



Studio Camera Operation and Floor Directing

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Welcome to the Studio Camera Operation class! In this class you will learn to operate the studio cameras, correctly compose shots, and execute basic camera movements. In order to pass this class you must complete the instructor led hands-on training and score at least 70% on a proficiency test.

The Role of the Camera Operator:

The camera operator controls one of the studio cameras during a studio production. The camera operator takes direction from the director and effectively executes shot framing and composition as well as any camera movement requested by the director. The camera operator is also responsible for making sure that camera cables are properly wrapped and that cameras are properly placed back in their storage area after the production has finished.

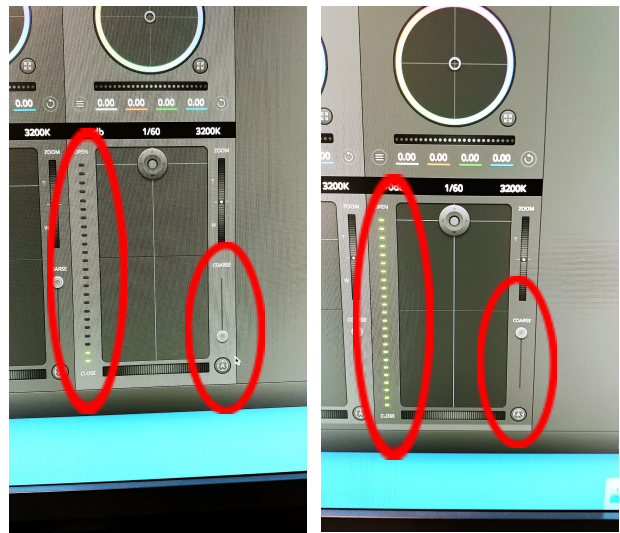


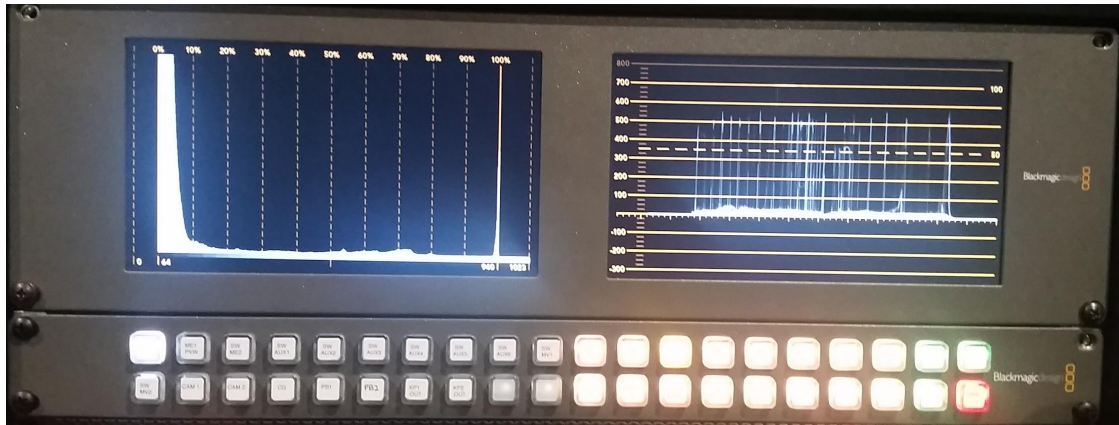
Turning on the cameras:

First you need to turn on the camera and check its signal on the Quality Control Monitor. Locate the power switch on the top of the camera directly above the flip out LCD screen and switch it to the on position.



In the control room, locate the virtual camera control module on the right most computer screen. There should be a level adjustment that is labeled "coarse". Pull the level of this up and you should see picture begin to appear as you are opening the **aperture/iris**. You should see the green lights to the left illuminate as you pull the iris to the open position.





We'll cover the **Quality Control Monitor** in greater detail in the Advanced Technical Directing course. For now, go back into the studio to begin setting up the camera(s).

Camera Locks:

There are multiple locks that you need to be aware of in order you use the studio camera. First are the wheel locks. Before you attempt to move the camera you must **first make sure all three locks are open** and allow each wheel to move freely.



Next are the pan and tilt locks. These locks keep the camera from being able to rotate on its vertical axis and horizontal axis.

The pan lock lever is located on the back of the pedestal head. Make sure it is loose in order to pan the camera to the left or right.



There are two locks for the tilt. First is the tilt lock pin located on the right side of the pedestal. To disengage it simply pull it out and twist it to the left. The tilt lock lever is located on the left side of the camera. Be sure that both the tilt lock lever and the tilt lock pin have been released before you attempt to tilt the camera.



The final lock is the pedestal lock. It is located on the pedestal base directly under the steering wheel. Releasing this lock will allow you to raise or lower the height of the camera. After you have selected an appropriate height be sure to secure this lock.



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Camera Movement:

The movement of this camera is controlled by using the steering wheel. Located on the steering wheel you will find a red plastic marker. This marker is used to indicate which direction the camera will move in. To steer the camera you will simply turn the steering wheel until the red marker is pointing in the direction you wish to move the camera.



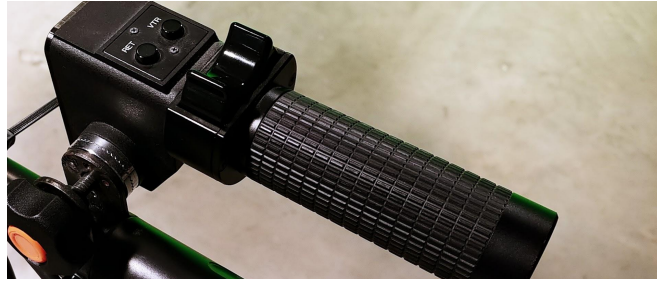
Camera moves are intended to focus the viewer's attention. Movement should be performed with a purpose, at an appropriate speed for the circumstance and not confuse the viewer. Below are standard camera movement definitions.

- Pan - Rotating the camera left or right around a vertical axis.
- Tilt - Rotating the camera up or down around a horizontal axis.
- Truck - Moving the camera left or right on the pedestal.
- Dolly - Moving the camera closer to or further from the subject on the pedestal.
- Arc - Similar to truck except you move in a half circle or 'arc' to left or right.
- Pedestal - Raising or lowering the camera on the pedestal column.

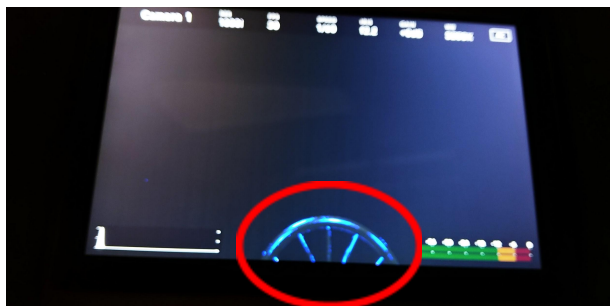
Focus and Zoom Controls:

At the end of the handlebars sit the focus and zoom controls. The zoom control is positioned on the right handlebar. On the zoom control is a

switch that can be moved to either the right or the left. Moving it to the right will zoom in and moving it to the left will zoom out. The zoom control is pressure sensitive so the farther you press it to the right or left; the faster the speed of the zoom. Additionally, you can control zoom for each camera from the control room using the bar labeled “zoom”.



The focus control is at the end of the left handlebar. To make adjustments to the camera's focus the camera operator will roll the focus control to the right or the left and watch the viewfinder to see when their shot comes into focus.



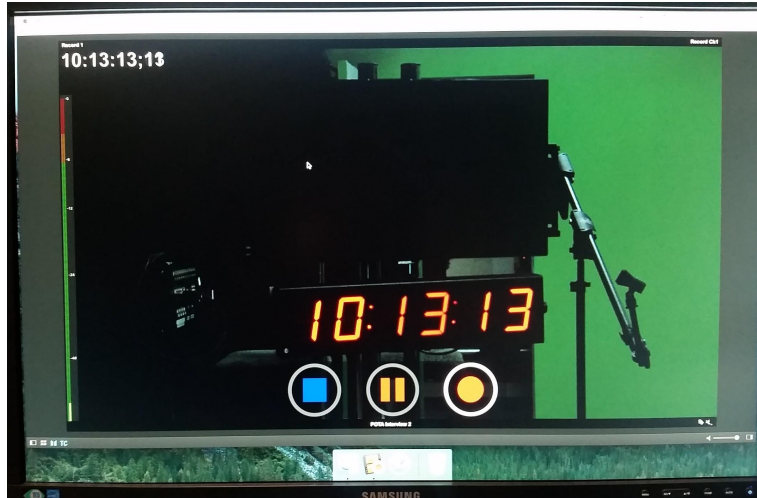
Setting the Focus:

In order to set the focus on the studio camera you will want to roll the focus control handle bar until you begin to see blue outlines around your subject. This function is called “Focus Peaking” and it is a video assist function designed to simplify setting focus. The camera monitor will highlight anything that displays

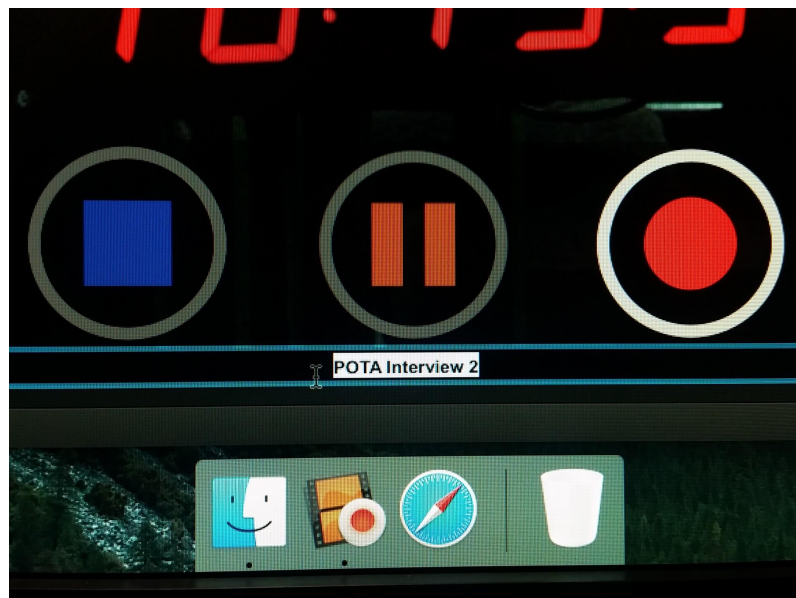
crisp and clear lines in a blue outline signifying that it is sharp enough to be considered in focus. You will want to roll the focus handle back and forth a few times, however, in order to ensure that you are getting the most amount of blue focus lines that are possible.

Recording:

All studio programs are recorded directly to a hard drive. This hard drive is accessible through the computer on the left of the table. To access the hard drive, you'll need the Production iPad. Turn it on, and select “DVI”. Then press the “Recording” button under the “Display 1 Video Source (Left)” tab. The left screen should now show the recorder controls, as in the image below.



To stay organized, you should name your recording. Using the left mouse, select the text box at the bottom of the screen. Use the left keyboard to type in the new name. To start recording, select the record button (the red circle). Each time you stop recording (the blue square) you will create a video file on the hard drive. In order to access these files for post production work at the Television Center, you will need to be qualified to use the editing equipment. See a staff member for information about enrolling in editing classes.



SHOT COMPOSITION:

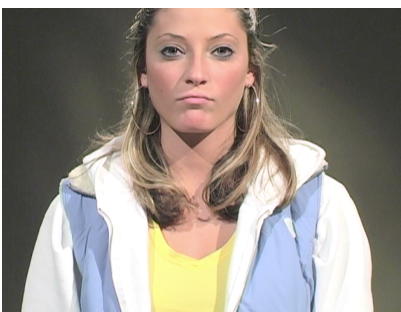
Head Room:

Head room refers to the space between the top of the screen and the framed object or person. Proper head room consists of a shot without too much or too little room above the subject's head. Too much or too little head room can be distracting to the viewer.

TOO MUCH



NOT ENOUGH



GOOD HEAD ROOM



Nose Room:

Nose room refers to the talk space in front of a person. It is also known as 'leading' the subject. Proper nose room is when a figure or head is off center with the majority empty screen space in the direction a person is speaking or moving.



BASIC CAMERA SHOTS:

Long Shot (LS) or Wide Shot (WS)

Shows the full figure, the entire body or bodies. Shows the greatest field of view. The lens is usually zoomed out all the way. This shot is also called an



establishing shot when it is used to show the audience where the scene is taking place.

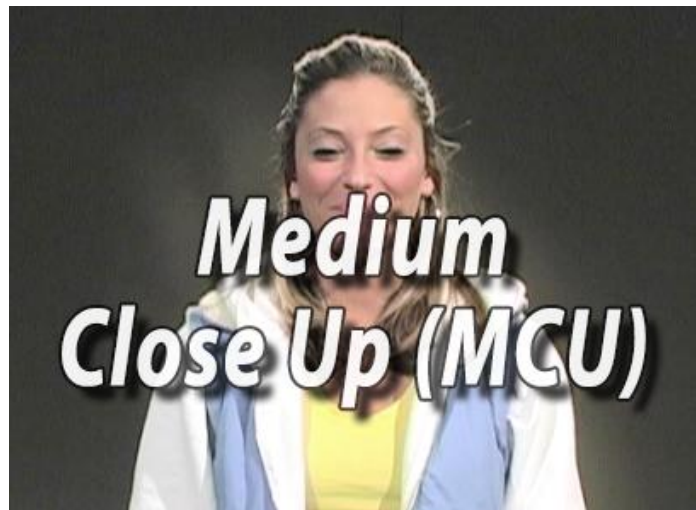
Medium Shot (MS)

This shot is usually from the knees or the waist up to the top of the subject. Usually about 50% of the field of view of the Long Shot.



Medium Close Up (MCU)

This shot is usually framed from mid-torso to the top of the head. Usually about 40% of the field of view of the Long Shot.



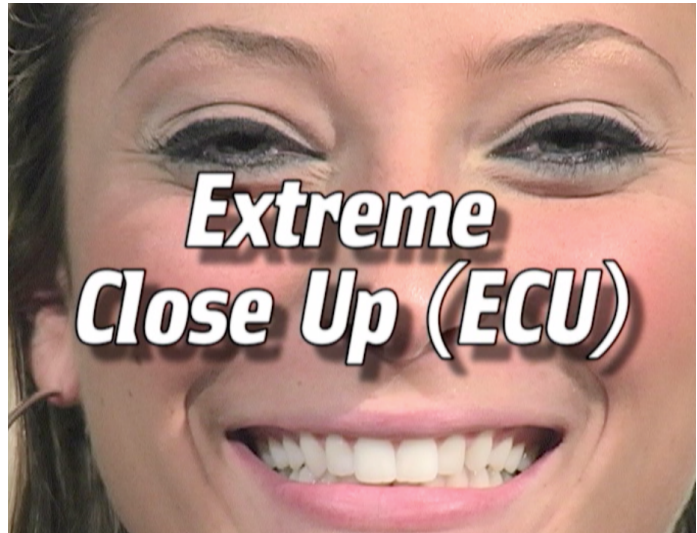
Close Up (CU)

This shot includes the top of the shoulders to the top of the head. Usually about 30% of the field of view of the Long Shot.



Extreme Close Up (ECU)

Extremely tight shot of a person or object. Usually about 10% of the field of view of the Long Shot.



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Floor Directing

The Role of the Floor Director and Studio Crew:

The Floor Director is the physical extension of the Director on the studio floor. The Floor Director is responsible for relaying cues from the Director to the talent during the production. These cues are given through the use of hand signals. Directing studio traffic and assisting with set changes are also among the Floor Director's duties. Before the production begins the Floor Director should make sure that the talent understands all of the cues that they may receive during the production so there is no confusion after recording has begun. In this studio it is common for one of the camera operators to act as the Floor Director.

Studio crew members are general assistants that are responsible for assisting the Floor Director and camera operators before, during and after the production. They are responsible for assisting with the set-up and striking of the set as well as adjustments needed during a production.

Floor Directing Hand Signals:

The following are a series of hand signals and gestures used by the Floor Director to communicate with the talent non-verbally during a production.

Stand By:

This is a preparatory cue given to let the talent know to be ready for the beginning of the show. The 'Stand By' cue is given by holding one hand up in the air with the palm open and facing the talent.



Cue:

This is used to signal the talent to begin speaking or to take action. It is done by pointing the index finger directly at the talent once the 'Cue Talent' command has been given by the Director.

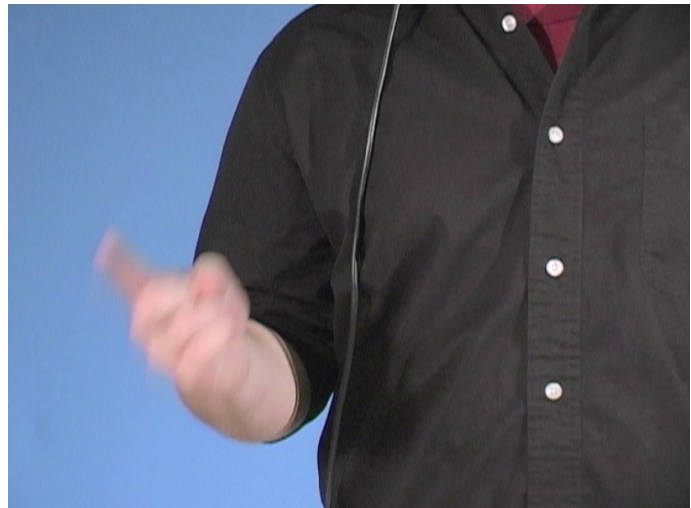


Stretch It Out:

This cue is given when the talent needs to slow down or needs to extend a segment on a given production. It is done by touching the fingertips of both hands together and slowly pulling them apart.

**Speed It Up:**

This cue is given when the talent needs to pick up the pace in order to meet the time constraints of a production. It is done by pointing your index finger at the talent and moving the entire hand in small circles.

**Time Cues:**

When a production has specific time constraints it is important for the talent to know how much time is left in order to finish the show on time. The Floor Director will give these cues by holding up as many fingers as there are minutes left in the program. If there are five minutes left in the program then the Floor Director will hold up five fingers. If there are four minutes left the Floor Director will hold up four fingers. This will continue all the way down to one. The Floor Director can also give a 30 second cue by making an 'X' shape with both of their arms in front of them.



Wrap It Up:

This cue is given when the talent needs to begin wrapping up the show. It is often given directly after the 30 second cue. It is performed by pointing the index finger straight up and moving the hand in small circles.

**Cut:**

The cut cue is given when a program needs to end suddenly. The talent should immediately stop what they are doing and await further instruction. This cue is performed by dragging the index finger across the neck.

**Things to Think About:**

- As the Floor Director it is important for you to master the cues and that you make sure other studio crew and talent are aware of the meaning of each one.
- It is also important that you make sure the talent can see your cues when they are given.
- Be sure cues are done visibly but not overtly so as to become distracting for the talent.
- In situations where a camera may not have a tally light it is appropriate for the Floor Director to make a pointing gesture to the active camera when a camera change is made.
- Before a production begins the Floor Director should get the attention of and introduce themselves to everyone in the studio to make sure they are looking to the Floor Director for direction.
- The Floor Director needs to alert the Director of any potential issues in the studio that they may not be aware of.
- At the end of the production the Floor Director should inform everyone in the studio when recording has stopped by saying "all clear".

- After recording has ended and the Floor Director has given the all clear, they should assist talent in collecting their belongings and escort them out of the studio.
- After the talent has been ushered out of the studio, the Floor Director should assist in striking the set, putting away equipment, and returning the studio to its original 'ready for use' configuration.

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