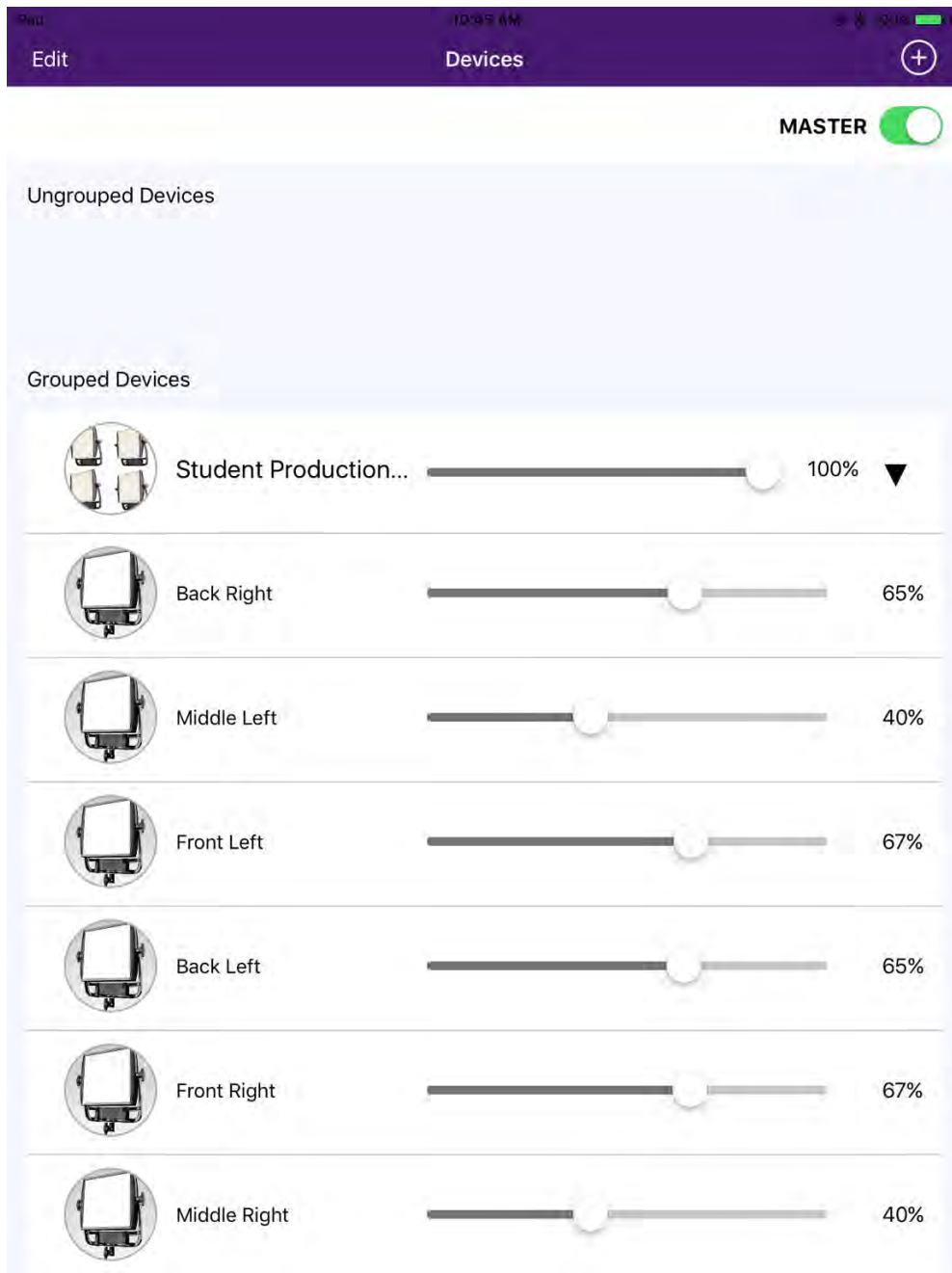


Lights

1. Studio production lights are controlled from the Studio **iPad**:
 - Click on the Home button to see screen for controlling the lights.
 - On the screen, tap the **MASTER** switch (top right) to turn the lights on.
 - **Student Production**...slider affects all the lights simultaneously. For IRIS **F8** (see the “Adjusting the Exposure” section under Sony FS5 below), it should be at 100%; for IRIS **5.6**, it should be at 70%.
 - The lights are named from the perspective of the camera operator: **Front Left**, **Front Right** (the closest lights to the camera), **Middle Left**, **Middle Right** (the middle lights), **Back Left**, **Back Right** (the farthest lights from the camera; these lights have barn-doors installed). Each light is labeled accordingly. The naming on the screen is not necessarily in order.
 - You can control the brightness and color temperature of a particular light by moving its respective **sliders**. For convenience, tap on the desired light, which will take you to that light’s page, where you can control its brightness and the tungsten / daylight setting.
 - To set up the lights for the Interview and Green Screen production types, consult the **Presets** section below. For more Green Screen lighting tips, consult the Green Screen Production section below.
 - Remember to **turn the lights OFF** when you leave by tapping the MASTER switch on the screen.
2. To **redirect the lights**, use the **step stool**. Be cautious when using it, as a fall may result in serious injury. Be sure all 4 legs of the step stool are on even footing, and do not overreach or otherwise compromise your balance. If you need assistance, visit the STS desk.
3. In case of **iPad malfunction**, the lights can be controlled **manually** using the knobs on the back of each light with the assistance of the step stool. The top knob controls brightness, the bottom the tungsten / daylight setting. A light needs to be turned off and then on manually using the power button on the light to switch to manual control.

Interview Lights Preset:

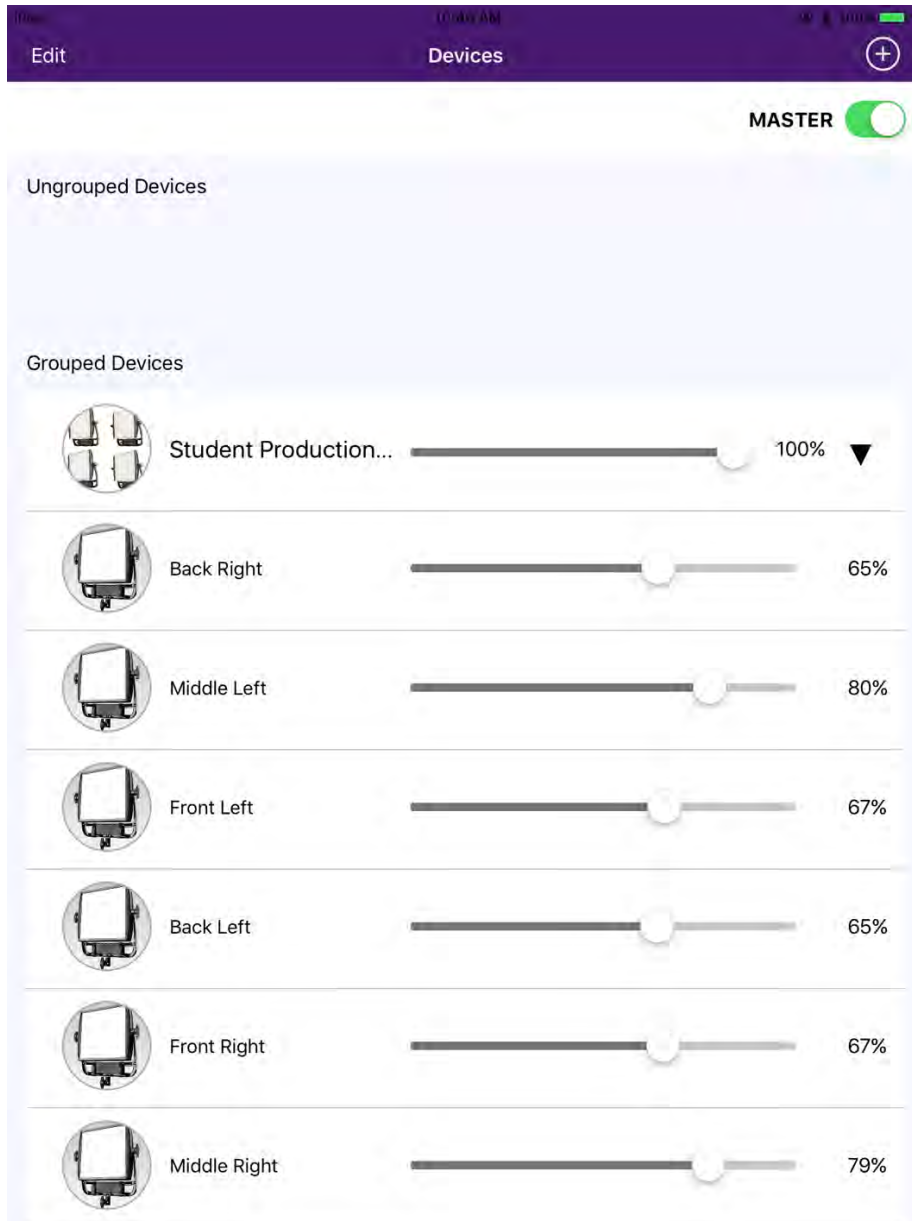


The color balance for each light (accessible by tapping the light on the screen) is set as follows:

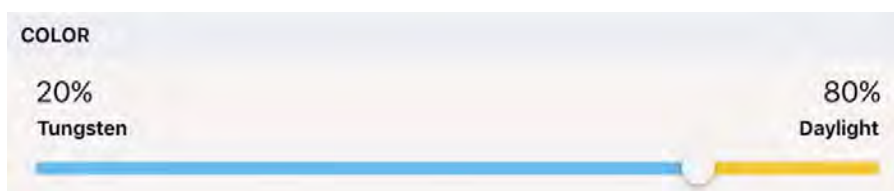


Green Screen Lights Preset

This preset is similar to the Interview Lights Preset, except the Middle lights' brightness is increased:



The color balance for each light (accessible by tapping the light on the screen) is set as follows:



Green Screen Production Tips

- The talent cannot wear any green.
- Pull the green curtain around to create the green screen background. Make sure it fills your camera view.
- Make the green screen as flat as possible to minimize wrinkles. You can use the Velcro at the bottom of the green curtain to stretch the screen flat.
- For best results, direct the two middle lights on the green screen to keep the light even and consistent across the screen. If you did, consult the Green Screen Light Preset above to adjust the light settings. Your objective is to both have the green screen lit evenly and to have your talent lit from the front (front lights) and from the back (back lights) to separate your talent from the screen.
- Adjust the camera zoom, pan, and tilt as needed. Remember that the green background needs to fill the frame with nothing else (walls, floor) visible.
- Get the subject farther away from the screen to eliminate the shadow cast by the talent on the screen. The middle of the studio is the ideal spot. Readjust your camera zoom, pan, and tilt as needed.

Multicamera Recording

The studio has 3 cameras, 3 boom microphones, and a wireless microphone set up and available to record video podcast or any other multicamera recording project with up to 3 on-camera participants.

Setting Up the Furniture

The studio has 3 toll chairs available to accommodate up to 3 participants. The chairs should be positioned within the production lights area.



⚠ When setting up the chairs, make sure the tabs on the back of their legs are locked in place to prevent the chair from folding.



Setting Up the Microphones

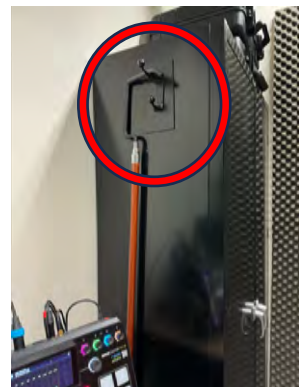
Positioning

- Using the pole hook, move the ceiling rail and individual carriages with the microphones to position each microphone directly above and about a foot in front of the respective chair.



⚠ Use the pole hook to move the rail and the carriages. Do not pull on the microphones or cables.

- If microphones are tilted up, use the step stool to reach microphone tightening knobs. Point the microphones down and slightly backward, toward the center of the chair.
- If using only two chairs, use any two of the three microphones.



Powering Up the Lights

1. Turn on the production lights using the iPad and make sure they are set as shown in the “Interview Lights Preset” (or the “Green Screen Lights Preset” if using the green screen) in the “Lights” section above.
2. Set the top slider ‘Student Production...’ to 70% (if using the green screen, keep it at 100%).

⚠ Remember to always turn off the ceiling lights when recording.

Video Setup

Turn on the power strip on the left side of the bench. The ATEM Mini Pro device positioned in front of the monitor on the bench top and the monitor should turn on.

Setting Up the Side Cameras 1 and 3

The side Cameras 1 and 3 are used to record close shots of the participants on the right and on the left accordingly. The cameras can be moved vertically and laterally along the side ceiling rails to achieve the desired angle of shot.



1. Lower down Camera 1 and power it up by sliding the power switch on the top left of the camera's back panel. Ignore/click through any warnings.



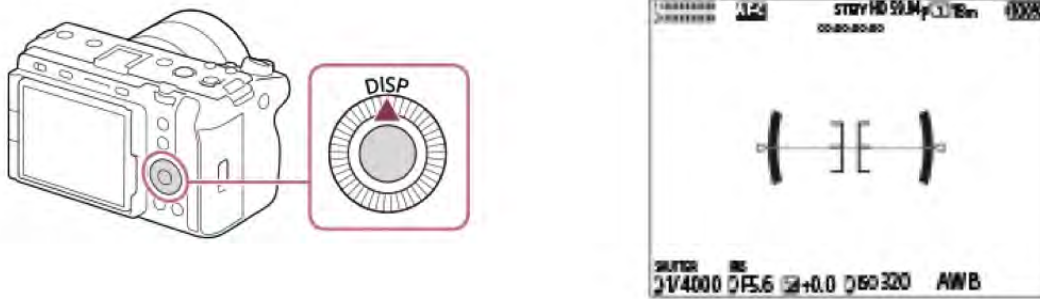
You can move the cameras along the walls to achieve a desired shooting angle by moving their suspension devices (pantographs). **Use the pole hook** if needed to assist moving the cameras along their rails.

2. While looking at the camera's display, adjust the tilt, pan, and zoom (via the lens ring) to frame the participant as desired. You can also monitor the camera view on the display on the workbench.

To adjust pan and tilt, loosen the knob on the ball head above the camera turning it counterclockwise.



Use the bubble level on the camera or the levels on camera's display to level the camera. If the display does not show levels, press the display button until they appear:



Once the camera is leveled, the levels turn green. Tighten the knob on the ball head once done.

3. Ensure that the slider on the lens of both cameras is set to **AF**.



4. Press the Menu button on the back of Camera 1 and tap on the Toolbox icon on the bottom left. Tap on Reset/Save Settings→Save/Load Settings→Load→CAMSET01→OK



This will load the preset settings.

If the 'Memory card locked, Slot 1' message appears, press OK.

5. Ensure that the Sutter speed is **1/48** and the IRIS is **F8**. These are the recommended settings for the default lighting setup.




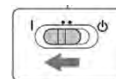
To adjust the Shutter speed, turn the control wheel on the back panel. To adjust the IRIS, turn the dial on the camera top front. To adjust ISO, turn the dial on the top back of the camera.

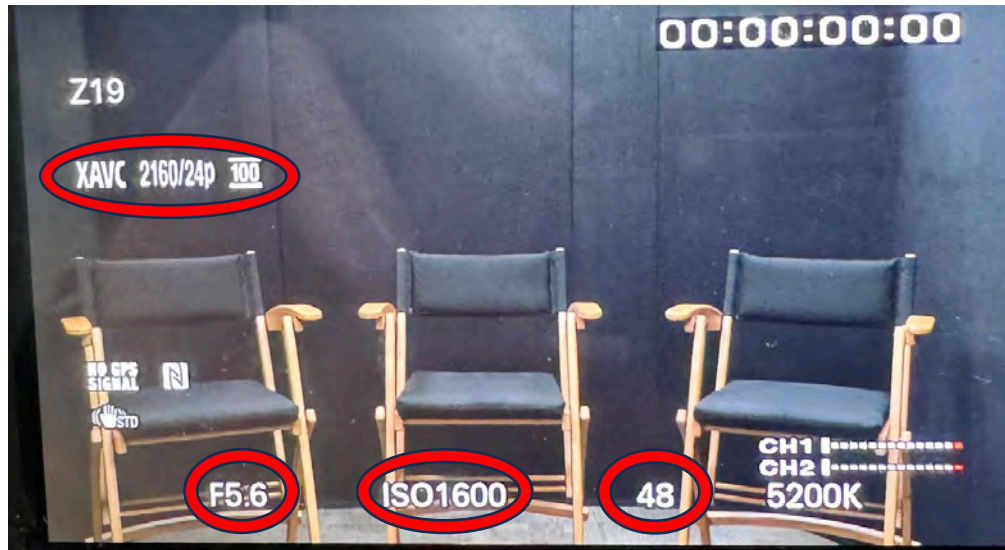
6. Repeat the above steps to set up Camera 3 if using.

Setting Up the Central Camera 2

Camera 2 is set up on a tripod and can be used for a wide shot to record all participants together.

1. Ensure that the tripod is positioned in the center (release the breaks on the wheels to move and reengage once positioned).
2. Power up Camera 2 sliding the switch on the left side: (ignore any warnings about the card in the camera)
3. Power up the monitor on the top of the camera by pressing the power button on its right side.
4. Load the preset settings. Press the Menu button on the left panel and with the joystick on the right handle, navigate to  (System) /Camera Profile/Memory Card B/Load/01/Yes. This will load the XAVC (4K) file format with **24** fps rate, the IRIS of **F5.6**, and the shutter speed of **48**.





5. Make sure that ISO is set at 1600 (see the pic above). If it is not, shift the ISO switch to M.



6. Adjust zoom, pan and tilt as necessary to include all participants.



To adjust **pan** (horizontal) and **tilt** (vertical) angles of the camera as needed, unlock the appropriately labeled locking knob, adjust, relock.



Use the zoom lever on the grip to zoom in or out. Press and hold **W** for Wide angle view (zoom out) and **T** for Telephoto view (zoom in). You can also use the zoom ring on the lens.

i When filming 3 participants, it is recommended to also record in 4K on a SDXC card inserted into Camera 2. This will allow zooming in and obtaining a close shot of the participant in the center as needed in post-production without a loss in focus (the close shots of the participants on the right and on the left are recorded with Cameras 1 and 3).

7. Ensure that the Focus AUTO/MAN switch on the left panel is set to **AUTO**.

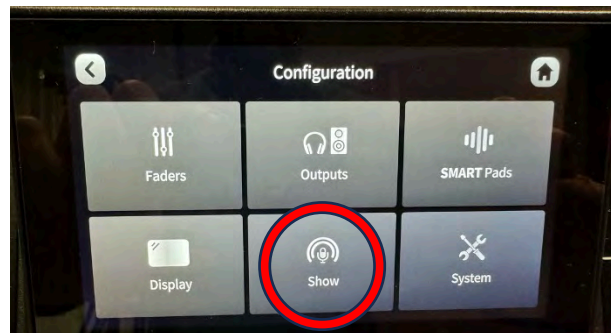
Audio Setup

Audio recording is done via RØDECaster Pro II device utilizing its advanced audio processing capabilities.

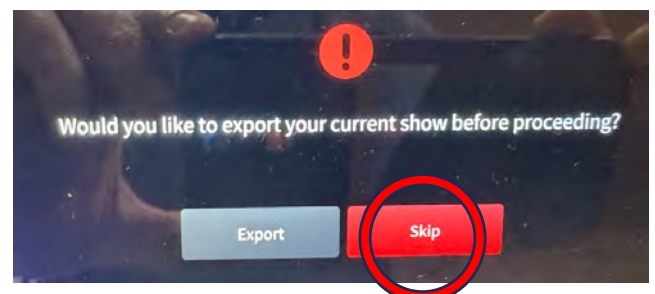
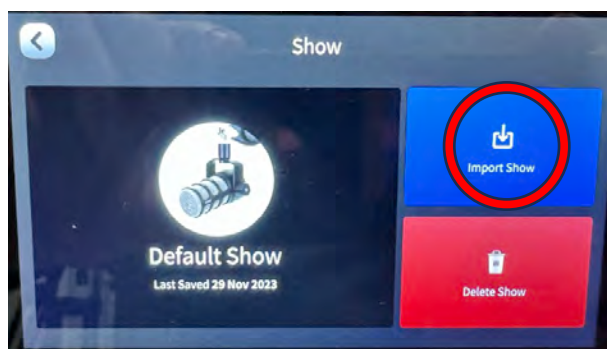
1. Power up the RØDECaster Pro II device by pressing the red button on the back panel.



2. To load the saved preset settings, tap the gear icon in the top left corner of the home screen. Under Configuration, tap 'Show':



3. Tap 'Import', then select the 'Default Show' from the list. Tap Import Show again. On the next screen, select **Skip**:





The boom microphones above the chairs are connected to the channels 1-3 of RØDECaster Pro and are color coded. The wireless microphone is paired with channel 4.

4. To use the RØDE Wireless GO II microphone (kept in a RØDE pouch in the plastic bin on the shelf), power it up by pressing the power button:



5. To check the microphone levels:

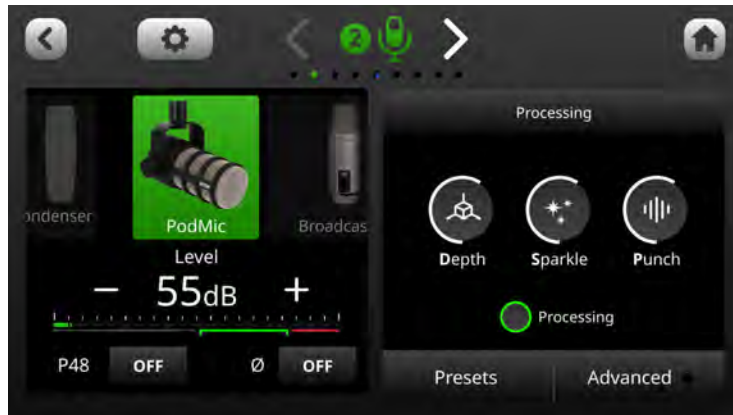
- Ensure that the faders for channels 1-4 are set to the thicker line:



- Ensure the channels are not muted (the mute buttons under the faders are not lit).
- When a participant is speaking while sitting on the chair under the microphone (or wearing the wireless mic about 6 inches under the chin/mid chest), the green indicator bar for that channel should be peaking around the thicker line.

If the bar is too low or too high, **move the fader up or down**. If moving the fader is not sufficient to achieve the desired level, do the following:

- Press the channel number button.
- Use the '+' and '-' buttons to adjust the level on the screen.



Repeat this process for other microphones as needed.

6. Check the quality of the output sound using the headphones. Use the headphones volume knob 1 to adjust their volume.

Recording Options Overview

There are 2 options for recording video and audio in the multicamera setting. These options can be used individually or simultaneously.

Option 1: Recording Video and Audio to the USB-C Drive.

This option is the simplest. Everything is recorded with a push of a button to the provided USB-C external hard drive.

- HD-quality video footage for each of the cameras is recorded to the provided external USB-C drive via the ATEM Mini Pro device. A separate video file, **SPS CAM [1] [2] [3].mp4** for each camera will be recorded.



When making a recording with 3 participants, recording in 4K to an SD card in Camera 2 is recommended to allow for both a wide shot that includes all the participants and zooming in in post-production on the participant in the center.

- High-quality audio coming from the RØDECaster Pro II is recorded to the same external USB-C drive via the ATEM Mini Pro device as a single audio file combining the input from all microphones (3 separate lesser-quality tracks for each of the cameras will also be recorded).
 - The high-quality audio file, **SPS MIC 1.wav**, should be your main audio track.
 - 3 separate camera audio tracks are also recorded as part of the video footage. They can be used in post-production for syncing.

Option 2

This option can be used instead of or simultaneously with Option 1.

- 4K or HD video footage can be recorded to an SD card(s) inserted into the camera(s).
- Separate high-quality audio tracks for each microphone can be recorded to your USB-C thumb drive connected to the RØDECaster Pro II device.

i This option can produce 4K footage for any of the cameras and a high-quality separate audio track for each of the microphones (useful to adjust audio for separate guests). You will need to bring the required number of SDXC cards and a USB-C thumb drive for the RØDECaster Pro II device.

Option 1: Recording Video and Audio to the USB-C Drive.

1. The MIC 1 ON indicator should be lit. If not, press the button to turn it on.



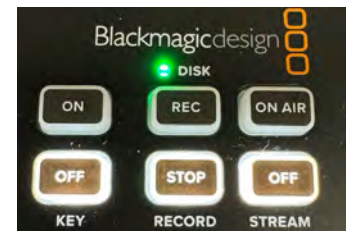
2. You should see the sound level bars for Cam 1, 2, 3. If not, disconnect the respective HDMI cable(s) from the back of ATEM Mini Pro and reconnect the cable(s). The levels of these bars are not important, as they are only used for syncing and processing the video in post-production. Your high-quality sound comes from MIC 1.



3. Check the outputs from the cameras on the monitor and adjust as needed.



4. Ensure the provided external USB-C drive is connected to the ATEM Mini Pro—the DISK indicator above the REC button should be green. If not, connect it with the ATEM Mini cable.




5. Press the REC button to start recording. The button illuminates solid red when recording. The DISK light indicator also turns red.




- ⚠ Remember to always **turn off the ceiling lights** when recording.
- ⚠ If the record button is slowly flashing red, it indicates the disk space is low. In this case, connect the drive to the “Computer” cable, login, and delete the left over content from the USB-C drive (it will mount on the desktop).
6. Once the recording is done, press the STOP button under the REC button (see the picture above).
7. To transfer your recorded files to the studio computer:
 - a. Disconnect the USB-C drive from the “ATEM Mini” cable and connect it to the “Computer” cable.
 - b. Login to the studio computer. The drive should be mounted on the desktop.




8. Copy the folder with your recordings from the USB-C drive to the computer desktop (if there are several folders, yours is the one created last). Then copy the needed content (see below) to your external drive or your online storage. Depending on the length of your recorded content, the copying process can take some time.
 - a. Your video files are found in the Video ISO folder. Make sure to copy **SPS CAM 1.mp4**, **SPS CAM 2.mp4**, and **SPS CAM 3.mp4**.
 - b. Your main audio file is found in the Audio Source File folder. Make sure to copy the **SPS MIC 1.wav** file.
9. Once you have copied you recorded content to your media or online storage, delete the folder with your recordings from the external drive.

 To save time, you can record directly to your own USB-C drive by connecting it instead of the studio drive. Ensure that your drive has enough space (you need about 2GB for each minute of footage) and is formatted on a Mac computer in the HFS+, Mac OS Extended (Journaled) format.

Option 2: Recording Video to SD cards and/or Audio to USB-C Thumb Drive




 Once again, this option can be used simultaneously with Option 1.

1. Video.

- For each camera you intend to use for this option, you will need an SDXC card that supports data rates of at least 100MB/s.
- When using your SDXC card in a camera for the first time, it needs to be formatted.
 - Camera 1 and 3:
 - Open the card cover on the right and insert your card(s) into the bottom Slot 2.
 - **Ignore** all warnings about the card in Slot 1 – it is only used to load the saved preset settings.
 - Press MENU, tap  (Shooting) → [Media] → [Format] → slot 2. Select [Enter], Quick formatting.
 - If you like to change the recording format between 4K and HD, press MENU, tap  (Shooting) → [File Format] and choose the desired setting.
 - If you like to change the frame rate from 24fps to 30 or 60fps, press MENU →  (Shooting) → [Movie Settings] → [Record Setting].
 - Camera 2:
 - Open the card cover on the left and insert your card into the top Slot A

- Press **SLOT SEL** on the left side under the cover to select your card in slot A (ignore all warnings about the card in Slot B – that card is only used to load the saved preset settings and is not used for recording).



- Press MENU and with the joystick, select  (System) → [Media Format] → slot A → OK.
 - If you like to change the recording format between 4K and HD, press MENU, select  (Rec/Out Set) → [Rec Set] → [File Format] and select the desired format (the top is 4K and the other two are HD).
 - If you like to change the frame rate from 24fps to 30 or 60fps, press MENU and with the joystick, select  (Rec/Out Set) → [Rec Set] → [Rec Format], and select the desired setting.
- To start a recording, press the Record button on the respective camera (Cameras 1 and 3 - positioned on the top left; Camera 2—on the grip handle). Allow a few seconds for Cameras 1 and 3 to stop moving after pressing the button. To stop recording, press the button again.

⚠ Remember to always **turn off the ceiling lights** when recording.

2. Audio.

- To record multi track audio on the RØDECaster Pro II, you will need to bring your own USB-C thumb drive that supports data rates of at least 100MB/s.
- Depress the inserted microSD card on the back panel (next to the power button) to disengage it. Insert your thumb drive into either one of the USB inputs on the back panel. If the thumb drive is not formatted, a dialog will appear asking you to format it. When the thumb drive is ready, the 'REC' button on the left of the screen will turn green.
- To start recording the audio, press the 'REC' button. The button will turn red, and a timer will indicate the length of your elapsed recording time. To stop recording, press and hold the 'REC' button until it turns green (short pressing the button will pause the recording, and the button will turn yellow).
- Once the recording is completed, remove your USB-C thumb drive and re-insert the studio microSD card back into its slot.

Once You are Done

You are expected to leave the studio clean, tidy, and ready for the next user. Thank you for doing the following:


- Power down everything you turned on, including the production lights, the cameras, Camera 2 monitor, and the power strip on the left side of desk.
- Logout from the studio computer (do not turn the computer off).
- Take your SD cards and USB drives (if any) with you. Make sure not to accidentally take the studio SD cards from the cameras and the provided external USB-C drive from the desk.
- Collect all personal belongings and any trash.
- Remove all extra props and furniture you brought in (if any) from the studio.
- When exiting the studio, turn the ceiling lights off.

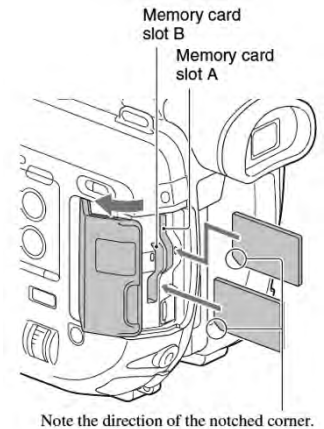
Sony FS5 (the Camera Set on the Tripod).

1. Position the tripod with the camera as desired (usually in the center). Release the breaks on the wheels to move and reengage once positioned.

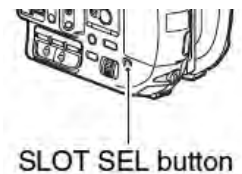


2. Turn the camera on using the switch on the left side:
3. Turn on the Ninja monitor on the top of the camera by pressing its power button on the right side. If it does not turn on, check the power cord connectivity.


4. The camera contains a memory card in slot B with saved setup settings. To load the settings, press the Menu button on the left side and with the joystick on the right handle, navigate to  (System)/Camera Profile/Memory Card B/Load/01/Yes. This will load the XAVC (4K) file format with **24** fps rate, the IRIS of **F5.6**, and the Shutter speed of **48**.



5. Insert your SD memory card. Open the cover on the back of the camera and insert the card into the top slot A until it clicks into place. Press **SLOT SEL** on the left side under the cover to select your card in slot A. The recording time allowed by the card will be displayed in the top right of the LCD display.




Note: 4K and a recommended HD formats require an **SDXC** card.


6. **Formatting the Card.** If you are using the card for the first time in this camera, it needs to be formatted. Remember that formatting will delete all data from the card. To format the card:
 - a. Press the MENU button on the left side of the camera.
 - b. Select  (SYSTEM) —>[MEDIA FORMAT] with the joystick on the camera handle.
 - c. Select slot A.
 - d. Select OK —> OK.

7. **Changing the Recording Settings (4K/HD).** The currently selected recording format is displayed in the upper left section of the camera's LCD screen.

- **XAVC 2160/24p 100** stands for **4K** recording (image size 3840x2160) at 24 fps, 100 bitrate. This format **requires an SDXC memory card**.
- **XAVC 1080/24p 50** stands for **HD** recording (image size 1920x1080) at 24 fps, 50 bitrate. This format **requires an SDXC memory card**.
- **AVCHD 1080/24p FX** stands for **HD** recording (image size 1920x1080) at 24 fps, 24 bitrate. This format can use an **SD, SDHC, or SDXC** memory card.

To change recording settings:


- a. Press the MENU button.
- b. Navigate the joystick to  (REC/OUT SET) → [REC SET] → [FILE FORMAT]
- c. For **4K**, select the top **XAVC QFHD**; for **HD**, select the middle **XAVC HD** (recommended) or **AVCHD**.
- d. Now go to [REC FORMAT] to select the **resolution, frame rate, and bitrate**.

 The default signal format is **60i** (NTSC). It records at 24p, 30p, 60i, and 60p fps. Another available signal format is **50i** (PAL), which records at 25p, 50i, and 50p fps. The selected format is indicated by the selected frame rate shown on the screen. To change the signal format, press the MENU button, select (SYSTEM) → [60i/50i SEL] and select the desired signal format. **Memory cards formatted in one signal format cannot be recorded or played back in another.** You will need to reformat your memory card prior to recording in a different signal format.

8. **Changing the Exposure.** You can adjust the exposure to light in your recording by using IRIS, ISO sensitivity, shutter speed, and ND filter. The recommended values to use with the Interview and Green Screen Lights presets and the frame speed of **24 fps** (see above) are:

- a. **IRIS – 5.6** (lights at 70%) or **8** (lights at 100%)

- b. **ISO – M (1600)**
- c. **Shutter speed – 48** (with fps 24)

 The **IRIS** of **F5.6** and the Shutter speed of **48** are loaded as the saved preset from the card in Slot B.

9. Adjusting the IRIS.

- a. Set the ND/IRIS switch (B) to the IRIS position.
- b. Turn the dial (C) to adjust the IRIS number. The F number decreases as you open the IRIS and increases as you close it.
- c. Once done, set the ND/IRIS switch back to ND position to avoid accidental change of the IRIS value.

10. Adjusting the ISO.

Set the ISO **L/M/H** switch to the desired position, which by default corresponds to the ISO values of 800/1600/3200 accordingly.

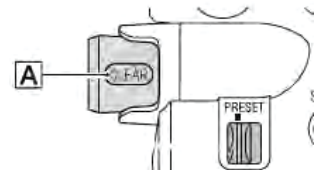
11. Adjusting the Shutter Speed.

The shutter speed should normally be 2x of your chosen frame rate, fps. Thus, 24p corresponds to the shutter speed of 48 and 30p to 60. To adjust shutter speed:

- a. Press the SHUTTER SPEED button (H) to highlight the shutter speed value on the LCD display.
- b. Use the joystick to adjust the shutter speed and press the joystick to set it.

12. ND Setting.

For the Studio, the ND (neutral density) filter should be set to CLEAR.

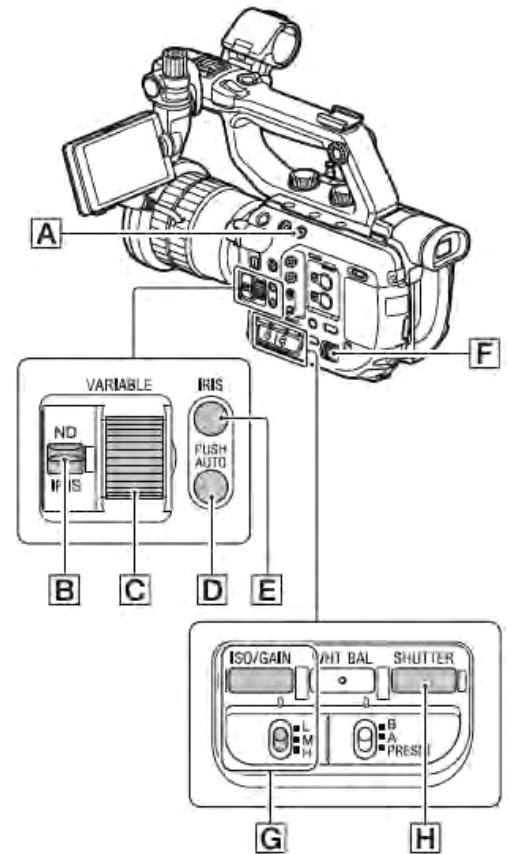


13. Resetting the Time Code

before you begin your recording session is useful for


synchronization of your footage in postproduction. To reset the time code:

- a. Press the MENU button.
- b. Select 00:00 (TC/UB SET) —> [TC PRESET] with the SEL/SET dial, then press the dial.
- c. Select [RESET], press the dial.




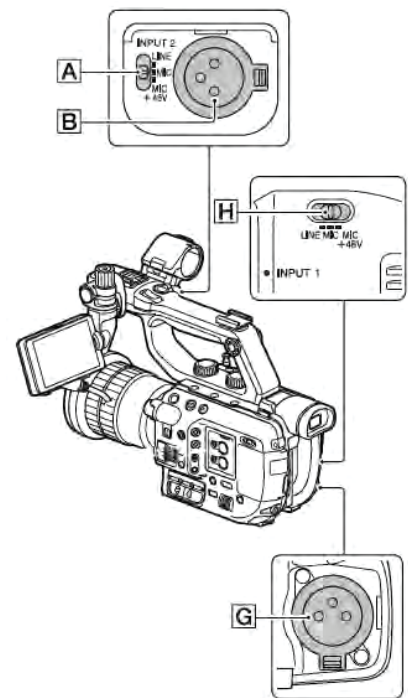
14. Using External Microphones

External microphones connect to the camera via XLR cables. The boom microphone with a green band on the ceiling rail in the center connects to INPUT 1 (G) on the camera. To use a second microphone, such as one of the lavalier mics in the plastic bin, connect the second XLR cable to INPUT 2 (B).

 The INPUT 1 and 2 switches (H) need to be set to **MIC+48V** to power up the microphones.

If using only one microphone, both CH1 and CH2 need to be set to INPUT 1. If using 2 microphones, CH2 needs to be set to input 2. To select the input,

- Press the MENU button.
- With the joystick, select  → [CH1 INPUT SELECT] or [CH2 INPUT SELECT] → and set the input as needed.



15. To adjust **pan** (horizontal) and **tilt** (vertical) angles of the camera as needed, unlock the appropriately labeled locking knob, adjust, relock.



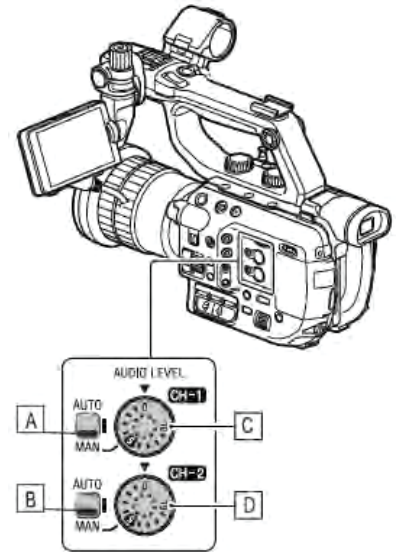
16. **Zooming.** Use the zoom lever on the grip to zoom in or out. Press and hold **W** for Wide angle view (zoom out) and **T** for Telephoto view (zoom in). You can also use the Zoom Ring on the lens, which is the farthest ring from the front of the lens.

17. Focusing the camera.

You can shoot with an auto or manual focus switching to **AUTO** or **MAN** on the left panel of the camera.

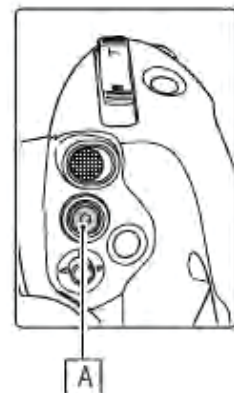
18. Audio Levels.

- c. Open the door covering the AUDIO LEVEL control panel.
- d. Set the AUTO/MAN audio level switches (A) and (B) to AUTO or MAN as desired.
- e. Wear headphones to monitor the sound and to ensure that there are no extra sounds or noises present.
- f. If using the MAN selection, have your talent(s) speaking at the scene and turn audio level dials (C) and (D) at the half-notch increments as needed to achieve the -20dB — -5dB range.





i During recording, the audio level peaks (white thin lines) on the Ninja monitor should be kept within the **-20dB — -5dB** range, which mostly corresponds to the yellow zone on the sound levels displayed in the bottom left of the Ninja Flame monitor (it is okay if the peaks get in the red zone occasionally, but not continuously).

19. **Recording.** Press the REC START/STOP button (A) on the grip to start or stop recording. Record buttons can be also found on the top of the handle and on the top left panel of the camera. Red recording lights light up on the front and the back of the camera during recording.



Playback

 Using the playback function may zoom out the camera and you will lose your composition. If you want to review your footage before you have completed the recording, take the memory card out of the camera (do not turn the camera off) and use the studio Mac for playback. Then reinsert the memory card into the camera and continue recording.

1. To access the **Playback** function:
 - a. Press the THUMBNAIL button  (next to the MENU button). The thumbnail screen appears showing your recorded clips.
 - b. Navigate among the clips and select them for playback using the joystick. You will need to use the headphones to hear the sound during the playback.
2. To **exit** playback, press THUMBNAIL button again.

Video Recording Recommended Settings

Full Auto: Off

IRIS: 5.6 (lights at 70%) or 8 (lights at 100%)

ISO: M (1600)

Shutter speed: double the selected fps (e.g., for 24 fps the shutter speed is 48)

ND filter: Clear

Focus: Auto

Audio: Auto

Settings for 4K recording:

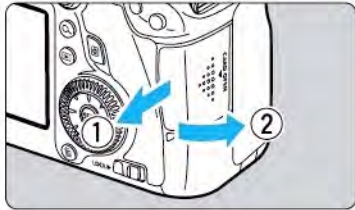
- File format: **XAVC QFHD** (requires an SDXC memory card)
- Image size: **2160**
- Frame rate: **24p**
- Bitrate: **100**

Settings for HD recording:

- File format: **XAVC HD** (requires an SDXC memory card)
- Image size: **1080**
- Frame rate: **24p**
- Bitrate: **50**

Photo Production with Canon 6D | Prep Work

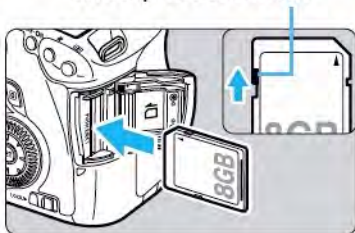
1. Inserting the Memory Card.



1 Open the cover.

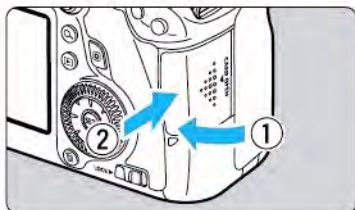
- Slide the cover as shown by the arrows to open it.

Write-protect switch



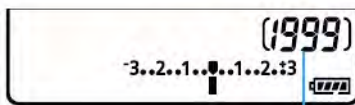
2 Insert the card.

- As shown by the illustration, face the card's label side toward you and insert it until it clicks in place.



3 Close the cover.

- Close the cover and slide it in the direction shown by the arrows until it snaps shut.
- When you set the power switch to <ON>, the number of possible shots (p.35) will be displayed on the LCD monitor.



Possible shots

2. Turning the Power On.

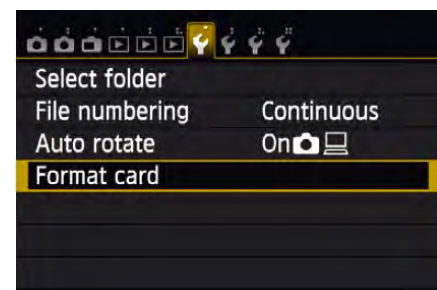
<ON>: the camera turns on. <OFF>: the camera turns off. Either one automatically executes sensor cleaning.





3. Formatting the Memory Card.

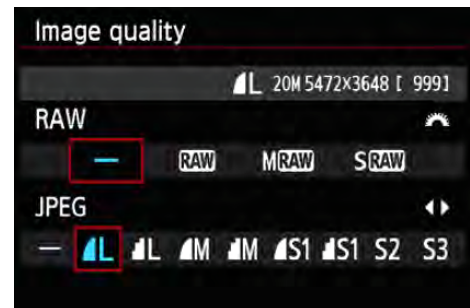
If you are using the memory card for the first time in this camera, it needs to be formatted. Remember that formatting will delete all data from the card. To format the card:

- Press Menu.
- Using the control dial, navigate to the section containing the Format card option and press <SET> in the center of the dial.
- Select [OK], then press <SET>.



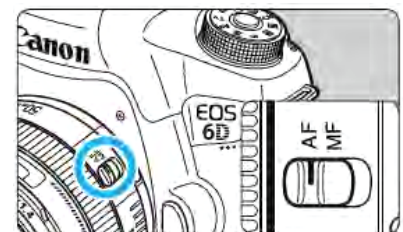
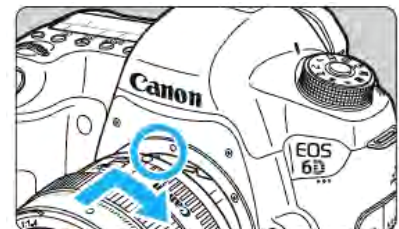
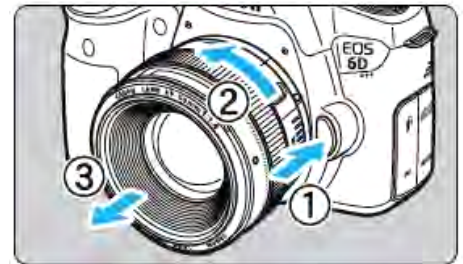
4. Setting the Image-Recording Quality.

- Press Menu.
- Using the dial, navigate to the section containing the Image Quality option and press <SET>.
- To select a RAW setting, turn the  dial. To select a JPEG setting, press the  key.
- On the upper right, the size of a shot, the resolution, and the number of possible shots are displayed.
- Press <SET> to set your selected settings.



5. Attaching and Detaching a Lens. If you need to swap the lens:



- Turn the camera Off.
- While pressing the lens release button (1), turn the lens counterclockwise until it stops (2).
- Detach the lens and set it aside (3).
- Remove the rear lens cap from the lens that you are about to attach and attach the cap to the lens you just detached.
- Align the red dots on the lens and camera and turn the lens clockwise until it clicks in place.



6. Setting the Lens Focus Switch. Set the switch to **AF** for Autofocus and to **MF** for manual focus.

Photo Production | Basic Photo Shooting

1. Fully Automatic Shooting.

- a. Set the Mode Dial to  by turning it while pressing the button at the center.
- b. Aim the center AF point at the subject.
- c. Focus the subject by pressing the shutter button halfway. The lens will shift to focus, the beeper will sound and focus confirmation light  in the viewfinder will light up.
- d. While holding the shutter button halfway, recompose your shot as desired. Your subject will remain in focus as long as the shutter button is held.
- e. Take the picture by pressing the shutter button completely. The captured image will be briefly displayed on the LCD monitor.

2. Shooting Portraits in SCN: Special Scene Mode.


- a. Set the Mode Dial to <SCN>.
- b. Press the <Q> button.
- c. Select the Portrait shooting mode . This mode blurs the background to make the subject stand out. It also makes skin tones and the hair look softer.
- d. Shooting tips:
 - i. The further the distance between the subject and the background, the blurrier the background will look. The subject will also stand out better in front of a plain, dark background.
 - ii. Use the zoom lens, zoom in on the subject to the maximum. Move away or if necessary.
 - iii. Focus on the face. For close-ups of the face, focus on the eyes.

Photo Production | Advanced Photo Shooting

1. **P: Program AE.** The camera automatically sets the shutter speed and aperture to suit the subject's brightness (Program Auto Exposure).

- a. Set the Mode Dial to <P>.
- b. Focus on the subject by pressing the shutter button halfway.
- c. Check the display for shutter speed and aperture. They should not blink. If the "30" shutter speed and the lower f/number blinks, increase lighting or ISO. If the "4000" shutter speed and the higher f/number blinks, decrease lighting or ISO.



- d. Take the picture – compose the shot and press the shutter button completely.

2. **Tv: Shutter-Priority AE.** You set the shutter speed and the camera automatically sets the aperture based on the selected shutter speed and the brightness of the subject.

- a. Set the Mode Dial to <Tv> (stands for Time value).
- b. Set the desired shutter speed: while looking at the LCD panel, turn the dial above the panel. A faster shutter speed freezes the action; a lower blurs it.
- c. Focus the subject by pressing the shutter button halfway. The aperture is set automatically.
- d. Check the viewfinder display. The aperture should not be blinking. If the lower f/number blinks, set a lower shutter speed, increase lighting or increase ISO. If the higher f/number blinks, set a faster shutter speed, decrease lighting or decrease ISO.
- e. Take the picture – compose the shot and press the shutter button completely.



3. **Av: Aperture-Priority AE.** You set the aperture and the camera automatically sets the shutter speed based on the selected aperture and the brightness of the subject.

- a. Set the Mode Dial to <Av> (Aperture value).


- b. Set the desired aperture: while looking at the LCD panel, turn the dial above the panel.
 - c. Focus the subject by pressing the shutter button halfway. The shutter speed is set automatically.
 - d. Check the viewfinder display. The aperture should not be blinking. If the “30” shutter speed number blinks, set a larger aperture (lower f/number), increase lighting or increase ISO. If the “4000” number blinks, set a smaller aperture (higher f/number), decrease lighting or decrease ISO.
 - e. Take the picture – compose the shot and press the shutter button completely.
 - f. Shooting tips for portrait shooting:
 - i. The further the distance between the subject and the background, the shallower the depth of field and the blurrier the background will look. The subject will also stand out better in front of a plain, dark background.
 - ii. The larger the aperture (the lower the f/number), the shallower the depth of field.
 - iii. Use the zoom lens and zoom in on the subject to the maximum. Move away or if necessary.
 - iv. Focus on the face. For close-ups of the face, focus on the eyes.
4. **M: Manual Exposure.** You set both the shutter speed and aperture.
5. **Setting the ISO:** press the <ISO> button on the top of the camera, turn the dial to the desired ISO number displayed on the LCD panel. “A” indicates ISO Auto.
6. **Setting the AF Operation:**
- a. Make sure the lens focus switch is set to AF (auto focus).
 - b. Turn the Mode Dial to a Creative Zone Mode (P, Tv, Av, M, or B).
 - c. Press the <AF> button on the top of the camera.
 - d. While looking at the LCD panel, turn the dial to set the AF to:

- i. ONE SHOT for still subjects (most relevant in the Studio setting)
- ii. AI SERVO for moving subjects
- iii. AI FOCUS for auto switching between One Shot and AI Servo AF.

7. Setting the Drive Mode.

- a. Press the <DRIVE> button on the top of the camera.
- b. While looking at the LCD panel, turn the dial to set the drive mode.
 - i.  single shooting
 - ii.  continuous shooting (4.5 shots/sec)
 - iii. Silent single shooting
 - iv. Silent continuous shooting
 - v. 10-sec self timer
 - vi. 2 sec self timer

8. Shooting with the LCD Monitor (Live View Shooting).


- a. Set the Live View shooting/Movie shooting switch to .
- b. Press the <Start/Stop> button.
- c. Focus by pressing the shutter button halfway.
- d. Recompose and take the picture by pressing the shutter button completely.



9. Focusing Manually for precise focus – especially recommended for shooting movies.

- a. Set the lens focus mode switch to <MF>.
- b. Zoom in on the subject's eyes and focus by turning the lens focusing ring.
- c. Zoom out and recompose as needed.
- d. Take the picture by pressing the shutter button completely.

10. Shooting Movies

- a. **Set** the Live View shooting/**Movie** shooting switch to . You will hear a sound from the reflex mirror going up, then the image will appear on the LCD monitor.



- b. Set the **Recording Size, Frame Rate, Compression**

Method:

- i. Press the Menu button.
 - ii. With the dial, navigate to the menu section displaying Movie rec. size.
 - iii. Select the image size, frame rate and the compression method (**1920 24 ALL-I**).
 - 1) **1920 (1920x1080)** – Full HD – is recommended.
 - 2) **24 fps** frame rate is recommended.
 - 3) **ALL-I** compression (one frame at a time) is recommended.
- c. Focus the subject. Manual focus is recommended.
- d. Press the <Start/Stop> button to start shooting a movie. Press the same button to stop.
- e. While shooting a movie, you can take a photo by pressing the shutter button completely.
- f. The camera automatically divides your footage into 4GB files.
- g. The maximum recording time is 29 min 59 sec. To continue shooting, press the <Start/Stop> button again.

11. Playback


- a. Press the  button.
- b. Turn the dial under the button to browse through the images and movie clips.
- c. To play a movie clip, press <SET> in the center of the dial.

Photo Production | Portrait Photography

The settings for portrait photography will depend on the result you are trying to achieve. When using the studio Canon 6D camera, we recommend the following camera settings:

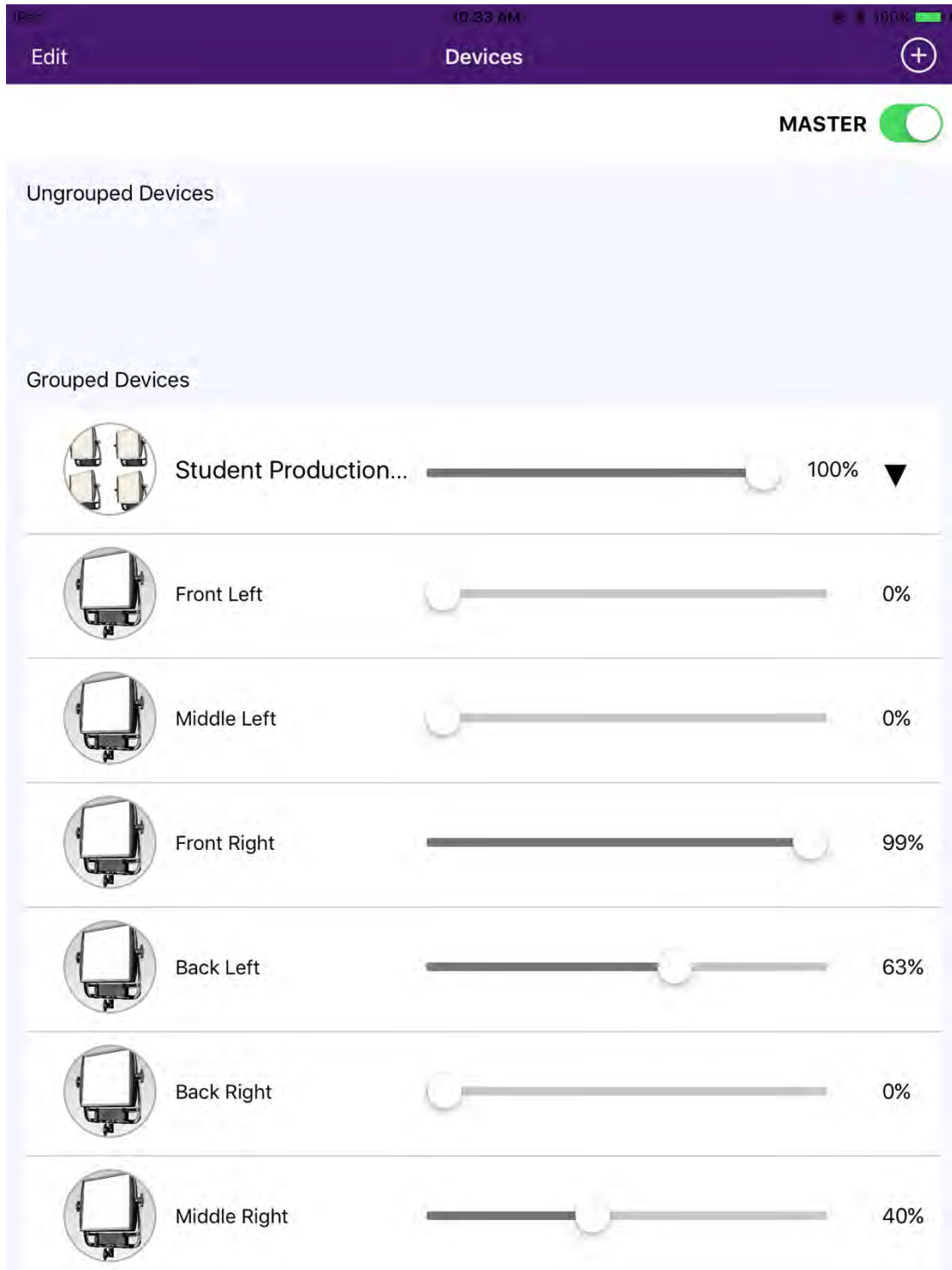
- Use the **50mm** prime lens.
- Set the Mode Dial to **M** (manual).
- Set the **ISO** to **1600** by pressing the <ISO> button on the top of the camera and turning the dial above the panel.
- Set the **shutter speed** to **125** by turning the dial above the panel.
- Set the **aperture** by turning the dial on the back of the camera to the right of the LCD screen. Your aperture value will depend on the lighting configuration and will likely be **between 5.6 and 8**. See below for lighting suggestions.

Lighting:

- For highly lit passport-like photo with minimum shadows on the face, use the **Interview Lights Preset** (see the **Lights** section in the beginning of the binder) and increase both Front lights to 100%. Set the **aperture** to **8**.
- To add shadows and create a more 3-D photo, set the Front Left, Middle Left, and Back Right lights to 0% (see the illustration on the next page). Set the **aperture** to **7.1**.
- If you like to use a lighting setup that results in decreased lighting, you will also need to decrease the aperture f-number and/or decrease the shutter speed and/or increase the ISO. Please note:
 - With decreasing the aperture f-number, you are also decreasing the depth of field. We do not recommend going lower than **5.6**, unless you don't mind parts of the portrait being out of focus.
 - With decreasing the shutter speed, hold the camera very still when shooting to avoid a blurry image. Do not go lower than **60** with the **50mm** lens or lower than **80** with the 24-70mm lens set to **70mm**. The rule of thumb is that the minimal shutter speed should not be less than the focal length of the lens. The recommended shutter speed of **125 is safe** for avoiding blurriness.

- Increasing the ISO may lead to digital noise in your image if printing large hi-resolution images. Generally speaking, increasing the ISO up to 3200 should be fine for most photos when using our Canon 6D, especially when they will be viewed on a digital screen.

You can also experiment with the white background curtain as a light reflector.



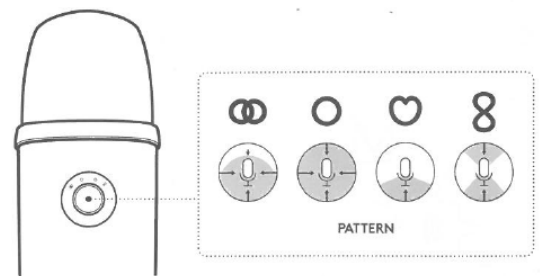
Audio Production

1. Computer Workstation

- Log in with your Emory NetID and password.
- Launch the sound recording application of your choosing. Audacity, Adobe Audition, and Logic Pro applications are installed.
- Use The Yeti X microphone for sound recording.
- Connect the Sony headphones to the microphone to monitor the microphone recording in real time and for playback. In System Settings/Sound (click on the apple logo in the top left of the screen to access), make sure both input and output sound are set to Yeti X.

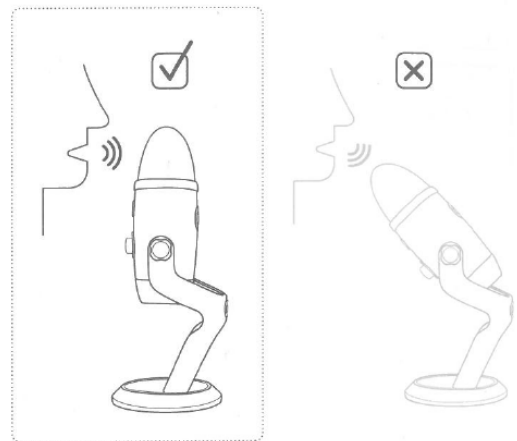
2. The Yeti X Microphone

- Select the desired recording pattern using the dial on the back of the microphone. Use “cardioid” (#3) for solo recordings. Use bidirectional (#4) for two people. Use stereo (#1) for recording a group.



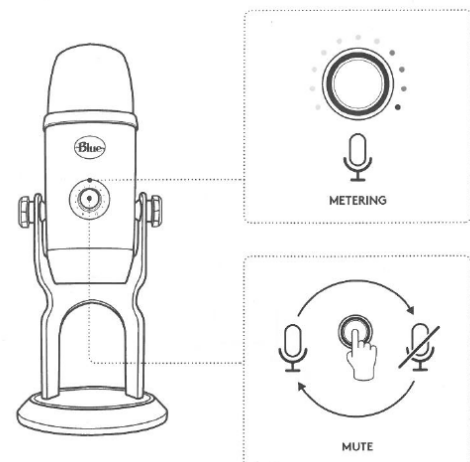
- Position the microphone upright. It should be facing you for solo recordings. The front of the microphone is designated with the “Blue” logo.

For bidirectional recordings, one person should be facing the front of the microphone and the other—the back. You may consult the sign on the desk (left corner) for the correct positioning of the microphone to the speaker(s) and for description of the recording patterns.

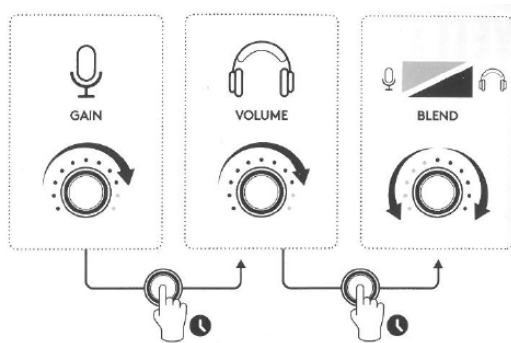


- The front dial is used for microphone gain, headphones volume, and muting.

- Press the dial to mute / unmute the microphone.
- Turn the dial to adjust the microphone gain (the microphone logo at the bottom left of the dial should be lit).



- iii. To adjust the headphones volume, press the dial for 1 sec until you see the headphones logo lit. Then turn the dial to adjust the volume.



- iv. Press the dial for 1 sec again to select the Blend mode. In this mode, turning the dial to the left will adjust the microphone gain and turning it to the right will adjust the headphones volume.

3. Troubleshooting

If there is no sound input through the microphone or no output through the headphones:

- i. Check the **wired connections** to ensure that the microphone is connected to the computer and the headphones are connected to the microphone.
- ii. Ensure that **Yeti X** is selected as **both the Input and the Output** sources in the System Preferences (Click on the Apple icon / System Preferences / Sound /Input or /Output