# OVA AUDIO VISUAL EQUIPMENT GUIDE

Revised October 28, 2022

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# General Overview and Terms

## Terminology

**AV:** Audio Visual

**AV Rack (or just "Rack"):** Defines the structure or cabinet where all or most of the audio-visual equipment is housed. In the East Rec and Berger Center the rack is where the Extron-tablet is located.

**AV Rack Computer**: A Windows 10 computer that is installed in the AV rack. To use the computer the corresponding wireless keyboard and mouse must be obtained from OVA staff.

**Source:** Refers to the location or device from which audio and/or video are emitting.

**Terms to be added…**

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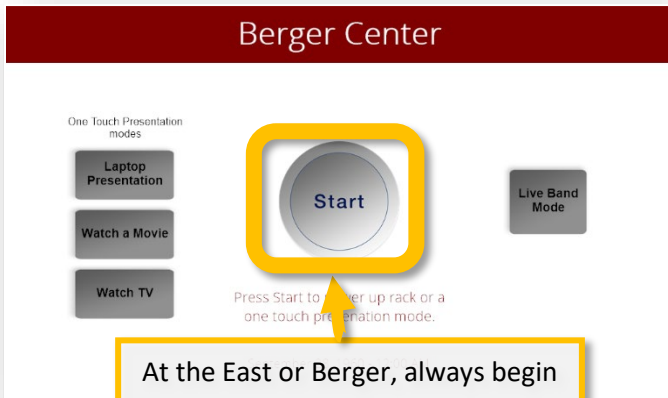
At the East or Berger, always begin by pressing the "Start" button.
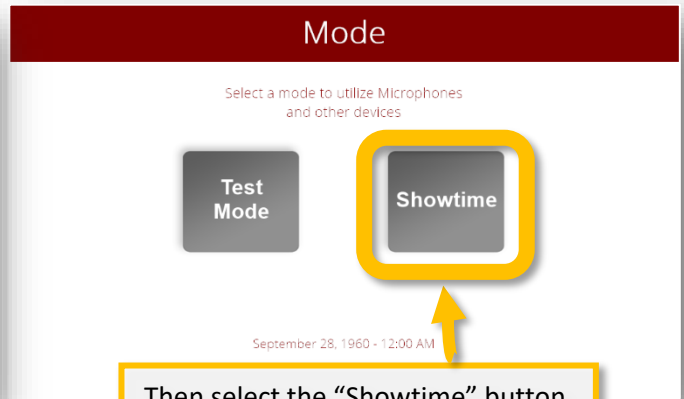


Then select the "Showtime" button.
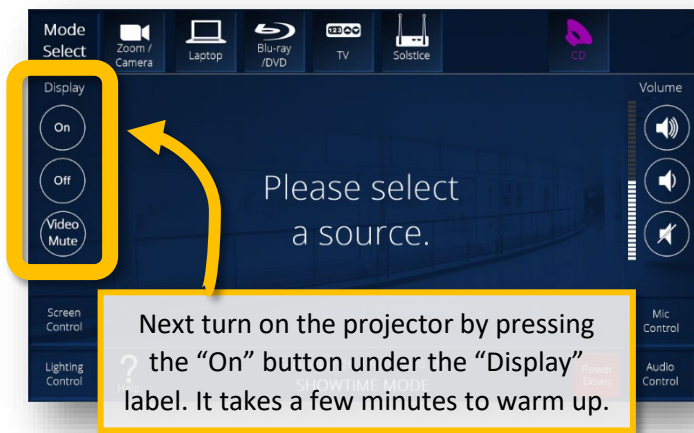


Next turn on the projector by pressing the "On" button under the "Display" label. It takes a few minutes to warm up.
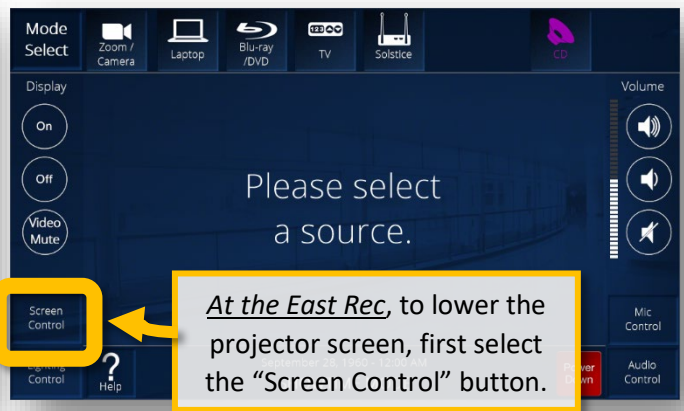


*At the East Rec*, to lower the projector screen, first select the "Screen Control" button.
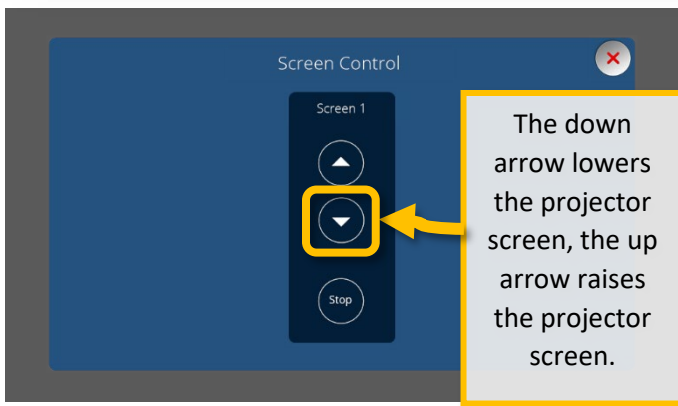


The down arrow lowers the projector screen, the up arrow raises the projector screen.
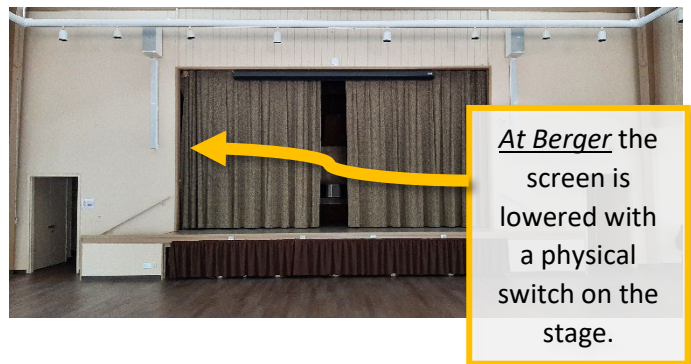


*At Berger* the screen is lowered with a physical switch on the stage.

You are now ready to select your audio-visual source, which are all explained in the following section.

For more information on the differences between the Berger and East please read the *Differences between Berger and East* section (see Table of Contents for page number).

## AV Sources – located on Top

There are 6 audio/visual sources available:
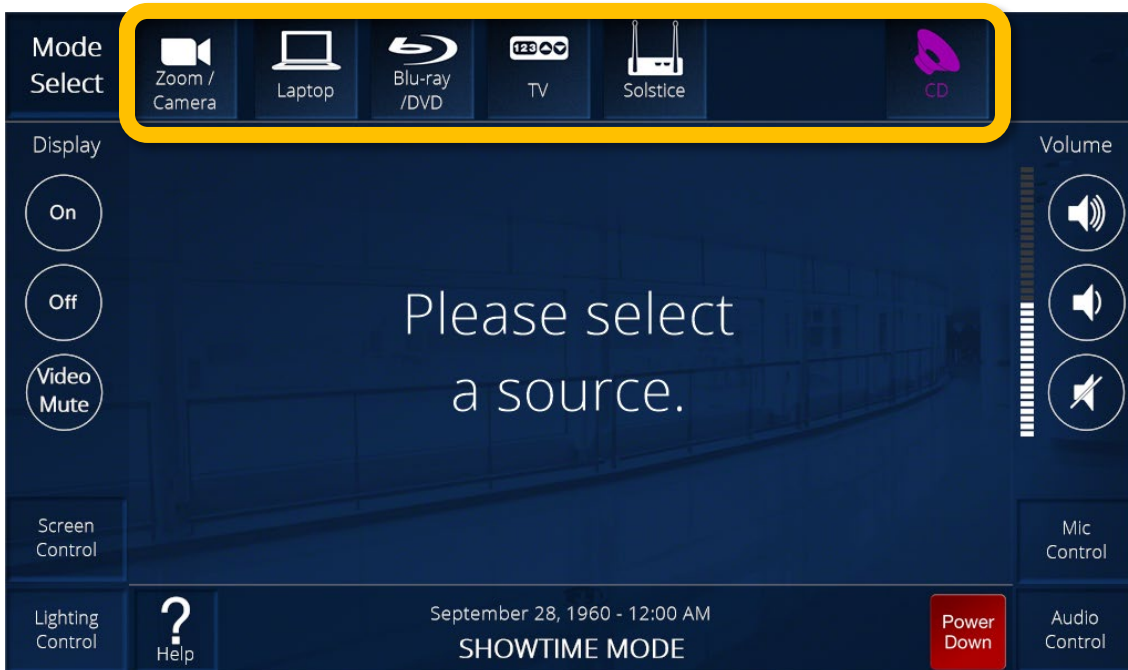


1. **Zoom/Camera**
   The camera option turns on and provides controls for two built-in cameras. These cameras are accessed through a Zoom Rooms, which is controlled by the facility's iPad. If you are planning to utilize Zoom during your meeting, please make sure to request the facility's iPad when your event is set up with OVA's Event Coordinator. Users may connect to meetings in their own Zoom account by entering their meeting ID (and passcode if applicable) in the *Zoom Room* Controller app on the facility's iPad.

2. **Laptop**
   The laptop option turns on the video for any computer that is connected to any of the available HDMI or VGA ports.

3. **Blu-ray/DVD**
   The Blu-ray/DVD player is in the AV rack, beneath the Extron-tablet controller. It must be turned on separately from the AV rack via the "Power" button on the Blu-ray/DVD player itself.

4. **TV**
   The TV option turns on cable-television provided via Comcast.

5. **Solstice**
   The Solstice option allows users to broadcast (screenshare, AirPlay, Smart View) from a laptop, cellphone or other mobile device wirelessly over the facility Wi-Fi network with use of the **Mersive Solstice** app, which is available for free on the Apple App Store and the Google Play Store.

6. **CD**
   The CD option provides controls for the CD player in the AV rack beneath the Extron-tablet controller. This option does not illuminate when selected, and is always highlighted in purple, because it can be used in tandem with any other source available on the rack and is essentially always on.

## Visual Controls – located on Left

### Projector

These controls put the projector into one of three modes:

**On:** This option will turn the projector on. Please give the projector a few moments to turn on. The screen may flicker with a variety of colors/hues for potentially up to five minutes while it is booting up.

**Off:** This option will turn the projector off.

**Video-Mute:** This option will darken the screen as if the projector were off, without turning off the projector. This function is useful for shifting or alternating the focus from the projector screen to a presenter, without having to turn the projector all the way off.

### Screen Control (*East Rec only*)

The screen controls lower and raise the projector-screen. The upward arrow raises the screen back into its housing, and the downward arrow rolls the screen down for viewing.

### Lighting (*East Rec only*)

The lighting controls within the Extron-tablet controller mirror the controls available on the physical light panels at the front and back entrance of the East Rec Center upper conference area.
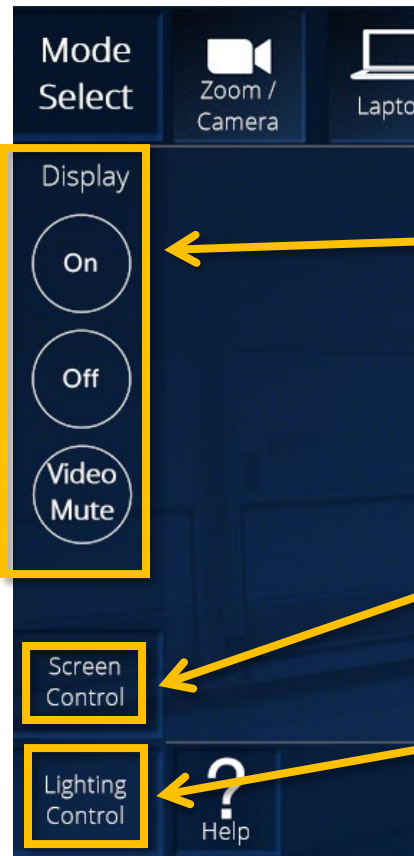
### Lighting (*Berger Center only*)

Lighting at the Berger Center is

## Audio Controls – located on Right

### Volume (General)

The general volume controller on the main of the Extron-tablet controls the sound coming from devices such as connected computers and the TV source but *does not affect the volume of microphones*.

### Mic Control

The Microphone Audio screen provides sound control for the eight different available microphones, 2 headset mics, 2 wireless handheld mics, and four wired handheld mics. There is an additional "Mix" option at the far right, which controls the volume for all microphones. For example, the "Mix" control can raise or lower all mics simultaneously. "Mix" also allows all mics to be muted.

### Audio Control

The audio control option provides control for three audio sources:

**Mic Mix** provides volume control for all microphones connected to the AV system. If the Mic Mix volume is raised, the volume for all microphones is raised, if it is muted, all microphones will be muted.

**Music** controls the volume for CD's in the CD player.

**Program** controls the volume for audio coming from any computers or laptops connected to the AV system. If the volume is raised, audio from all connected computers will be raised, if it is muted the volume from all computers will be muted.
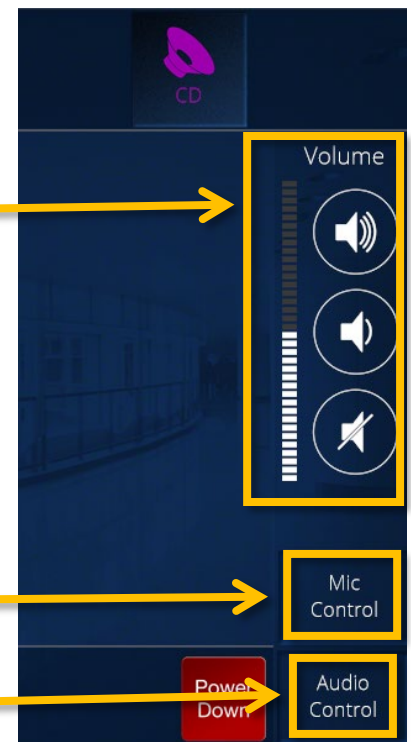
# AV Sources: Detailed Operating Instructions



## Zoom / Camera

The camera option turns on and provides controls for two built-in cameras. These cameras are accessed through a Zoom Rooms, which is controlled by the facility's iPad. If you are planning to utilize Zoom during your meeting, please make sure to request the facility's iPad when your event is set up with OVA's Event Coordinator. Users may connect to meetings in their own Zoom account by entering their meeting ID (and passcode if applicable) in the *Zoom Room Controller* app on the facility's iPad.

### Camera Select: *Switching Between Cameras*

There are two cameras built into the AV system, one facing the stage where speakers and presenters are generally located, and another facing the room where the audience is generally seated. Switch between these cameras at any time by pressing the "1" and "2" buttons.

### Pan/Tilt *Controls*

Pan and tilt of the cameras are controlled by the four arrow buttons grouped in an up, down, left, right format. They are purposefully set to pan and tilt slowly to allow for the most accurate adjustments possible.

### Zoom *Controls*

Zoom controls are on the far right in the Camera Controls. The up arrow zooms in and the down arrow zooms out. The cameras are capable of up to 30X zoom with exceptional clarity.

### Presets

Users can create presets by panning, tilting, and zooming to a desired camera view, and then holding down one of the three preset buttons for five seconds. The camera will return to this view when the corresponding preset button is tapped. This can be especially useful for shifting the camera view mid-meeting, without having to use the manual pan, tilt, and zoom controls.

*Managing Audio in a Hybrid-Zoom Meeting*

OVA's AV system exclusively uses OVA microphones as the audio inputs for people *in the room/facility*. For this reason, **Zoom participants *in the room* must mute *their microphone in Zoom* as well as *their computer's system sound output*.**

For example, if you're using Zoom Rooms in the Berger Auditorium, but a presenter also in the Berger Auditorium joins the Zoom from their own laptop so that they may share slides from a presentation within the Zoom meeting, they will join the meeting as normal, but they must keep themselves muted on their laptop and then mute their laptop's system volume output. They will instead use a microphone connected to OVA's AV system to speak to people in the Zoom meeting *and* in the room, and the built-in speakers at the Berger Center and East Rec will provide sound output instead of their laptop's speakers.

The example provided above is true in all Zoom Rooms, including those set up in OVA's East Rec Center, and Aspen Conference Room.

## Laptop

Selecting the laptop option turns on the video for any computer connected to any of the available HDMI or VGA ports.
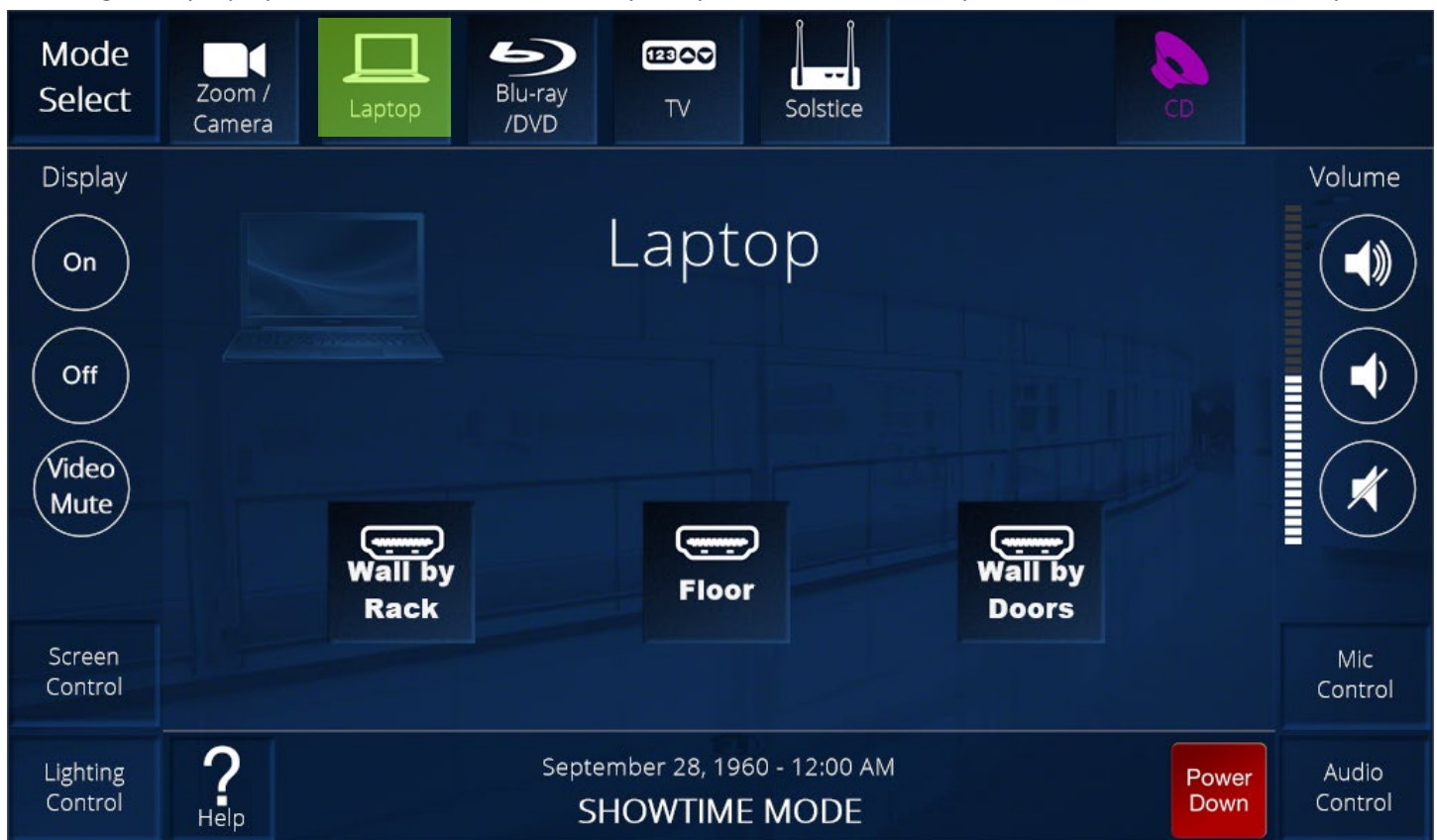


There are three HDMI/VGA ports available at the East Rec and the Berger Center

## East Rec video-input ports:

**Wall by Rack:** This port is to the right of the AV rack near the floor. It includes one HDMI port, RCA ports, and two XLR (microphone cord) ports.

**Floor:** The floor ports are located under a black metal door in the floor near the projector screen. These ports include one HDMI port, one VGA port, one XLR port, and two 3.5mm audio-input jacks/ports, exactly like the *Wall by Rack* ports.

**Wall by Doors:** These ports are located on the same wall as the AV rack but are closer to the East Rec kitchen. These ports include an HDMI and a VGA connection. Both the HDMI and VGA ports also have a corresponding audio input for a standard 3.5mm audio jack. The audio inputs are not necessary for use of the HDMI and VGA ports.


Figure 1: Wall by Doors
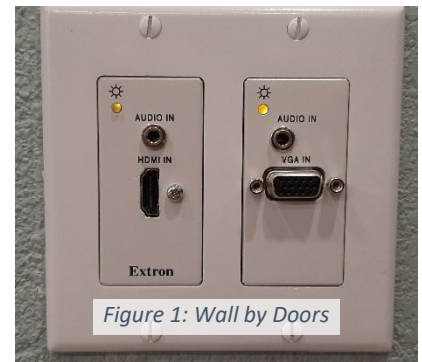
## Berger Center video-input ports:

*(shown below)*



**Rack HDMI:** There is one HDMI port available on the AV-rack.

**Rack VGA**. There is one VGA port with a corresponding 3.5mm audio-input jacks/ports available on the AV-rack.

**Stage HDMI:** On the base of the Berger stage (near the kitchen / stage-right) there is a panel of ports including one HDMI port, one VGA port, and two 3.5mm audio-input jacks/ports.

## Blu-ray/DVD



The Blu-ray/DVD player is located in the AV rack, beneath the Extron-tablet controller, and must be turned on separately from the AV rack. Use the "Power" button on the Blu-ray/DVD player itself to turn it on.

## TV

Selecting the TV source will immediately turn on cable-television provided via Comcast.

## Solstice

The Solstice source allows users to broadcast (screenshare, AirPlay, Smart View) from their computer or mobile device wirelessly over the facility Wi-Fi network with use of **the Mersive Solstice app**, available for free on the Apple App Store and Google Play Store.
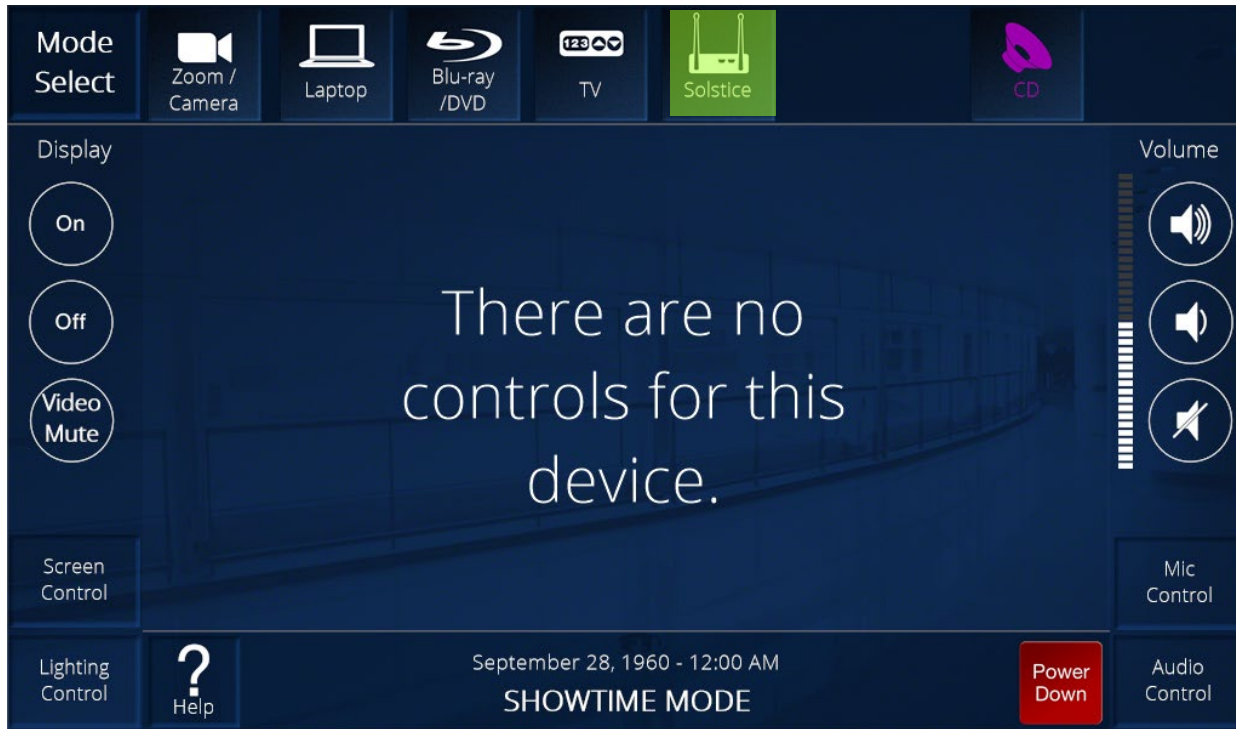


## CD

The CD option controls the CD player located in the AV rack beneath the Extron-tablet controller. This option does not illuminate when selected, and is always highlighted in purple, because it can be used in tandem with any other source available on the rack and is essentially always on.

## Differences between Berger and East

| Equipment | East Rec Center | Berger Center |
|---|---|---|
| Projector | Extron: turns projector on and off | Extron: turns projector on and off |
| Projector-screen | Extron: Raises and lowers | Light switch on stage (stage-right): Raises & lowers |
| Cameras | Extron: camera selection and pan-tilt-zoom | Extron: camera selection & pan-tilt-zoom |
| Laptop/Computer (HDMI & VGA) sources | Extron: source selection, volume | Extron: source selection, volume |
| Blu-ray/DVD player | Extron: all controls (menu nav, fast-forward, volume, etc.) | Extron: all controls (menu nav, fast-forward, volume, etc.) |
| Television feed | Extron: channel selection, volume | Extron: channel selection, volume |
| Solstice | Extron: source selection, volume | Extron: source selection, volume |
| CD player | Extron: all controls (fast-forward, volume, etc.) | Extron: all controls (fast-forward, volume, etc.) |
| Microphones | Extron: individual volume for each microphone | Extron: individual volume for each microphone |
| Lights | Extron: differing combinations of light settings available | Panel behind AV rack with physical buttons: differing combinations of light settings available |
| Shades and Shutters | Extron: shades can be raised and lowered. Shutters and shades both adjust differently within some of the light settings | Cloth curtains are adjustable manually via a string on the side of each window, that is pulled to draw the curtains open and closed |
| Fans | Digital panel near main entrance | Must be turned on/off by OVA Maintenance Team (?) |



East Rec Extron

Berger Center Extron

The Extron at the Berger Center does not have projector-screen or lighting controls. Those are available separately at the Berger, as is described in the above table.

# Hybrid-Meeting (Zoom Rooms) Specific Instructions

The following section describes the steps for different to configurations that should be set in OVA's AV system *and* in the end user's computer.

## On the AV Rack

1. Turn on the AV system via the Extron-tablet (wall-mounted on AV-rack).
2. Turn on the projector and lower the screen.
3. Select the **Zoom / Camera** option.
   a. Give the system up to 5 minutes to warm-up.
   b. After 5 minutes or less a message should be present on the screen prompting you to use the facility's iPad to get started.
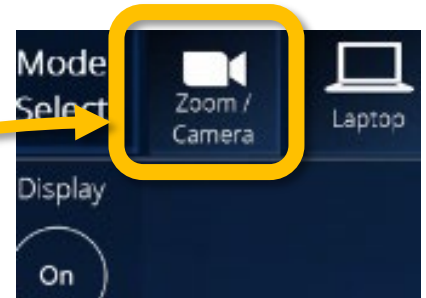
## On the facility's iPad

**On the facility's iPad:**

1. Open the *Zoom Room Controller* app
   Note: If the app isn't working or is asking you to "Retry" the connection, please see the separate, Troubleshooting Zoom Rooms document.
2. Signing into your meeting:
   a. **If your meeting is scheduled with OVA's Zoom account:**
      i. Select your meeting on the app's dashboard from the list of meetings occurring that day.
      ii. Select the blue Start button
   b. **If your meeting is scheduled with your own Zoom account:**
      i. Select the blue "Join" button
      ii. Enter in your meeting ID
      iii. Enter in your passcode, if applicable
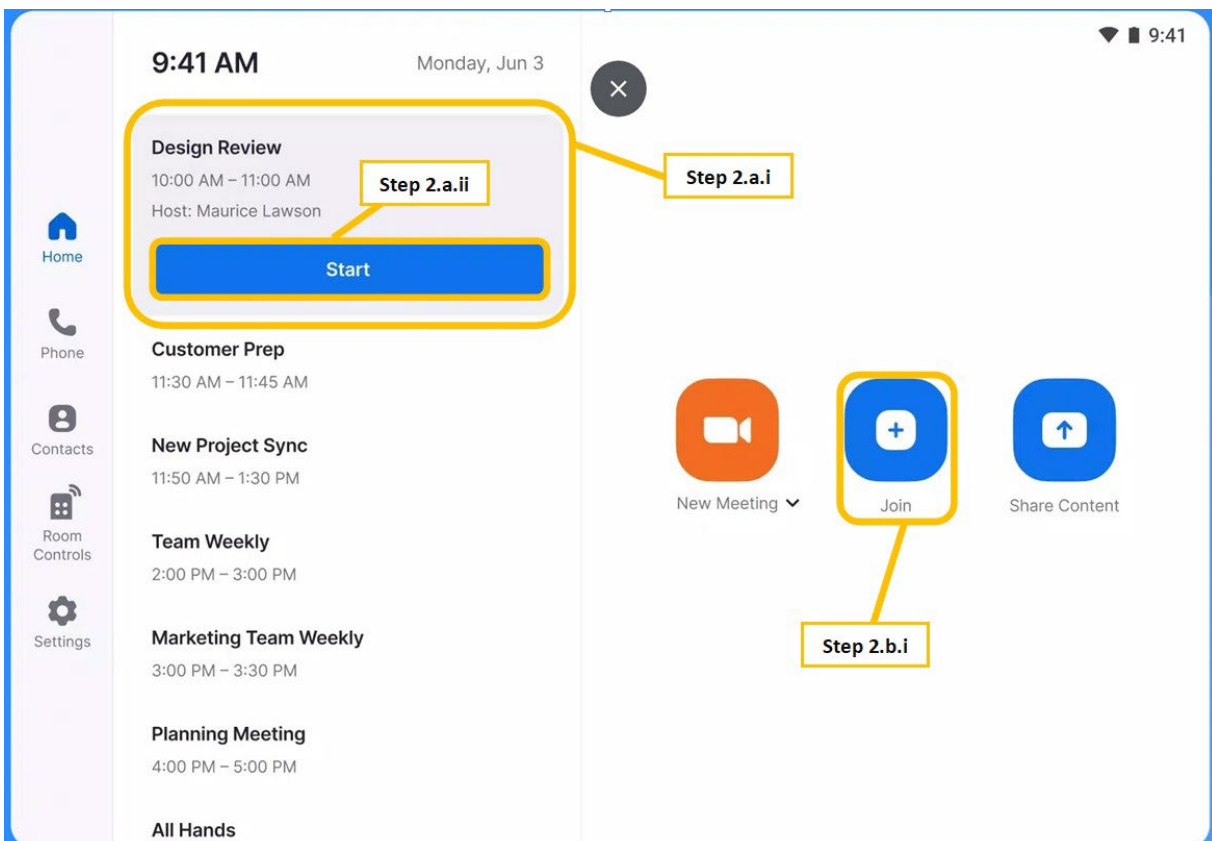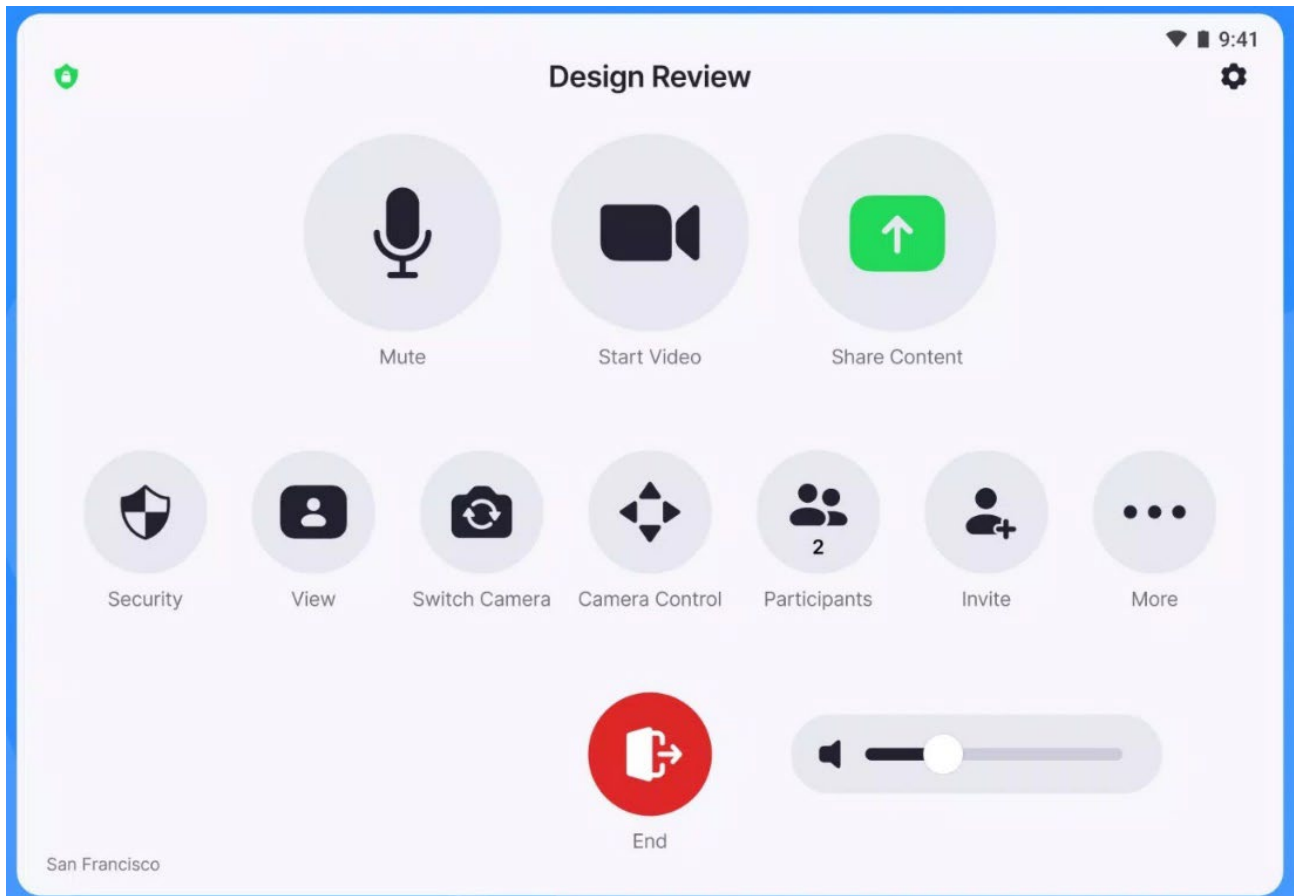
3. Managing the meeting:
   Everything you need to manage a Zoom meeting will be present in the Zoom Room Controller iPad app after you sign into your meeting.
   a. **Mute**: Stops sound from being broadcasted from Zoom Room into Zoom meeting, i.e., people who are not in the room will not hear sound captured by facility microphones.
   b. **Start/Stop Video**: Stops or starts video broadcasted from Zoom Room into Zoom meeting using cameras installed at any given facility.
   c. **Share Content**: Selecting this will allow you to share the screen of the iPad hosting the *Zoom Room Controller* app, and it will also provide instructions on how to share the screen of other devices, i.e., a laptop or cellphone of someone in the room.
   d. **Security**: Selecting this button will reveal many options, the most frequently used being the **Waiting Room** which you can toggle on or off.
   e. **View**: This button allows you to toggle between *Gallery*, *Thumbnail*, and *Speaker* view for the Zoom Room.
   f. **Camera Control**: This button reveals a menu with controls to pan, tilt, and zoom the currently selected facility camera. The Extron app, available on the iPad and on the AV-rack display, is still required for presents, switching between cameras, and fine tune control of camera movements.
   g. **Participants**: Selecting this button will reveal all options needed for participants, including settings to mute, stop video, admit from waiting room, and more.
   h. **Invite**: This is a handy menu for inviting people to the meeting. Simply enter an email address and an invitation will be sent.
   i. **More**: Selecting this button will reveal additional options, such as settings to increase the size of **Closed Captions**.

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4. **Adjust camera position and presets as desired.**
   Once the Zoom meeting has begun, the video feed from the cameras should be visible on the screen, allowing for adjustments of the camera's position and presets to be carried out on the Extron-tablet display.. *Refer to AV Sources: Detailed Operating Instructions > Cameras for more info on adjusting camera position and presets.*

## When you have participants *on Zoom in the room*

A hybrid-meeting being held with Zoom participants *in the same room as the host/AV rack computer*, requires these considerations or actions:
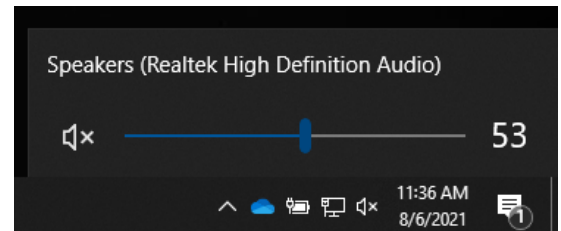
1. **MUTE all Zoom participants *in the room***
   All audio for participants in the room is output through the AV system microphones. Therefore, even though their laptop may have a microphone, they need to remain muted on their laptop and speak into an OVA AV system microphone to be heard. If any Zoom participants in the room have their individual laptop mics unmuted, it will create reverb/echo.

2. **Turn off/mute laptop audio on all laptops joining the Zoom meeting/webinar *in the room***
   All audio for participants in the room is output through the AV system speakers and having individual laptop audio audible while connected to the Zoom meeting/webinar will cause reverb/echo.

3. **Screensharing only requires Zoom (no extra cords/ connections to HDMI ports)**
   Remember that for hybrid (Zoom) meetings/webinars, participants *in the room* or at home may display their desktop, presentation, or other materials on the physical screen in the Berger or East, by sharing their screen in the meeting. There is no need for individual laptops to be connected to HDMI ports in the room.

## When presenter or additional participants are *on Zoom joining remotely*

This scenario does not require any special considerations or actions, other than those required for a standard Zoom meeting/webinar. All audio is output through the OVA AV system, and participants, panelists, and attendees joining remotely will all be heard through the AV system speakers. They will hear people *in the room* through AV system microphones.

## Controlling East Rec and Berger Cameras through Zoom

In most cases it is best to control the East Rec and Berger cameras with the Extron-tablet mounted on the AV rack in each facility. Occasionally it may be preferable or necessary to control the cameras through Zoom.

Camera control through Zoom is not possible on the OVA av rack computer; This is due to parameters within Zoom that we cannot change. To request control, join the meeting on a computer separate from the AV rack computer, and once in the meeting, right-click on the Zoom video of the OVA camera feed, and select "Request Camera Control."

The request for camera control will need to be approved on the AV rack computer.

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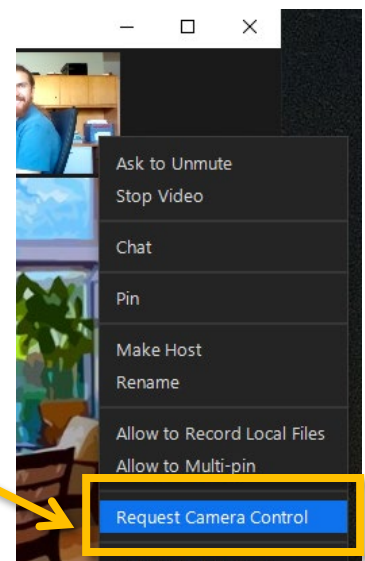
Once the request is approved, the controls will appear for the requesting Zoom user within the video of the OVA camera feed. The controls allow for panning and tilting via the up, down, left, right arrows on the left, and the controls allow for zooming in and out with the up, down arrows on the right. Through Zoom it is not possible to switch cameras or utilize camera presets.
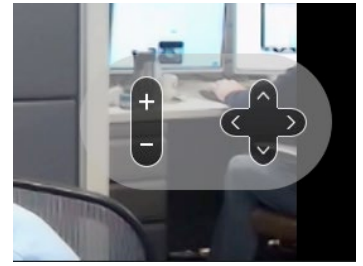
## Controlling who is displayed on in-room screen and for Zoom-only viewers

When the host has the Zoom meeting/webinar set to Speaker View, the person speaking will be automatically featured on the screen. If there other participants or panelists in the meeting or webinar, their video feeds will be featured by default on the in-room screen at the Berger or East Rec Center. To override this default, right-click the video feed you want featured and select either "Pin" or "Spotlight."

Please note the differences between pinning and spotlighting video feeds:

| Pin | Spotlight |
|---|---|
| Always available | Only available in a *meeting* with three or more participants or in a *webinar* with two or more panelists. |
| Controls who is featured on the in-room screen at Berger and East Rec Center. | Controls who is featured on the in-room screen. |
| Does *not* control who is featured to Zoom-only viewers. | Does control who is featured to Zoom-only viewers. |

### To Pin or Spotlight a Video

1. At the top of your meeting window, hover over the video of the participant you want to pin and click the ellipsis or three-dots (...) or right-click their video to reveal a menu of options.
2. From the menu, click **Pin** or **Spotlight**.
3. **Optional**: If the host wants to pin additional videos (up to nine total), follow steps 1 and 2 again as needed.
4. **Optional**: If you have at least three participants in the meeting and dual monitor enabled, you will have the option to pin to your first screen or your second screen.

### To Cancel/Remove a Pin or Spotlight

1. Click **Remove Pin** or **Remove Spotlight** in the upper left corner of any video pinned currently.
2. This will return your view to Active Speaker layout.

# Troubleshooting

## No Signal Errors

If an audio-visual source is selected (Cameras, Laptop, Blu-ray/DVD, TV, Solstice), but no image appears, look for the words "No Signal" followed by a number, in one of the corners of the screen. For example, "No Signal 3" or "No Signal 5." Provide this information to OVA staff and they will be able to power cycle the appropriate audio-visual source in the AV rack.

No signal errors will also show up if you select the *Camera* option, but the computer in the AV rack is off. Contact OVA staff to ensure the AV rack computer is on.

# Troubleshooting Zoom Rooms

## iPad cannot connect (in Zoom Rooms Controller app)

If you open the *Zoom Room Controller* app and receive a stating, "**Cannot connect to Zoom Rooms**," then it is likely the computer for the Zoom Room is asleep. Follow these steps to wake up the computer:

1. Locate the keyboard for that facility.
2. Make sure the keyboard is turned on, if it is battery-powered, i.e., wireless.
3. Press the spacebar on the keyboard 3 – 5 times.
4. Take notice if the computer for the Zoom Room makes any noise or illuminates any lights.
   a. It may take 1 – 5 minutes for the computer to fully wake up.
   b. Wait for the computer to fully wake up.
5. Select the *Retry* button in the *Zoom Room Controller* app on the facility iPad.

If the iPad does not reconnect, and present the *Zoom Room Controller* dashboard, then please try the troubleshooting steps for a problem on the computer below.

**Cannot connect to Zoom Rooms**

Please contact IT for assistance.

- Make sure Zoom Rooms is signed in
- Set this device and Zoom Rooms to the same network

| Room Name | Berger Auditorium |
| --- | --- |
| Zoom Rooms IP address | 10.1.10.196 |
| Local IP address | 10.1.10.106 |
| Version | 5.12.0 (809) |

Sign Out    Retry

## Computer disconnected (displayed on projector-screen)

If you turn on the AV-rack and projector, with the *Zoom / Camera* source option selected, and there is a message on the screen asking you to connect, possibly accompanied by a 6-digit code, then the computer for the Zoom Room is likely to be logged in to the wrong account. Follow these steps to log into the correct account for Zoom Rooms:

1. With the *Zoom / Camera* source selected, check if the room's name is shown in the upper-left corner of the projector-screen display.
   a. If the name of the room is in the upper-left corner, then the room is connected.
   b. If the name of the room is not in the upper-left corner, then move on to step 2.
2. Locate the keyboard for that facility.
3. Make sure the keyboard is turned on, if it is battery-powered, i.e., wireless.
4. Press the *Windows* key in the lower-left corner of the keyboard.
5. Select the account icon
6. Select the *Zoom Rooms* account
7. The password is printed on the keyboard.
8. Enter the password and log in.
9. Give the account a few moments to load, Zoom Rooms should launch automatically, once it has launched, try reconnecting on the iPad in the *Zoom Rooms Controller* app.
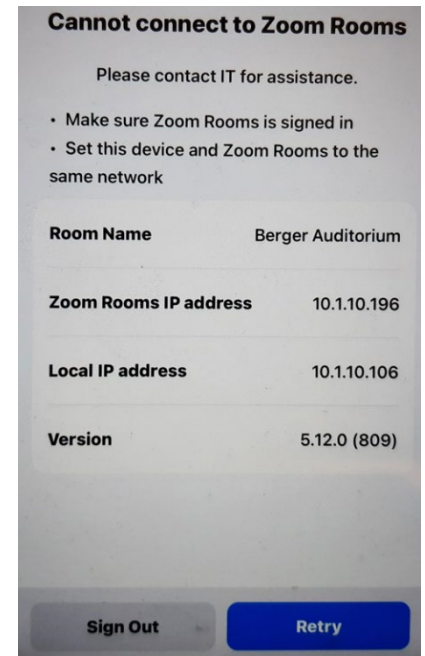
## Enabling Live-Transcription (Closed Captions)

To enable closed captions, follow these steps:

On the facility's iPad:

1. Make sure you're in the **Zoom Room Controller** app
2. Make sure you have started your meeting
3. Select **Participants**
4. Select **More**
5. Select **Enable Live-Transcription**

Closed captions will now be present whenever anyone speaks into the microphone connected to the Zoom Room. To change the size of closed captions, navigate to back to the main meeting controls, and select the ellipses button (…) labeled **More**. In the following screen select **Closed Captions** to adjust the size of closed captions on the screen.

IMPORTANT NOTE: If you're scheduling your meeting with OVA's Zoom account, then live-transcription is automatically enabled, and you can adjust the size of the closed-captions by selecting the **More** button during your Zoom meeting. But if you're using your own Zoom account, then live-transcription must first be enabled in your account settings in a web browser by visiting https://zoom.us and logging into your account. Here are instructions from Zoom on that procedure:

https://support.zoom.us/hc/en-us/articles/8158289360141-Enabling-automated-captions

## Sharing Your Screen

Selecting the **Share Content** button in the **Zoom Room Controller** app will display instructions on how to share your screen on the iPad. Methods for sharing your screen are different depending on the screen of the device you're sharing. You may follow the instructions displayed in the **Zoom Room Controller** app to share your screen in a Zoom Room, *even if you don't have a Zoom meeting scheduled*.

Visit this page on the Zoom website for more information and videos on sharing your screen: https://support.zoom.us/hc/en-us/articles/201362153-Sharing-your-screen-or-desktop-on-Zoom

## No Signal Errors

If an audio-visual source is selected (Cameras, Laptop, Blu-ray/DVD, TV, Solstice), but no image appears, look for the words "No Signal" followed by a number, in one of the corners of the screen. For example, "No Signal 3" or "No Signal 5." Provide this information to OVA staff and they will be able to power cycle the appropriate audio-visual source in the AV rack.

No signal errors will also show up if you select the *Camera* option, but the computer in the AV rack is off. Contact OVA staff to ensure the AV rack computer is on.

## Troubleshooting Discoveries…

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