

# iPhone Camera, Photos Apps Class Handbook

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JakeAir99@gmail.com  
JakeAir.weebly.com

949 275-6899

Assumes iPhone 6s or newer, software updated to iOS 15 or newest.  
iPhone X, XR, XS, 11, 12, 13 differences noted as [iP X]

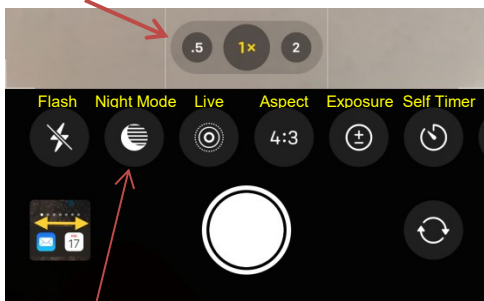
## Camera controls

**Adjust focus and exposure** by tapping any subject on the screen. A yellow rectangle will appear on the subject. The camera will identify what appear to be faces. Slide the slider to adjust the exposure.

Separately Lock the exposure and focus by holding your finger on the screen until **AE/AF LOCK** is on.

New settings icon at the top  $\wedge$  to quickly access camera settings on newer iPhones.

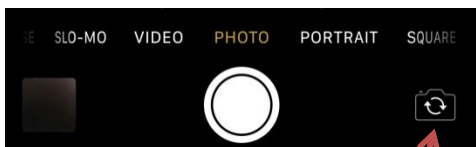
Dual and triple lens iPhones now provide selection of optical Ultra Wide 0.5x, Wide 1x, and telephoto 2x, 2.5, 3 (depending on model)



**Night Mode** automatically takes a long exposure in low light. Indicator and alignment guide. Tap shutter during capture to terminate early. (only on iPhone 11 Wide 1x; iPhone 12 and 13 front camera and Ultra Wide 0.5x and wide 1x). Icon appears only in low light.

Tap the preview image to the left of the shutter button to see the newly captured photos. Swipe down on image to return to Camera.

Taking photo straight down, with iPhone screen parallel to the floor, invokes spirit level crosshairs.



Toggle between **rear** and **front** (selfie) cameras. *Slofie* (Slo-Mo Selfie) available on iPhone 11, 12.

Pictures are placed into the *Photos* app *Recents* (or into *All Photos* album, if *iCloud Photo Library* is on in Settings).

Take a picture: tap the on-screen shutter button or press either iPhone or EarPod volume down button.

**Bursts:** hold the volume up button (*Settings* → *Camera* → *Use Volume Up for Burst* → *On*)

New settings icon at the top  $\wedge$  to quickly access camera settings.

**QuickTake** take a video from the photos mode: slide shutter button right or down or hold volume down button.

**Flash:** *Auto, On or Off*. When should the iPhone's flash be used?  
Answer: almost never! Only for close-up fill.

**Night Mode:** Long exposure (see below, left)

**Live Photos:** captures what happens just before and after you take a photo, including audio.

**Aspect:** sets the aspect ratio of the picture (Square 4:3, 16:9)

**Exposure:** enables slider to adjust

**Self-timer:** set 3 or 10 seconds. Takes a short burst.

**Filters:** Original, Vivid, Dramatic, Mono, Silvertone, Noir (can be removed or changed in the *Photos* app).

**f-Stop:** (Portrait mode) adjust f1.4 – f16 (can be edited later)

**HDR:** tap to turn on or off **High Dynamic Range**, which takes three quick shots at high, normal and low exposures and blends them into a single, optimal photo. (iPhone 8, X, 11, 12, 13 have Smart HDR. Turn off in *Settings* to see HDR icon.)

Tap or slide the labels above the shutter to select ...

**TIME-LAPSE** - the camera automatically selects the best frame rate.

**SLO-MO** - select 120 or 240 fps in *Settings*.

**VIDEO** - record HD video, tap the record button or a volume button. Tap again to stop recording. Turn the "flash fill light" on and off any time during the capturing of a video. Quick toggle video mode.

**CINEMATIC** - iPhone 13 only - video mode that intelligently shifts focus from one subject to another, track a moving person and keep focus on them. You can also manually shift focus, and you edit the focus later.

**PHOTO** - rectangular format pictures.

**PORTRAIT** - bokeh blur effect, multi-lens and XR, 11, 12 iPhones only. Lighting effects, adjust intensity and position, *High-Key Mono* (iPhone 8 plus, X, 11, 12).

**PANO** - Hold the iPhone in the **vertical orientation**. Tap the shutter release or a volume button and pan left-to-right. The iPhone will automatically create a panoramic picture.

### Panoramic photos

Pan left-to-right, keeping the arrow centered on the horizontal line. If panning too fast, the prompt will warn to slow down.



Here is an example of a 180° panorama taken at the LACMA rock

Tap the arrow ⇨ to **change the pan direction** ⇩ right-to-left.

**Outside the frame photos** - *Settings* → *Camera*, → *Photos Capture Outside the Frame* → *On*. Content captured outside the frame appears when you use crop, straighten, and perspective tools to make edits in the Photos app.

### Photos app



No editing can turn a bad photo into a great one.

### Edit a Photo



(Portrait lighting, not described here)

Edit a **burst** by tapping *Select...* → tap on each image you want to keep → *Done* → *Keep Everything* or *Keep Only n Favorites*.

Edit Slo-Mo to select full speed and slo-mo segments of the video [full-slo-full].

Edit Videos: Nearly everything you can do with a photo you can do with a video. Video edits are nondestructive; you can remove an effect like a filter or undo a trim to return to your original video.

View **Live Photo** motion by holding the screen.

Edit a Live Photo: tap Edit → ⌚ to trim it, shorten it, or mute its audio. Change the Live Photo effect: tap the ⌚LIVE∨ icon and select *Loop*, *Bounce*, or *Long Exposure*. *Loop* repeats the sequence over and over as if you put a loop of film in a projector. *Bounce* goes back and forth as if you continuously toggled the projector from forward to reverse. *Long Exposure* blurs a moving object such as a babbling brook or airplane moving across the sky. Extract a **single frame from a Live Photo** by tapping the Share button → *Duplicate* → *Duplicate as Still Photo*. Make a video from a set of Live Photos: select multiple Live Photos → 📁 → *Save as Video*.

Open the *Photos* app, tap to view a photo in *Photos*, *For You*, or *Albums* tab at the bottom, tap the Share 📁 button → *Duplicate*, tap the *Edit* button, top right. While editing, tap on an image to see the original for two seconds. As you apply an edit, each adjustment displays its intensity on the dial. Pinch to zoom to see a specific area of your photo.



**Adjustment** (see page 6 for an explanation of each adjustment) *Auto*, *Exposure*, *Brilliance*, *Highlights*, *Shadows*, *Contrast*, *Brightness*, ~~*Black Point*~~, *Saturation*, *Vibrance*, *Warmth*, *Tint*, *Sharpness*, *Definition*, *Noise Reduction*, *Vignette* (*white* or *black*). Tap each circle to see before and after.



**Apply filters** (sparingly if at all) *Original*, *Vivid*, *Vivid Warm*, *Vivid Cool*, *Dramatic*, *Dramatic Warm*, *Dramatic Cool*, *Mono*, *Silvertone*, *Noir*. Adjust the intensity slider of any filter to fine-tune the look. Default setting is usually too strong.



**Crop and rotate** to any size and angle. Top of screen tools:

Flip L ↔ R   Rotate 90°   Auto adjust   Aspect ratio   Markup & editors



Aspect ratios: *Original*, *Freeform*, *Square*, *16:9*, *10:8*, *7:5*, *4:3*, *5:3*, *3:2*

Rotate -45° to +45°   Vertical Perspective   Horizontal Perspective



Applying rotation, perspective adjustments

## Photos Tab

Zoom in for a closer look, or zoom out to quickly scan through your library and see all your shots at once.

Pinch zoom while watching a video.



Tap **Photos** tab on the lower left to see groups of your photos by *Years*, *Months*, *Days*, or *All Photos*. Duplicate photos, screenshots, whiteboard photos, documents, and receipts are identified and hidden; you see only your best shots.

Highlights photos of peoples on their birthdays.

*Years* shows you photos taken on or around today's date in past years as previews. If you have birthdays assigned to people in your *People* folder in *Albums* tab, the *Photos* tab will highlight your photos of them on their birthday.

*Months* presents your photos by events. Rediscover important moments from the past.

*Days* shows you the day by day photos once you find the year and month of interest.

*All Photos* shows your library. Time-zoom out and in with the +/- button in the upper right corner, or pinch/spread two fingers.

## For You Tab

**Edit a Memory:** Select the memory and play it. Pause it (bottom button) and tap *Edit* at the top right. If asked to *Add to Memories* tap *OK*. Change the title, title image, music selection, duration, add or remove photos.


Scroll down for *Featured Photos*, *Shared with You*, and *Shared Album Activity*.

Tap an image in *Memories*. The iPhone will have automatically generated slideshows from collections.

**Create a memory:** Go to the *Albums* tab and select the album. Or go to the *Library* tab and tap *Months* or *Days*. Tap the *More* button, then tap *Play Memory Movie*. While the movie plays, tap the screen, then tap the *More* button. Tap *Add to Favorites*, then tap *OK*.

## Albums Tab


- **Media Types:**
  - Videos
  - Selfies
  - Live Photos
  - Portrait
  - Long
  - Exposure
  - Panoramas
  - Time-Lapse
- Slo-Mo
- Bursts
- Screenshots
- Animated
- **Other Albums:**
  - Imports
  - Hidden (hide in Settings)
  - Recently Deleted


**Visual Lookup:** tap  icon indicates information is available., tap icon that appears on the photo. Identifies objects, animals, books, plants, works of art, and presents informations.



Tap **Albums** tab at the bottom of the screen to see *Albums* ...

- **My Albums** for folders containing your *Recents* or *All Photos* and any other albums you have created on the iPhone.
- **Shared Albums** from others who have shared their photos.
- **People & Places**, photos organized by *People* in the image, or by *Places* where the picture was captured. iPhone scans your photos, determines this person is in, say, 67 photos and puts them in a folder together. You can manually name the album.
- **From My Mac** photos on a Mac or PC synced through iTunes from the Mac or PC to the iPhone.
- **Media Types** and **Other Albums**.

Tap *Select*, top right. Then select multiple pictures by tapping pictures individually or dragging your finger to the right or left, then down across other images to include them. Tap  → *Add to Album* to add pictures to My Albums.

Tap  to email up to 15 images, *Save PDF to Books*, *Message*, *Copy*, *Print*, *Duplicate*, *Assign to Contact*, *Use as Wallpaper*, *AirDrop* (see page 4), *Hide*, and more. Tap trashcan to delete.

## Search Photos Tab

lower right



*Photos* has object and face recognition. Tap Search icon, type *beach*, *mountains*, *water*

Search by date, location or name or use smart suggestions. Ask Siri to “show me my photos taken in 2007 in Iceland,” Combine multiple search terms — like “beach” and “selfies.”

## Quick Camera access


- Say, “Hey Siri, open the camera;”
- Spotlight Search, Swipe down on the Home screen, type “cam”, tap Camera icon;
- Tap the Camera icon on the Home screen.


The two best ways to open the Camera app:

- Swipe right-to-left ← on the lock screen;
- Open the Camera in Control Center (Touch ID: swipe up from below screen or Face ID: swipe down from the upper right corner) from within any app, tap Camera icon;

## Share photos



Share icon  or *Send to* or *Do something with this*. Share photos with people you have recently shared with via Messages, Mail.

Customize the Apps icon bar: tap More  → Edit. Customize the Favorites list by scrolling down to Edit Actions...

## Take a screenshot of your iPhone screen

The side button is on the upper right edge of the iPhone

Take a snapshot of anything on the iPhone screen and save the screen image to the Photos app. Simultaneously tap and release either the

- Face ID iPhone: side and volume up buttons
- Touch ID iPhone: side and Home buttons

## Import Photos iPhone → PC



Connect your iPhone to PC using USB-Lightning connector. Open *Photos* app on **PC** → *Import* on upper right corner → *From a USB device* → *Apple iPhone* → [Unselect or Select items you want to import] → *Import Selected*.

Images will be placed in your PC under the *Pictures* folder into a subfolder named by date (year-month), e.g., *2020-04*.

Similarly for the Mac, use the Mac *Photos* app.

## AirDrop, another way to share


AirDrop is a method of sending information between iPhones located within about 30 feet of each other.

The receiving user can Accept or Decline. If the receiving user accepts, the sent content will be placed into the corresponding app from which it was sent.

Note: Internet access is not required for AirDrop. Data is sent peer-to-peer, not through the Internet.

Before using AirDrop, give your iPhone a meaningful user name: Settings → General → About → Name. Tap on the current name and edit it as necessary, e.g., Jake’s iPhone 7. This allows others to identify you and select your iPhone to AirDrop to.

Turn on AirDrop: Enable both Wi-Fi and Bluetooth. Open the Control Center and hold anywhere on the communications quad options: Receiving Off, Contacts Only, or Everyone.

 → AirDrop. Your iPhone senses which iOS devices in the vicinity have AirDrop enabled. To send, tap desired recipient.

## iPhone User Guide for iOS 15



The iPhone User Guide for iOS 15, a complete operating manual for your iPhone, is available as a free download into the Books app. Aim the Camera at the QR code and tap the popup. (Or go to Books, tap Search at the bottom, and type "iPhone user guide" in the Search field.)

Tap Get to download and it will be placed into your Books library.

# **iPhone Photography**

*(This page is derived from an article in Lifewire by photographer Brad Puet)*

## **It's All About the Light**

That's what will help make a good image a great image. Check out the shadows that the sun makes on subjects. Notice the reflective light off buildings. Practice during the 'golden hour,' the period of time shortly after sunrise or just prior to sunset. Watch how the light from a window falls inside a room at different moments.

The iPhone is not the greatest in low light situations (with the exception of the iPhone 11). It's best to capitalize on lighting conditions your device functions under best.

## **Zoom With Your Feet**

Do not use the adjustable zoom on your iPhone. I think this is the first step towards taking a bad iPhone picture. If you want to zoom in on something, use your legs and move! All you need to know is that the digital zoom on the iPhone is never as good as optical zoom. However, the fixed telephoto or wide angle lens is okay.

## **Shake Hands, Not Your iPhone**

Camera shake when taking pictures is often overlooked even on the large cameras. The key to fixing this is to practice how you hold your iPhone.

- Hold it horizontal at all times instead of vertical. This gives you a wider frame.
- Try burst mode when snapping pictures of moving objects (hold the shutter release).
- Use either the onscreen shutter button, or a volume button on your iPhone or headphones as the shutter release. The idea is to get you to a place where you take clear images with no camera shake.

## **It's All About the Angles**

Change your perspective on things. Changing your angles and your perspective not only gets you a better shot, it also shows how you see the subject. So get down on the ground, climb up on a high vantage point, move to the side and change your point of view. Try as many different angles on your subject as possible.

## **Apps for Editing**

Use the Apple *Photos* app for editing. There are many others available in the App Store on your iPhone.

## **Clean the Lens**

Clean the glass on your lens with a soft, damp microfiber cloth. Much like when you have a dirty windshield, cleaning it can give you sharper view and improve results.

## **Quality AND Quantity**

Don't be afraid to take another shot. Snap away at anything and everything that suits your fancy.

The important thing here is that the more photos you shoot, the more comfortable you will get and the more you will determine the direction you'd like to take your iPhone photography. The only thing holding you back is how much storage is on your iPhone and how long your battery can last. Avoid taking almost identical shots.

## **Reflections**

Here's one of my favorite tips: Mirrors, glasses, puddles and bodies of water, smooth and shiny surfaces all make for awesome reflections. Push yourself to look for reflective surfaces and place your subjects at angles or in direct comparison to the reflection. Even simple shades of light can make amazing reflections.

## **Join in photowalks**

Join in photowalks held by other photographers and communities in your area. It's always fun when you do it with others who are learning and enjoying the art.

## **Have Fun**

This is the last and really the only rule that you should stick to. If you don't listen to anything I've given you here, "Have Fun" is the one rule that you have to promise me you will use when getting into iPhone photography.

## Adjustments Details in *Photos* Edit Mode

- **Auto** will attempt to adjust all the photo adjustments **automatically**. You can start with Auto and then make further adjustments yourself.
- **Exposure** (I suggest not using this except as a last resort) will make your **overall photo brighter or darker**. To be more technical, it scales the settings up and down by a constant multiplying factor. Moving this slider either increases or decreases all of the elements that go into obtaining the correct exposure at once. Shadows get somewhat brighter, but bright areas get even brighter still. Rather than increasing everything equally, Exposure increases values relative to how bright they are to begin with. Exposure can blow out (eliminate detail) from the lightest areas.
- **Brilliance** allows you to **brighten the shadows, tone down the highlights** a bit, and **adjust the contrast** to bring out more details, all in one step. It applies region-specific adjustments to brighten darkest areas, darken brightest areas, and add contrast to reveal hidden detail and make your photo look richer and more vibrant. The adjustment is color neutral (no saturation is applied), but there may be a perceived change in color because brighter images with more contrast appear more vibrant.
- **Highlights** adjusts **exposure in the bright areas**. This will increase or decrease the exposure in the brightest parts of the image and make them appear brighter or darker than they originally were.
- **Shadows** adjusts the **dark areas**. This will increase or decrease the exposure in the darkest parts of the image and make them appear brighter or darker than they originally were.
- **Contrast** adjusts the **level of difference between the dark and light areas**. It increases or decreases the tonal range, i.e., range of darkness to brightest areas.
- **Brightness** makes your photo brighter. Brightness adjusts the **midtones**. All of the settings still change when adjusting the Brightness slider, but it preserves the highlights better than simply dialing up the exposure. And it affects the midtones more nicely than adjusting the exposure. The black point and white point of an image remain relatively unchanged when the Brightness slider is increased, with the effect targeted more appropriately to where it is needed in the mid-tones.
- **Black Point** defines the black tones and **sets the point at which the darkest parts of the image become completely black without any detail**. A black point is a small area of the image that is maximum black. You don't want these areas to be too big or the image will have blocked, muddy, featureless shadows and that's not a good thing (unless that is your intent). Setting the black point can improve the contrast in washed-out image. A higher Black Point will saturate the blacks and create a high-contrast look. A lower Black Point will add a fade effect to the blacks and create a low-contrast look.
- **Saturation** allows you to increase or decrease overall **color saturation**. Zero saturation creates a monochrome image, Too much saturation and the image colors become exaggerated or cartoonish.
- **Vibrance** increases the tones of the more **muted colors** while leaving the already saturated tones alone. Think of it as a "**smart saturation tool**."
- **Warmth** adjusts **white balance**. Use it to give your photos a **warm, natural, or cold** look.
- **Tint** allows you to add a **reddish or greenish tint**.
- **Sharpness** allows you to increase the overall sharpness of your photo by making a **steeper transition from shadow to highlight** areas.
- **Definition** enhances details in the mid-tones by making **steeper transitions in the mid-tone areas**.
- **Noise reduction** reduces noise in your photos. However, use it carefully. If you apply too much noise reduction, you'll destroy all the details in your photos. Noise Reduction is a big help for photos taken in low-light conditions, which can produce speckling or other kinds of artifacts across smoother areas of tone. Don't pump it up too much, or your images start to **look ultra smooth and artificial**. Balancing Sharpness and Noise Reduction can often dramatically improve a picture's clarity.
- **Vignette** allows you to apply a black or white Vignette, areas on the **four corners**.