Windows Collaborative Teaching Lab

Classroom Equipment Guide

Carnegie Mellon University
Computing Services 11/17

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Features

Teaching Mode

Display

- from lectern desktop
- from student machines
- from other devices
- from document camera
- from Blu-ray or DVD

Play Audio

- from any selected device

Student Mode

- Display student machine on designated LCD display
- Play audio from student machines

Connect a Device

Equipment Cables in the Room

Provided at Tables: 2 HDMI, 1 VGA, and 1 Audio cable for additional laptop connections

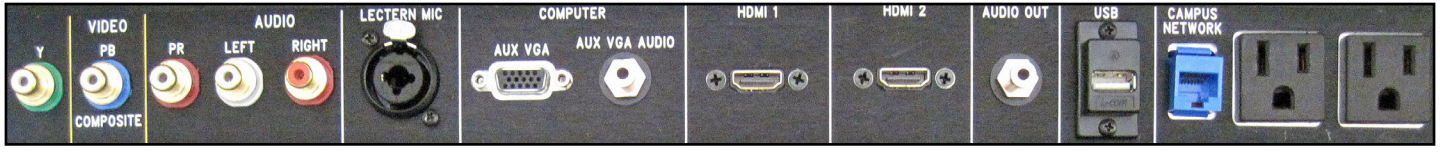
Provided at Lectern: 1 VGA, 1 HDMI, and 1 Audio cable

Equipment Cables/Adapters Not Provided

IMPORTANT! If you are using the following equipment, be sure to bring the appropriate cable or adapter with you:

- **iPad, iPhone, iPod Touch** - Composite AV Video USB cable, VGA adapter, or HDMI adapter
- **Addtl. Laptop** - VGA or HDMI cable
  Note: Cables are provided for 1st laptop
- **Mac Laptop** - Mac adapter
- **Music Device** - mini-to-mini cable
- **VCR / Video Camera** - RCA cable
- **Internet** - Ethernet Cable (if unable to use wifi)

Connections available from the front panel of the Lectern:



Select a Lectern Mode

Touching anywhere on the touch screen wakes the system. Select between *Teaching* or *Student* mode.

Teaching Mode

Display the document camera, blu-ray player, laptop, etc. in addition to displaying student computers on LCD displays

Student Mode

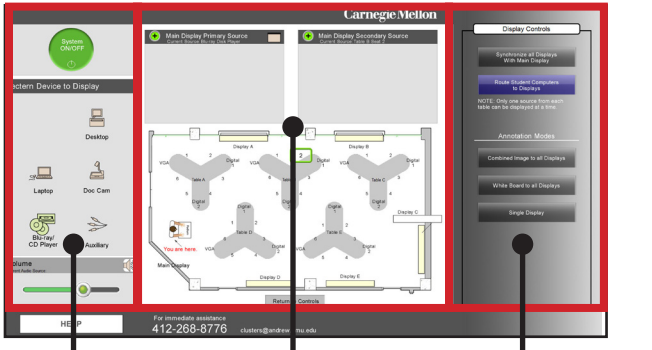
Display student computers or auxiliary inputs from each table to a designated LCD display

To **toggle** between modes and clear all LCD displays, touch the **System ON/OFF** button.

Use the Touchscreen

Depending on the mode selected, the touch screen changes to display *Teaching Mode* or *Student Mode* options.

Teaching Mode

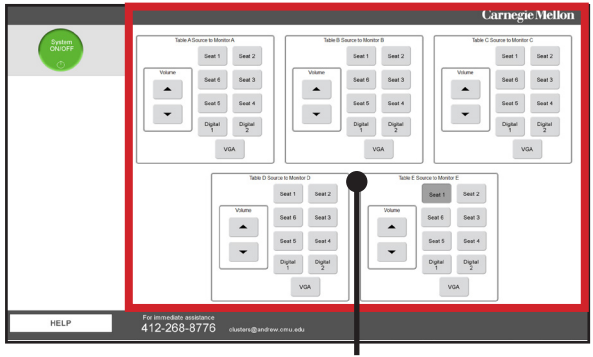


What to display

Where/How to display

Additional Options

Student Mode



What to display

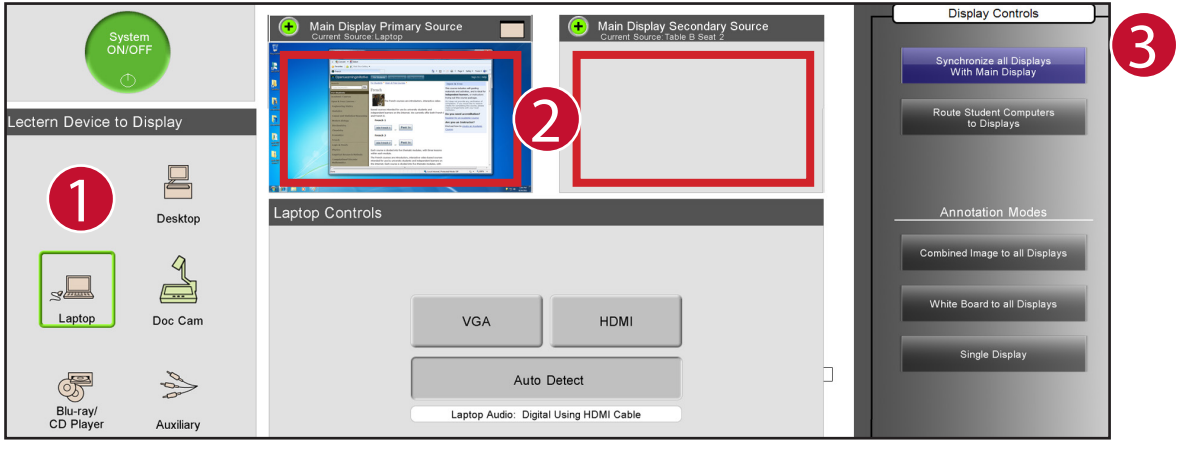
NOTE: All computers and LCD displays are labeled for easy identification.

Teaching Mode

Teaching Mode: Display a Device

1. Touch a *Lectern Device to Display*. Touch the connection type, if applicable.
2. Touch **Main Display Primary Source** or **Main Display Secondary Source** (under the *Main Display Source* banner).
3. Touch **Synchronize all Displays with Main Display** under *Display Controls*.

NOTE: The touch panel also acts as the lectern display.



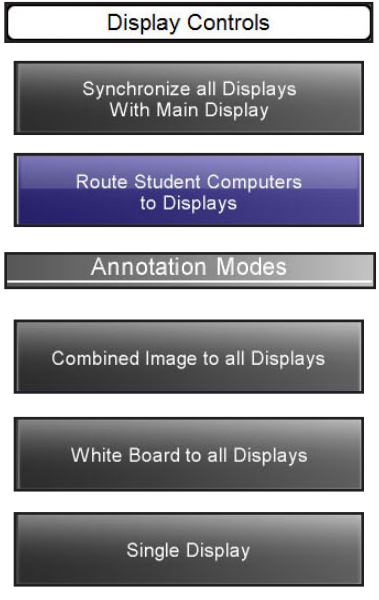
OPTIONAL: Select a *Display Controls* option and/or maximize the screen using the **plus icon** or touch the **black screen icon** to clear; exit the maximized screen by tapping anywhere on the screen.

Maximize Black Screen

Teaching Mode: Display Controls

NOTE: *Display Control* buttons are on/off toggles while *Annotation Mode* buttons are single selection buttons. Multiple *Display Controls* options can be selected and combined with *Annotation Modes*.

A highlighted blue button means the selection is enabled.
E.g. from the image below, **Route Student Computers to Displays** is enabled.



displays lectern devices to only the main LCD display or to all LCD displays in the room

displays a student computer to all or only specified LCD displays

displays one lectern/one student computer OR two student computers as a side-by-side (split-screen) display on all screens with annotation tools

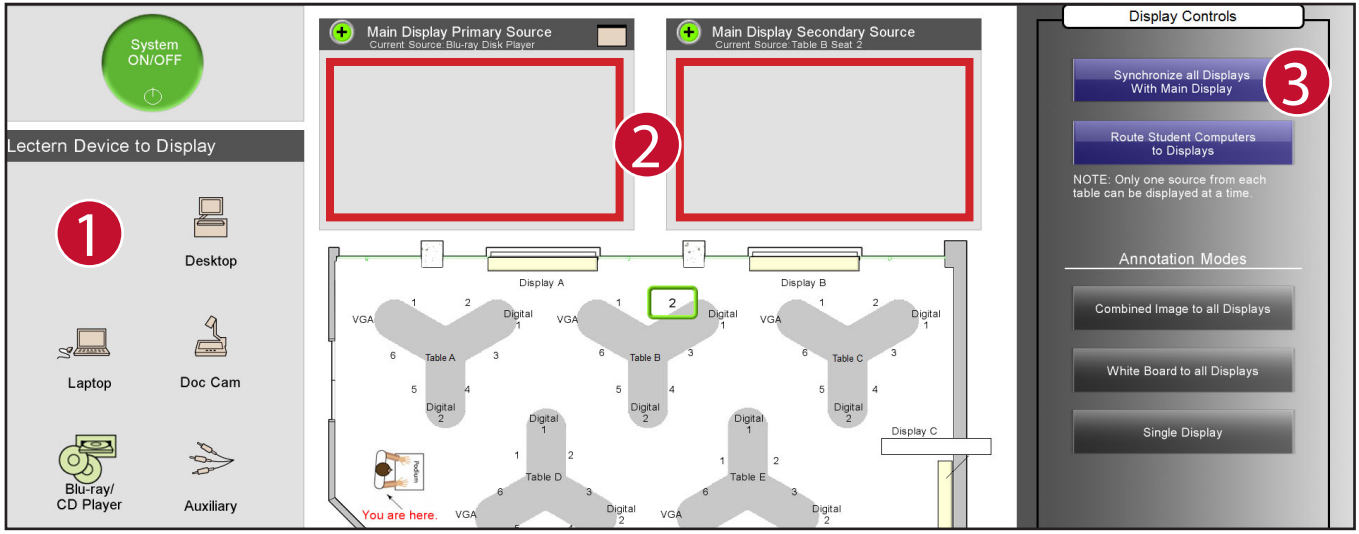
displays a blank whiteboard with annotation tools to all of the room LCD displays

displays a single display with annotation tools

Display Controls: Synchronize all Displays with Main Display

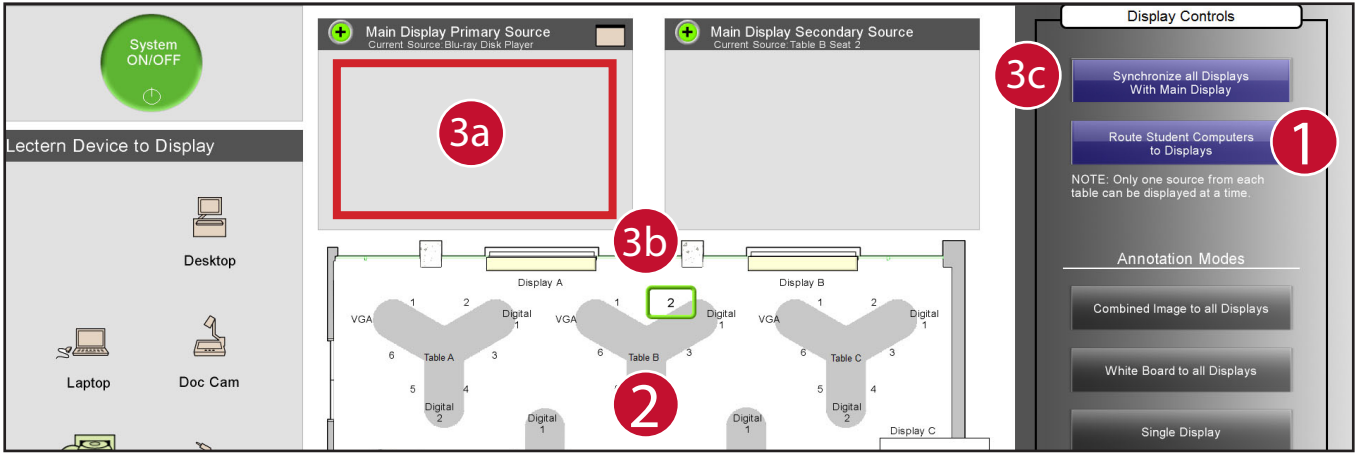
1. Touch a *Lectern Device to Display*.
2. Touch **Main Display Primary Source** or **Main Display Secondary Source** (under the *Main Display Source* banner).
3. Touch **Synchronize all Displays With Main Display**.

OPTIONAL: Use the **Main Display Secondary Source** to preview your device's display prior to projecting on the **Main Display Secondary Source**.



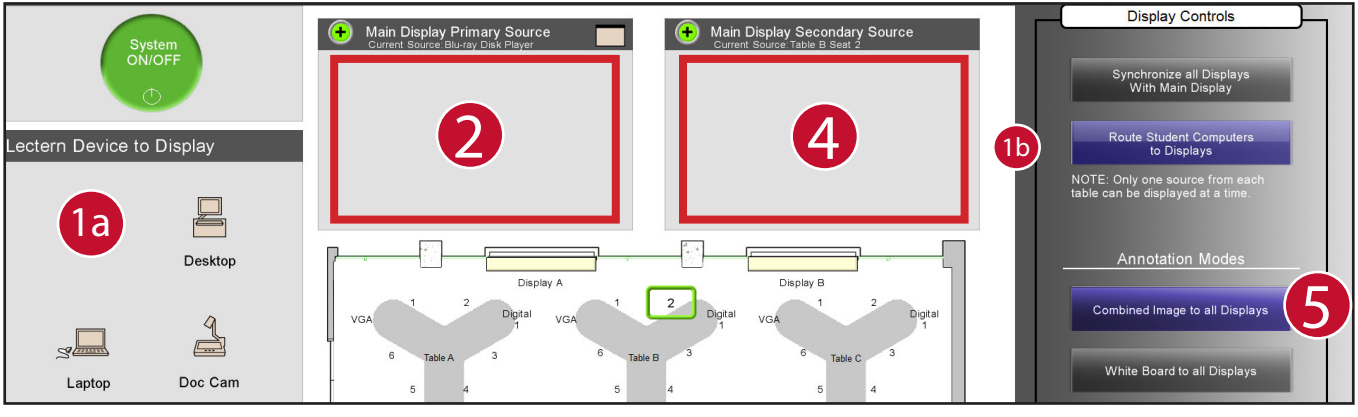
Display Controls: Route Student Computers to Displays

1. Touch **Route Student Computers to Displays**.
2. Touch a student seat number from the map.
   NOTE: Each computer/LCD display is labeled and corresponds with the map.
3. Touch an area to display the device:
   a. Display on the primary LCD display
   b. Display on any individual LCD display in the room
   c. Display using Synchronize all Displays With Main Display to project the same image to all LCD displays.



Display Controls: Combined Image to All Displays (Split-Screen)

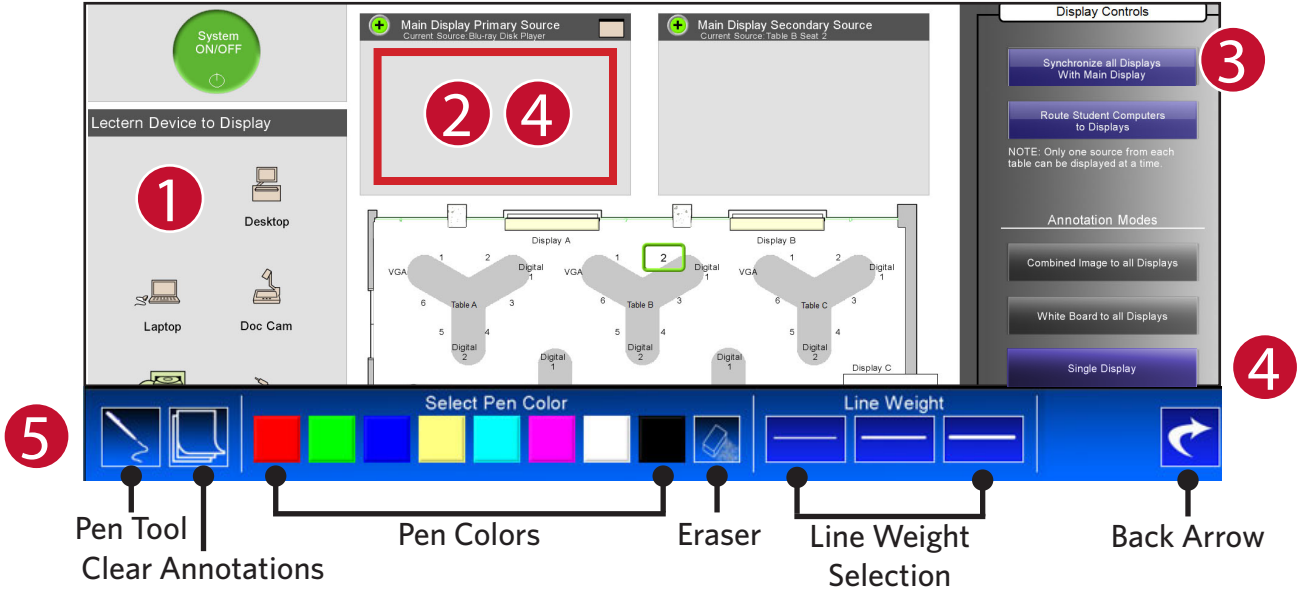
1. Select one of the following:
    a. Touch a *Lectern Device to Display* — OR —
    b. Touch **Route Student Computers to Displays** and select a seat number.
2. Touch **Main Display Primary Source** for the 1st device
3. Repeat step 1 for the 2nd device.
4. Touch **Main Display Secondary Source** for the 2nd device.
5. Touch **Combined Image to all Displays**. A split-screen of the 1st and 2nd devices appears on all LCD displays.



Display Controls: White Board to All Displays or Single Display

NOTE: For White Board to all Displays, select **White Board to All Displays**. No further action is necessary.

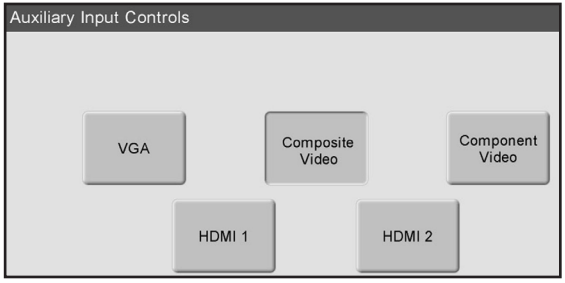
1. Touch a *Lectern Device to Display*.
2. Touch **Main Display Primary Source** under the *Main Display Source* banner.
3. Touch **Synchronize all Displays with Main Display** under *Display Controls*.
4. Touch **Single Display** and touch **Main Display Primary Source** (under the *Main Display Source* banner).
5. Use the *Annotation Menu Bar* to make your desired annotations on your display.



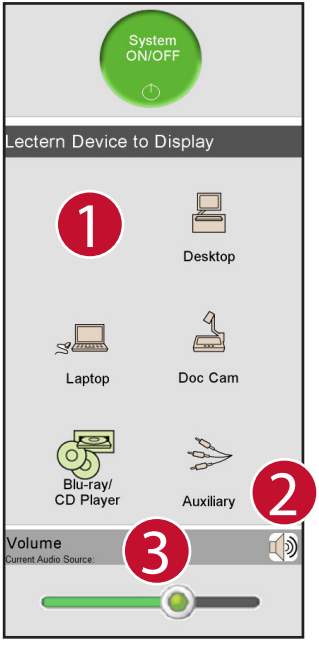
Teaching Mode: Display a Blu-Ray/DVD/MP3 Disc or Auxiliary Device

Select Auxiliary for any of the following: Music, VCR, Video Cameras, older iPods, iPads, and iPhones (using Composite cables)

1. Touch **Blu-ray/CD Player** or **Auxiliary** from the *Lectern Device to Display*.
2. Touch **Main Display Primary Source** or **Main Display Secondary Source** (under the *Main Display Source* banner).
3. Touch **Synchronize all Displays with Main Display** under *Display Controls.*
4. **OPTIONAL**: Select a *Display Controls* option and/or maximize the screen using the **plus icon** or touch the **black screen icon** to clear; exit the maximized screen by tapping anywhere on the screen.
5. Use the *Player Controls* for Blu-Ray/DVD/CD or the *Input Controls* for Auxiliary devices.



Teaching Mode: Play Audio



1. Select a *Lectern Device to Display* for playing audio.
2. Touch the **audio icon** in the volume section. Touch **Main Display Primary Source** or **Main Display Secondary Display** (under the *Main Display Source* banner) to activate sound.

3. Use the slider to adjust volume settings.

NOTE: Ensure the appropriate device is selected.
The system follows the device that is selected to produce audio.

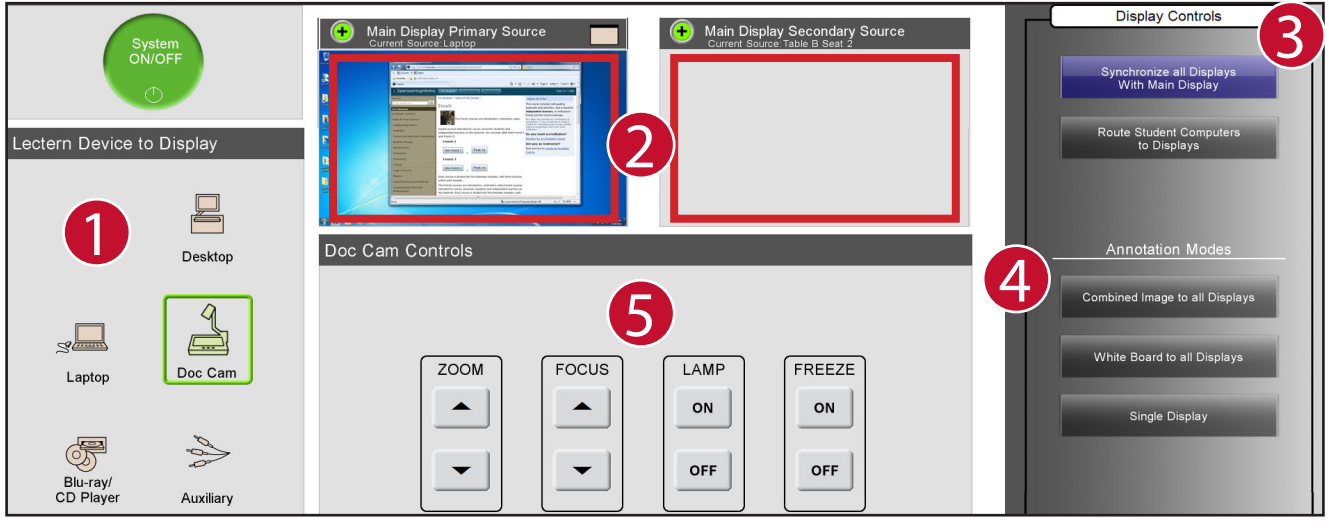
For cluster workstations in the room, select **Digital Audio (HDMI)** to route audio through the lectern. From the cluster workstation, complete the following:

1. Navigate to the **Control Panel** (typically **Start** > **Control Panel**).
2. Change the viewing mode to **Large** or **Small Icons**.
3. Double-click **Sound** to adjust preferences.
4. On the *Playback* tab, select **Digital Audio (HDMI)**.
5. Click **Set Default**, then click **Apply** and **OK**.
6. From the lectern, select *Desktop* and toggle the audio button.

NOTE: Revert these changes by following the same steps and selecting **Speakers.**

Teaching Mode: Use the Document Camera

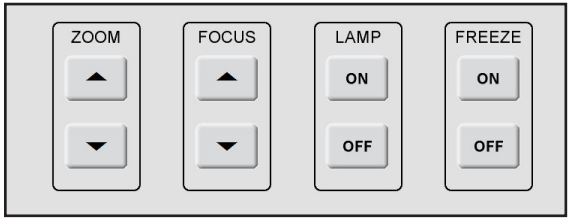
1. Touch **Doc Cam** under *Lectern Device to Display*.
2. Touch **Main Display Primary Source** or **Main Display Secondary Source** (under the *Main Display Source* banner).
3. Touch **Synchronize all Displays with Main Display** under *Display Controls.*
4. **OPTIONAL**: Select an *Annotation Modes* option
5. Adjust the document camera using the *Doc Cam Controls*.



Teaching Mode: Document Camera Controls

Touch Panel Controls:

- **Zoom** - Controls the image size
- **Focus** - Manually focuses the document camera
- **Lamp** - Turns the document camera light on/off
- **Freeze** - Creates a still image; display can be moved without altering the image on-screen



Physical Document Camera Controls:

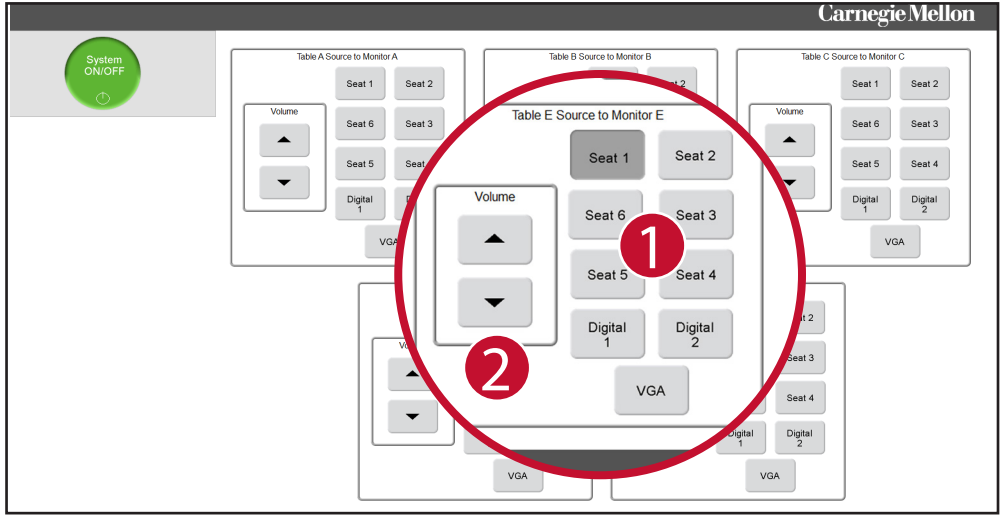
- **Power** - Turns the device on/off
- **BRIGHT (-/+)** - Adjusts the brightness
- **AWC** - Automatically adjusts the color based on room lighting
- **FOCUS (-/+)** - Manually focuses the document camera
- **Zoom (-/+)** - Controls the image size
- **AF** - Automatically focuses the document camera
- **INT/EXT** - NOT AVAILABLE FOR CLASSROOMS
  IMPORTANT! If either options are on, no image will appear; press either button until both cycle off

Student Mode

Student Mode: Display a Device and Play Audio

1. Touch a **Seat Number** OR **Digital/VGA** button from each table. The device display will automatically appear on the table's designated LCD display and is selected for audio control.
2. Use the volume controls to adjust volume settings

NOTE: Ensure the device is connected if selecting Digital/VGA. All computers and LCD displays are labeled for easy identification.



Troubleshooting

Q. How do I get out of a maximized screen and return to the lectern selection display?

A. Tap anywhere on the touch panel to minimize and return to the lectern selection display.

Q. Why isn't my laptop projecting?

A. Ensure your device is connected using the appropriate cables.

For Windows: Press the *projection* button on your laptop. This may be **F4**, **F5**, **F7**, or **F8** but will vary based on manufacturer.

For Mac: Navigate to *System Preferences* > *Displays*, and click the *Arrangement tab* to configure display options.

Q. Can I preview my device's display prior to projecting to the LCD displays?

A. Yes, use the **Main Display Secondary Source** to preview your device's display prior to projecting on the **Main Display Primary Source.**

Q. Why isn't my image being projected using the document camera?

A. Check that the document camera is physically powered on and that INT/EXT option is NOT on. If INT/EXT option is on, press the button to cycle it off. Repeat the steps in *Teaching Mode: Use the Document Camera***.**

Troubleshooting

Q. How do I project my laptop on a certain screen?

A. From the touch panel, select the lectern device to display and touch the main display titles or touch an LCD display from the room map.

Q. What is the best resolution for projecting my display?

A. 1080p or higher resolutions are preferred. It is generally good practice to set LCD monitors to their native resolution. You may need to configure your screen resolution for best results.

Q. How do I play audio from my device?

A. Ensure the device used for audio is connected using the appropriate cables and selected. Check for any loose cables and ensure you have adjusted the volume slider. You may need to toggle the *System On/Off* if multiple devices are in use.

Q. I don't have my files - how do I get to my CMU file storage?

A. Access your files from the *Andrew File System* (AFS), *Box*, or *MyFiles* and *SandBox*.
Visit http://www.cmu.edu/computing/accounts/afs-storage/ for more information.

Faculty can request a *Project Volume* for additional storage space.
Visit http://www.cmu.edu/computing/accounts/afs-storage/storage/projvol/ for more information.