A 360 degree image is a controllable panoramic image that simulate being in the shoes of the photographer and looking to the left, right, up and down in all directions. 360 images offer a more interactive user experience than traditional photographs and allow for the ability to swipe (or scroll) up and down and side to side on an image when viewing the photograph on a smartphone device. Because of this, they are a great option for showcasing an area of interest and engaging the viewer in a “virtual reality” experience that can’t be achieve with traditional photography.

How do they work? 360 degree cameras use two 180 degree fish eye lenses to capture two images and stitch them together into one seamless 360 degree image. Because there are lenses on both sides of the camera, it is very easy to scratch the lens. To prevent this from happening, please always use the provided protective hard case or neoprene shell when setting the camera down.

After reading this section you should be able to:
- Understand the basics for how to operate the Insta360 One X camera and mobile app, including how to take a photograph and share it.

**NOTE:** This camera is compatible with the iPhone 6s or newer, iPads, and many Android devices. See the minimum system requirements here: [http://s.uconn.edu/360requirements](http://s.uconn.edu/360requirements)

**Insta360 One X Camera Basics**

These steps will walk you through the basic process of operating the Insta360 One X camera. For more details on the other capabilities this device has visit the product support website: [http://s.uconn.edu/360basics](http://s.uconn.edu/360basics).

1. To charge the Insta360 camera, connect it to the microUSB charger cable (included). The other end of the charger cable will connect to your computer or the USB port of your phone charger. **NOTE:** The Insta360 One X has a fairly short battery life, shut the device off when not in use.
2. Once the device is charged, turn it on. To turn on the camera press and hold the small button. This button will also act as the switch mode button. The large button is the enter button.

3. You will need to choose between iOS or Android mode on the camera, depending on what type of mobile device you will be pairing the camera with. In order for there to be a GPS location associated with your image (geotag), you will have to connect the camera to the Insta360 app on your mobile device (we'll install that in a minute). The 360 camera cannot geotag images without connecting to the app on your mobile device.

4. Press the switch mode button (small button) on the camera until the small cog wheel/settings option appears on the camera screen, then press the enter button (large button).

5. Press the enter button until the exclamation point option is highlighted.
6. Press the switch mode button until **USB** is highlighted and then press the enter button.

7. Switch to your device type and then press the enter button.

8. Press the switch mode button until **Done** is highlighted and then press the enter button.

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**Connecting Your Mobile Device to the Insta360 One X Mobile App**

These steps will walk you through the process of connecting the Insta360 One X camera to the app on your mobile device. This is a necessary step in order for there to be a location associated with your image.

1. Go to the Apple or Android App store on your mobile device and type in **Insta360 ONE X** in the search bar. There are different Insat360 apps for different models, so make sure you are downloading the correct one. A yellow icon of a 360 camera will appear along with the app name. Download the app.
Once downloaded, open the app.

2. 
   - For iOS users, a prompt will appear asking you to allow Insta360 ONE X to access your location while you are using the app. Select **Allow**. For the notifications prompt, you can select **Don’t Allow**.
   - For Android users, a prompt will appear asking you to allow Insta360 One X to access photos, media, and files on your device. Select **ALLOW**. For the manage phone calls prompt, you can select **DENY**.

   The home screen of the app will appear. Select the yellow camera icon (see image below). Select the yellow **Connect now** button in the **Connect Wi-Fi** box. The 360 camera connects to your mobile device via Wi-Fi signal (not Bluetooth). This Wi-Fi signal is transmitted by the camera itself, which means you can connect wirelessly to the camera even in remote areas. You alternatively have the option of connecting the 360 camera to your mobile app with the provided cables.

   - **NOTE FOR ANDROID USERS:** Depending on what kind of wireless frequency capability your mobile device has (2.4 Ghz vs. 5 GHz), your mobile devices may not be able to connect to the 360 camera via Wi-Fi. Try connecting to the 360 camera via Wi-Fi and if it does not work then use the provided cable to connect.
3. On the mobile app, under **Please choose your camera**, select **ONE X WFHPE3** (or some variation of that name). A prompt will appear in your app asking you to **Please complete the connection using the camera**.

4. On the 360 camera the **Device Allow** option will appear on the screen, select the enter button (large button) on the check mark.

5. A prompt will appear asking you if you want to join the One X network, select **Join**. Your camera will be connected with your mobile device. If you were able to join the network using this method then **skip to next section** (Using the Insta360 One X Mobile App).

9. If you are still unable to connect to the network, then navigate back to the options menu (cog wheel) on the 360 camera and press enter on the cog wheel settings. Press enter again until you see the Wi-Fi signal icon. Press the switch mode button until **Wi-Fi Password** is highlighted and then press enter.

10. The Wi-Fi password will appear, write it down. **NOTE:** the Wi-Fi password will be unique for each 360 camera.
11. Press the switch mode button until **Done** is highlighted and then press enter.

12. On your mobile device, go to your Wi-Fi settings and connect to the Wi-Fi network **ONE X WFHPE3** (or some variation of that) just like you would connect to a wireless network at home. Type in the Wi-Fi password. Once connected return back to the 360 app.

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**Using the Insta360 One X Mobile App**

These steps will walk you through the basic steps of using the Insta360 One X mobile app, including taking a photograph, saving a photograph to your device, basic editing, sharing options, and uploading your image to the Insta360 website.

**Insta360 One X Graphic User Interface Overview**

1. Your mobile device is now connected to the 360 camera and you will now see what the camera is viewing. Try interacting with the 360 image by swiping around on your mobile device screen.

2. There are many user options on the graphic user interface (GUI) of the app. This guide will walk you through the basic options. For additional tutorials visit the Insta360 One X website: [http://s.uconn.edu/360basics](http://s.uconn.edu/360basics).
Taking a 360 Photograph

3. Before taking a photograph, attach the 360 camera to the included selfie stick (screws in). It is important to use a selfie stick when taking a 360 photograph to avoid having your hand take up a majority of the image, as it does in this image: http://s.uconn.edu/bad360.

4. You also want the camera to be high enough off the ground so that the fish eye lens can capture the full surroundings. By rotating the top of the selfie stick counter clockwise, it can telescopes up to approximately three feet.

5. Now try taking a photograph with the app by pressing the large yellow shutter button. Make sure the camera icon appears in yellow.

Saving a 360 Image to Your Device

6. After you have taken a photo, select the back button (leftward facing arrow) on the top of the screen (see image from Step 2). This will take you to the Album options.

7. Notice at the top it says Camera and Local. You have the option of saving Your 360 images to your device (locally), the microSD card in the camera, or both.

8. If you are borrowing a 360 camera, you will want to save your images locally for future use. To do this, select the check icon on the top right of the screen.
9. Next, tap on your image(s) and then select **Save to App** at the bottom of the screen. Your image is now saved to the device.

10. Select **Local** at the top of the page to see the images saved on your mobile device. The words **Local** will now be underlined yellow.

**Basic Editing**

11. The Insta360 One X allows for basic editing, including adding filters and emoji’s, changing the aspect ratio and the view type (fish eye, tiny planet, etc.), plus more. Select one of your images and try playing around with some of the editing options at the bottom of the screen.
Sharing Your 360 Image

Note: Sharing (uploading) your 360 photo requires the use of the cellular network or Wi-Fi. To avoid data charges (or if you are using a Wi-Fi only device), disconnect your device from the ONE X WFHPE3 Wi-Fi (or some variation of that) and connect to your own home, business or public Wi-Fi network before moving on to the next step.

12. Select a 360 image and select the share option at the top right of the screen.

13. Notice the different sharing options:
   - Community: this allows you to post to the community forum on the Insta360 One website
   - Facebook: You can post fully interactive 360 photographs directly to your Facebook page.
   - Street View: Street View is an app/technology from Google that displays 360 images
   - Link: This uploads your image to the Insta360 website (online storage is free)
   - Album: This allows you to download the image to your device

14. Select the Link sharing option. Uncheck Post to Insta360 community at the bottom left of the screen and then select the check mark on the top of the screen to upload.

15. After the photo has been uploaded, you will see a QR code and share URL. Select the copy to clipboard icon next to the URL.
16. Copy and paste the URL into a web browser on your mobile device, laptop, or desktop and open the page. You will now see your 360 image displayed on the Insta360 website. If you are using a computer instead of a smartphone device to view the image, click on the embed icon at the top of the screen.

![Embed icon on mobile device](image1.png)

17. Two URLs will appear. Copy and paste the bottom URL into a web browser and open the page, a full screen view of your image will appear. **NOTE:** If you want to embed a 360 image into an Esri Story Map, you will have to copy the iframe link, which is the first URL. These are the URLs that you will use to share your 360 images with the public, so make sure you keep a copy of them by saving the links in a text document, email, or text message!

![Embed icon on computer](image2.png)

Congratulations! You now know how to take and share 360 images.
Google Street View is an application which allows users to view 360 images on the web or from an app on their mobile device. By sharing your 360 images with Street View, you are providing a public resource that can be accessed by anyone on the web using Google Maps. Since Street View images are publically visible, they are also a great way to increase awareness of a local resource. Like images on the Insta360 website, you can share Street View images or embed them into social media and story maps.

After reading this section you should be able to:

- Understand the basics of Google Street View, including how to upload a 360 image to Street View from the Insta360 One X app, upload an image to Google Maps, pick a map listing, and publically share an image.

Connecting Insta360 One X to Google Street View

These steps will walk you through the process of downloading Google Street View and connecting it to the Insta360 One X app. **NOTE:** Google Street View requires a Google account to use. You can sign in with your Gmail account if you have one.

1. Go to the Apple or Android store on your mobile device and type in **Google Street View** in the search bar. Download the app.

2. Open the app and scroll through the welcome prompts.

   a. For iOS users, a prompt will appear asking you to allow Street View to access your location while you are using the app. Select **Allow**.

3. Open the Insta360 One X app, select a 360 photo from your album and tap the share icon on the top right of the page. Choose the Street View Option.

4. Select the check box at the top right of the page.
5. A prompt will appear stating that your content will be displayed on Google Maps. If you’d like to read about how Google uses the image, click Learn More. Otherwise, select OK.

6. A prompt will appear stating that Insta360 ONE X wants to use Google to sign in. Select Continue and pick the Google account you would like to use.

7. A prompt from Google will appear stating that Insta360 One X wants access to your Google Account. Select Allow. NOTE: All these prompts only appear the first time you use the app.

8. Your photo is now being uploaded to Google Street View. Select Confirm when sharing is completed. Your image is now viewable within the Street View App, and within a day or so will be viewable to the public on Google Maps.

Using the Google Street View App

These steps will walk you through the process of using the Google Street View App, including picking a Maps listing and sharing an image.

1. Open the Street View app. Select PROFILE at the top of the screen. Scroll down and you will see the 360 image you just uploaded.

Pick a Maps listing

Maps listings are registered locations with Google (i.e. business, schools, parks, etc.). Picking a map listing is useful because when the listing is looked up on Google, your 360 image will appear with the other location information (i.e. address, phone number, hours). Not all 360 images will have associated Maps listings, such as an unregistered land trust property. In this case, just choose the town or city where the photo was taken as the map listing. Because your image is geotagged, Street View still knows where to place the 360 image on a map.
2. Under your 360 image select **Pick a Maps listing**.

3. Based on the geolocation of your photo, suggested Maps listings will appear. Select the correct listing. If you do not see it listed, type in the name of the location where the photo was taken in the search bar. If the Maps listing still does not appear then pick the town or city where the photo was taken.

4. If you return to your profile, your photo will now have a location below it.
5. To edit a Maps listing, long press (hold down) on the image until it is checked and then select the GPS icon.

6. To delete a photo or move the location, long hold on the image and then select the horizontal ellipsis (3 dots) on the top right of the photo.

**Sharing a Street View Image**

7. Quickly tap on your image and a full screen version of will appear. Select the upload icon at the bottom of the screen.
8. Scroll over to the copy link to clipboard option. Like the Insta360 share option, you will use this URL to share your 360 images with the public, so keep the link handy!

9. If you want to embed a 360 image into an Esri Story Map, you will need the iframe URL. To access the iframe URL, paste the URL you just copied into a web browser on your laptop or desktop (this will not work from a mobile device). Click on the vertical ellipsis on the top left of the screen and choose Share or embed image.

10. Click Embed a map option and copy the URL. Paste the URL into the Esri Story Map Builder.

**OPTIONAL: Editing (Blurring Faces)**

Google Street View photos are a public resource which are viewable by anyone on the web. Because of this, it is best practice to avoid showing a person’s face or identity in a 360 image. To avoid this, Google Street View allows editing options to blur a person’s face prior to publishing to the web. These steps will walk you through this process. **NOTE:** If you are unable to blur a person’s face, always ask them for permission before publishing a photo to Street View.

Unlike the prior steps, do not share photos directly from the Insta360 One X app directly to Street View. Instead, chose Album from the sharing options in the Insta360 One X app. This will save the image to your device.
12. Open the Street View App and select Private.

13. Tap the photo icon at the bottom of the screen and choose **Import 360 photos**, then select the 360 photos that would like to import from your mobile device.

14. Notice that your photo is still unpublished and private under the **PRIVATE** section.

15. Quickly tap on the photo so that it appears in full screen. Now select the vertical ellipsis on the top right of the screen and select **Detect faces and add blurs**.
16. Find the face(s) in your image you would like to blur and long press on the face until a polygon outline appears over it. Hit the checkmark to confirm you would like to Add Blur. Tap again if you would like to add multiple polygons to the face or blur another face.

17. Quickly tap the screen again when finished and select PUBLISH TO GOOGLE MAPS.

18. A prompt from Google will appear. Select PUBLISH. Your image is now published publically on Google Street View. You can check that the face is blurred.

Congratulations! Your 360 photo is now part of Google Street View.