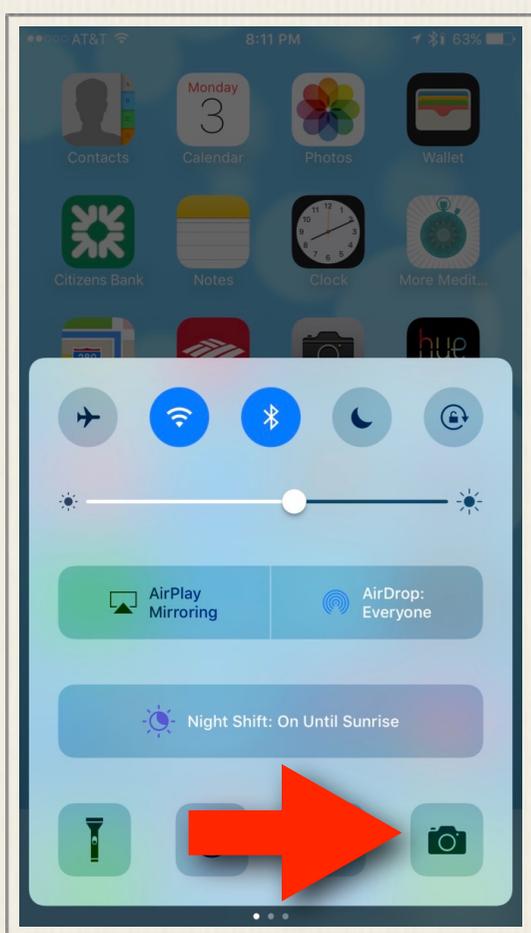


Figure 5 - Place your finger near the very bottom of the iPhone's screen and swipe upwards to access the Control Center, and then tap on the Camera app icon.

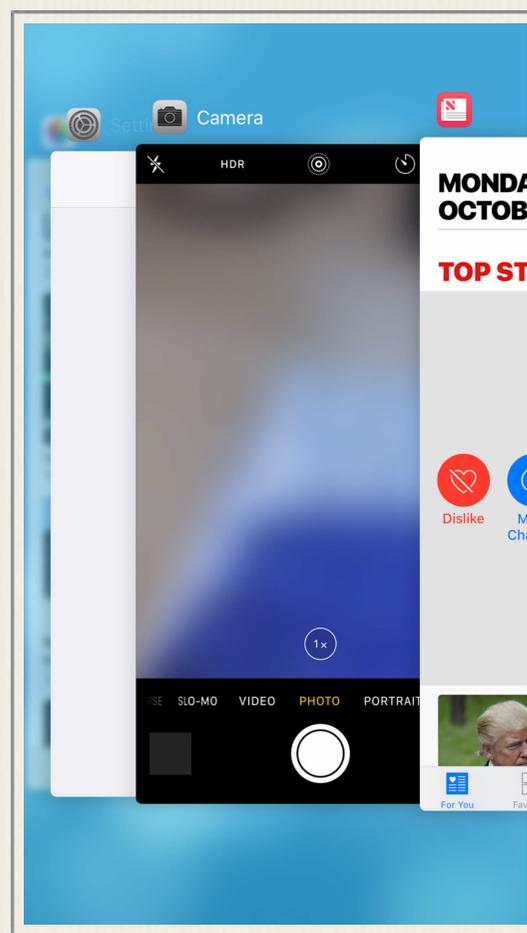


Figure 6 - Access the app switcher by quickly pressing the Home button twice. Scroll through the apps that are currently running on your iPhone, and tap on the Camera app to relaunch it. This only works if the Camera app is already running in the background.



Get Acquainted with the Camera App

When you first launch the Camera app, the viewfinder screen is automatically displayed (shown in Figure 7). From this screen, it's possible to access all of the main features of the Camera app, so you can frame your shots and snap your photos.

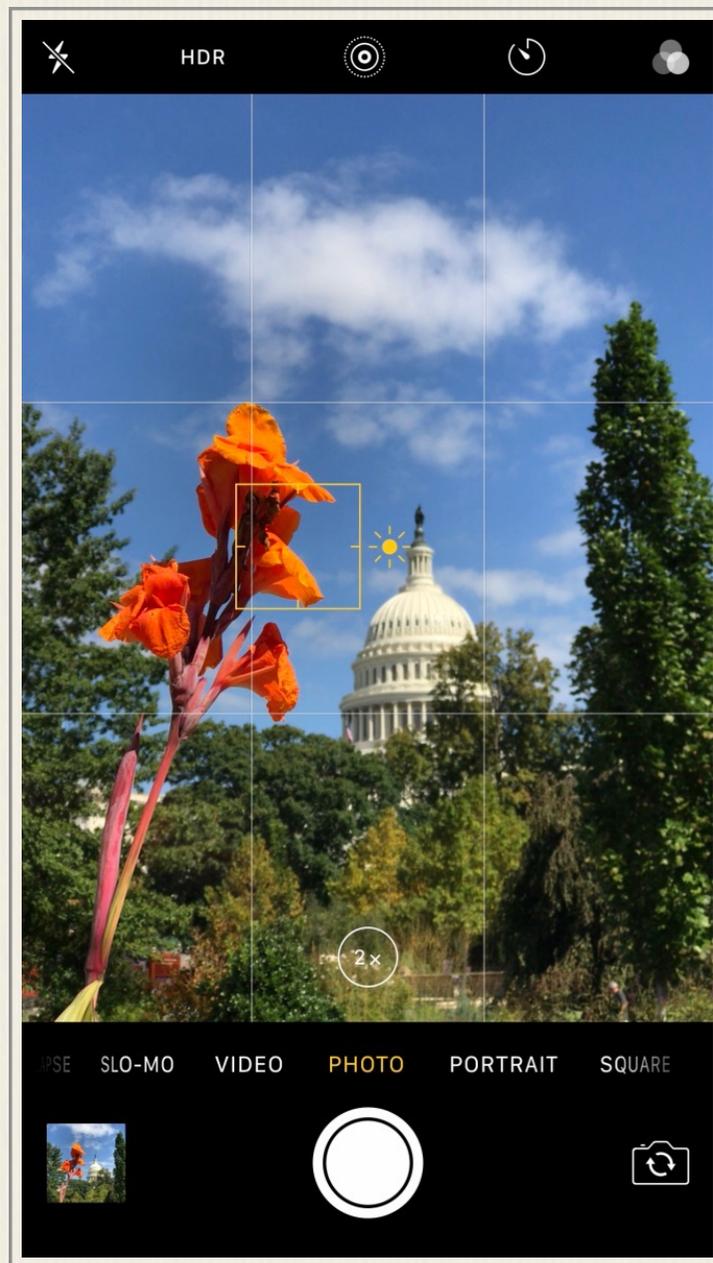


Figure 7 - The Camera app's Viewfinder screen. (The iOS 10.1 version of the Camera app is shown here.)

The main area of the viewfinder screen displays the camera's viewfinder. In a nutshell, whatever you see within the viewfinder is what will be captured when you snap a photo by pressing the Shutter button.

Displayed along the top and bottom of the viewfinder screen are a variety of command icons that allow you to control each of the Camera app's features and functions. Along the top of the screen, from left to right, these command icons include: the Flash, HDR mode, Live Photo mode, the Timer, and the one-touch Filter (special effect) mode.

Displayed in the bottom-left corner of the screen is the last image shot preview thumbnail. After you snap a photo, tap on this thumbnail image to preview the image. Located in the bottom-center of the viewfinder screen is the Shutter button.

After framing your shot, quickly tap on the Shutter button once in order to snap a single photo. When you press and hold down the Shutter button, as opposed to tapping it once, this automatically launches Burst shooting mode, which allows the Camera app to quickly take multiple shots in quick succession.

Keep in mind, instead of tapping or holding down the Shutter button to snap photos, while the Camera app is running, it's possible to press and release the Volume Up or Volume Down button that's located on the side of your iPhone in order to activate the camera's shutter and take a photo. Some people find it easier to hold their iPhone steadier while taking pictures by pressing the Volume Up or Volume Down button, as opposed to the on-screen Shutter button. Which option you choose is a matter of personal preference.

Located in the bottom-right corner of the viewfinder screen is the Camera Selection icon. Tap on this icon in order to switch between the front- and rear-facing cameras. How to use the front- and two rear-facing cameras will be explained shortly.

Displayed directly above the Shutter button is the Shooting Mode Menu. If you're using iOS 10.0, your options for taking digital photos include: Photo, Square, Time-Lapse, and Pano. The Video and Slo-Mo shooting modes are used for shooting HD video. The difference between each of these shooting modes, and how to use them, is explained in the next section.

For now, understand that to switch between shooting modes, you need to place your finger on the Shooting Mode Menu, and then swipe left or right. The shooting mode that's displayed in yellow, directly above the Shutter button, is the one that's selected and currently active.

Anytime you're about to take a photo, your first decision is whether you want to shoot in Portrait or Landscape mode. Portrait mode means you hold the iPhone upright. When you physically rotate the iPhone and hold it sideways, the Camera app switches to Landscape mode (shown in Figure 8). Notice that all of the on-screen command icons remain consistent, but their position rotates along with the viewfinder.

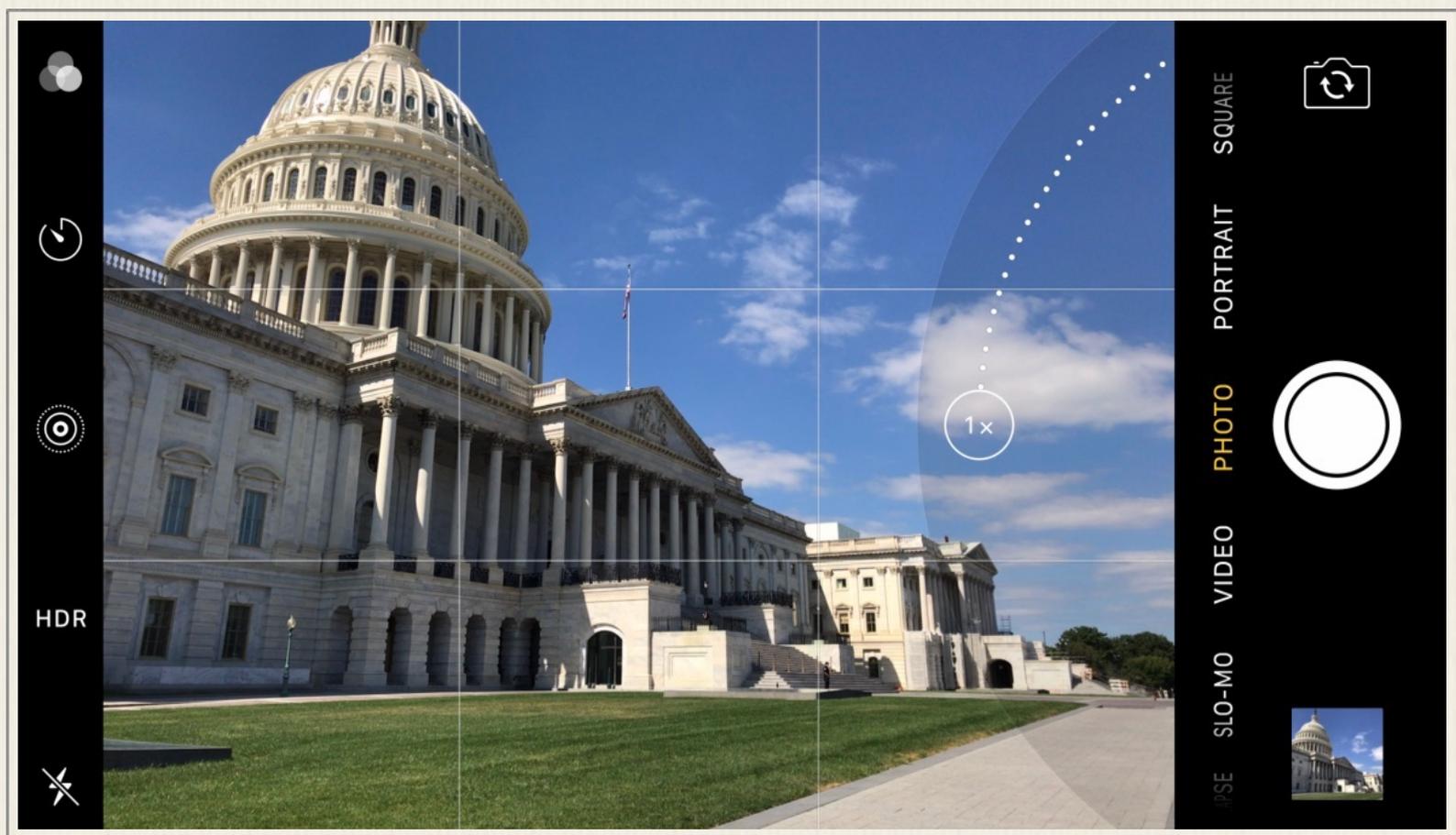


Figure 8 - Hold the iPhone sideways to activate and use the Landscape shooting mode. In this example, the Photo shooting mode has been selected, and the Zoom Slider is displayed. The rear-facing, wide-angle lens is being used.

Holding the iPhone upright (in Portrait mode) when taking pictures is ideal when you want the photo to focus on your intended subject, and show minimal background. This is separate from using the Portrait shooting mode that's built into the iOS 10.1 edition of the Camera app.

Landscape mode is ideal for taking pictures of landscapes, cityscapes, large groups of people, or your intended subject when you also want to showcase a lot of what's behind your subject (in the background).

The Camera App's Shooting Modes

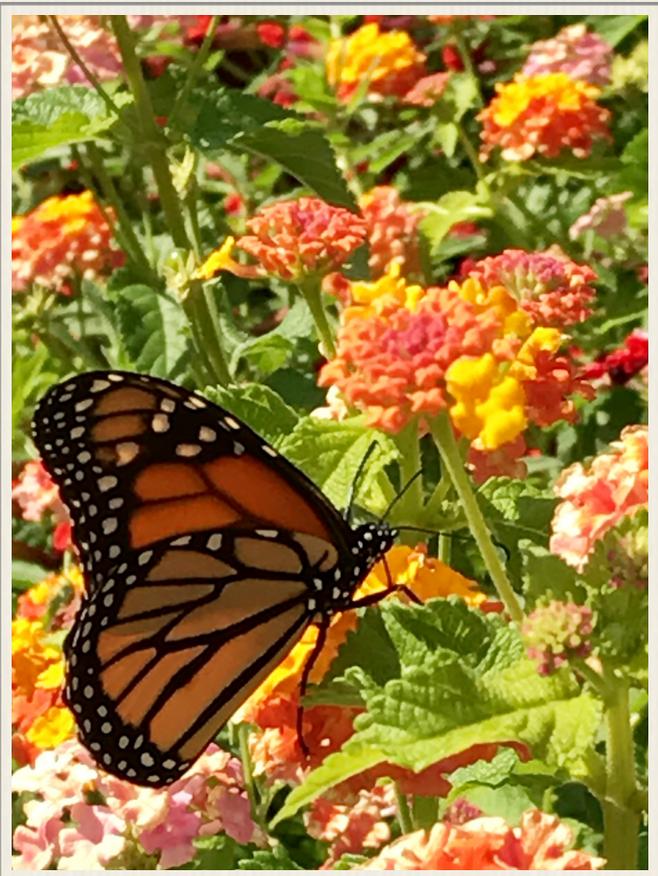


Figure 9 - A single, rectangular-shaped digital image is captured each time you press the Shutter button when using the Photo shooting mode.

using your iPhone 7 Plus. Each time you tap the Shutter button when the Photo shooting mode is selected, you'll capture one high-resolution, rectangular-shaped digital image (shown in Figure 9), which will be saved within the All Photos album of the Photos app (if you have iCloud Photo Library turned on). Otherwise, each image you take will be saved, by default, within an album called Camera Roll.

Each of the Camera app's shooting modes is used for a different purpose. Choose the appropriate shooting mode, based on each shooting situation you encounter. How to analyze your shooting situation each time you're about to take a photo will be explained shortly.

The following is a brief description of each of the Camera app's shooting modes. All of these shooting modes are available when using the iOS 10 edition of the Camera app, with the exception of the Portrait shooting mode, which becomes available when you download and install iOS 10.1 onto your iPhone 7 Plus.

Photo Shooting Mode

The Photo shooting mode is what you'll be using the majority of the time to take photos using

Remember, when you tap the Shutter button, just one image will be captured. When you press and hold down the Shutter button, Burst shooting mode activates, and your iPhone will continue snapping photos, in quick succession, until you release your finger from the Shutter button. These images will be saved within the Photos app, within an album called Bursts.

The Photo shooting mode works with the iPhone's front or rear-facing cameras.

Portrait Shooting Mode

The new Portrait shooting mode is only available when using the iOS 10.1 edition of the Camera app on an iPhone 7 Plus. As its name suggests, this shooting mode

can be used for taking portraits of people or pets, but it can also be used for taking pictures of objects.

Normally, when you use the Photo shooting mode, the Camera app does its best to keep everything within the viewfinder as in-focus as possible, but always places emphasis (in terms of focus) on what the auto-focus sensor locks in on. This is shown within Figure 10.

Be sure to read the section called, "Take Advantage of the Auto Focus Sensor Whenever You're Taking Pictures," to discover how the Camera app's auto focus sensors work, and why it's essential that you use them.

Portrait mode adopts a different approach when you're taking a photo. This feature is used for capturing an intended subject that's between six and 12 feet away from you (the photographer). When activated, the rear-facing telephoto lens of the iPhone 7 Plus is used. By default it starts off set to 2x zoom.

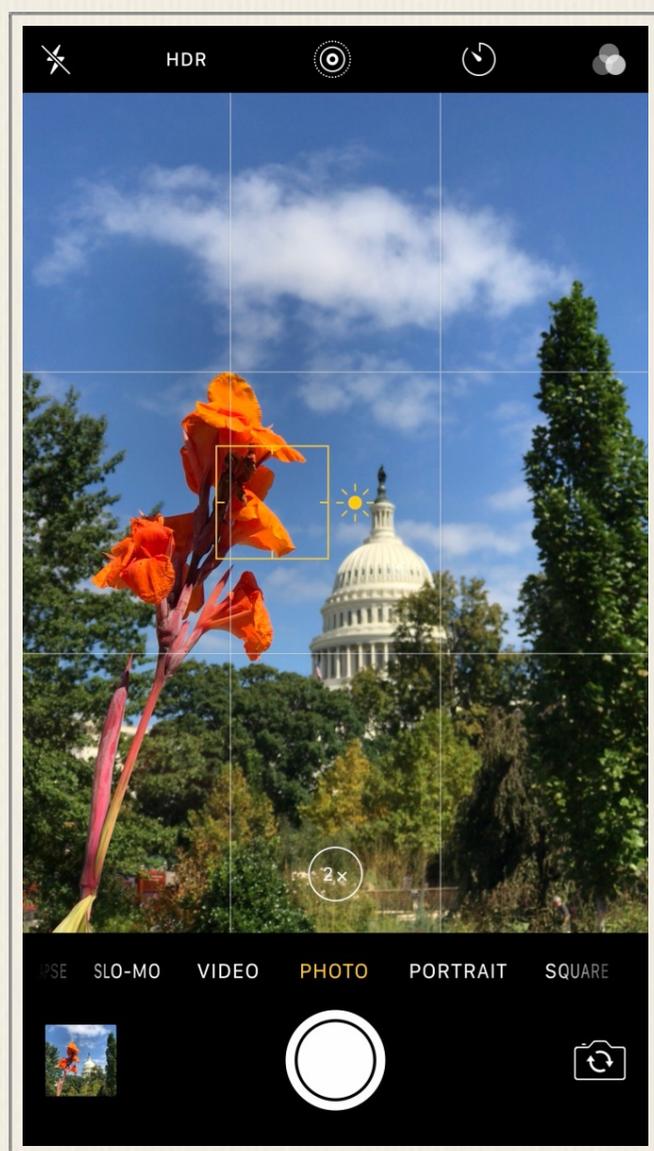


Figure 10 - When you use the Photo shooting mode, the Camera app attempts to insure that everything within the viewfinder remains in focus, not just your intended subject.

As you'll discover, Portrait mode utilizes what's called a "depth effect" in order to focus in on your intended subject, and at the same time, it automatically blurs whatever is in the background. This is shown within Figure 11.

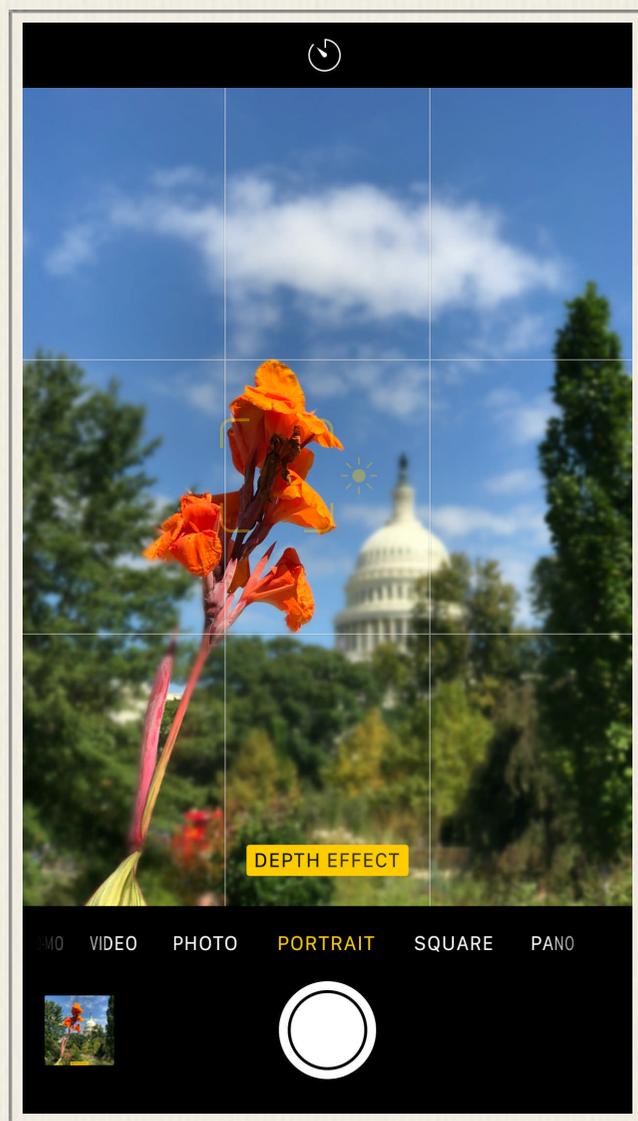


Figure 11 - When you use Portrait mode, your intended subject appears in focus, but the background automatically becomes blurry. This places more visual emphasis on your subject. Notice that the flower (the intended subject) is in focus, but the Capitol (in the background) is blurry.

What this depth effect does is place much more visual emphasis on your intended subject. Thus, Portrait mode is ideal for taking pictures of people, pets, or objects, when your intended subject is what you want the people viewing your photo to pay attention to, and what's in the background is inconsequential (or of much less importance).

The Portrait shooting mode works exclusively with the rear-facing telephoto lens camera that's built into the iPhone 7 Plus.

To achieve the best results when using Portrait mode, your subject needs to be well lit. It's essential that once you frame your subject in your shot, that you tap on the viewfinder screen directly over your subject in order to make the auto focus sensor appear. Doing this instructs the Camera app about what object in your image to focus on (your intended subject). Be sure to pay attention to the on-screen directions that provide guidance for taking the best photos possible when using Portrait mode.

Square Shooting Mode

The Square shooting mode works just like Photo shooting mode, however, the Camera app automatically crops each shot into a square shape, as opposed to a rectangular shape. An example of this is shown in Figure 12.



Figure 12 - The Square shooting mode automatically crops your photos into a square shape.

Unless you know you'll be taking pictures to be showcased on the Instagram social media service, or you require a square-shaped image for a particular use, you probably won't have a frequent need to use this particular feature.

Keep in mind, after a rectangular-shaped picture is taken using the Photo shooting mode, for example, you can always use the Crop tool that's built into the Photos app in order to transform (crop and reposition) the image into a square shape. It is not possible, however, to transform a square-shaped image into a rectangular-shaped image after it's been shot.

The Square shooting mode works with the iPhone's front or rear-facing cameras.

Pano Shooting Mode

Short for panorama, the Pano shooting mode is ideal for taking extra-long, rectangular shaped shots of a landscape, cityscape, or large group of people, for example. A sample panoramic shot, taken in Sydney, Australia, is shown in Figure 13.



Figure 13 - Shown here is a panoramic shot. Use this shooting mode to take photos of landscapes, cityscapes, or large groups of people, for example.

Once you select the Pano shooting mode, you'll immediately discover that the viewfinder screen looks very different. This is shown in Figure 14.



Figure 14 - When the Pano shooting mode is selected, this is what the viewfinder screen looks like.

You'll use a slightly different approach to take panoramic shots with one of the rear-facing cameras that are built into your iPhone.

How to Take a Panoramic Photo

To take a panoramic shot, follow these steps:

1. Launch the Camera app, and select the Pano shooting mode.
2. Hold your iPhone in Portrait mode (upright), and position it at the left-most edge of the wide area you want to photograph.
3. If you desire, adjust the zoom intensity. By default, the zoom is set to 1x (or zero zoom). To quickly switch to the iPhone's rear-facing telephoto lens, tap on the circular 1x icon that's displayed near the bottom-center of the screen (shown in Figure 15).

Unlike the Photo shooting mode, Pano does not offer an adjustable Zoom feature. You can only set the zoom at 1x or 2x. Also, once you select a zoom intensity, it's used the entire time you're snapping each Pano shot.

4. While holding the iPhone very steady, tap the Shutter button once, and then slowly pan the camera from left to right, across the area you want to photograph. Avoid shaking the iPhone, moving it up or down, or panning too quickly.

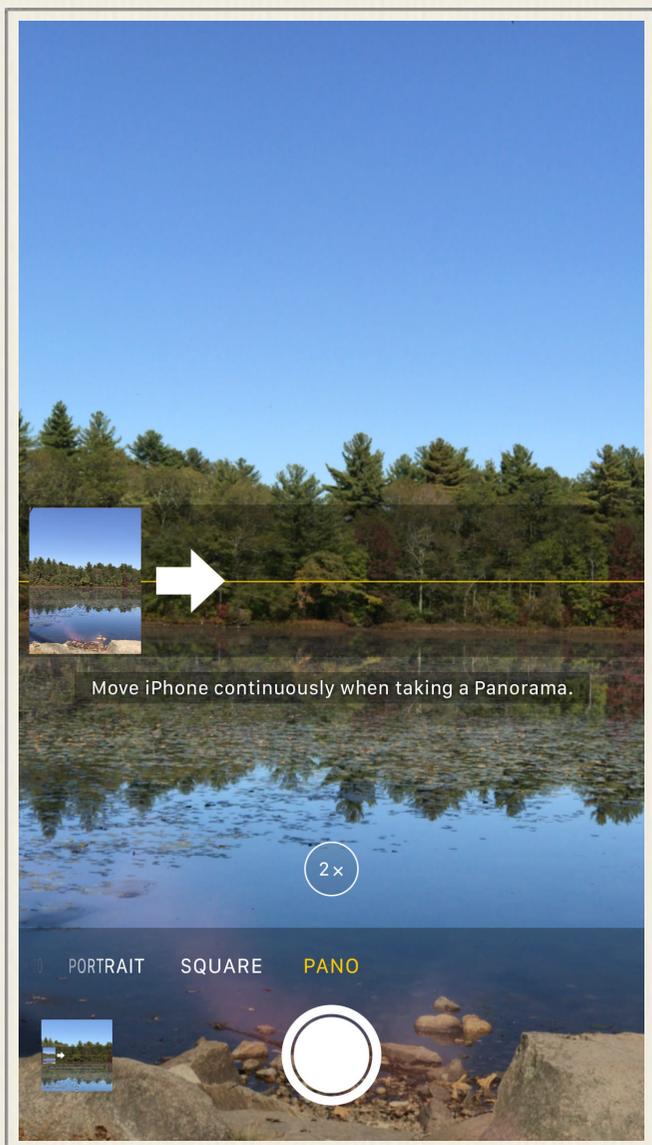


Figure 15 - When using Pano mode, you can switch between 1x and 2x zoom by tapping on the Zoom icon. The zoom is not manually adjustable, however.

Most photo labs have the ability to print panoramic shots as long rectangular prints.

Selfie Shooting Mode

A selfie is a picture you take of yourself (and whatever is directly behind you), using the front-facing camera that's built into your iPhone. This camera takes photos at a lower resolution (7MP as opposed to 12MP), but by using the front-facing camera, you're able to see yourself in the viewfinder in order to frame your shot and snap a photo.

5. Keep panning the iPhone from left to right as the large, right-pointing white arrow on the screen scrolls to the right. When the arrow reaches the right-most margin of the screen, you have captured the entire shot. The panoramic image will be stored in the All Photos (or Camera Roll) album, as well as in a separate album, called Panoramas (within the Photos app). If you want to stop shooting before the white arrow reaches the right margin of the screen, tap on the Shutter button again.

6. Tap on the last image shot preview thumbnail in order to view the image.

7. You can now take another Pano shot, or readjust the Camera app's settings in order to take additional pictures using any of the app's shooting modes or features.

Panoramic shots are displayed as long rectangular images on your iPhone's screen. When viewing them with the Photos app, hold your phone in landscape mode to see these images in more

There are two ways to take a selfie using your iPhone. From the Home screen, press and hold your finger on the Camera app icon to make the Camera app's Peek menu appear. Tap on the Selfie option. Alternatively, when using the Camera app, tap on the Camera Selection icon to switch to the front-facing camera, and then frame yourself within the viewfinder.

While the iPhone does not have a front-facing flash, when necessary (based on available lighting), the Camera app transforms the iPhone's screen into a flash. When you tap the Shutter button, if additional light is required, the iPhone's screen will momentarily turn bright white, which generates enough additional light to surround your face with better lighting.

When taking as a selfie, the photographer typically holds the iPhone in their hand and extends their arm outward. You can hold the iPhone directly in front of your face, or hold it above or below your face in order to take the photo from a downwards or upwards angle.

Consider Using a Selfie Stick



Figure 16 - An example of a Selfie Stick.

One popular option, especially if you want to capture additional people in your selfie photos, or capture a lot more background within each photo, is to use an optional Selfie Stick (shown in Figures 16 and 17). A Selfie Stick costs between \$25.00 and \$50.00, and is sold wherever digital cameras or iPhone accessories are sold, as well as online from online shopping sites, such as Amazon.com or eBay.com.

To find a Bluetooth-compatible Selfie Stick online, visit an Internet search engine, such as Yahoo! or Google, and within the Search field, type "iPhone 7 Plus selfie stick," or "Bluetooth selfie stick." You can also use either of these search phrases within the Search field associated with Amazon.com or eBay.com.

A Selfie Stick allows you to attach your iPhone to one end of a pole, extend it outwards by two or three feet, and then snap a Selfie photo from farther away from your face than your arm could otherwise reach.

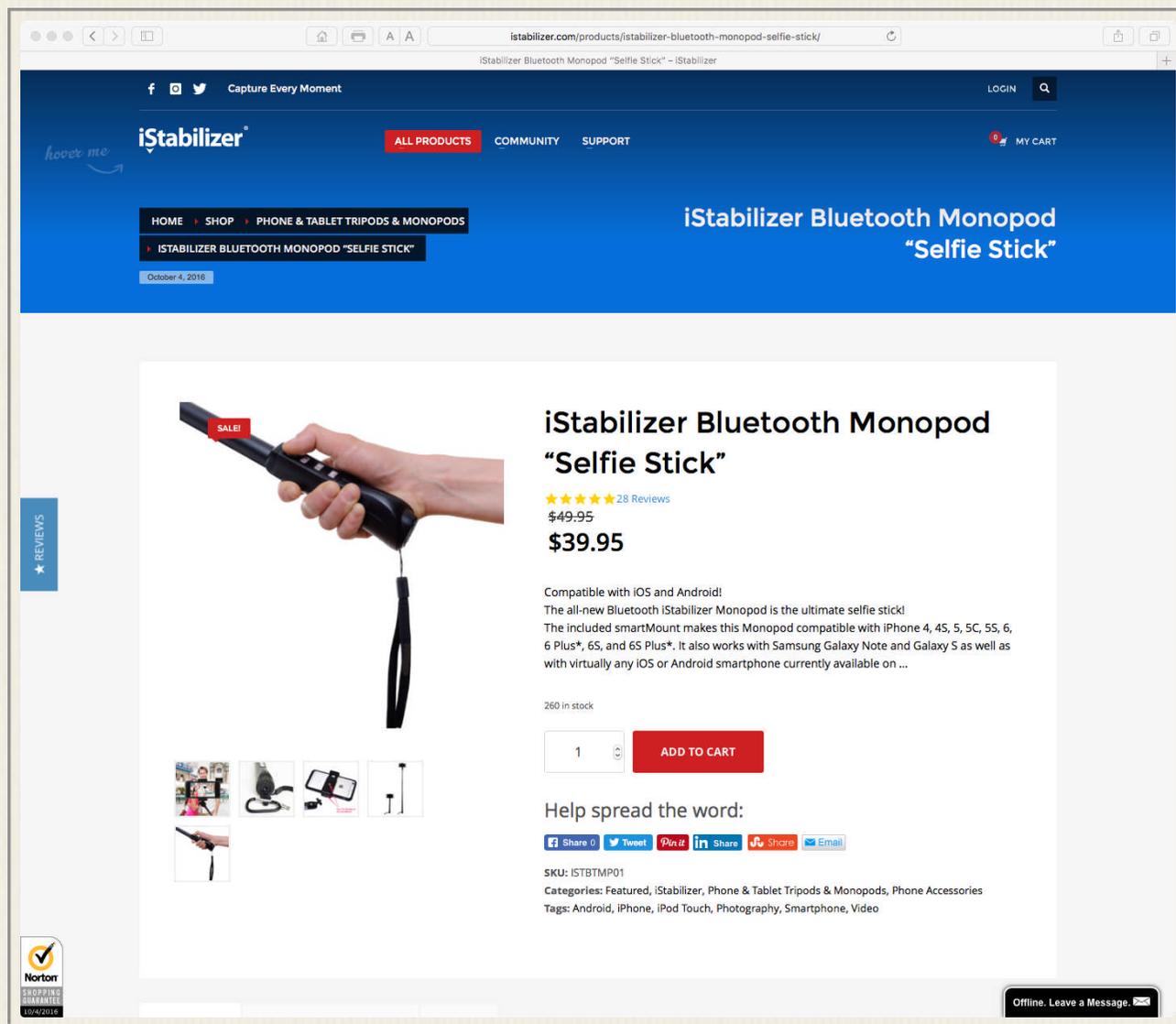


Figure 17 - You can order the iStabilizer Bluetooth Monopod "Selfie Stick" directly from the company's website.

You control the Camera app (your iPhone) using a Shutter button that's built into the handle of the Selfie Stick. Because the iPhone 7 Plus does not have a headphone jack built in, make sure you purchase a Selfie Stick that allows you to wirelessly control your iPhone using a Bluetooth connection.

Many different manufacturers offer Bluetooth-compatible Selfie Sticks. For example, a company called iStabilizer, offers a handful of photography accessories for the iPhone 7 Plus, including the iStabilizer Bluetooth Monopod "Selfie Stick" (\$39.95, <https://istabilizer.com/products/istabilizer-bluetooth-monopod-selfie-stick>).

Time-Lapse Shooting Mode

The Time-Lapse shooting mode is used to capture a slow-moving subject over an extended period of time. To use this shooting mode, it's best to connect your iPhone to a tripod or stand, so it will remain perfectly still during the entire time this shooting mode is being used (which could be 5, 10, 15 or 60 minutes per shot, for example). Once activated, Time-Lapse will continue taking single images periodically of the same (slow moving) subject, until you tap the Shutter button a second time to stop the process.

The collection of images get automatically grouped together, and stored as a movie file within the Photos app of your iPhone (within the All Photos or Camera Roll album, as well as a separate Time-Lapse album). Time-Lapse is ideal for capturing the movement of the sun during a sunrise or sunset, for example. The longer you leave this feature running, the more motion over time the Time-Lapse mini-movie that's created with depict.

Burst Shooting Mode

By pressing and holding down the Shutter button, the Burst shooting mode automatically activates, and your iPhone 7 Plus is able to capture up to 12 frames per second. Use this shooting mode when taking photos of a fast-moving subject, or when the perfect timing of a shot is absolutely essential.

Instead of relying on your own timing to tap the Shutter button once at the perfect moment to take a time-sensitive photo, press and hold down the Shutter button for a few seconds, starting right before the time-sensitive event you're photographing happens. Continue holding the Shutter button until the event ends.

The collection of shots captured by the Burst shooting mode will be grouped together and stored within the Photos app's All Photos or Camera Roll album, as well as in a separate Bursts album. You can then review the group of Burst images, select the best ones, and then deleted the unwanted images.

While each photo taken using Burst shooting mode will look somewhat similar, since each is taken a fraction of a second apart from the previous one, each will in fact be slightly different. You should easily be able to pick out one or two shots that perfectly depict the action or time-sensitive event you set out to capture.

The Burst shooting mode is ideal for taking pictures at sporting events, for example, when your intended subject will be moving quickly, and you want to capture an action shot taken at a particular instant. When using the Burst shooting mode, you (the photographer) should be standing still, and the iPhone should not be moved as the photos are being taken. This shooting mode can be used with the front- or rear-facing cameras, and it works in conjunction with the Camera app's Zoom feature, for example.

The Camera App's Main Picture Taking Features

In addition to selecting the ideal shooting mode to best capture each unique shooting situation you encounter, the Camera app offers a collection of additional tools that can be used to enhance your photos as they're being shot. The following is information about the tools that are readily accessible from the Camera app's viewfinder screen.

The Quad-LED True Tone Flash

Built into the back of the iPhone 7 Plus is a Quad-LED True Tone flash. When you're using one of the rear-facing cameras in a low light situation, this flash can shed additional light onto your subject. What you should understand about the Quad-LED True Tone flash is that it utilizes four separate LEDs, which work together in order to generate light at different intensities and in different colors.

So, when the flash is turned on, the iPhone will automatically measure the ambient light in the shooting area, and do its best to adjust the four LEDs to match but brighten that ambient light, without creating the unwanted red-eye effect, overex-

posing your subject, or generating harsh shadows. In other words, this is an intelligent flash.

By tapping on the Flash icon that's displayed in the top-left corner of the viewfinder screen, you'll notice that it has three main settings (shown in Figure 18), which include:

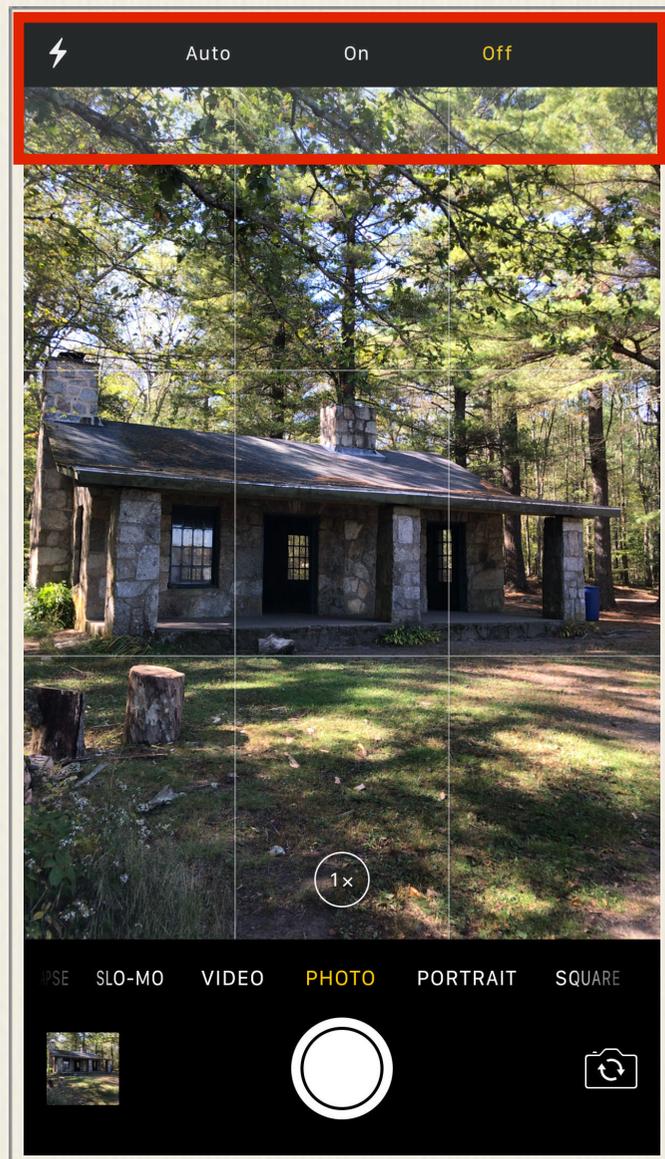


Figure 18 - Tap on the Flash icon displayed in the top-left corner of the viewfinder screen to access the Flash Auto, Flash On, and Flash Off options.

- **Flash Auto** – When set to Auto, the iPhone will measure the ambient light in the shooting location, and determine if the flash should be used. If so, it will adjust each of the four LEDs automatically in order to shed additional light onto your intended subject(s).
- **Flash On** – When turned on, the flash will be used whenever a photo is taken, regardless of the ambient light in the shooting location.
- **Flash Off** – When turned off, the flash will never be used when a photo is taken.

It's important to understand that like every flash that's built into any point-and-shoot digital camera, the flash built into the iPhone has what's called a "flash range." To generate the best results using the iPhone's flash, you (the photographer) should position yourself between three and 10 feet away from your intended subject.

If you're too close to your subject (less than two or three feet), the light from the flash will be too

bright, and your intended subject may wind up looking washed out or very pale. The image will become overexposed as a result of too much light.

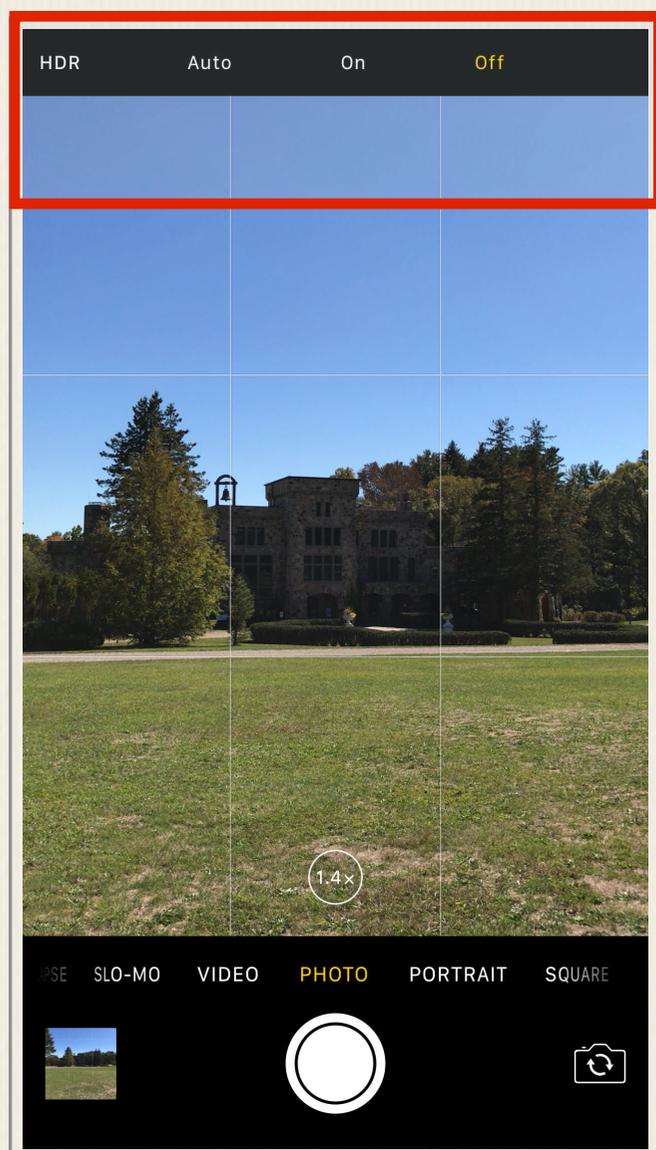
Meanwhile, if you're too far away from your subject (more than 10 feet or so), the light from the flash won't be strong enough to reach your subject and shine ample light on it. Thus, the subject will appear too dark or underexposed, while what's in

the foreground of the shot (in front of your subject) may be well-lit or overexposed.

Achieving the best results from the iPhone's built in flash will take some practice, since how well it works is based on the ambient light that's already present in your shooting location, as well as how far away you are from your subject. In more situations than not, you'll be better able to truly capture the best shot in low light situations if you turn off the flash, and rely on the High Dynamic Range (HDR) shooting mode that's also built into the Camera app.

As a general rule, whenever you're shooting in low light situations, you always need to hold your camera (in this case, your iPhone) perfectly still. Even the slightest movement or shake could result in a blurry image. The camera becomes even more sensitive to movement if you're shooting in low light in conjunction, and simultaneously using the Zoom feature (particularly the iPhone's telephoto lens).

High Dynamic Range (HDR) Mode



The HDR shooting mode that's built into the Camera app allows you to simultaneously take multiple shots at the same time of your intended subject. Each shot captures and utilizes the available light slightly differently. As a photo is being taken, the Camera app merges the separate shots into one single shot automatically. What you typically wind up with is an image that depicts more vivid colors and greater detail.

On the iPhone 7 Plus, the HDR shooting mode icon has three settings – Auto, On, and Off. To

utilize this feature when using the front- or rear-facing camera, tap in

Figure 19 - Tap on the HDR option displayed along the top of the screen to access the HDR Auto, HDR On, and HDR Off options.

the HDR icon that's displayed along the top of the viewfinder screen. Next, tap on the Auto, On, or Off option (shown in Figure 19).

- **HDR Auto** – When set to Auto, the Camera app will determine whether or not the HDR shooting mode should be used, and will turn on this feature only when it's needed, based on ambient lighting and other factors that the app evaluates and that are related to your shooting situation.
- **HDR On** – When turned on, all photos taken using the Camera app will utilize the HDR shooting mode. (Turning on HDR mode automatically turns off the iPhone's built in flash.)
- **HDR Off** – When turned off, this feature will not be used when taking photos.

From within Settings, you have the option to save both a Normal and HDR version of each photo anytime a photo is taken with HDR mode. You can then review each image, and choose which one you like better. When viewing images with the Photos app, images shot using HDR mode will say HDR on the screen. This message does not appear when you print or share these images, however.

To adjust the HDR options from Settings, follow these steps:

1. From the Home screen, launch Settings.
2. Scroll down when viewing the main Settings menu, and tap on the Photos & Camera option.
3. When viewing the Photos & Camera submenu within Settings, scroll down to the HDR (High Dynamic Range) heading. Below this heading is the Keep Normal Photo option.
4. Turn on the virtual switch associated with Keep Normal Photo, if you want to store both a Normal and HDR version of each photo that you take using the HDR shooting mode. Turn off this virtual switch if you only want to store the HDR version of the photo when this shooting mode is used. Keep in mind, storing two versions of each photo will take up additional internal storage space within your iPhone, until you manually delete one version of the image.

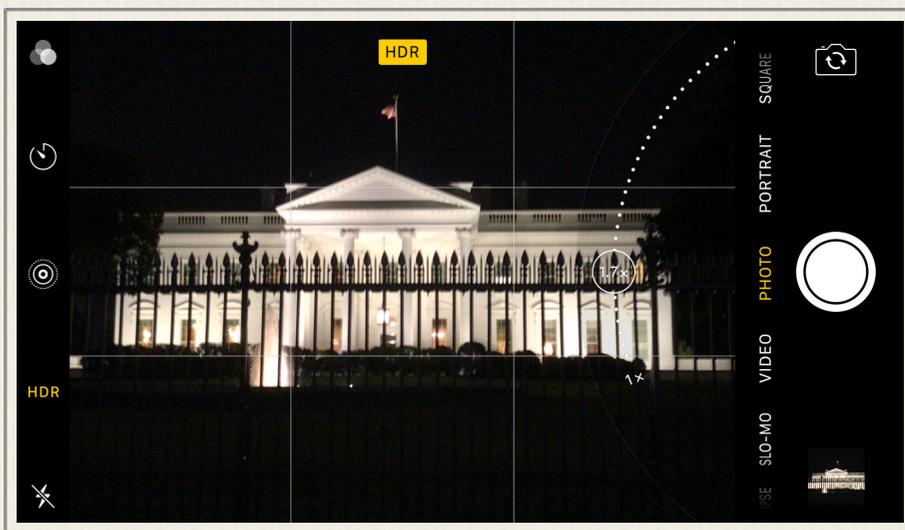
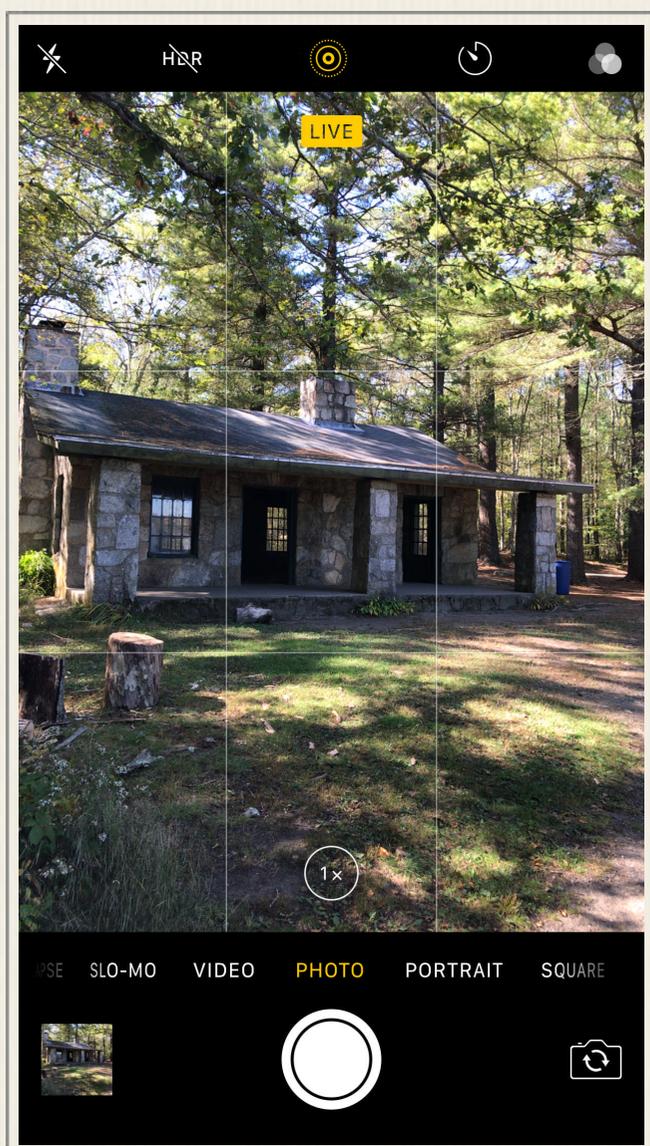


Figure 20 - With the iPhone held in landscape mode, the HDR icon can be seen in the top-center of the viewfinder screen.

HDR shooting mode can be used in any lighting situation, not just in low-light conditions. When using HDR with the front-facing camera, the Zoom feature is not available. The Zoom feature is available when using HDR mode with either of the rear-facing cameras. When this feature is turned on, the yellow and black HDR icon is displayed near the top-center of the viewfinder screen (as soon in Figure 20).

Live Photo Mode



Each time you tap the Shutter button when using the Photo or Square shooting mode, a single (still) digital image is typically captured. When Live Photo mode is turned on, instead of capturing a still shot, the iPhone captures a two to three second mini-movie, which can then be viewed as a Live Photo on any iPhone, iPad, iPod Touch, Apple Watch, Mac, or Apple TV device. Live Photos look animated. People using non-Apple computers or mobile devices can view a Live Photo, but it will appear as a traditional still image.

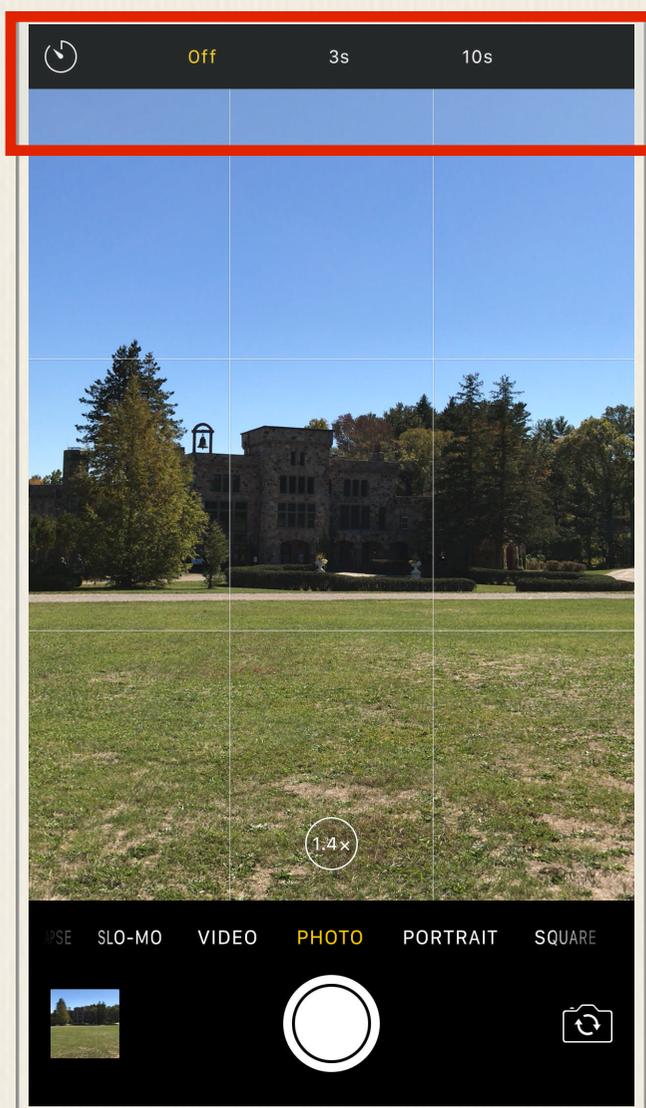
Figure 21 - When Live Photos mode is turned on, the Live Photos icon that's displayed at the top-center of the viewfinder screen turns yellow.

To turn on the Live Photo mode, tap on the Live Photo icon that's displayed in the top-center of the viewfinder screen. Once turned on, this icon turns yellow (shown in Figure 21).

The iOS 10 or iOS 10.1 edition of the Photos app allows you to edit and share Live Photos just as you'd edit and share any still digital photo. The Live Photo feature works with the front- and rear-facing cameras, and many of the Camera app's other features.

Timer Mode

Typically, when you tap the Shutter button, the Camera app immediately captures and saves each image that's taken. When you turn on the Timer mode, the Camera app waits for either three or 10 seconds after you tap the Shutter button before actually taking the shot. Thus, if you set up the iPhone on a tripod or using a stand, for example, you can set a 10 second delay, frame your shot, tap the Shutter button, and then have time to reposition yourself in front of the rear-facing camera so you can be in your own photo.



To turn on this feature, tap on the Timer icon. You can then turn this feature Off, or set it to a three second or 10 second delay (as shown in Figure 22).

Figure 22 - Tap on the Timer icon that's displayed along the top of the viewfinder screen, and then choose between Off, a three second delay, or a 10 second delay between the time the Shutter button is tapped, and when a photo is actually taken.

Add a Special Effect Filter While Shooting

The Camera app has eight pre-created special effect filters, any one of which can be added to your photos as you're taking them. To activate this feature, tap on the Filters icon that's displayed in the top-right corner of the viewfinder screen. You'll notice that the viewfinder screen changes dramatically. This is shown in Figure 23.

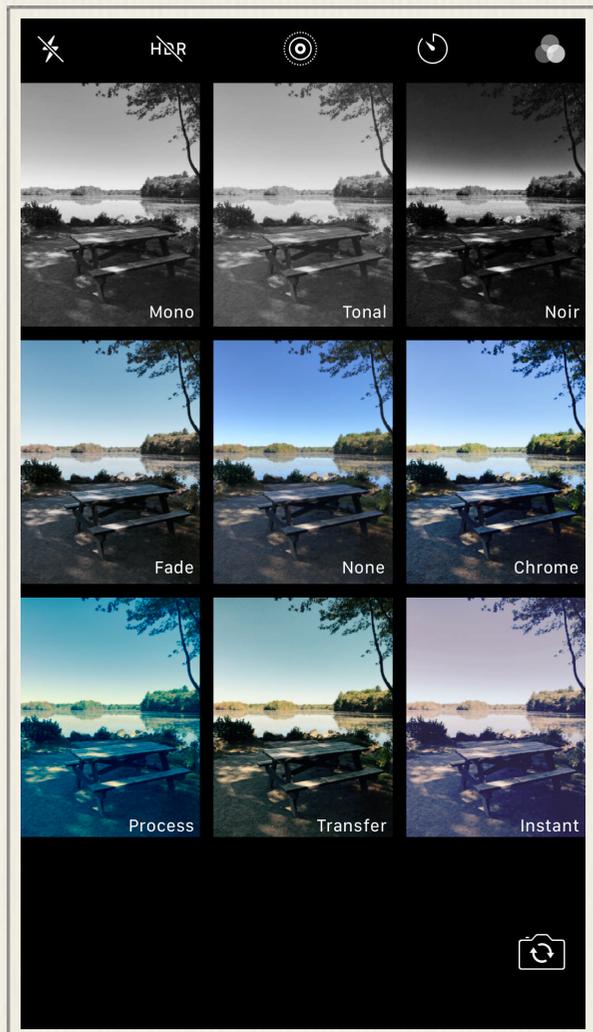


Figure 23 - When the Filters option is selected, this is what the viewfinder screen looks like.

The viewfinder is now comprised of nine boxes, each of which displays a small version of the Camera app's viewfinder, but with a special effect filter added. The middle box, labeled None, adds no special effect to the image. Tap on this to exit out of the Filter mode.

To take a photo with one of the eight special effect filters, frame your subject within the viewfinder, and then tap on the box associated with the Mono, Tonal, Noir, Fade, Chrome, Process, Transfer, or Instant effect filter.

Tapping on one of these boxes serves the same purpose as tapping on the Shutter button, and each time you do this, a single image is taken and saved.

Figure 24 shows an image with no filter selected, while Figure 25 shows the same image with the Mono filter selected. Figure 26 shows the Fade filter in use. As you can see, simply selecting one of these filters can dramatically alter the appearance of an image as it's being taken.

Using the Filters option when taking pictures, you're able to utilize either the front- or rear-facing camera, but you cannot use the Zoom feature, for example. Since the viewfinder box is much smaller, you're better off shooting a normal photo (using the Photo shooting mode), and then adding one of these special effect filters after the fact from within the Photos app. Unlike many third-party photo editing applications, the Camera and Photos app only allow you to apply one filter

per image, and the intensity of each filter is not adjustable. After using a filter, however, you can use the Photo app's other image editing and enhancement tools in order to further customize the appearance of an image.

To quickly enhance the colors within a photo and make them much brighter and vivid, view the image within the Photos app, tap on the Editing tools icon, tap on the Adjust icon, tap on the downward-pointing arrow icon associated with the Color option, tap on the Saturation tool, and drag the Saturation slider to the left. Tap on the Done option to save your edits.

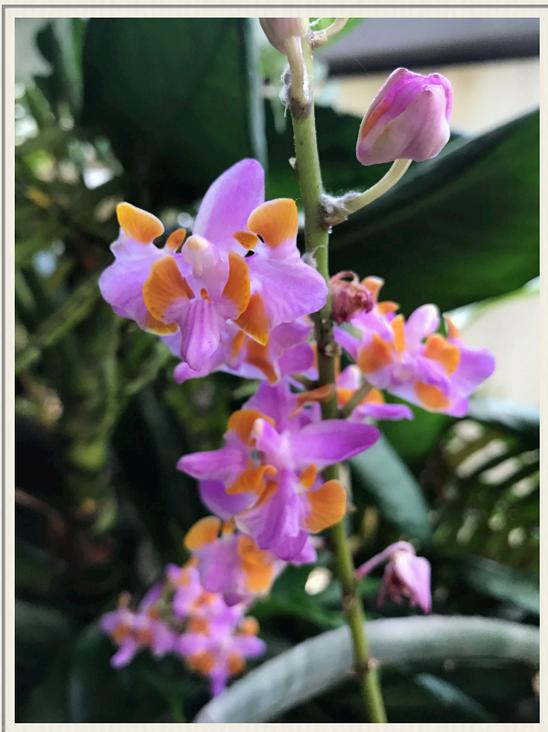


Figure 24 - No filter was used to capture this image.



Figure 25 - The same shot is shown here using the Mono filter.



Figure 26 - In this example, the Fade filter is being utilized.

Take Advantage of the Auto Focus Sensor Whenever You're Taking Pictures

Regardless of what you're taking pictures of, whether you're using the front- or one of the rear-facing cameras, or which shooting mode you choose, each time you want to take a photo, it's essential that you take advantage of the Camera app's auto focus sensors in order to insure that your intended subject is what will ultimately appears in focus.

The auto focus sensors look like yellow squares that get superimposed on the viewfinder screen, over each subject's face, for example (as seen in Figure 27).

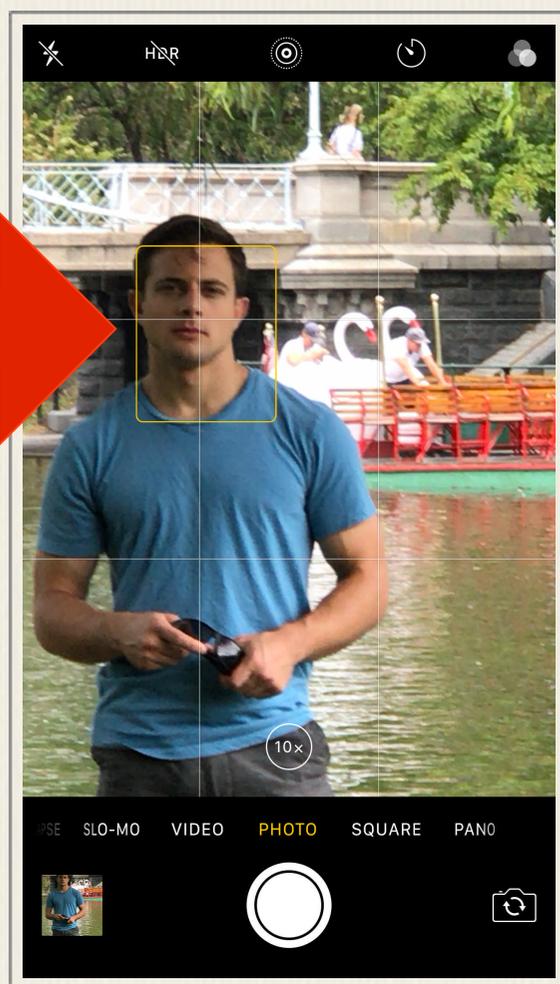


Figure 27 - The auto focus sensor kicks in automatically when taking pictures of people. Otherwise, you need to manually activate it.

Anytime you take photos of people, auto focuses sensors will automatically appear around their faces. However, if you're taking pictures of animals or objects, it becomes your responsibility to activate the auto focus sensor in order to inform the Camera app about what your intended subject is within the photo that's being taken. Otherwise, the Camera app will guess, and when it chooses the wrong item within the viewfinder, your intended subject could wind up out of focus.

Manually activating the autofocus sensor is particularly important if your intended subject is surrounded by other objects that are positioned in front of, behind, or to the sides of it. Activating the auto focus sensor is very easy. After choosing your intended subject and framing your shot within the viewfinder, simply tap on the viewfinder screen, di-

rectly over your intended subject. The yellow auto focus sensor box will appear over your intended subject.

The auto focus sensor works automatically when taking pictures of one or more people. You must manually activate the auto focus sensor when taking pictures of animals or objects, however.

As soon as the auto focus sensor kicks in, you may notice that the use of light by the Camera app changes, objects in the background may become blurry, and colors in the viewfinder may become more vivid, as light surrounding your subject within the viewfinder is better utilized.

When using Portrait mode, it's particularly important to insure that the auto focus sensor is placed directly over your intended subject, and that your subject is well lit.

Located to the immediate right of the auto focus sensor is a miniature Exposure Control slider. If you want to manually adjust the exposure of the image just prior to snapping a photo, place your finger on this sun-shaped icon, and move it up or down to adjust the image's exposure before tapping the Shutter button. In most cases, however, you'll discover it's much faster and easier to activate the auto focus sensor, and then wait until you're editing the image using the Photos app (or another third-party photo editing app) to manually adjust the exposure or other aspects of the image.

How to Use the Zoom Feature and Switch Between Rear-Facing Cameras

As a photographer, you won't always be able to physically move close to your subject in order to capture the perfect shot. You'll sometimes need to rely on the Cam-

era app's built in Zoom feature. Your iPhone 7 Plus has 1x and 5x optical zoom lenses. In other words, by default, the rear-facing camera with the wide-angle lens camera offers no zoom (1x), and the telephoto lens utilized by the second camera offers a 2x optical zoom (created by the lens itself).

When you use the Camera app's Zoom feature with the wide-angle lens, you can manually adjust the digital zoom between 1x and 4x. When you Zoom to 5x, the Camera app automatically switches to the telephoto lens to offer a 5x zoom, but you can manually increase it digitally and achieve up to 10x zoom.

Using the Zoom feature on the iPhone 7 Plus is slightly different than using it with the Camera app on an iPhone 7 (or any older iPhone model). Displayed near the bottom-center of the viewfinder screen, just above the selected shooting mode, is the circular Zoom icon. Each time you launch the Camera app, by default, it utilizes 1x zoom (no zoom).

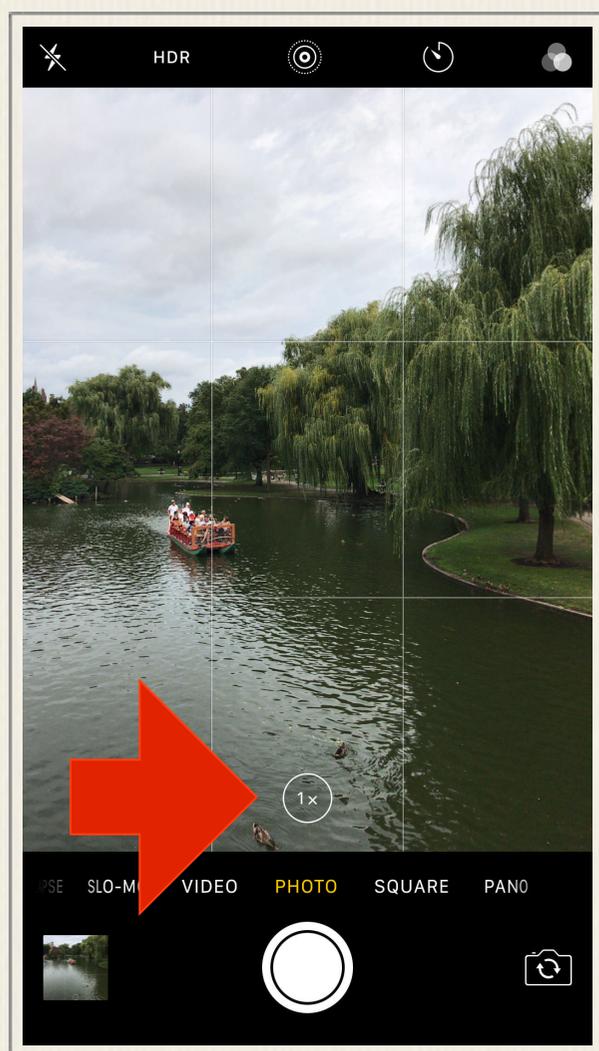


Figure 28 - To switch between the wide angle and telephoto lens, tap on the Zoom icon.

To quickly convert to 5x zoom, and switch from the wide-angle lens to the telephoto lens, tap on the 1x icon once (shown in Figure 28). Notice that it now says 5x (it may say 2.5x). However, regardless of which iPhone 7 Plus camera you're using, you can manually adjust the zoom intensity in one of two ways.

First, you can use a reverse-pinch finger gesture on the viewfinder screen in order to zoom in on your intended subject, or use a pinch finger gesture to zoom out. Alternatively, place and hold your finger on the circular zoom icon. This causes the newly redesigned Zoom Slider to appear (shown in Figure 29). Once this Zoom Slider is visible, place your finger on the circular Zoom icon, and drag it left to zoom out, or to the right in order to zoom in on your subject.

After you've set the zoom level to your liking, so



Figure 29 - Press down gently on the Zoom icon to make the Zoom Slider appear.

you're able to frame your shot and nicely showcase your intended subject, don't forget to activate the auto focus sensor by tapping on your intended subject that's displayed within the viewfinder screen. This should be done after you've adjusted the Zoom feature.

Anytime you utilize the Zoom feature of the iPhone 7 Plus, it's particularly important to hold your phone extremely steady when tapping the Shutter button to take a photo. Even the slightest shake or movement, for example, could result in a blurry photo.

When using the zoom in low light situations (without the flash), holding the iPhone still when snapping a photo is also absolutely essential. You still might notice, however, that your images are slightly pixelated. The only way to adjust for this is to shed more light onto your subject, or reduce the zoom intensity you're using.

Higher zoom levels work much better on the iPhone 7 Plus when you're shooting outside on a bright and sunny day, or when shooting in an area with a lot of natural or artificial light. Unfortunately, if your intended subject is located too far away from you, using the iPhone's built in flash won't be too useful, because the light from the flash won't be strong enough to reach your subject if it's more than 10 to 15 feet away.

Keep in mind, instead of (or in addition to) using the Camera app's Zoom feature while taking photos, you also have access to the Crop and Reposition tools offered by the Photos app. In other words, you can crop and re-frame an image after it's taken during the editing process.

How to Take a Screenshot

To capture a screenshot of what appears on your iPhone's screen, regardless of which app is running, press the iPhone's Sleep/Wake button and the Home button simultaneously. The screenshots you capture will automatically be saved in the Photos app, within the All Photos or Camera Roll album, as well as within the separate Screenshots album.

Customize the Camera App from Settings

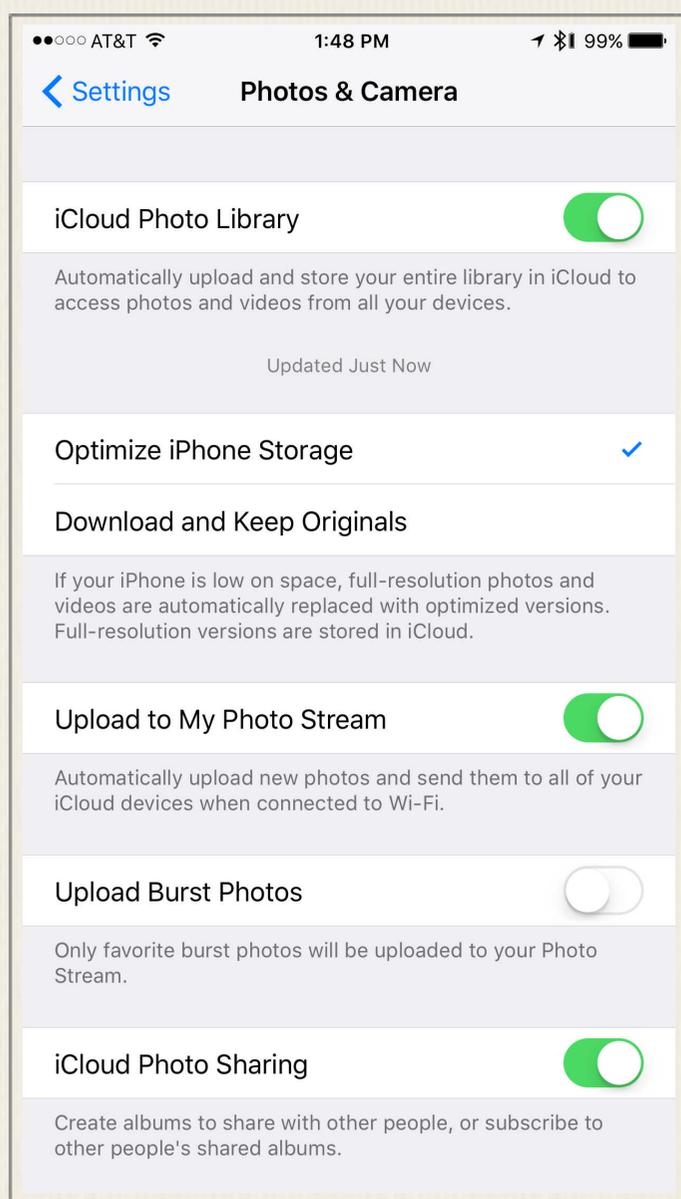


Figure 30 - The Photos & Camera submenu screen within Settings.

Like many apps that you use with your iPhone 7 Plus, the Camera app offers a selection of user-controllable options that are accessible from within Settings – not from the Camera app directly. To access these Setting-related options, from the Home screen, launch Settings, and then from the main Settings menu, scroll down and tap on the Photos & Camera option.

From the Photos & Camera submenu within Settings (shown in Figure 30), you can do things like turn on or off the iCloud Photo Library feature, or choose to optimize your iPhone's internal storage. Tap on the Optimize iPhone Storage option if you have thousands of images in your personal photo library (stored on your iPhone), and you're starting to run low on internal storage space within your phone.

Located below the Camera heading within the Photos & Camera submenu is an option called Grid. Turn on the virtual switch associated with this feature. Doing this will cause a virtual grid (which looks like a tic-tac-toe board) to be superimposed over your viewfinder screen. The Grid will not appear in your actual photos, but it's a very useful tool that can help you more easily frame your shots and insure that you're holding the iPhone straight (so your pictures don't wind up appearing crooked).

Within the Section called, "14 Tips for Taking Professional-Quality Photos with the Camera App," be sure to read, "Tip #2 – Utilize the Rule of Thirds When Framing Your Shots." This tip explains how to use the Grid in order to easily implement the Rule of Thirds image framing strategy for each of your shots.

Also from the Photos & Camera submenu within Settings, you have the option to turn on or off the virtual switch associated with Keep Normal Photo for both the

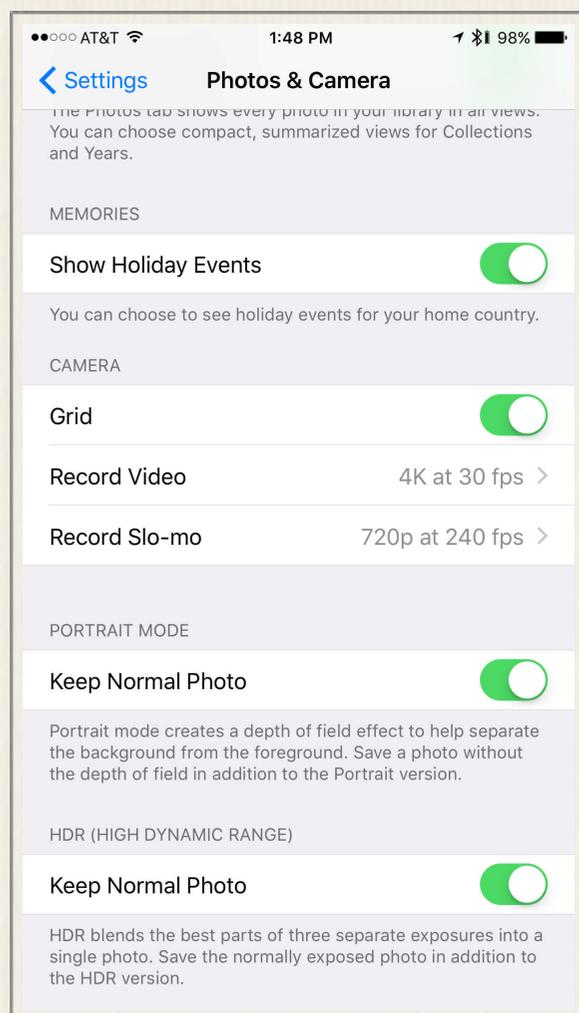


Figure 31 - Scroll down when viewing the Photos & Camera submenu to view these options.

Portrait Mode and HDR (High Dynamic Range) options.

By turning on the Keep Normal Photo option associated with Portrait Mode (shown in Figure 31), each time you use the Portrait mode feature that's built into the iOS 10.1 edition of the Camera app, two versions of each photo will be saved within the Photos app of your iPhone. (They can be found within the All Photos or Camera Roll album, as well as within the Depth Effect album.)

One version of the image will showcase the blurred background intentionally caused by the Depth Effect that the Portrait mode automatically creates. The second version of the image will not showcase this effect. In other words, this version of the image is equivalent to taking it using the Photo shooting mode, instead of Portrait mode. In this version of

the image, your intended subject(s), as well as what's in the background, should be displayed clearly and in focus.

You can then view each of the images using the Photos app, for example, choose which one you like better, and manually delete the other one (or keep both versions of the image.) Keeping both versions of the image takes up more internal storage space within your iPhone, however.

By turning on the virtual switch associated with Keep Normal Photo option displayed under the HDR (High Dynamic Range) option (also shown in Figure 31), each time you take a photo with the HDR option turned on, your iPhone will save two versions of that image – one that showcases HDR mode, and one that does not. You can then view each of the images using the Photos app, for example, choose which one you like better, and manually delete the other one (or keep both versions of the image).

Adjust the iPhone's Location Services Option Related to the Camera App

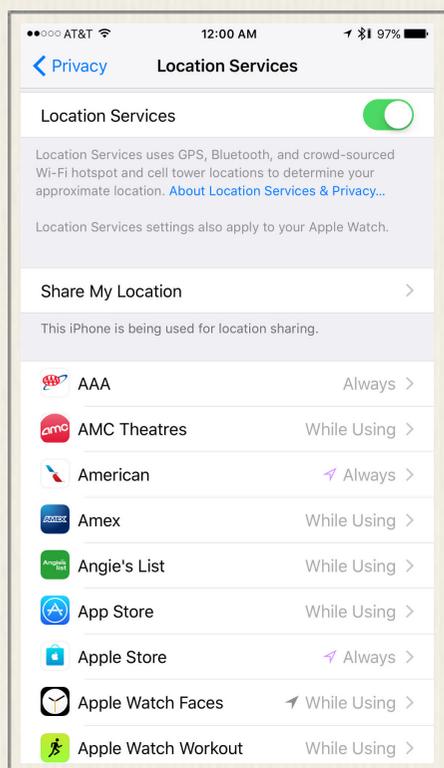


Figure 32 - Turn on the virtual switch for Location Services, and then scroll down to the Camera app option and tap on it.

Also from within Settings, it's possible to turn on or off Location Services related to the Camera app. When turned on, every time you snap a photo, the exact location where the photo was taken is saved in conjunction with the image's digital file. At the same time, the Camera app records the date and time the image was shot.

To turn on or off Location Services, launch Settings, tap on the Privacy option, and at the top of the Privacy submenu screen, tap on the Location Services option. Make sure the virtual switch associated with Location Services (shown in Figure 32) is turned on, and then scroll down to the Camera option and tap on it.

To insure that the iPhone will record the location where each photo is taken, select the While Using the App op-

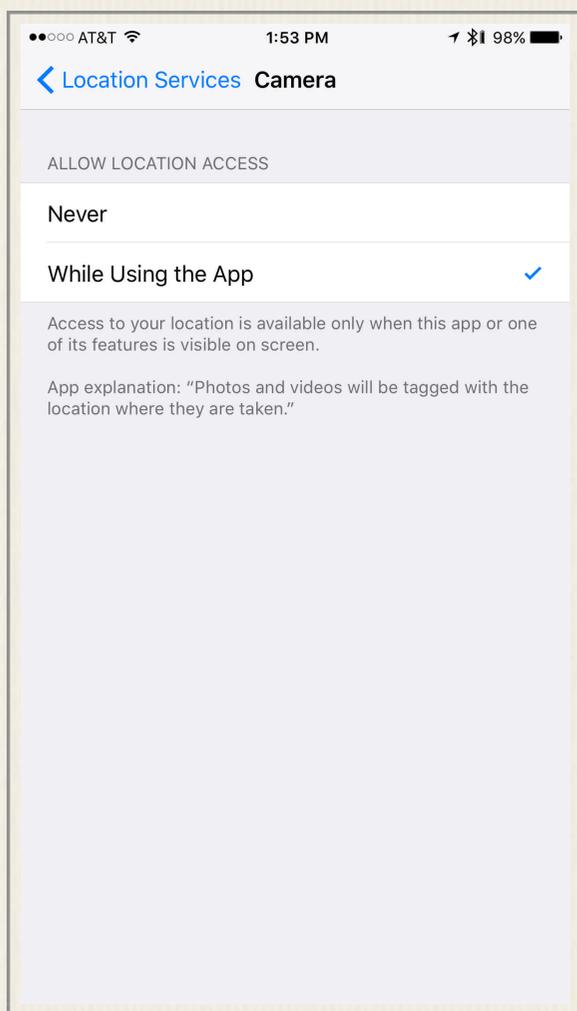


Figure 33 - Turn on Location Services in conjunction with the Camera app to automatically record the location where each photo is taken.

then select the Places folder. Tap on the Map tab that's displayed near the top-center of the screen to view a world map. Each thumbnail image on the map reveals the location where one or more photos were taken.

It's possible to zoom in or out when viewing the map, and then tap on any of the thumbnail images or locations in order to see all of the images taken at a specific location. Based on how much you zoom in when viewing the map, you can view images based on the country, state, city, or even a specific address where they were shot.

All metadata that's collected when a photo is taken becomes part of the image's digital file. This information can be used by the Photos app running on the iPhone, iPad, or a Mac, for example, to sort your images by location, and/or the time/date when each photo was taken.

tion (shown in Figure 33). To prevent the iPhone from recording the location where photos are taken, select the Never option that appears below the Allow Location Access heading.

Keep in mind, the Photos app for the iPhone, iPad, and Mac, uses location information as one way to sort and display your images. Even if location data is stored as part of a photo, this does not mean that you have to share your location if you opt to share your photos on social media (Facebook, Twitter, Instagram, or Snapchat, for example). Anytime you opt to share one or more photos online, you always have the option to block the metadata associated with the photo, which includes where each image was taken.

When using the Photos app, to view a map that displays where your photos were taken (assuming Location Services is turned on), tap on the Albums icon that's displayed at the bottom of the screen, and



14 Tips for Taking Professional-Quality Photos Using the Camera App

Now that you understand how to use the Camera app, the following 14 strategies will help you consistently take professional-quality images in a wide range of shooting situations. Once you decide to take a photo, the first steps after launching the Camera app are to:

1. Choose your intended subject(s).
2. Analyze the subject's surroundings.
3. Determine how you'll utilize the available light.
4. Choose the best Camera app features and functions, and adjust the Camera app accordingly.
5. Adopt the most appropriate shooting approach in order to achieve the desired results in your photos.

Of course, you'll want to tap your creativity as much as possible, and alter your approach in order to insure your photos don't all wind up looking the same, especially if you plan to showcase a group of your images within an online gallery, animated slideshow, photo book, photo album, or scrapbook, for example.

Tip #1 – Pay Attention to Your Primary Light Source

If you're taking pictures outside, your primary light source will be the sun. Indoors, the primary light source could be a lamp, light shining through a window, candlelight, or light emanating from a fireplace, for example.

In general, as the photographer, you always want to position yourself so that your primary light source is behind you, so its shining as evenly as possible onto your subject.

Based on the location and source of the light, you'll often discover unwanted shadows on or around your subject(s). It's your job as the photographer to position yourself (and your potential subject, if possible) so that unwanted shadows are reduced or eliminated altogether.

If too much light emanates from in front of you (the photographer), and shines directly into the camera's lens, you'll wind up with an overexposed image or unwanted glares. Meanwhile, if the light is originating from behind your intended subject, and also shining into your camera's lens, your subject will appear within your shots as a silhouette.

There are a few instances when you want the primary light source to be positioned in front of you (the photographer), such as when you're taking pictures of a sunrise or sunset, or you want to create a silhouette effect for artistic and creative purposes. As you analyze each shooting situation, pay attention to the impact the natural or ambient light is having on your subject, and try to use this light to your advantage.

In instances when you want to take a photo of a person standing in front of a sunrise or sunset, and you want to be able to see the person in detail (not as a silhouette), as well as the vivid colors of the sun, try standing between three and six feet in front of the subject, turn on the iPhone's flash, and take your photo. The light from the flash will brighten your subject's face and body, but should not impact or wash out the vivid colors of the sunset.

Tip #2 – Utilize the Rule of Thirds When Framing Your Shots

Most amateur photographers use the same strategy every time they set out to take a photo. They hold the camera directly up to their subject, center the subject within the frame, and then take the picture from a head-on perspective. Does this sound familiar? Well, if you want your photos to almost immediately take on a more professional look, stop using this picture taking approach!

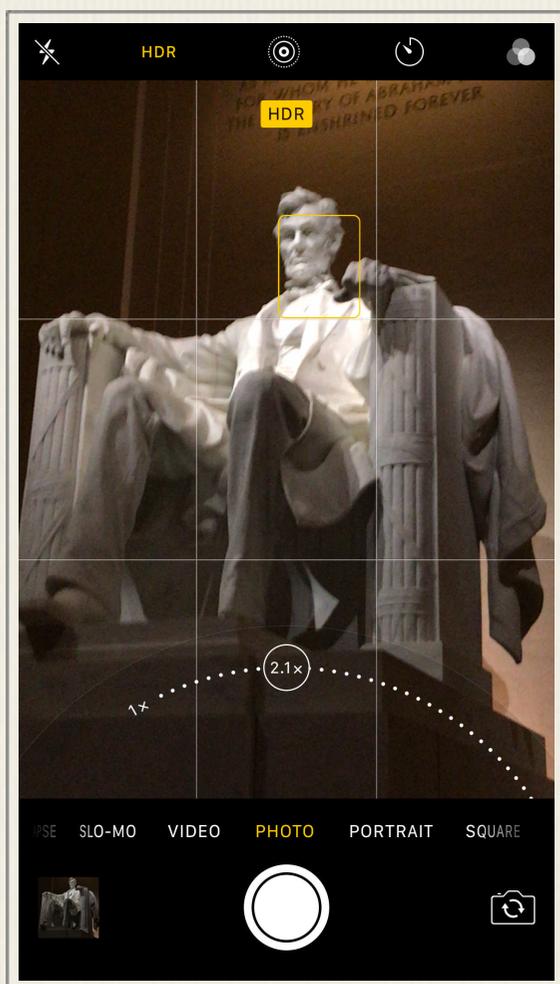


Figure 34 - Use the Grid feature on the viewfinder screen to help you frame your shots by taking advantage of the Rule of Thirds photography principle. The Grid will also help to insure you're holding the camera straight.

The Rule of Thirds is a photography strategy used by virtually all semi-professional and professional photographers, and it's very simple to adopt. To use the Rule of Thirds, turn on the Grid feature that's built into the Camera app. This can be done from within Settings.

Each time you're framing a shot, instead of positioning your subject in the dead-center of the frame (which is within the center box of the Grid), line up your subject so it's positioned at one of the Grid's four line intersection points, or along one of the vertical or horizontal lines that make up the Grid (shown in Figure 34).

Depending on the shooting situation, you can choose where to position your subject. As you use this strategy, also pay attention to Tip #2 and Tip #3 when framing your shots. The goal is to position your subject somewhere within the frame where it looks visually interesting. For example, this can be based on your subject's surroundings.

Keep in mind, your subject (if it's a person or animal) does not always need to be looking directly at you and into the camera. Where the subject is looking, as well as their pose, and their body language, can be

used to best choose where to position them when using the Rule of Thirds. For the best results, you always want the subject to be positioned so it's facing into the frame, not away from it. This also applies to when the subject is moving. You don't want to position a moving subject so it looks like it's traveling out of the frame.

The following four photos (Figures 35 through 38) are examples of the Rule of Thirds being put to use in a correct way. Notice that the intended subject is always positioned at one of the Grid's intersection points, or along one of the Grid's horizontal or vertical lines - not in the dead-center of the frame. The red lines added to these images represent the Grid.

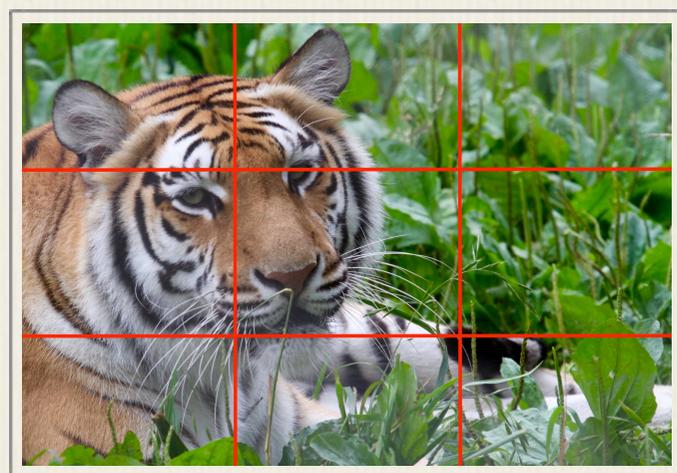
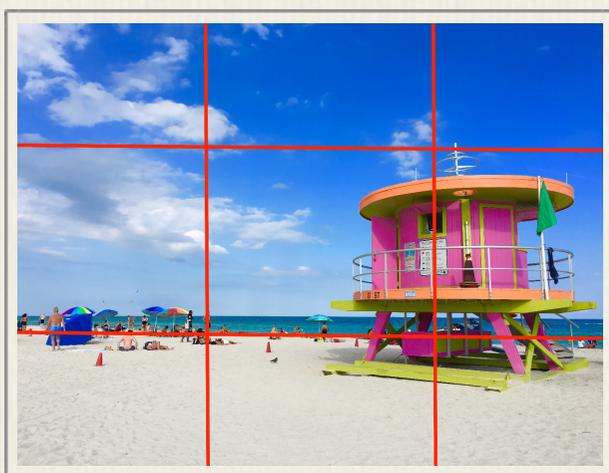
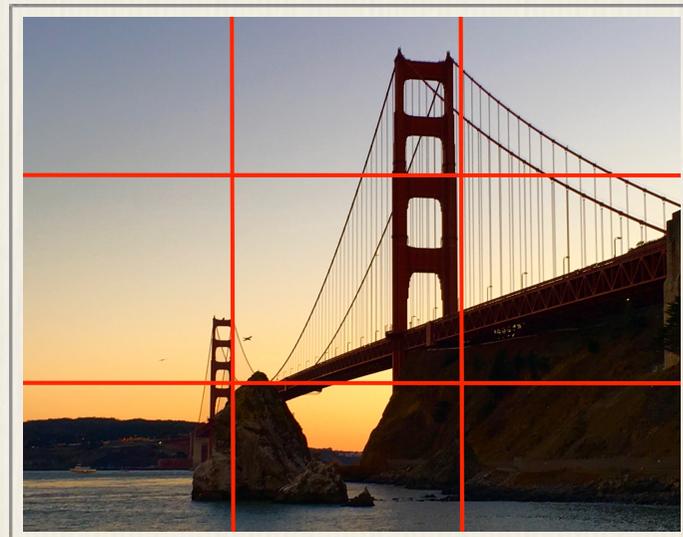


Figure 35 through Figure 38 - These are examples of how the Rule of Thirds can be used to position the intended subject(s) within the viewfinder as a shot is being framed. In addition to the location of the intended subject, also consider your shooting angle or perspective, and what scenery or objects surround your subject that can be used to make the shot more visually interesting.

Tip #3 – Shoot from A Unique Shooting Angle or Perspective

The Rule of Thirds is used to keep you from always positioning your subject in the dead-center of the frame when you take a photo. Another common mistake made by amateur photographers, however, is that they always position themselves directly in front of their intended subject, and shoot from a head-on perspective.

This is another habit you sometimes want to break.

Instead of shooting from a head-on perspective, determine how your shot would look if you crouch down, and point your camera upwards to change your shooting angle or perspective. Also, consider how it would look if you somehow get yourself higher than your subject, and shoot at a slight downward angle.

Next, consider moving to the side of your subject, and shooting from a slight side-ways angle, or a diagonal perspective. Creating an interesting angle between you and your subject often makes for a more visually interesting photo. Keep in mind, the angles you create can be very slight, but still make a huge impact on the appearance of your image. Varied shooting angles definitely something you should experiment with.

Basically, when it comes to choosing a shooting perspective, be creative, and see what looks good when you're viewing your subject within the viewfinder as you're framing each shot.

If you're standing relatively close to a large building or structure, you may not be able to fit the entire thing into your frame if you shoot from a head-on perspective. In this case, try crouching down, and positioning the camera at an upward angle, and at the same time, maybe position yourself at a diagonal from the large building or structure.

In Figure 39, if you were standing in front of the Ryman Auditorium in Nashville, it would not be possible to include the whole historic building within a single shot. However, by moving to a nearby corner, and then shooting from a diagonal (and at a slight upward angle), much more of the building appears within the photo.

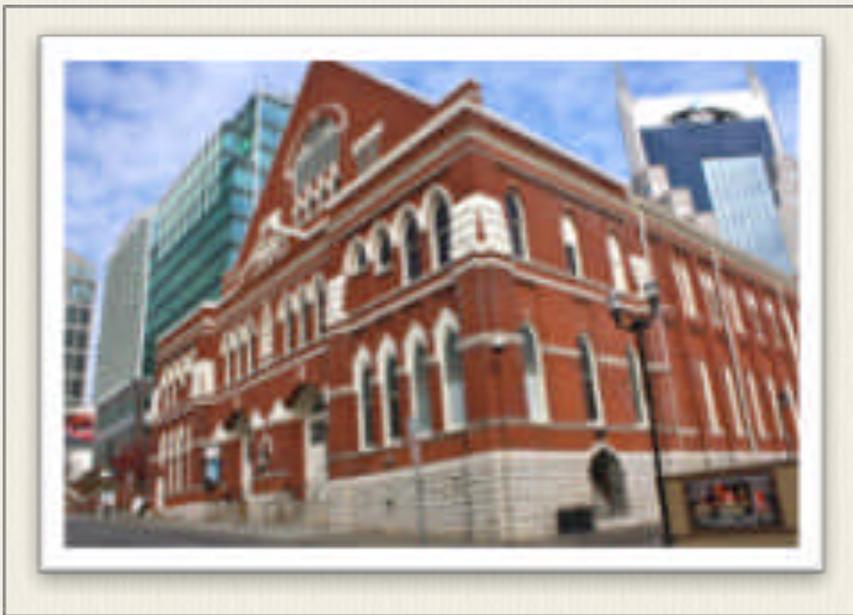


Figure 39 - You don't always need to shoot your intended subject from a head-on perspective.

Tip #4 – Pay Attention to What's Surrounding Your Intended Subject(s)

There will be times, when taking someone's portrait, for example, that your intended subject will take up most of the frame, and what's in the background is totally inconsequential. In fact, the more basic the background, the better for some portraits.

However, there will be many other situations where what's in front of, behind, or to the left and/or right of your intended subject is visually important to the image, because it helps to tell a story or set the scene.

As the photographer, try to utilize what is surrounding your subject in the most visually interesting and creative ways possible. In figure 40, the U.S. Capitol, for example, is framed using trees and bushes. This adds a sense of depth to the photo, plus makes it more interesting to look at.



Figure 40 - Use the surroundings, when possible to help frame your subject with a shot.

By including something in front of or behind your subject, you're also able to make your images look more multi-dimensional. For example, in Figure 41, the intended subject is Alcatraz Prison which is located within the San Francisco Bay. All by itself, this particular image is boring to look at.

However, by waiting just a few extra seconds, and including a moving boat within the photo, that image (shown in Figure 42) becomes much more visually interesting. It now looks more multi-dimensional, and shows a sense of motion.



Figure 41 - In this image, just Alcatraz is shown. The mountains in the background add a small sense of multi-dimensionality, but it's still a rather boring shot.



Figure 42 - By also capturing the moving boat, this image looks more multi-dimensional, and includes a sense of motion. It's much more visually interesting to look at.

In Figure 43, the photographer was standing above the subject (pointing the camera in a downward direction), while the subject was looking up and into the camera's lens. As a result, not only is this image more interesting to look at, compared to if it were shot from a head-on perspective, but in this image, the multi-colored leaves on the ground serve as the background. From this shooting perspective, you can't tell that the subject was really standing in front of a house, which was covered with white vinyl siding. (The side of a house would have made for a visually uninteresting background).



Figure 43 - To capture this shot, the photographer stood on a nearby rock, and shot in a downward direction, while the subject looked upwards into the camera's lens.

Tip #5 – Always Hold the iPhone Still When Taking Pictures

It's true that the Camera app offers automatic image stabilization to help compensate for any slight movement of the iPhone while a photo is being taken. However, as a general rule, you always want to hold the iPhone as steady as possible whenever you're tapping the Shutter button in order to take a photo.

This is particularly important when you're using the Zoom feature, or when you're shooting in low light situations, when the camera's image sensor becomes much more sensitive to even the most subtle movements or shaking.

If you have trouble holding the iPhone steady, consider investing in an optional case that doubles as a stand, or purchase an optional mini-tripod, for example, that will hold the camera (your iPhone) steady for you.

A company called Joby, for example, offers a selection of portable tripods for use with the iPhone 7 Plus, including the GripTight Pro Phone portable tripod (\$59.95, <http://joby.com/mobile/griptight-pro-phone>). Less expensive portable or tabletop tripod options are also available from a wide range of companies. To find them, access your favorite Internet search engine (such as Yahoo!, Google, or Bing), and enter the search phrase, "iPhone Tripod."

Tip #6 – Choose the Best Shooting Mode for the Situation At Hand

You already know that the Camera app offers a variety of different shooting modes, as well as photography features (like HDR mode, the True Tone Flash, the Timer option, and Portrait mode). Based on each shooting situation you encounter, choose which shooting mode will help you achieve your desired results. Combine the shooting mode you select with one or more of the Camera app's features and functions that are at your disposal.

Keep in mind, you also have a complete set of photo editing and image enhancement tools at your disposal within the Photos app. These tools allow you to alter a photo's appearance after it's been shot and saved within your iPhone.

If you haven't already done so, invest some time and get to know how each of the shooting modes and the Camera app's other functions work. Develop a good understanding of what each does, and how each can be used. This, combined with picture taking practice, will help you consistently take awesome looking shots using the cameras that are built into your iPhone.

Tip #7 – Take Pictures of Signs and Turn On Location Services

Especially if you do a lot of traveling, get into the habit of taking pictures of signs wherever you go. A few examples can be found in Figures 44 through 46. At the same time, make sure you turn on the Location Services feature associated with



Figures 44 through 46 - Especially when traveling, take pictures of signs to help you set the scene and tell your travel-related adventure story.

the Camera app, so you'll later be able to determine exactly where each photo was taken. As you take pictures of signs, again use your creativity.

For example, if you're traveling with other people (or your pet), position them in front of the various signs you encounter. Alternatively, look for words displayed on buildings or other objects. If you're taking pictures on a sandy beach, for example, use your finger or a stick to draw words in the sand, such as "Smith Family Vacation 2017," and take a picture of that.

These sign-related photos can be used as title images, to set the scene when showcasing a collection of your travel or vacation photos within an online gallery, as part of an animated slideshow, or within a photo book, photo album, or scrapbook, for example. They also make perfect title images when using the Photos app to create animated Memories (which is a new feature added to the iOS 10 version of the app).

Tip #8 – Take Extra Precautions When Taking Pictures Through Glass

As you go around taking pictures in your everyday life, you'll discover many instances when it becomes necessary to take pictures through glass, such as a window. While traveling, you may want to take a picture of something outside while riding in a car (not while you're driving), a tour bus, a taxi, or boat, for example.

Perhaps you're at a museum and want to take a photo of something enclosed within a glass case, or you're visiting an aquarium (or zoo), and decide to snap a photo of an animal within a glass enclosure or fish tank.

The iPhone 7 Plus is capable of taking excellent photos through glass, if you handle the situation correctly. To achieve the best results, follow these steps:

1. Using a cloth, clean the glass as much as possible to remove dirt, smudges, and fingerprints.
2. After launching the Camera app, turn off the flash, and consider turning on HDR mode.

3. Select one of the rear-facing cameras.
4. Hold the back of the iPhone directly up to the glass. Don't allow any light from your side of the glass to seep between the iPhone's camera lens and the glass you're shooting through. If necessary, block light seepage with your hand or a piece of clothing. You want the camera to only pick up the ambient light from the opposite side of the glass.
5. Frame your shot, and utilize the zoom, if you deem it's necessary.
6. Once you've positioned your intended subject(s) within the frame, activate the autofocus sensor by tapping on the viewfinder screen directly over your subject.
7. As always when shooting in a low light situation, hold the iPhone very steady as you tap the Shutter button or press the Volume Up or Volume Down button to activate the Camera app's shutter and snap the photo.

Take a look at Figure 47. This shot was taken of a snake within a glass tank. In this example, the iPhone's flash was turned on, and the iPhone was held several inches away from the glass. (Two things you should not do.) As you can see, there's a glare from the flash in the top-left corner of the shot, and the colors within the image are a bit washed out.

Now take a look at Figure 48. This shot was taken by following the steps outlined in this section. No flash was used, HDR mode was turned on, and the iPhone was held directly up against the glass. This image showcases much more vibrant colors, no glare is visible, and it's almost impossible to detect that the shot was taken through glass.



Figure 47 - This shot was taken using the iPhone's flash, with the phone held several inches away from the glass.



Figure 48 - This shot was taken by following the steps outlined in this section.

Tip #9 – Be Careful How You Hold the iPhone When Taking Pictures

Especially if you have large hands, one of the biggest challenges iPhone photographers have is holding the smartphone in a way that their fingers or the palm of their hand does not accidentally block the camera's lens or the iPhone's flash. Pay attention to what you see in the viewfinder, and get into the habit of tapping on the last image shot thumbnail (displayed in the bottom-left corner of the viewfinder screen) in order to check your images immediately after you take them.

Also, practice holding the iPhone in a way that's comfortable, and that gives you easy access to the Camera app's command icons, so you can manage the app's features and functions, without impeding your ability to take good photos. Figure 49 shows an example of a photo that was taken on an iPhone, but the photographer's finger accidentally got caught in the shot because the phone was not being held properly.

If you have trouble holding the iPhone correctly, consider investing in an optional handle for the phone, such as Joby's GripTight POV kit (<http://joby.com/griptight-pov-kit>), which is priced at \$49.95. Less expensive options are available from other companies.



Figure 49 - Practice holding the iPhone in a way that keeps your fingers (and the palm of your hand) away from the camera's lens and flash.

Tip #10 – Watch Out for Unwanted Glares

You already know that your primary light source should be positioned behind you, the photographer, so that it shines evenly onto your subject. However, there are instances when you might want to position yourself in a way that the primary light source shines toward the camera's lens, but in a controlled way, in order to create slight glares for artistic purposes.

Figure 50 shows an example of the glare from the sun shining through the branches of a tree. Just a little bit of light shined directly into the camera's lens, so a glare was created for artistic purposes. If too much light shined into the lens, however, the photo would be overexposed, and it would look washed out.

As a general rule, don't allow too much light to shine directly into the camera's lens.

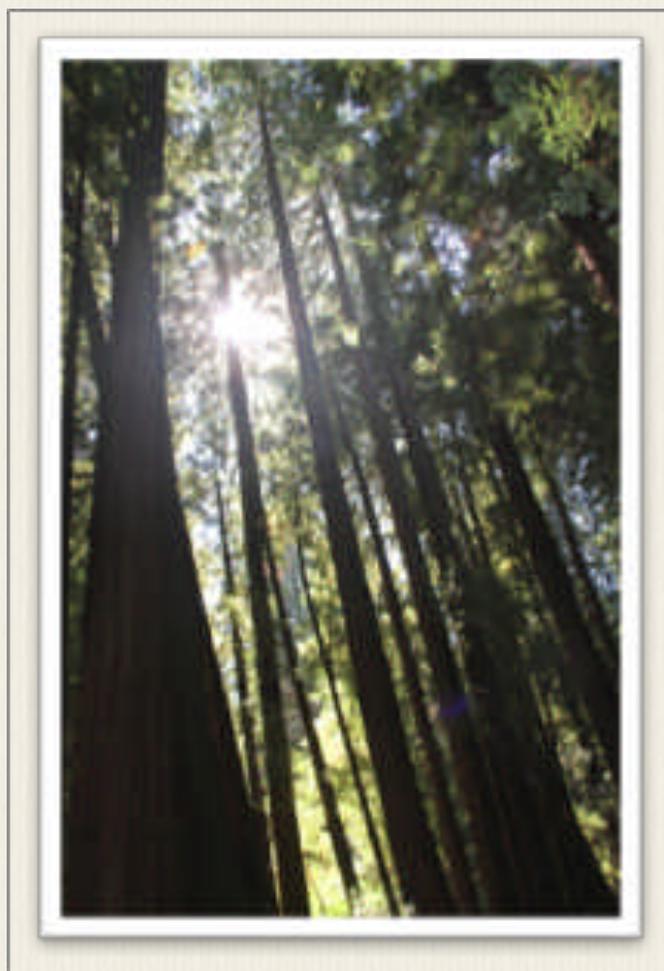


Figure 50 - In this photo, the primary light source (the sun) is positioned in front of the camera's lens, and a small amount of light shined through the trees to create an artistic glare.

Tip #11 – Take Advantage of Reflections for Creative Purposes

While glares and shadows can easily cause problems for a photographer, reflections, when used creatively, can be a tremendous asset. Reflections can be created by mirrors, windows, bodies of water, or almost anything that's shiny, for example. When possible, use reflections to make an image look more visually interesting.

In Figure 51, the water from the Boston Harbor was used to show a mirror image of the city's skyline during a sunset. Because the primary light source (the setting sun) is in front of the camera, the buildings have a silhouette appearance. However, because of the reflection in the water, this image is visually interesting to look at. Without the reflection, it would be a rather boring shot.

Also in this image, the tree branches (which were located much closer to the photographer) were included within the photo to give the image a greater sense of multi-dimensionality.

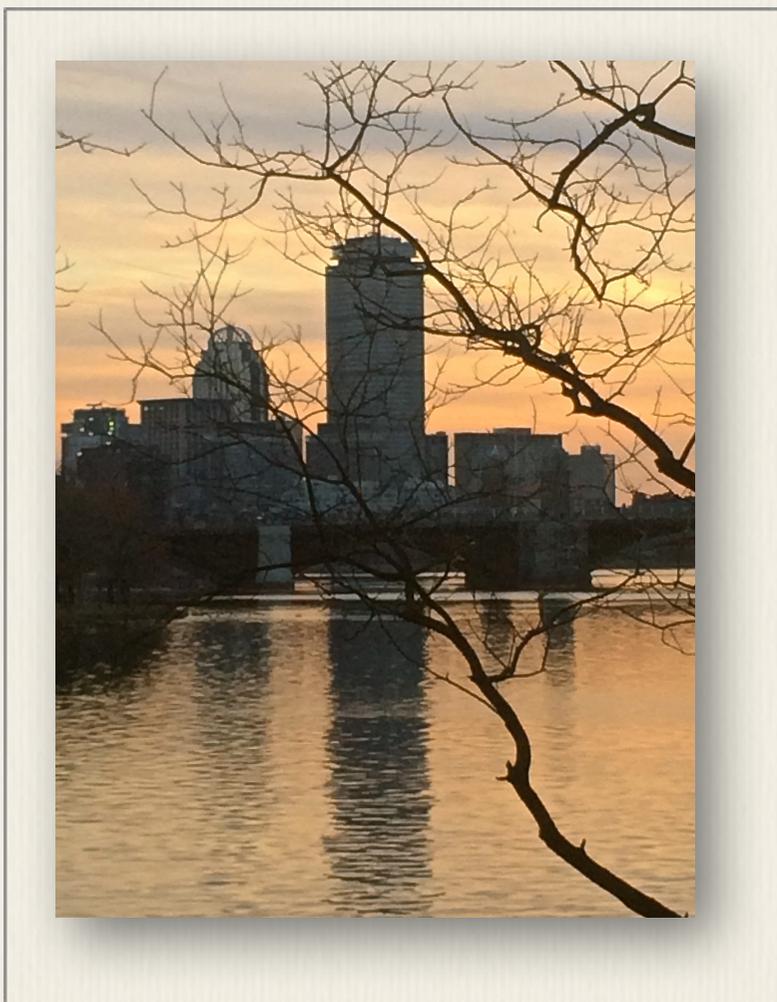


Figure 51 - Use reflections when possible, for artistic or creative purposes within your images, in order to make them more visually interesting to look at.

Tip #12 – Perfect Timing Is Essential

When it comes to digital photography, you'll often hear how important it is to frame each of your shots in a visually interesting or creative way. Another important skill you'll want to develop as a photographer is a good sense of timing. As life unfolds around you, spontaneous things will happen, and these unplanned events often make for the best photo opportunities, especially when you're taking pictures of people.

When something unexpected happens, people react with genuine emotion, and being able to capture that emotion will help you take better pictures. To do this, you need to be observant, and be ready to snap a photo with very short notice. You also need to predict when something interesting might happen, and have your camera set up and ready to capture the shot.

When taking pictures at sporting events, for example, knowing as much as you can about the sport and the players will help you predict when something exciting will happen, allowing you to position yourself in the best location, at the most opportune time, in order to snap a time-sensitive photo.

Likewise if you're attending a surprise birthday party for a friend or relative, you know that when the guest of honor walks into the room and discovers all of their friends, family, and/or coworkers, their facial expression is going to show a genuine surprised look, which as the photographer, you'll definitely want to capture. So, predicting what's going to happen, you want to position yourself in the best place to capture your subject when and where you think they'll be at the time when something important happens.

Perfect timing (and patience) is also essential for taking pictures of kids and animals, since your subjects in these cases will seldom follow your directions when you're trying to take their picture.

Chances are, you rely on your iPhone for many things in your everyday life, and you almost always have it with you. Get into the habit of being observant. Seek out fun, interesting, and unusual photo opportunities that allow you to capture spontaneous moments or the genuine emotions from your desired subjects.

When your subject is genuinely laughing at something that's funny, or smiling because they're truly happy about something, this will often result in a much better photo than asking your intended subject to look into the camera and smile. Many people are uncomfortable having their picture taken, and their fake facial expression and tense body language is what you'll wind up capturing in your photos if, as the photographer, you always insist that people pose for you on command and you avoid taking candid (spontaneous) photos.

In addition to capturing posed photos of people - when you ask them to look into the camera, smile, and say, "cheese" - try to stand back from people you want to photograph, let them do their own thing, and use the zoom feature to get in close (in order to capture them acting naturally) as you take candid photos.

When people are not bothered by you (the photographer) standing close to them and pointing a camera in their face, you're much more apt to capture a great candid photo that showcases genuine emotions in a wide range of situations, such as at parties, or while watching your children or grandchild play, for example.

Tip #13 – Experiment When Time Permits

It's important to understand that for every picture taking situation you encounter, there are countless approaches you can adopt to capture the perfect shot. Every photographer will approach a shooting situation slightly differently, which is what makes digital photography both a skill and an art form.

Whenever you have the time and opportunity, try adopting two or three totally different approaches for a particular shooting situation. For example, if you're taking a portrait of a person, experiment with both the Photo and Portrait shooting mode. See how the image turns out if you use the flash, and then take a similar shot using HDR mode.

In between shots, reposition yourself (the photographer), adopt a different shooting angle or perspective, or try positioning your intended subject in a slightly different place within the frame (taking into account the Rule of Thirds). If you're tak-

ing pictures of people, you also have the option of asking them to strike a different pose, or alter their facial expression and/or body language.

You're always better off taking many extra photos using a handful of different approaches or shooting strategies. This way, when it comes to viewing, editing, and selecting which images to showcase and share, you always have multiple options.

As a photographer, never be afraid to experiment. Learn to trust your own creative instincts, and always be willing to try different shooting techniques in order to achieve visually interesting results, regardless of the shooting situation. Always ask yourself what story you're trying to tell, and think about what they best way to tell that story is using photographs.

That being said, if you know you'll be taking pictures at a particular event or gathering (such as a wedding, your child's concert, or birthday party), plan in advance what types of shots you want to capture, who or what you want to showcase in your photos, and where the best places to take the pictures will be. The more planning and thought you put into this process (in advance), the easier it will be to capture the images you want and need in order to tell your story.

Tip #14 – Consider Using Optional Accessories

You already know that the Camera app that comes preinstalled with iOS 10 and iOS 10.1 (or later) is chock full of powerful picture taking features and functions. However, you can add additional functionality, and acquire even more control over the cameras built into your iPhone, if you use third-party picture taking apps, as opposed to the Camera app.

For example, the optional Camera+ app that's available from the App Store offers additional picture taking options that the Camera app does not. In addition, there are a growing number of photography-related accessories you can purchase and use in conjunction with your iPhone when taking pictures.

Several companies, including OlloClip (www.olloclip.com), for example, offer attachable add-on lenses that can be placed over the iPhone's built in camera lenses in order to give you more powerful picture taking capabilities. There are also op-

tional tripods (shown in Figure 52), phone stands, selfie sticks, remote shutter buttons, and other accessories that give you greater control over the iPhone's cameras in a wide range of shooting situations.

To learn about iPhone photography accessories, access your favorite Internet search engine, and enter the phrase, “iPhone camera accessory,” “iPhone photography accessory,” or “iPhone 7 lens.” You can also discover a wide range of products by entering any of these search phrases into the Search field of Amazon.com or eBay.com, for example.

While these optional accessories are not required in order to take awesome pictures using your iPhone, some of them make it easier to consistently take certain types of shots when you encounter particularly challenging shooting situations.

A company called Photojojo (<https://photojojo.com>), for example, offers a vast selection of iPhone-related photography accessories.



Figure 52 - This is an example of a portable and highly flexible tripod that can be used to hold your iPhone stable. An accessory like this is particularly useful when using Time-Lapse mode, or when shooting in low light situations.



The Steps for Taking a Photo Using the Camera App

Each time you set out to take a photo using your iPhone, you'll follow the same group of steps, although based on each particular shooting situation, not all steps will apply. By following these picture taking steps, you're more apt to remember to use the appropriate features and functions that are built into the Camera app, and at the same time, remember to incorporate the various shooting tips and strategies you learned in the previous section.

The end result should be that you consistently take in-focus images that feature good lighting, and that are visually interesting to look at. Remember, your goals as a photographer are to tell a story with each of your images, and to illicit some type of thought or emotion from the people who will ultimately be viewing your photos.

Follow these steps each time you want to take a photo using the Camera app:

1. Launch the Camera app.
2. Make sure the Grid feature is turned on (from within Settings).
3. Choose your intended subject, and take a moment to analyze the shooting situation. Based on how you plan to frame your shot, position yourself (the photographer) accordingly, and make sure you're using your primary light source to your utmost advantage. Beware of unwanted shadows, for example.

4. Based on the shooting situation, choose the most appropriate shooting mode (i.e. Photo, Portrait, or Square).
5. Choose between the front- and rear-facing camera by tapping on the Camera Selection icon that's displayed in the bottom-right corner of the viewfinder screen.
6. As needed, turn on or off the Flash or HDR mode. If you're not sure whether or not to use the Flash, set it to Auto. If you're not sure whether or not to use HDR mode, set it to Auto.
7. If you want to use a special effect filter while taking a photo, tap on the Filters icon that's displayed in the top-right corner of the viewfinder screen, then as you're looking at the Filters Viewfinder screen, tap on the box that's associated with the filter you want to use in order to snap a photo.
8. If you choose, take advantage of the Zoom feature, and adjust it manually.
9. Frame your shot, and position your intended subject in the desired area of the frame. Once its positioned accordingly, tap on the screen directly over your intended subject in order to activate the auto focus sensor. Keep in mind, if you're taking pictures of people, the auto focus sensor(s) should automatically activate. If not, tap on your primary subject's face within the viewfinder.
10. Make sure you're holding the iPhone very still, and that your fingers or palm are not covering the camera's lens or flash.
11. Tap on the Shutter button to snap a photo. Remember, you also have the option of pressing the Volume Up or Volume Down button, instead of the on-screen Shutter button.
12. Tap on the last image shot preview thumbnail in order to view your image, and make sure it's to your liking. If not, retake the shot, and perhaps modify your shooting approach slightly.

One of the great things about shooting with the digital cameras built into your iPhone 7 Plus is that you're only limited to the number of shots you can take based on the amount of internal storage space available in your phone. With this

in mind, whenever the opportunity arises, retake the same shot multiple times, but alter your shooting strategy slightly.

For example, experiment with different shooting angles, utilize the Rule of Thirds differently, try using a different shooting mode, or somehow utilize the lighting in an alternate way. It's this experimentation that will allow you to tap your creativity and expand your skills as a photographer.

Remember, the thing you do not want to do is simply point your camera at your intended subject, position your subject in the center of the viewfinder, and take the picture from a head-on perspective. That's a boring approach, and all of your images will wind up looking the same, even if your subjects are different. Be sure to take advantage of the tips and strategies from the previous section, in order to help you tap your own creativity, and take more visually interesting photos on a consistent basis.

Becoming a skilled photographer takes practice. The more time you spend taking pictures using the Camera app that's built into your iPhone, the more comfortable you'll become using the various picture taking features, functions and strategies that are available to you.



Now It's Time to Edit, Enhance and Share Your Images

Taking pictures is only the first step in the digital photography process. Once you've snapped some photos, and they're stored within the Photos app on your iPhone, you have a full arsenal of tools available to help you organize, edit, enhance, print, and share your images. These tasks can all be done from virtually anywhere, directly from your phone. (Keep in mind, to share and backup your images, an Internet connection is required.)

The iOS 10 and iOS 10.1 editions of the Photos app allow you to fix many common mistakes you might have made while taking pictures. So, even if a photo doesn't initially look amazing, once you invest three to five minutes working with that image within the Photos app (or another photo editing app), you can dramatically transform and improve the overall appearance of almost any shot.

If the image editing and enhancement tools offered by the Photos app aren't good enough for you, simply visit the App Store to gain access to literally hundreds of photography-related third-party apps. Some of the third-party apps that are particularly easy to use, yet extremely powerful, include: Adobe Photoshop Express, Afterlight, Camera+, Enlight, Facetune, Pixelmator, and SnapSeed.

To discover the most popular photography-related apps currently available, make sure your iPhone is connected to the Internet, and follow these steps:

1. Launch the App Store app.
2. Tap on the Top Charts icon (displayed at the bottom-center of the screen).
3. Tap on the Categories option (displayed in the top-left corner of the screen).
4. Scroll down, and tap on the Photo & Video category option.
5. At the top of the Photo & Video screen within the App Store, tap on the Paid, Free, or Top Grossing tab (displayed near the top-center of the screen) in order to sort the most popular photography-related apps according to their popularity and cost. (Keep in mind, many are offered for free.)
6. Tap on any app's title in order to view a detailed description screen for the app. You can also view the app's ratings and reviews.
7. Tap on the Price or Get button to download and install any of the listed apps.
8. Provide your Apple ID (or place your finger on the iPhone's Touch ID sensor) when prompted, in order to approve the app acquisition.
9. Once the app is installed, tap on the Open button while still in the App Store, or return to the Home screen, and launch the app by tapping on its app icon.
10. Each time you install a new photography-related app onto your iPhone, it will ask permission to access your digital photo collection from the Photos app. Be sure to approve this request, so you'll be able to work with the photos you've already taken while using the newly acquired app.

In addition to the image editing tools that are offered by the Photos app, many of the official social media apps for use with Facebook, Instagram, Twitter, and/or Snapchat, for example, all offer powerful, yet quick and easy to use photo editing tools of their own.

To discover how to view, organize, edit, enhance, and share your photos using the Photos app that comes preinstalled with iOS 10 and iOS 10.1, be sure to read *Using*

the Photos App with Your iPhone 7 Plus: The Unofficial Mini-Guide, by Jason R. Rich, which will be published in early-2017.

Keep Your Images Well Organized

Thanks to the metadata that's automatically collected and stored by the Camera app and your iPhone each time you take a photo, the Photos app running on your iPhone, iPad, iPod touch, or Mac, can use this information in order to help you sort and organize your photos based on:

- The time/date each was taken.
- The location where each was taken.
- Who or what appears within each image.
- The shooting mode used to take each shot.

Once you launch the Photos app on your iPhone, tap on the Albums icon that's displayed at the bottom-right corner of the screen. Within the Albums screen, you'll see that the Photos app automatically creates a handful of albums (folders) for you, and places the appropriate images within each album (folder).

Tap on any album listing to reveal its contents in the form of thumbnail images. Tap on any thumbnail to view or work with an individual image. As you'll discover, it's also possible to copy images into additional albums, but they'll also remain in the default album each is assigned to, and each also remains accessible from the All Photos (or Camera Roll) album.

By default, pre-created albums available within the Photos app include:

- **All Photos (Camera Roll)** - All images taken on your iPhone, displayed in chronological order, can be found here.

- **Favorites** - Within this album, you can store images you manually designate as your favorites. To add a photo to your list of Favorites, tap on the heart-shaped Favorites icon when you're viewing it.
- **People** - Using advanced face recognition technology that's incorporated into the Photos app, it's possible to sort images based on who appears within your photos. Once you open the People album, you will notice that images have automatically been grouped together, based on who appears within them. You can manually add the names of the people who appear within your photos.
- **Places** - Images are sorted by the location where they were taken. You can then view a world map, and see where you've taken photos, plus quickly access images from each location.
- **Video** - All of the HD video clips shot using the Camera app are stored within this album.
- **Selfies** - All of the Selfie photos taken with the iPhone's front-facing camera are stored within this album.
- **Panoramas** - All of the panoramic shots taken with the iPhone are stored within this album.
- **Time-Lapse** - Here you'll find all of the images shot on your iPhone that utilize the Camera app's Time-Lapse feature.
- **Depth Effect** - This album stores all of the images taken using the Portrait shooting mode on an iPhone 7 Plus that's running iOS 10.1 or later.
- **Bursts** - All of the images taken using the Burst shooting mode are stored within this album. When you open the album, the collection of shots taken each time the Burst shooting mode was used are displayed together in chronological order. Tap on one thumbnail image to reveal all of the images related to that collection of shots.
- **Screenshots** - This is the album in which all screenshots you take on your iPhone are stored.

- **Recently Deleted** - If you delete an image from within the Photos app, it's temporarily placed within this Recently Deleted album. Thus, it's possible to recover images that you've accidentally deleted - but only for a limited time.

- **My Albums** - Below this heading, any additional custom albums that you manually create and copy images into are displayed. This includes shared albums, and albums uploaded and stored within your online-based iCloud account (if applicable).

You Have Many Options for Sharing Your Favorite Shots

Once you've taken photos using your iPhone, and they're stored within the Photos app, you're able to edit or enhance the images prior to sharing them. When you're ready to share your images, there are many options available to you - directly from the Photos app.

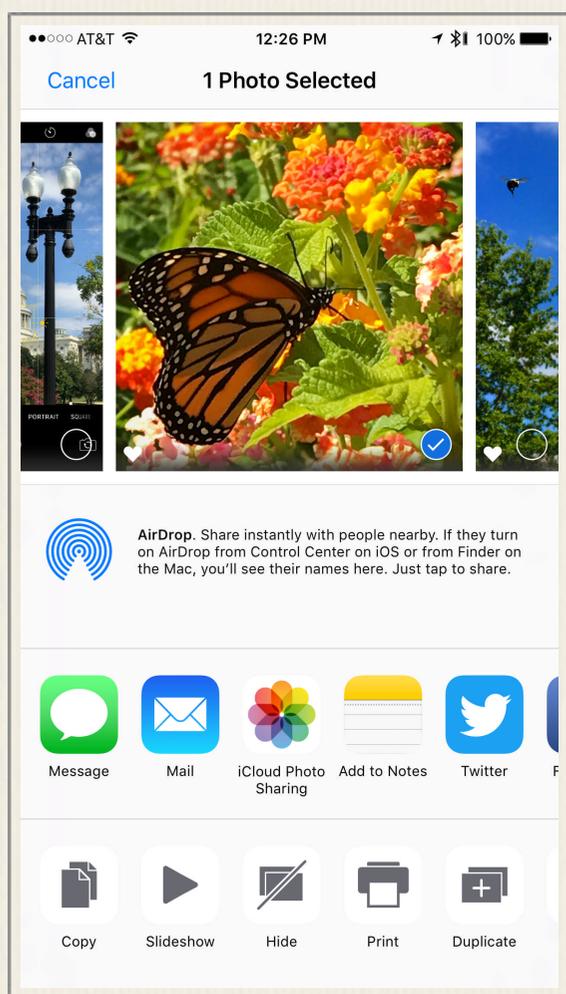


Figure 53 - The iOS 10 and iOS 10.1 edition of the Photos app features an expanded Share menu. This gives you even more options for sharing your photos with other people.

For example, by tapping on the Share icon associated with an image, the Share menu is displayed (shown in Figure 53). From here, you can send images to other people wirelessly using AirDrop, as well as via text message (via the Messages or Facebook Messenger app), or email (using the Mail app).

It's also possible to export images from the Photos app into another compatible app, such as Notes or a third-party photo editing app. In addition, images can be published on Facebook, Twitter or Instagram, directly from the Photos app, or uploaded to iCloud or Flickr, for example.

Keep in mind, in addition to the Share options available from within the Photos app, many third-party apps, including all of the apps designed to help you manage social media accounts, work seamlessly with the Photos app, and can import your photos as they're needed.

Thus, using the official app for Facebook, Twitter, Instagram, Snapchat, or any online-based photo service, you can easily access, upload, and share your photos using the tools offered by the various social media apps.

The ability to export images from the Photos app into the official app for an online-based photo sharing service is also available to you. In addition to installing the proprietary app for a specific service, you'll need to set up a free account with the service(s) you want to use.

Each of the popular online-based photo services offer their own collection of features, image editing tools, and options for sharing photos. Some also have a photo lab associated with them, making it easy to order traditional prints from your digital images.

Each service requires you to set up a free account, which includes a pre-determined amount of online storage space. If you exceed the free online storage space that's provided with each account, a monthly or annual fee will apply for additional online storage space.

Some of the popular online-based photo archival and sharing services include:

- **Dropbox** - www.dropbox.com
- **Flickr** - www.flickr.com
- **Google Photos** - <https://photos.google.com>
- **Microsoft OneDrive** - <https://onedrive.live.com>
- **Photobucket** - www.photobucket.com
- **Shutterfly** - www.shutterfly.com
- **SmugMug** - www.smugmug.com
- **Snapfish** - www.snapfish.com

Remember, iCloud integration is already built into the Photos app, and as an Apple mobile device or Mac computer user, you're entitled to set up a free iCloud account which includes 5GB of online storage space. To learn more about iCloud, visit: www.apple.com/icloud.

How to Create Prints from Your Digital Images, Directly from Your iPhone

Everyday, more than 1.5 billion photos are taken on smartphones, yet the majority of these images are never shared with others, published online, or transformed into traditional prints. When it comes to creating traditional prints from digital photos stored within your iPhone, you have a variety of options.

AirPrint-Compatible Home Photo Printer



Figure 54 - Home photo printers are offered by a wide range of manufacturers, including: Canon, Epson, and HP.

By purchasing an AirPrint compatible home photo printer, for between \$100.00 and \$300.00, you're able to wirelessly send digital images to the printer that's set up in your home or office, and create professional-quality prints in a wide range of sizes (shown in Figure 54). Having a home photo printer allows you to create as many prints from each image as you desire, in whatever sizes you need, when it's convenient for you.

In addition to purchasing the photo printer itself, however, you'll need to acquire compatible color ink cartridges for the photo printer, and also maintain a supply of specialty photo paper. Based on the quality photo paper you choose, and the cost of the ink, it will ultimately cost you between \$0.25 and \$0.50 each to create prints from your digital images using a home photo printer.

Bluetooth Portable Photo Printer

Several companies, including Polaroid (www.polaroid.com/zip-instant) and Life-Prints (www.lifeprintphotos.com), offer handheld, battery powered, portable photo printers that are priced around \$129.00, and that allow you to create instant 2" x 3" prints from images stored within your iPhone.

These printers work with a proprietary mobile app that allows images to be wirelessly transferred from the iPhone to the portable printer. The Polaroid ZIP Mobile Photo Printer is shown in Figure 55.

What's great about these portable printers is that they don't use traditional ink cartridges. They work with special ZINK photo paper (www.zink.com), which is sold in packs of 10, 15, 20, 50, or 100 sheets. This paper can be purchased online, or from consumer electronics stores or mass-market retail stores, such as Best Buy, Target, or Walmart. It's also available from Amazon.com.



Figure 55 - The Polaroid ZIP Mobile Photo Printer is priced at \$129.00, and allows iPhone users to create 2" x 3" prints in less than one minute each.

One-Hour Photo Labs

Virtual every one-hour photo lab that's part of a mass-market consumer retail store (like Target, Walmart, or Costco), or part of a pharmacy (such as Walgreen's, CVS, or Rite-Aid) have their own iPhone app that allows you to upload your favorite images directly from your iPhone to the closest one-hour photo lab location, select the number and size of the prints you want, and place your order for the prints online (via the app). Then, by the time you drive to the one-hour photo lab, your prints will be waiting for pickup.

Depending on which photo lab you choose, and the size of your prints, prices vary, so shop around for the best prices. First, figure out which one-hour photo lab you want to use, and then visit the App Store to find and install the appropriate app. Keep in mind, the print quality created by the various photo labs varies greatly, so you might initially want to try using several different labs, and see which provide the best quality results.

Check Out the KickSend App

The free KickSend app is particularly useful if you travel a lot, or have multiple one-hour photo lab locations near where you live or work. This app uses the GPS capabilities built into your iPhone, and locates all of the compatible one-hour photo labs that are in close proximity. The app then allows you to select which photos you want to create prints from, choose the size of your desired prints, as well as the number of copies of each print you need.

The appropriate images get uploaded to the selected one-hour photo lab. Your prints will then be waiting for you to pick them up, typically within 60 minutes. The price per print is based on what the photo lab charges. If you desire, you can also order prints from the KickSend online lab, and have your prints mailed to you within a few business days. There are no extra fees for using the KickSend app, which is available from the App Store.

Try An Online-Based Photo Lab for More Options

Many online-based photos services, such as Shutterfly (www.shutterfly.com), have their own iPhone app that allows you to select and order traditional prints in a wide range of sizes, and then have your order shipped directly to your door within a few business days.

The majority of these services also allow you to create and order specialty photo products, such as coffee mugs, T-shirts, mouse pads, greeting cards, holiday ornaments, canvas prints, and iPhone cases that showcase your photos. These products can be designed and ordered directly from the mobile app.

Once you choose which online-based photo lab you want to work with, visit the App Store in order to download and install the proprietary iPhone app for that service.

Once you have prints created from your digital images, you can display them within traditional frames, include them within a photo album or scrapbook, or distribute them to friends and family with ease.



Final Thoughts...

As with any new skill, becoming an “expert” photographer using your iPhone 7 Plus will take practice. Right now, incorporating everything you learned from this mini-guide might seem a little bit overwhelming.

However, over the next few days and weeks, force yourself to utilize the various picture taking strategies and techniques you’ve just read about. At the same time, tap your own creativity as you’re framing your shots and making decisions about what you’ll take pictures of, and what shooting approach you’ll take.

You’ll soon discover that adopting these various photography strategies will become second nature. Then, once you discover how to edit and enhance your photos using the Photos app (or another photo editing app), you’ll become extremely eager and proud to share your photos with others.

So, now that you know what to do in order to begin consistently taking great photos, start practicing. Even the most ordinary object, or seemingly insignificant moment in your life, could potentially be captured as an eye-catching, attention-getting photo using the cameras built into your iPhone, so be observant.

About the Author

Jason R. Rich (www.JasonRich.com) is the author of more than 55 books, as well as a frequent contributor to numerous national magazines, major daily newspapers, and popular websites. He's also an accomplished photographer. You can visit his photography-related website at www.JasonRichPhotography.com.

Some of his recently published books include:

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- *My Digital Photography for Seniors (Que Publishing)*
- *My Digital Entertainment for Seniors (Que Publishing)*
- *My Digital Travel for Seniors (Que Publishing)*
- *My GoPro HERO Camera (Que Publishing)*
- *The Ultimate Guide to YouTube for Business (Entrepreneur Press)*

The majority of his books are available in print form from your favorite bookstore, Amazon.com, BN.com, or iBookstore. There's also available for all eBook readers in digital form.

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