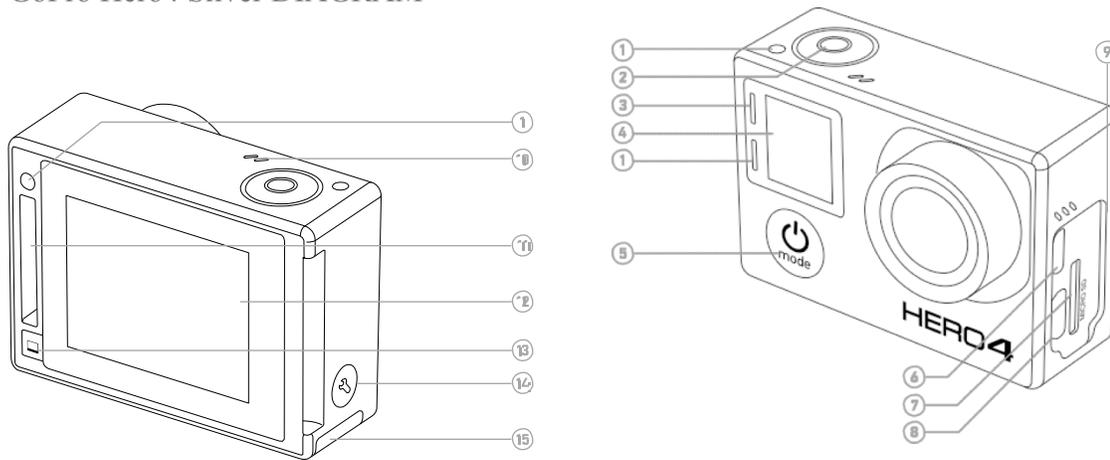


## GoPro Hero4 Silver DIAGRAM



1. Camera Status Light (*red*)
2. Shutter/Select Button [ ● ]
3. Wireless Status Light (*blue*)
4. Camera Status Screen
5. Power/Mode Button [ ⏻ ]
6. Micro HDMI Port (*HDMI cable not included in camera kit*)
7. microSD Card Slot (*microSD card is included in camera kit*)
8. Mini-USB Port (*3.5mm stereo mic adapter is available upon request*)
9. Audio Alert
10. Microphone
11. HERO Port
12. Touch Display
13. Touch Display Sleep/Wake Button [ ⏻ ] (*not accessible with HERO4 housing*)
14. Settings/Tag Button [ ⚙ ]
15. Battery Door

### POWERING ON + OFF



#### To Power On:

Press the Power/Mode button [ ⏻ ] at the **front** of the camera ONCE. Wait for a few seconds. The camera status lights will flash (RED) three times and the sound indicator will emit three beeps. When the camera status screen displays information, your camera is on.

#### To Power Off:

Press and hold the Power/Mode button [ ⏻ ] at the **front** of the camera for two seconds. The camera status lights will flash (RED) several times and the sound indicator will emit seven beeps.

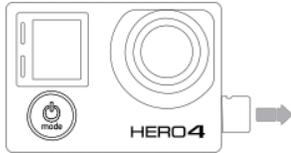
Shutter Button: The shutter button [ ● ] is at the **top** of the camera. It is used to start and stop videotaping.

## INSERTING + REMOVING microSD CARDS

The HERO4 Silver camera is compatible with 4GB, 8GB, 16GB, 32GB and 64GB capacity microSD, microSDHC and microSDXC memory cards (the camera kit is supplied with a **64GB** microSD card and a microSD USB adapter). You must use a microSD card with a Class 10 or a UHS-1 rating.



To insert the microSD Card: Slide the memory card into the card slot with the label facing the front of the camera. When fully inserted, the card clicks into place.



To remove the microSD Card: Place your fingernail against the edge of the memory card and lightly press it further into the camera. The card springs out far enough to be removed.

**NOTICE:** Use care when handling memory cards. Avoid liquids, dust and debris. As a precaution, power off the camera before inserting or removing the card.

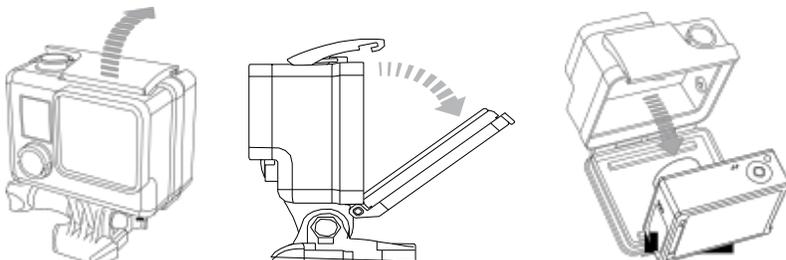
**Hint:** You should charge your battery each evening before your shoot. If you plan to shoot just a one-hour session each day, charge the battery while it's in the camera using the **USB cable** the night before your shoot. If you plan to shoot two or more sessions in a single day, charge both batteries using the **external battery charger** (you must open the camera housing to remove the battery first). A single fully charged battery can shoot up to 2 ½ hours of video. When the battery indicator blinks, you have approximately 20 minutes of video shooting left. There is one battery in the camera and one battery in the charger.

## CHARGING THE BATTERY VIA USB POWER ADAPTER OR COMPUTER

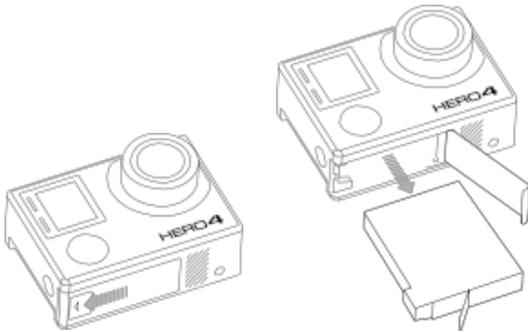
You can charge the battery (while it is in the camera) by connecting the camera directly to a USB power adapter (not include in camera kit), or a computer USB port using the supplied **USB cable**. When charging with a computer, be sure that it is a powered USB port (usually at the back of the computer). Most keyboard USB ports are not powered. If the camera status light does not turn on, use a different USB port. The camera status light turns on during charging and turns off when charging is complete.

## CHARGING THE BATTERIES USING THE EXTERNAL DUAL BATTERY CHARGER

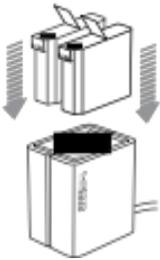
1. Remove the camera from its housing.
  - a. Lift the front of the latch up to disengage it from the camera housing.
  - b. Pivot the latch backward and pull it up to release the backdoor.
  - c. Pull open the housing backdoor and remove the camera.



2. Remove the camera battery.
  - a. Open the battery door by placing your thumb on the indentation on the battery door (at the bottom of the camera) and sliding it to the left. Allow the door to open.
  - b. Grasp the battery pull-tab and remove the battery from the camera.



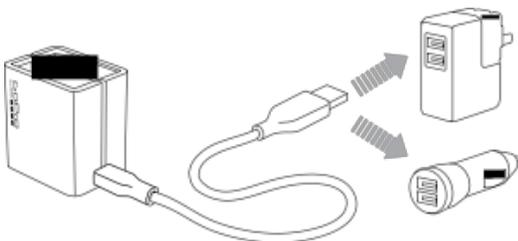
3. Place the batteries in the Dual Battery Charger (charger has one extra battery already installed). Insert the HERO4 GoPro batteries into the charger such that the battery contacts and charger contacts line up.



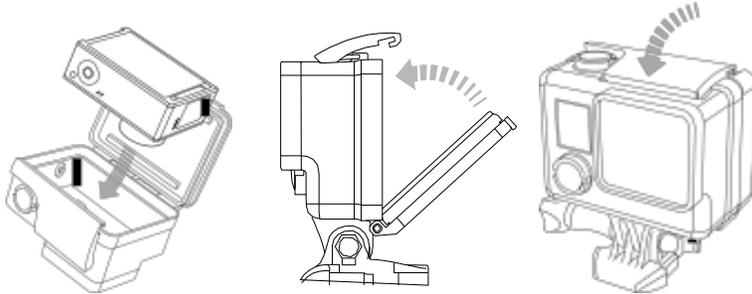
4. Insert the mini B connector of the included USB cable into the port on the Dual Battery Charger.



5. Insert the other side of the USB cable into a standard wall/car USB power adapter (not included in camera kit) or a computer USB port (slower charge). The dual battery status light turns **yellow** during charging and turns **green** when charging is complete. The battery charges to 80% in approximately one hour and 100% in approximately two hours.



5. Once fully charged, place the camera back into the housing.
  - a. Open the housing and drop the camera into position.
  - b. Make sure the lens of the camera snugly fits into the lens cavity of the case.
  - c. Close the housing backdoor and squeeze it closed to ensure a good seal.
  - d. Pivot the hinged arm backwards and hook the lip of the latch into the grooved top of the housing backdoor.
  - e. Push the latch down to snap it into place.



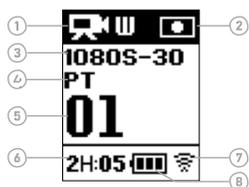
## DISPLAY SCREENS

The camera has a small Status Screen on the front of the camera and a larger Touch Display screen on the back of the camera.

**Hint:** It is easy to get fingerprints on the front of the camera housing (especially in front of the lens). This will cause your video to look “frosty” or soft-focused. Be sure to wipe the window in front of the lens clean before your shoot. If you do not have a cloth, you can use the palm of your hands to wipe the surface clean.

### CAMERA STATUS SCREEN (front of camera)

The camera status screen on the front of the camera displays the following information about modes and settings (important displays are in **bold**):



1. **Camera Modes/FOV** (field of view)
2. Camera Settings
3. **Resolution/fps**  
(frames per second)
4. Protune™
5. **Number of Files Captured**
6. **Time/Storage/Files**
7. Wireless
8. **Battery Life**

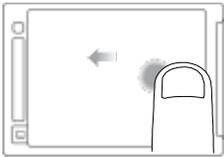
## TOUCH DISPLAY (back of camera)

The integrated Touch Display on the back of the camera lets you control your camera and its settings, and preview and play back videos and photos. You can also use it as a viewfinder so you can see what your camera sees for easy shot-framing.

**Hint:** The touch display automatically goes to sleep after 3 minutes while the camera is in use. To turn it back on, tap the Touch Display ONCE. *Do not press the shutter button.* This will **stop** your videotaping. The camera itself will turn off automatically if there is no activity after 5 minutes.

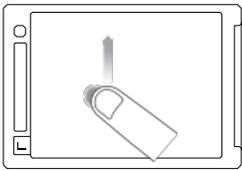
## GESTURES

Use these gestures to navigate the Touch Display:



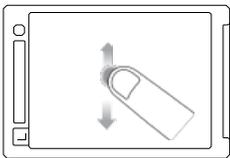
Swipe Left

Displays **camera modes**.



Swipe Up from Bottom Edge

Opens the *Settings Menu* for the current mode.



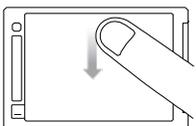
Swipe Up/Down

Moves through *Settings* lists.



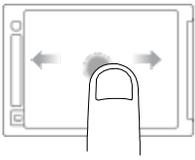
Single Tap

Selects an item, turns a setting **on/off**.

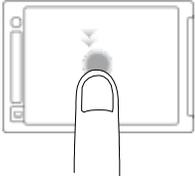


Swipe Down from Top Edge

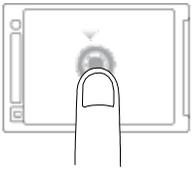
Closes the *Settings* menu.



Swipe Left/Right  
Displays gallery images (Playback mode).



Double Tap  
Change FOV (field of view) in preview mode (**Wide, Medium, Narrow**)



Press and Hold for Two Seconds  
Locks the touch display. (Lock is **off** by default)

## CAPTURING VIDEO

**Hint:** Be sure your video settings are correct before videotaping. The camera settings have been **pre-set** for optimal video capture. The optimum presets are (720/30/Narrow): 720 lines per frame, 30 frames per second, and narrow field of view. Be sure the field of view is **Narrow**. Other views are too wide and may distort your image. Using these settings, you can shoot close to 6 hours of video on a **64 GB** microSD card (supplied). If the battery indicator blinks, you have approximately 20 minutes of battery life left. If the memory card is full or the battery is out of power, your camera will automatically shut down, but your current video will be saved.

Optimal camera settings:



- The camera has been preset to be in the Video Mode. If it is not in the Video Mode, swipe left to display the camera modes, then tap the upper left icon for (Video Mode).
- To begin capturing video, press the Shutter/Select button [  ]. The camera beeps once and the camera status lights flash RED while the camera is recording. Video recording has **STARTED**.
- To stop capturing, press the Shutter/Select button [  ]. The camera status lights flash three times and the camera beeps three times. Video recording has **STOPPED**.

**Hint:** The camera captures video in maximum segments of 4GB each. The 4GB segments are approximately 26 minutes each. That means there will be multiple video segments for a one-hour video. During editing, these segments can be concatenated (put together) and the video will be seamless and seen as a whole.

## PLAY BACK

You can play back your video content on the camera with the camera's Touch Display. You can also play back content by inserting the microSD card (with microSD USB adapter) directly into a viewing device, such as a computer or compatible TV or tablet.

## PLAYING BACK VIDEO & PHOTO CONTENT IN THE CAMERA

You can play back videos and photos directly in your camera.

To play back content, use the Touch Display:

1. Swipe left, and then tap Playback.
2. Swipe to scroll through the thumbnails.
3. Tap a video or photo to open it in full-screen view.
4. For video, tap [  ].
5. To return to the thumbnails screen, tap [  ].
6. To exit Playback mode, swipe down and then tap [  ].

## PLAYING BACK VIDEO & PHOTO CONTENT ON YOUR COMPUTER

You can play back video content on your computer by using the supplied microSD USB adapter.

1. Remove the MicroSD card from the camera.
2. Insert the MicroSD card into the microSD USB adapter (supplied with camera kit).
3. Plug the microSD USB adapter into your computer's USB port.
4. Copy the files to your computer (your video/photo files are in DCIM\100GOPRO)
5. Play the video files with your computer's native video player. View photos with your computer's native photo viewer.

MicroSD USB adapter (left) and MicroSD card (right):



**Hint:** Some computers have an SD card slot. In such case, you can insert the microSD card into a microSD adapter and plug the SD card directly into the computer's SD card slot. A microSD adapter is *not* supplied in your kit. If you have a spare microSD adapter, you may use this method.

Insert the microSD card (bottom) into the MicroSD adapter (top):



## Camera Placement and Setup

Once you have charged your battery and your camera is configured properly, you are ready to videotape your teaching event. If you are a Multiple Subject student teacher, it is advisable to place the camera in your classroom a day or two before the shoot so that the children can get used to having a camera in the classroom. Often, children will stare and talk to the camera when they first see it. After a day or two, they will get used to having a camera in the classroom.

The GoPro camera kit is supplied with a **tripod**. Refer to the tripod instructions in the *Canon Camera and Tripod Instructions* document (pages 1 and 2) available in the Cahill Lab EdTPA/Technology website (<http://gcoe.sfsu.edu/cahill/edtpatechnology>). The difference is that the GoPro camera should be mounted **parallel** to the tripod plate instead of perpendicular. Here are some reminders on using the tripod:

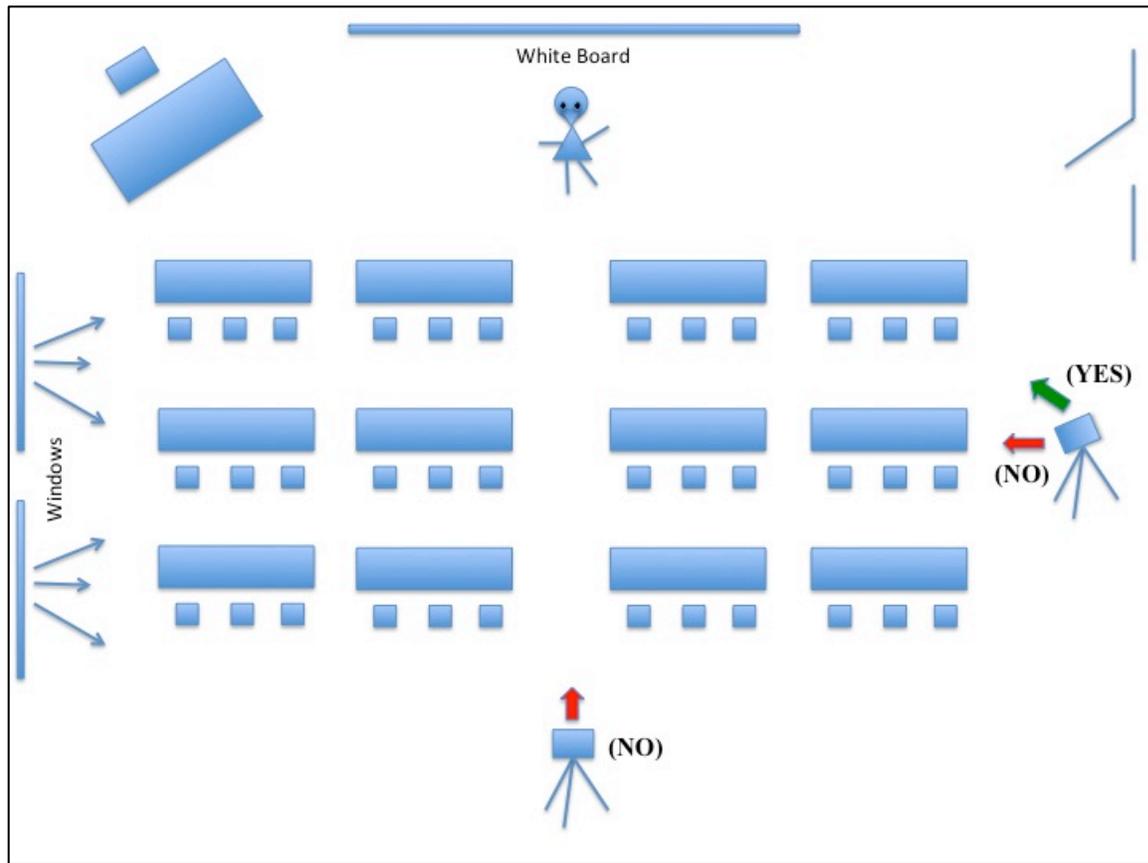
- Be sure to **remove** the plate from the tripod before attaching the camera and putting the (plate & camera) back onto the tripod.
- Be sure the GoPro camera is positioned **parallel** to the tripod plate.
- Be sure the long-stemmed **tilt-release handle** points towards yourself and not the subject.



Once the camera is set up, you will need to place it in an optimum position in your classroom for videotaping. Here are some tips on **camera placement**:

- Do not place the camera at the back of the classroom. You will be videotaping the backs of student's heads and you will hear the students more loudly than the teacher.
- Do not point the camera at sunlit windows. The glare will produce too much contrast and your video will not be balanced. It is best to close all the shades in the classroom and use only indoor lights for videotaping.
- Do not place the camera more than 25 feet away from subject. The camera may have problems picking up sound more than 25 feet away. And, ambient sound/noise will be more pronounced the further away you are from the subject. The camera lens angle is fairly wide. From the middle of the room (on the side), you should be able to capture the subject and most of the classroom.

- The camera shows a red blinking light at the front of the camera while it is recording. At 25 feet away, you should be able to see and verify that the camera is on and recording.
- The camera should be placed at a 45-degree angle from the side of the classroom. This way, there will be less glare from the whiteboard, and you will be able to see the subject and sides of the students faces, instead of the backs of their heads.



- If there is a videographer behind the camera, be sure the person does not talk or whisper. The audio pickup from behind the camera is very sensitive. You will hear everything the videographer says.
- You may want the videographer videotape you while you roam around the classroom. In such case, the videographer can release the camera from the tripod and hold it steady while following you with the camera. The GoPro camera has some stabilization software.
- To be really steady, it is advisable that the videographer NOT release the camera from the tripod; but instead, fold the tripod inward and hold the tripod (with the camera) against his/her body while videotaping.