



## GoPro Videography

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Welcome to FPTV's GoPro Videography class. In this class we cover the basics of setting up the camera, recording and gimbal operation. The gimbal and the GoPro Hero 5 are checked out as a package so it is important to know the essentials of how to set them both up together. There will be a ten question open book quiz once the curriculum has been thoroughly covered.

### Setting up the GoPro

Turn the GoPro on by pressing and holding the "Mode" button on the right side of the body. There should be a battery and an SD card in the camera supplied by FPTV when you turn it on. You can check this by looking at the top right and top middle of the screen. This will indicate the battery life remaining (top right) and the recording time left (top middle). If you see no controls or indicators touch the middle of the screen; you should see controls pop up on the bottom and top. The bottom right of the screen will be labeled "FOV". This stands for **field of view**, and when touched will give you options for the focal length of the lens.



1. Battery Life
2. Recording Time
3. Field of View
4. Frames Per Second
5. Resolution

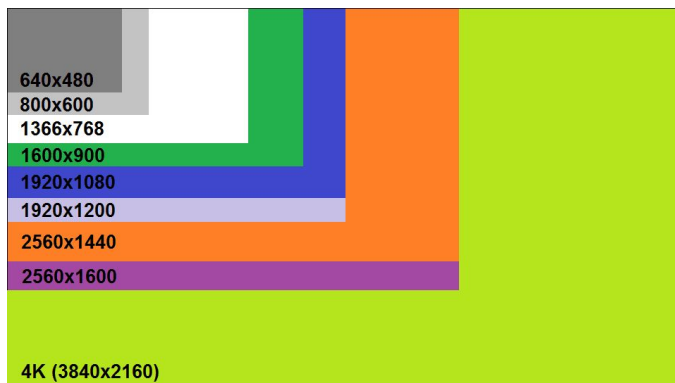
The focal lengths are in ascending order from Superview (Wide-fish eyed), Wide, Medium, Linear, and Narrow. You can cycle through these options and pick the one that best suits your needs. The **FPS** (frames per second) button when tapped will bring up a menu with the frames per second that you're recording in. The Hero 5 can record in 120 fps at 1080p full HD resolution, and can also record up to 30 fps at 4K resolution. Higher frame rates are very useful for slow motion projects as they



contain more information per second that can be stretched out later in the post production process.

To the left of the FPS button there is the **resolution** button. Full HD 1080p is standard by most accounts, but higher resolutions can be used on the Hero 5 for added clarity and definition in your image. You can select the following resolutions from the Hero 5: 480, 720, 960, 1080, 1440, 2.7K 4:3, 2.7K, and 4K. The bottom left movie camera icon can be touched and used to change between video,

video+photo, looping, photo, photo burst, and time lapse modes. The top middle lists the remaining recording time that the SD card has at the moment. The top right shows the battery indicator.



### Resolution Further Explained

The resolution that the user shoots with is one of the most important aspects to creating a great video piece. The GoPro Hero 5 Black edition has many different resolutions to choose from. 1080p is the most commonly seen choice. It is full HD and widely accepted as the perfect delivery resolution. The Hero 5 also

offers 2.7K and 4K resolution as well. 4K has increased in popularity as it provides the user with four times the resolution, or pixel density, of standard 1080p. This allows the user creative freedoms during the editing process like the ability to zoom or crop into the image and reframe without losing any clarity. This added resolution also makes post production stabilization a very viable option for the producers looking to smooth out the shakiness of their footage even further. 2.7K is also a popular choice for smaller cameras of this nature as the files are much smaller than 4K files, but it does still allow the user the wiggle room of having extra resolution to play with. Keep in mind that when employing resolutions like 4K and 2.7K the GoPro does limit the frame rates that can be shot. 1080p allows for the widest range of framerates. One can record anywhere from 24fps to 120fps. 2.7K allows recording up to 60fps, and 4K recording only allows up to 30fps. Additionally, only certain focal lengths can be selected when using higher

resolutions. Keep this correlation of resolution, frame rate and focal length in mind when shooting.

### Recording and Playback

To record on the GoPro Hero 5 press the red record button on the top of the unit. You should see a blinking red circle appear in the top middle along with the recording length. When pressed, you should also hear a single beep indicating the GoPro is recording. Pressing the button again will end the recording. You should see a saving screen followed by three beeps indicating that your recording has stopped. To view clip that you just recorded swipe from the left to right on the main screen. A loading screen will appear quickly followed by a thumbnail view of the clips contained on the SD card. Tapping on one will bring it up to preview and playback.



### Gimbal Operation

The GoPro gimbal allows the user to achieve extremely steady shots without much training or effort applied. It is very lightweight, small and requires very little interaction to get smooth shots with.

The first thing you must do with the gimbal is unlock the X and Y axis. You can do this by applying a small amount of pressure on the X and Y arms. There are unlock and lock icons on the arms to help you to know which way to push them. Once you have done this you should see the two arms now swing freely but under no power. Second, turn the gimbal

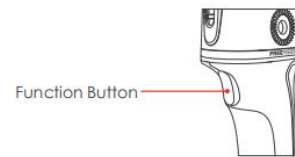


around to where you are looking directly at the front. You should be able to see a switch on the front with a red and a green circle. Flip the switch to green. This will free the two arms to be able to pan and rotate freely. Once you have done this you can now power the gimbal on. Press and hold the power button, and you should see the gimbal spin and orient itself. It will then come to rest facing forward.

**Front Trigger Functionality:**

- Pressing the front trigger once will put the gimbal into a pan follow mode. This will lock the tilt and roll of the gimbal while leaving the pan free to rotate.
- Clicking the front trigger twice will put the gimbal into a pan and tilt follow mode. The roll will be locked when in this mode.
- Clicking the front trigger three times will reset the gimbal and make the camera face forward.
- Clicking the front trigger four times will make the camera stick to facing a certain direction.

Function Button Control



Single Tap	Semi-Follow mode (Default)	Tilt and Roll Axes are locked. Pan Axis smoothly moves with handle
Double Tap	Follow Mode	Roll Axis is locked. Pan and Tilt Axes smoothly move with handle
Quadruple Tap	Lock Mode	Tilt, Roll, and Pan Axes are locked. Camera always keeps the current shooting direction
Triple Tap	Center the camera	The camera returns to the front
Long Hold	Lock Mode	(Return to the previous mode when Function Button released)

\*You should see the light on the rear of the gimbal illuminate and change color as the modes are switched\*

Note: The gimbal, while silent to the user, does emit a motorized sound that the GoPro will pick up. If you plan to use the gimbal you will have to record audio from another source.

The gimbal also has a toggle joystick on the rear. You can use this to steer the camera with your thumb while doing movements. Lastly, there is a button with a camera logo on it directly next to the power button. Clicking this button will snap a picture of what the camera is viewing.



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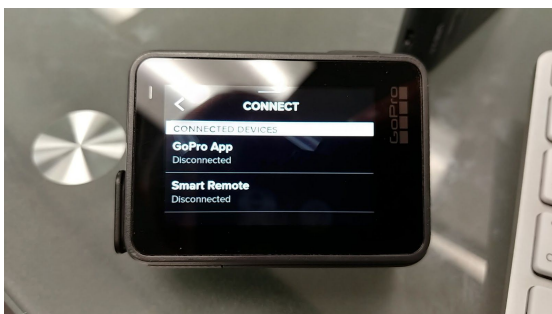
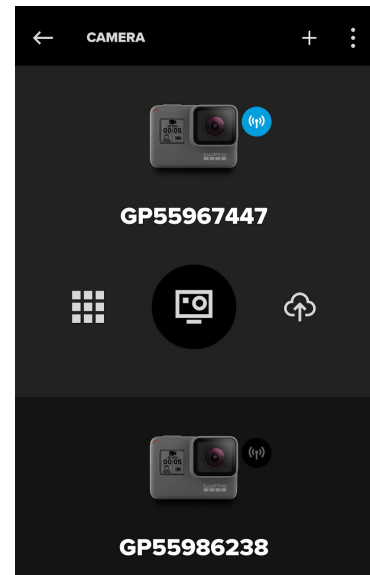
### GoPro Accessories Pack

In addition to the gimbal, we also offer as a separate checkout an accessory pack for the GoPro. These accessory packs include attachments like: a wrist mount, a suction cup car mount, a bendable tripod, a chest mount, and a different sticky pads that allow the user to stick the GoPro to nearly any flat surface clear of dust and debris. (Note: the suction cup mount is to be used only on the **inside of cars**. If you

would like to mount it on the outside of a car please consult with an FDTV staff member.) Additionally, all of the plastic bags in the case should be marked with the correct accessory to go in them. Be sure to return all of the pieces to their correct bags after you are finished shooting.

### Smartphone Connectivity

The GoPro Hero 5 Black allows for smartphone connectivity in order to be able to use your phone as a viewfinder. You can also use your smartphone to adjust camera and picture settings. In order to use this function you must first download the GoPro app from either Apple's App Store or Google's Google Play Service. Once done, you can then touch the locate GoPro button. If your smartphone does not automatically find the GoPro you can swipe down from the top of the GoPro's screen and press connect. Follow the on screen instructions on your smartphone until your phone pairs with the GoPro. Once paired, you will be able to see what the camera is viewing real time and make adjustments to all of the settings that you would normally be able to by navigating the GoPro's screen.



## Retrieving Footage

In order to pull the footage off of the GoPro and onto your computer you must use the connection cables that FPTV can provide you with. **Do not open the battery door and attempt to take out the SD card.** The GoPro records onto mini SD cards which, of course, are very tiny, easy to lose and easy to corrupt through continued removal of the card. Plugging in the GoPro to the computer and then turning the GoPro on will open up and File Explorer/Finder window exactly how plugging in a regular SD card will. You can then locate your footage and copy it over to your own folder on the PA drive or a hard drive that you provide. This will ensure that your footage will be secure on our server or on your own external drive.



## Charging

There are two charging cables included with the GoPro Kit. The USB-C cable is for the GoPro and the micro USB is for the Gimbal. Pushing in and pulling down on the GoPro's side flap will reveal two ports (see picture on next page). The larger of the two is the USB-C port. The other end can either be plugged into a computer or it can be used with a wall mount. FPTV does not provide wall adapters, but any standard wall adapter that is normally used for a smartphone will work. Likewise, the gimbal charging cable is included in the package, and requires a wall mount adapter in order to charge. There is a small flap that the user can pull back to reveal the charging port.

