

# *Rawls Classroom*

## Technical Guide



Krannert School of Management

*ITaP*

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*765-494-4000*

# Room Features

## Rawls 2082 includes:

Seats

64

Table Type

Tiered

Projector

Dual

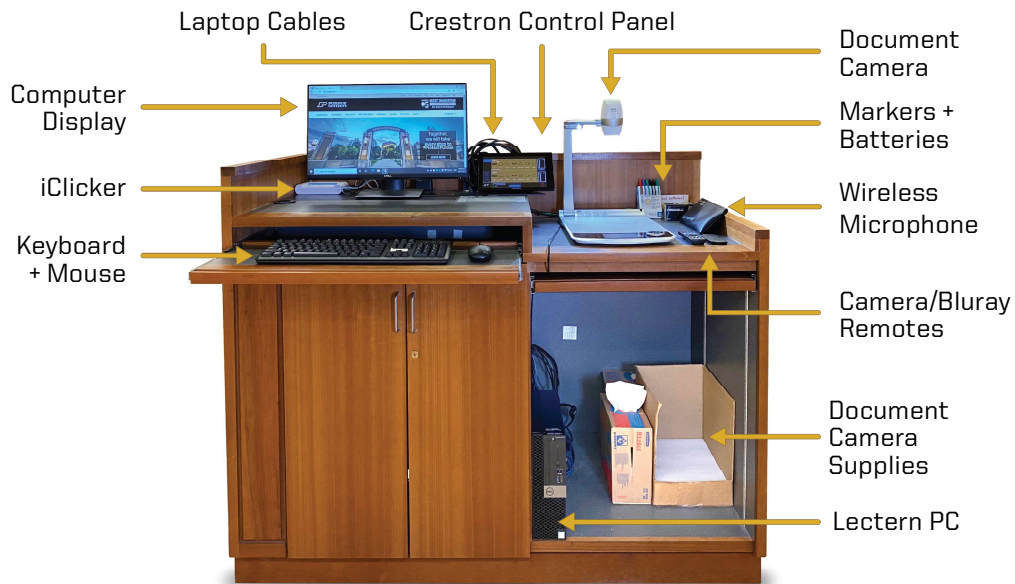
BoilerCast

Software  
+ Device

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## 01 Lectern

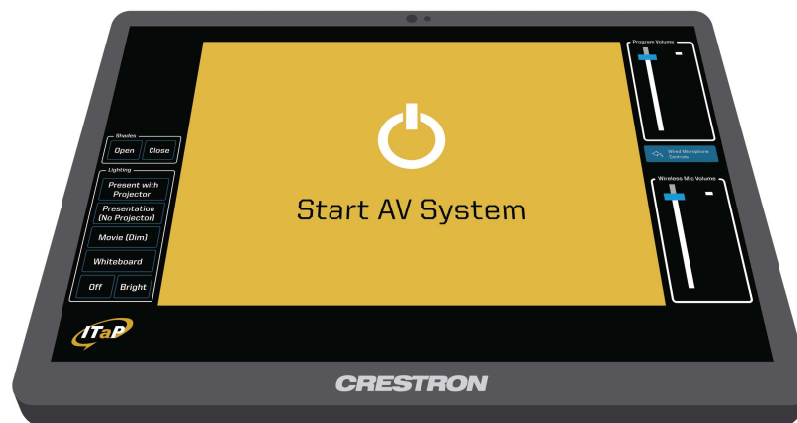
The lectern is the central location for everything needed to present in the classroom. Below is a diagram of where to find each piece of equipment.

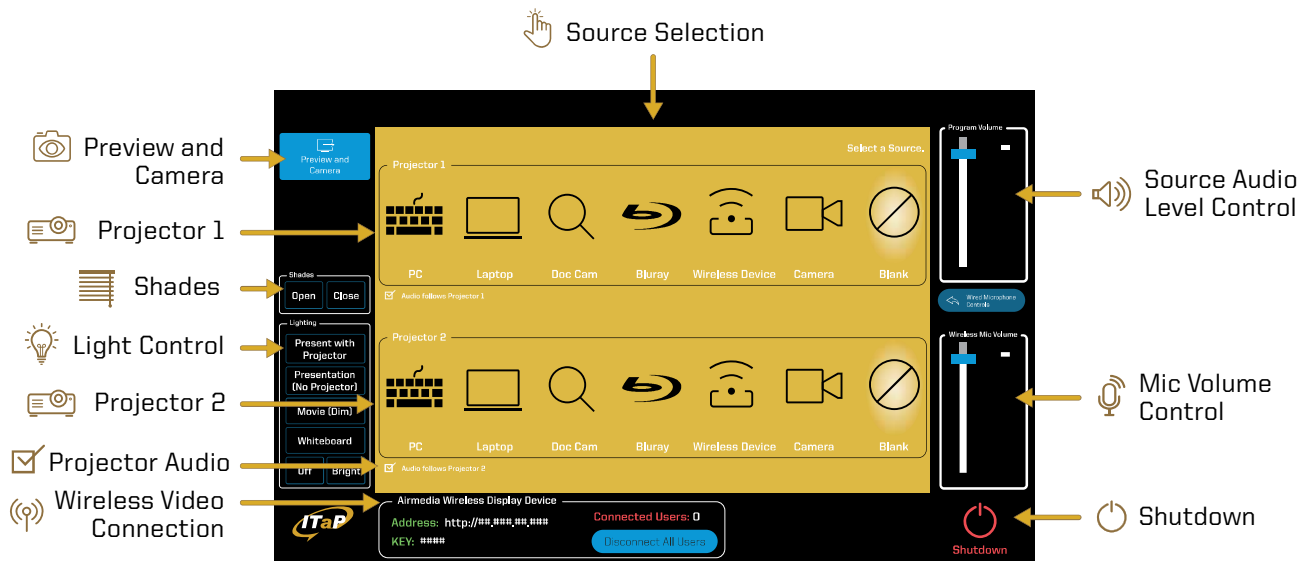



## 02 Crestron Audio/Visual Control Panel

The Crestron Control Panel determines what source is being sent to the projectors, the source audio levels (Computer, Laptop, Bluray), shades, and lights.

Select **Start AV System**. When the system is ready, you can use the control panel to operate the room.



2.1 Crestron Controls 

Select the check box under the Source Selection Panel to hear audio.



### Projector(s)

Projects a selected source on the projector screen.



### Source Selection

Select an input to display content onto a projector.



### Preview & Camera

To preview the confidence monitor, view source while projecting a blank screen, and to control the RoboSHOT.



### Wireless Video Connection

Use to connect your device to wireless video.



### Shades

Raises and lowers the window shades in the classroom.



### Light Control

Adjusts the lighting levels within the classroom.



### Mic Volume

Adjusts the volume of the wired or wireless microphones.



### Source Volume

Adjusts the volume for the source sent to the projector.



### Shutdown

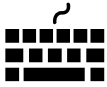
Turns off the audio/video system's control panel.

### 03 Dual Projectors

This room is equipped with dual projectors and controlled by the Crestron Control Panel. If you are facing the projector screen, projector 1 is on the left and projector 2 is on the right. You can have different sources going to each projector. For example, Projector 2 could be set to the PC while Projector 1 could be set to the Document Camera. In the Crestron Control Panel, select one of the sources for projection below to display your content.



#### Sources for Projection



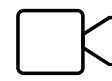
PC



Laptop



Doc Cam



Camera



Bluray



Wireless Device



Blank

### 04 Lectern PC

#### Source Selection: PC

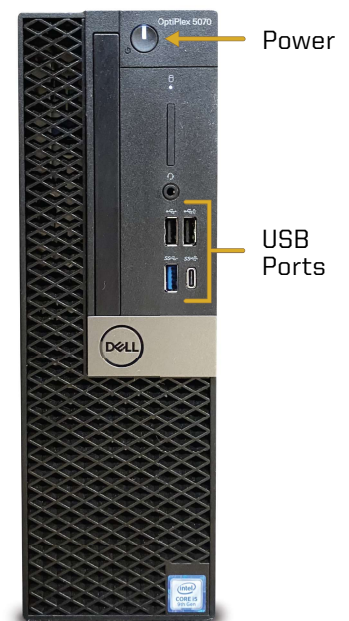
The lectern PC is provided and supported by ITaP. It is located in the lower right side of the lectern. You can access the power button and USB ports on the front of the PC.

Use the available keyboard and mouse to log in to the PC. You will need a Purdue Career Account to log in. You will have access to your Purdue W drive.

**Note:** If you have an outside visitor needing to log in to the classroom PC, contact [itap@purdue.edu](mailto:itap@purdue.edu) for a guest account.



To send the PC source to the projectors, on the Crestron Control Panel, select the **PC Source** on Projector 1 and/or Projector 2.




## 05 Laptop Connection

### Source Selection: Laptop

Laptop connection cables are located on the top of the lectern. There is a VGA/Audio cable, HDMI, and network cable available. Choose the video cable that is appropriate for your device.

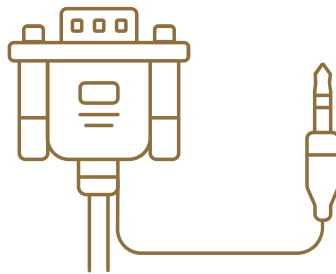
If your device does not have the appropriate connection port you will need to provide an adapter for your device.

- **Note:** HDMI will send audio. If you are using the VGA cable, connect the audio cable to the headphone jack on your device.

 To send the Laptop source to the projectors, on the Crestron Control Panel, select the **Laptop source** on Projector 1 and/or Projector 2.



HDMI Cable



VGA Cable with 3.5 Auxiliary Cable



Ethernet Cable

## 06 Wireless Device

### Source Selection: Wireless Device

Wireless video is supported by Crestron AirMedia. You can connect a PC, Mac, or mobile device wirelessly. Each room has a unique IP address. You will need to download the app and be connected to **PAL3.0 or Eduroam** for this feature.

Once you are logged into Wi-Fi, open a web browser on your device and type in the IP address that is shown on the **AirMedia pairing screen**. When you are ready to present, select **Start Presenting**. You will be prompted for a 4-digit code. Enter the random **4-digit code** on the pairing screen.

- **Note:** The 4-digit code will change every time you disconnect from the device.



To send the Wireless Device source to the projectors, on the Crestron Control Panel, select the **Wireless Device Source** on Projector 1 and/or Projector 2.

## 6.1 Device Connection



### Laptop Connection

To connect a laptop wirelessly:

1. Connect to the **PAL3.0 or Eduroam** Wi-Fi.
2. Open a browser on your device and type in the IP address that is shown at the bottom-left corner of the AirMedia pairing screen.
3. On the AirMedia webpage, select **Start Presenting**.
4. First time users will be prompted to install the AirMedia software. Follow through the installation process.
5. When you are ready to present, select **Start Presenting** in the AirMedia software.
6. You will be prompted to enter a **4-digit code**. Enter the code from the bottom-left corner of the AirMedia pairing screen.




### Mobile Connection

To connect a mobile device wirelessly:

1. First time users, download the Crestron AirMedia app from the iOS or Android app store.
  2. Connect to the **PAL3.0 or Eduroam** Wi-Fi.
  3. Open the app and enter the IP address located in the bottom-left corner of the AirMedia pairing screen.
  4. When are you ready to present, select **Start Presenting** in the AirMedia software.
  5. When prompted, enter the **4-digit code** located in the bottom-left corner of the AirMedia pairing screen.
- **Note:** Android devices are currently unable to share audio to the display at this time.

### AirMedia Pairing Screen

**IP Address and 4-Digit Code**



**Present Using Wireless**  
Visit: <http://###.###.###.###>  
Code: ####



The screenshot shows the AirMedia Pairing Screen with the following instructions:

- Mobile Device:**
  1. Download the **Crestron AirMedia** app from your designated app store.
  2. Enter the **IP address and 4-digit code** to cast your mobile device's screen.
- PC or Mac:**
  1. Enter the **IP address** into the search bar of your web browser.
  2. Download the **Crestron AirMedia software** from the website.
  3. Enter the **IP address and 4-digit code** to cast your device's screen.

A warning message states: "You must be connected to **PAL3.0 or Eduroam** to utilize the Crestron AirMedia software."

At the bottom, there are three options: "Present Using Wireless" (with a wireless icon and the same URL/code as the callout), "Present Using Cables" (with a cable icon and text "Connect using cables provided."), and the **CRESTRON** logo.

## 07 Document Camera

### Source Selection: Doc Cam

A Document Camera is available to display physical objects and documents on the projectors.

 To send the Doc Cam source to the projectors, on the Crestron Control Panel, select the **Doc Cam source** on Projector 1 and/or Projector 2.

There are markers and paper available to use with the device. Please do not write directly on the Document Camera surface; use the provided paper located in the bottom of the lectern.

- **Doc Cam:** Wet Erase Vis-a-Vis Markers
- **Whiteboard:** Dry Erase EXPO Markers

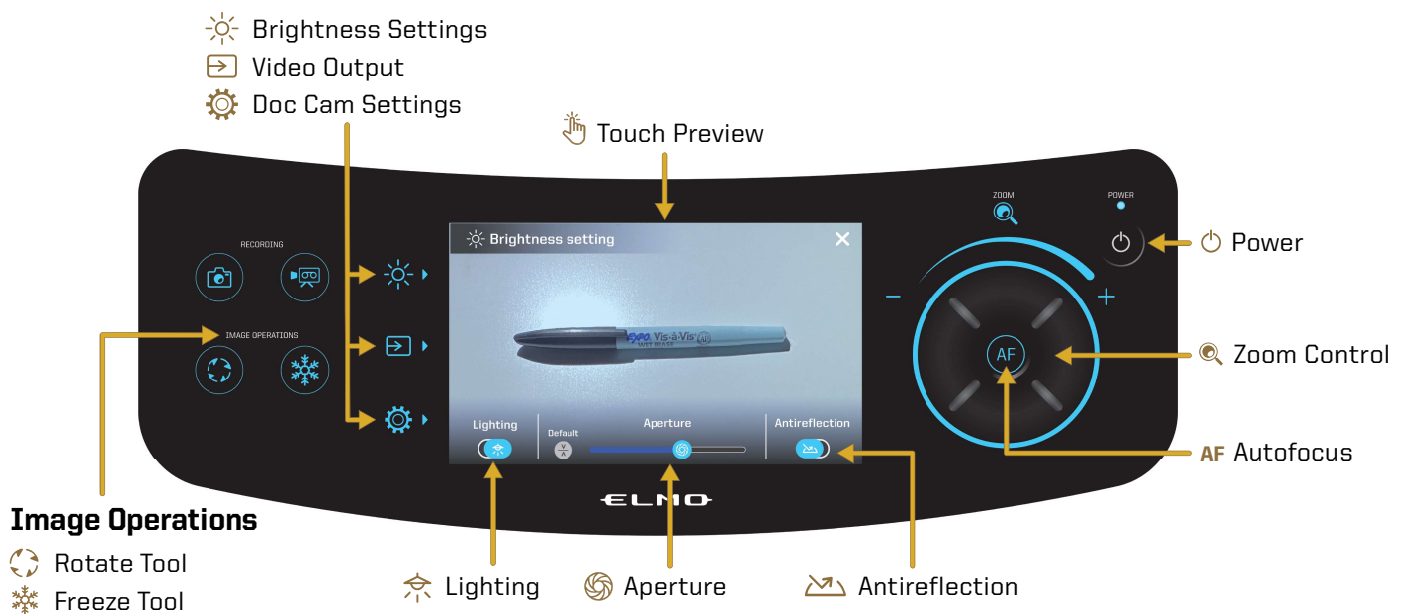













**Vis-A-Vis markers** are reserved for **DOCUMENT CAMERA USAGE ONLY**. Do not use these markers on the whiteboard.

- The Doc Cam will auto turn on with the start-up of the Crestron Control Panel.
  - If not, use the Power Button to turn ON the Doc Cam.
- Use the control buttons to access many different features.
  - Select the Sun icon to access the light ON/OFF switch.
  - For better lighting use the Aperture Slider.
  - For better focus select the Autofocus button.



## 7.1 Document Camera Controls



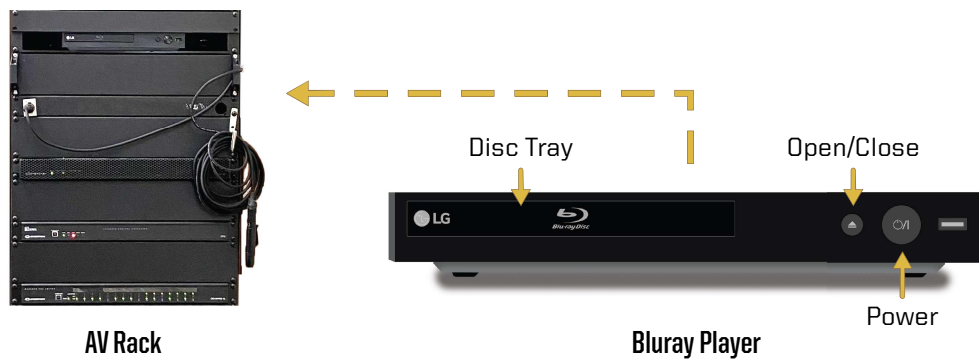
-  **Brightness Settings:**  
Activates the controls for lighting.
-  **Video Output:**  
Switches the output of the Doc Cam.
-  **Doc Cam Settings:**  
Opens system settings for the device.
-  **Rotate Tool:**  
Rotates the image clockwise.
-  **Freeze Tool:**  
Freezes the current image on display so you can adjust your object.
-  **Touch Preview:**  
Allows users to interact with the device controls via touch.
-  **Lighting:**  
Turns the overhead light on and off.
-  **Aperture:**  
Adjusts the brightness of the projection.
-  **Antireflection:**  
Removes glare from the overhead light.
-  **Zoom Control:**  
Use the dial to zoom in and out on an object or document.
- AF** **Autofocus:**  
Automatically focuses the camera lens to the object on the surface.
-  **Power:**  
Powers on/off the device. (Use the Crestron Control Panel for this.)

## 08 Blu-ray Player




### Source Selection: Blu-ray

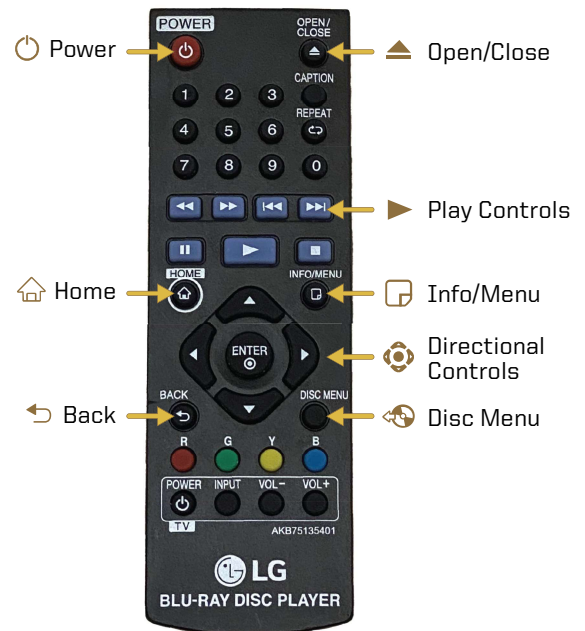
A Blu-ray player is available in the classroom and located in the **middle of the AV rack**. This Blu-ray player will accept DVD and Blu-ray discs, but it is not compatible with 4K Ultra HD Blu-ray.

-  To view the Blu-ray screen, select the **Blu-ray source** on the **Crestron Control Panel** for either Projector 1 or Projector 2.



To operate the Blu-ray player locate the LG Blu-ray remote located on the lectern. Point the remote towards the Blu-ray player in the AV Rack.

-  Select the **Power button** on the top left of the remote to power on the player.
-  To insert a disc, select the **Open/Close button** to open the disc tray. Place the disc on the tray and press **Open/Close** to close it.
-  Use the **Directional Controls** to navigate through the disc menu and the **Play Controls** to control the playback of the video.
  - To control the volume, use the **Program Volume Control** on the **Crestron Control Panel**.



## 09 Dual Cameras

### Source Selection: Camera

The classroom is outfitted with dual cameras and ceiling mics. The images and sound from these devices are fed into the Lectern PC for video conferencing and BoilerCast recordings and in some classrooms, a Kaltura device is used for BoilerCast recordings.

- **RoboSHOT USB:** Located at the back of the classroom for presenter video.
- **PTZ Pro 2:** Located to the front right or left in the classroom for audience video.



#### RoboSHOT USB

This is controlled by the Crestron Control Panel.



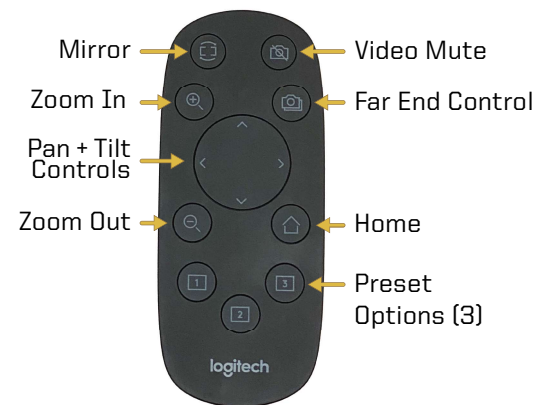
#### PTZ Pro 2

This is controlled by the Logitech remote control.

To operate the **PTZ Pro 2** camera:

1. In a video conference application: WebEx, Skype, Zoom, select **PTZ Pro 2** as the camera option.
2. Locate the Logitech remote on the lectern and select the controls to move the device.
3. To adjust the PTZ Pro 2 camera, position yourself directly in front of camera. It will be slow to respond to your first commands.

- **Note:** The remote will only work if the camera is the source selection in an application.



To operate the **RoboSHOT USB** camera:

1. Select **Preview and Camera** to open the Source Preview
2. Select **Use Source Below** and then choose **Camera** as the Source Preview.
3. To Pan, Tilt, and Zoom, use the **Camera Controls**. Select **Camera Presets** for preset angles.

- **Note:** There is a small delay in moving the camera on the Crestron Preview Screen.



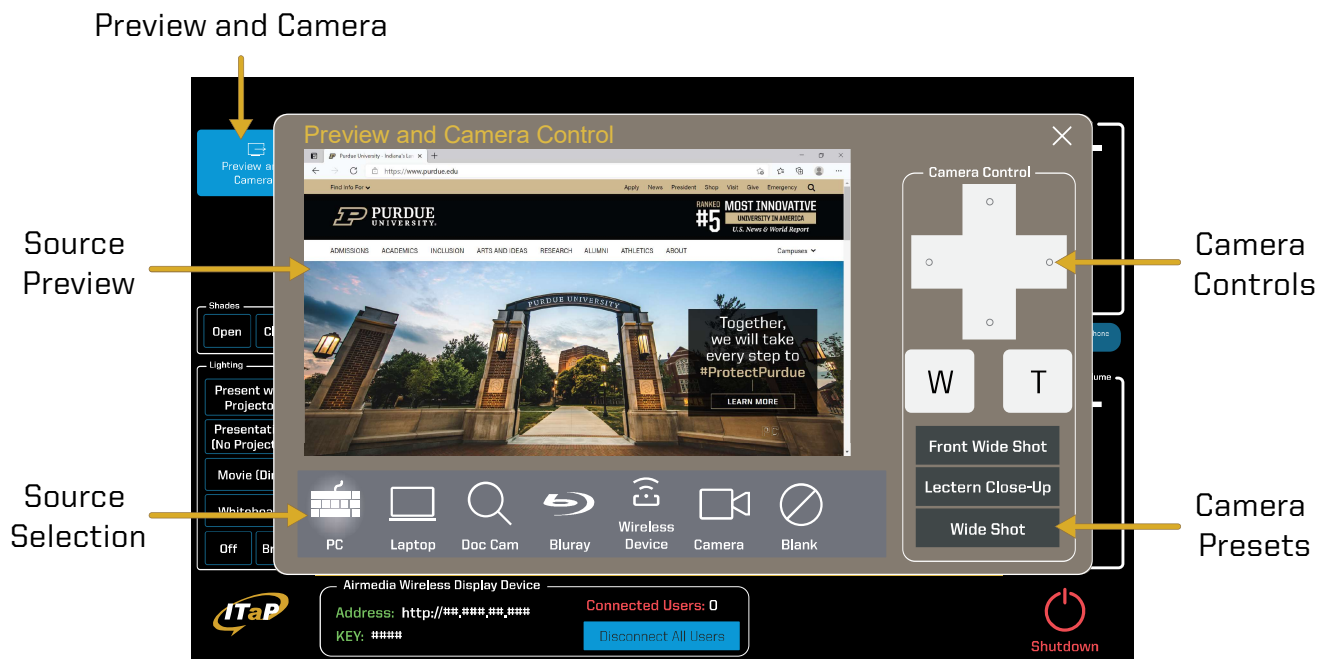
## 9.1 Preview and Camera

The Crestron Control Panel has Source Preview and Camera Control features.

To access this window, select the blue **Preview and Camera** button on the upper left of the Crestron control panel.

From this window, you can perform the following:

- **Source Preview:** This feature allows you to privately preview a source not being sent to the projectors.
- **Camera Control:** Control the RoboSHOT for video conferencing and classroom recordings.



- **Source Preview:** This is the image selected from the Source Selection below.
- **Camera (Control):** The control buttons provide the movement of the camera.
- **Source Selection:** Selecting one of these sources provides a preview in the Source Preview.
- **Camera Presets:** These are selected presets for the RoboSHOT.

## 10 Video Conferencing Software

The university supports Zoom and Teams for video conferencing. These applications host conferences from the room PC. Use the provided hardware for your audio and video inputs.

### 10.1 Zoom

Zoom is a video conferencing application available to use on the local PC. You can schedule a meeting in advance or start one right away from Brightspace or the Zoom app. This section will cover how to use the room equipment in your Zoom meetings.

For technical information on using Zoom, please visit:

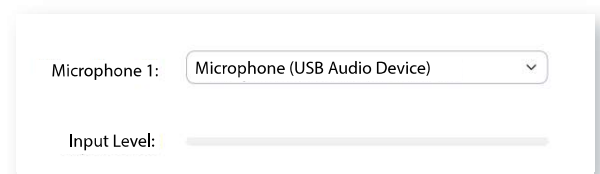
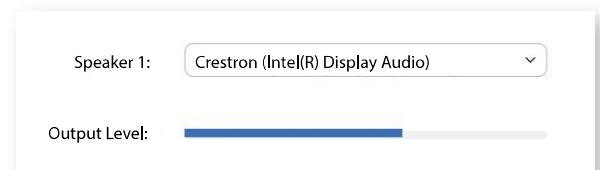
**ITAP.PURDUE.EDU/ZOOM**

**Please use the Wireless Microphone for video conferencing calls for the best audio.**

Follow these steps to test your speaker and microphone before you begin your meeting.

1. Send PC source to projector(s) 1 and/or 2.
2. Join the Zoom meeting.
3. When prompted to join with computer audio, select **Test Speaker and Microphone**.
4. For the Speaker test menu, select **Crestron (Intel(R) Display Audio)** from the drop-down or another source you would like to test.
5. The Zoom app will play a ringtone, if you hear the ringtone, select **Yes**. If you can't hear the ringtone, make sure the Crestron control panel is set to **Source Selection: PC** and adjust audio levels on the control panel and PC.
6. For the microphone test menu, select **Microphone (USB Audio Device)** or another mic of your choice from the drop-down.
7. Speak into your microphone and listen for a replay. If you can't hear the replay, make sure the Crestron is set to **Source Selection: PC**.

- **Note:** It is best to use the wireless microphone.



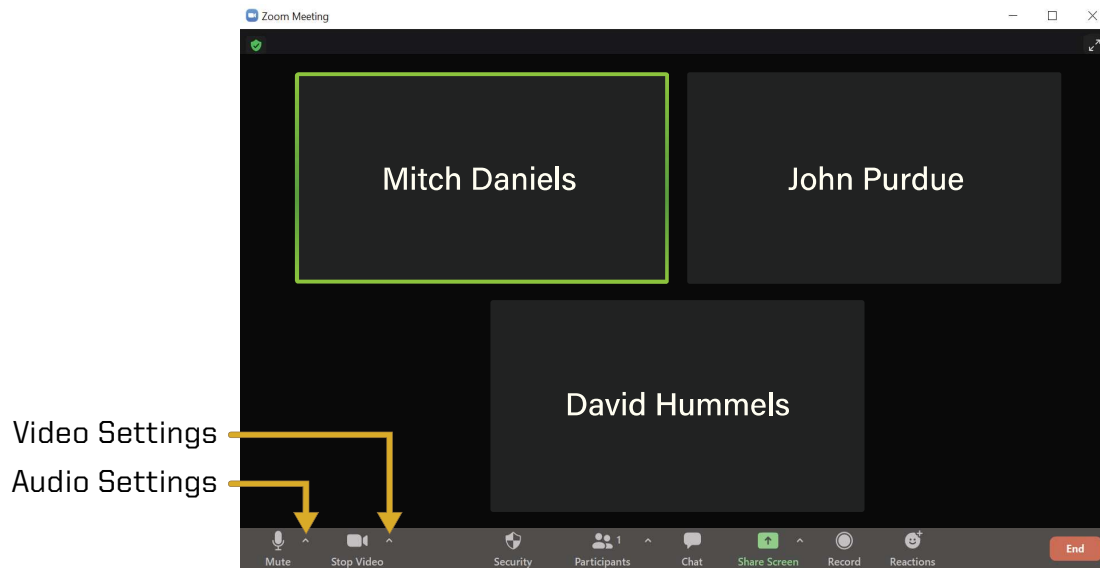
During your call, the call display will automatically be hidden. **To make the call display visible, move your cursor onto the screen.**

To control the camera view in your conference, select the arrow next to the video settings icon at the bottom right of the screen.

- Select the Camera drop-down and select **PTZ Pro 2, RoboSHOT USB, or Doc Cam.**



See Section 2 for Crestron Control Panel and Sections 7 and 9 for Camera information.



#### Mute / Audio Settings

Mutes and unmutes audio.  
Allows you to select your audio settings.



#### Stop Video / Video Settings

Turns your camera on/off  
or selects your camera options from the drop-down.



#### Participants

Shows a list of meeting participants and allows the host to invite people.



#### Chat

Allows the host and participants to communicate via text during the call.



#### Share Screen

Shares the content on your device screen during the call.



#### Reactions

Allows participants to communicate with interactive emotes.

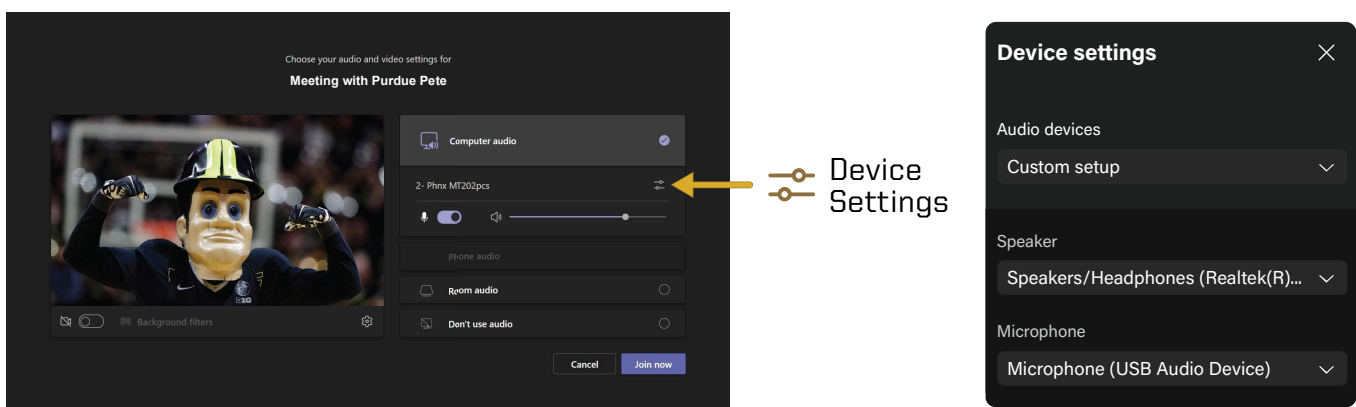
## 10.2 Microsoft Teams

Microsoft Teams is a video conferencing application available to use on the local PC. You can schedule a meeting in advance or start one right away from the Teams app. This section will cover how to use the room equipment in your Teams meetings.

For technical information on using Microsoft Teams, please visit:

**[SUPPORT.OFFICE.COM/EN-US/TEAMS](https://support.office.com/en-us/teams)**

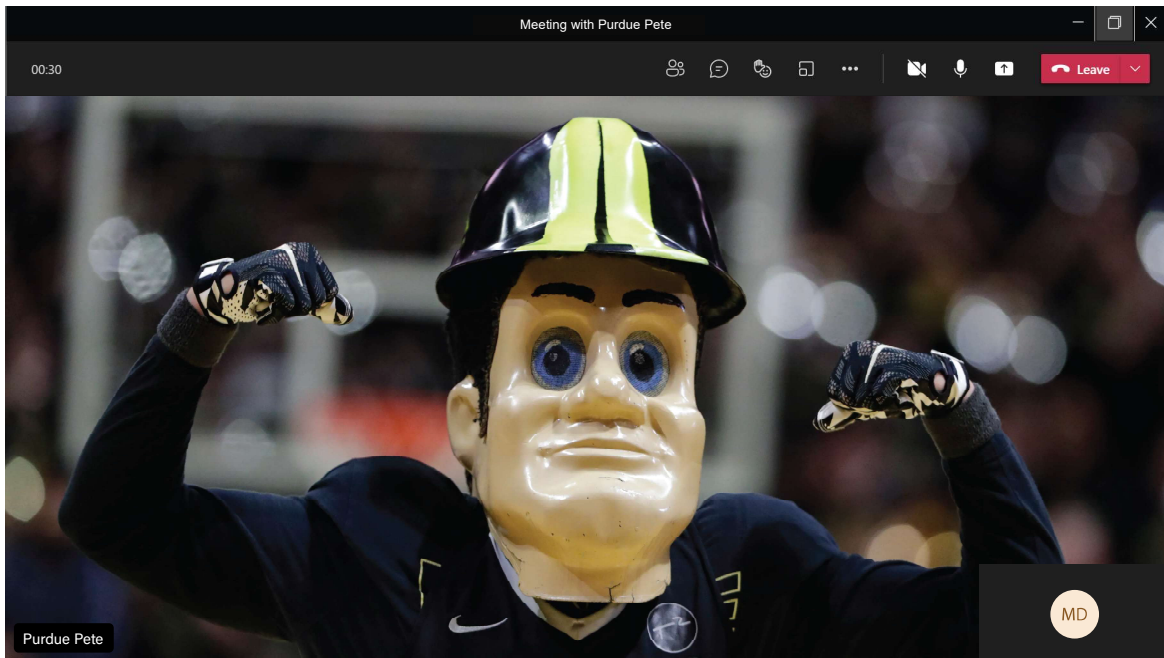
1. Power on the display and log into the PC.
2. Send the PC source to projector(s) 1 and/or 2.
3. Open Teams calendar or Outlook calendar meeting from [www.office.com](http://www.office.com) to start or join a meeting.
  - **Note:** When you begin your meeting, you will see a pop-up preview before entering the meeting.
4. Make sure computer audio is checked. Use the **Custom Setup** to select your video and audio inputs:
  - Under the **Speaker** drop-down, select **Speakers/Headphones (Realtek(R) Audio)**.
  - Under the **Microphone** drop-down, select **Microphone (USB Audio Device)**.
5. If the audio does not play back, **make sure the Crestron Control Panel is set to Source Selection: PC.**



The meeting tools are visible in the upper-right corner of the application. Press the **Leave button** in the top-right corner of the screen to leave or end the meeting for all participants.



See Section 2 for Crestron Control Panel and Section 7 for Document Camera info.



### Participants

Shows a list of meeting participants and allows the host to invite people to the meeting.



### Conversation

Allows the host and participants to communicate via text synchronously during the call.



### Breakout Rooms

Allows the host to isolate small groups of participants in the meeting for smaller group discussions.



### More Actions

Displays in call options and device settings (Speaker and Camera selections).



### Video / Audio Settings

Use these icons to mute and unmute audio and to turn the camera on/off.



### Share Screen

Shares the content on your device screen synchronously during the call.



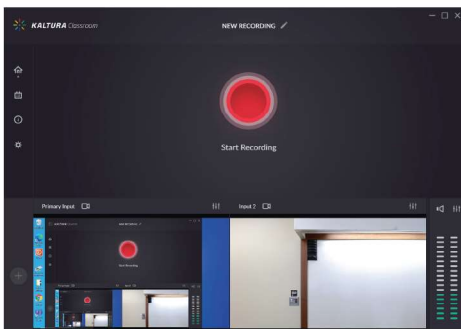
## 11 Class Recordings

All of Rawls classrooms support class recording with BoilerCast and an option to simultaneously live stream the classroom. You and your students can access your class recordings with the **Kaltura Media Library** through Brightspace or by visiting <https://mediaspace.itap.purdue.edu>. You may request live streaming when you submit a BoilerCast request.

You can request a BoilerCast recording for your class at [www.purdue.edu/boilercast](http://www.purdue.edu/boilercast). You will need to **complete the request form**. BoilerCast recordings are self-supporting. Once you have scheduled the recording, the recording will start and end at the scheduled time. It is best to **plan ahead for scheduling**. To complete a form, you will need to know the following:

- Class/event name.
- Building/room.
- Date/time.
- Type of source to capture (Software, Device, or Personal).
- Whether or not you are live streaming.

There are three types of captures: **Software Captures**, **Device Captures**, and **Personal Captures**.



### Software Captures

Initiated through the Kaltura Classroom application.



### Device Captures

Automatically records to an external device located in the AV rack.

To access BoilerCast request forms, a list of classrooms with technology, and more Kaltura training guides, please visit:

**PURDUE.EDU/BOILERCAST**

**Software Captures:** All Rawls classrooms support software captures. This will capture the local PC, the ceiling and wireless microphones, Doc Cam, and webcam. You cannot switch inputs while doing a Software Capture. Captures can be scheduled in advance or started ad hoc by the presenter. Scheduled captures will start and end at the requested times. If published, it will be made available to students without any intervention from the instructor. For an ad hoc capture, you can open the Kaltura application and manually record with your selected inputs.

1. Log in to the PC.
2. **Scheduled recordings:** No intervention needed by instructor. Just present your class.

**Ad hoc recordings:** Open the Kaltura application, manually select inputs, and record. When finished, input your username, and visit the Kaltura website to publish your recording.

3. Log out.

**Device Captures:** Many classrooms in Rawls have a device to capture the recordings. These devices have camera sources (RoboSHOT USB and PTZ Pro 2), any selected source (PC, Laptop, Doc Cam) sent to Projector 1, and the ceiling and wireless microphone sources. To use the device to capture different input sources, you will need to pre-schedule your capture by completing the BoilerCast request form at [www.purdue.edu/boilercast](http://www.purdue.edu/boilercast). Device captures allow **two input sources to be sent to Projector 1**. Your capture will begin and end at the scheduled times.

1. Log in to the PC.
2. Set up your camera position on the Lectern PC (RoboSHOT USB or PTZ Pro 2).
3. Send the source (PC, Laptop, Doc Cam) you want to capture to Projector 1.
4. Present your class.
5. Log out.

**Personal Captures:** The Kaltura Capture software allows you to connect a webcam and microphone to create and edit captures from any location. This software can be downloaded from [mediaspace.itap.purdue.edu](http://mediaspace.itap.purdue.edu) to your personal device.

1. Log in to mediaspace.itap.purdue.edu with BoilerKey.
2. Select **Add New**.
3. Select **Kaltura Capture**.
4. Download software or if it is installed, it will launch automatically.
5. To make your capture visible to others, you will need to publish it in Kaltura.

Should you need assistance with classroom recordings, please send an email to [itap@purdue.edu](mailto:itap@purdue.edu).

## 12 Microphones

Each Rawls classroom is equipped with a **ceiling, wireless, and wired** microphone. The wired and wireless microphone provide audio reinforcement in the classroom and will be used to record audio for classroom recordings. **It is preferred to use the wired and wireless microphone for better audio quality with recordings and video conferencing.**

### 12.1 Ceiling Microphone

The ceiling microphone is **in the ceiling near the lectern** and can be located by the **glowing green light**. The microphone will pick up **the presenter and audience**.

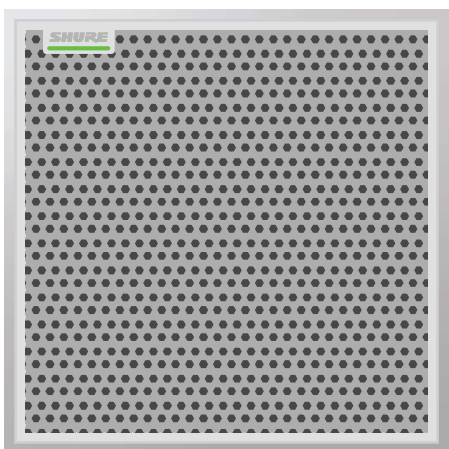
#### Ceiling Microphone Tips:

- The ceiling microphone audio is best when talking near the device.
- Minimize roaming the classroom to insure the sound is consistently picked up.
- Speak at a comfortable presenting level for best audio capture.
- For best video conferencing and recording audio, use the wireless mic.
- To prevent audio feedback lower the internal speaker sound by adjusting the audio on the Crestron.



See Section 2.1 Crestron Controls for information on how to control Crestron audio.

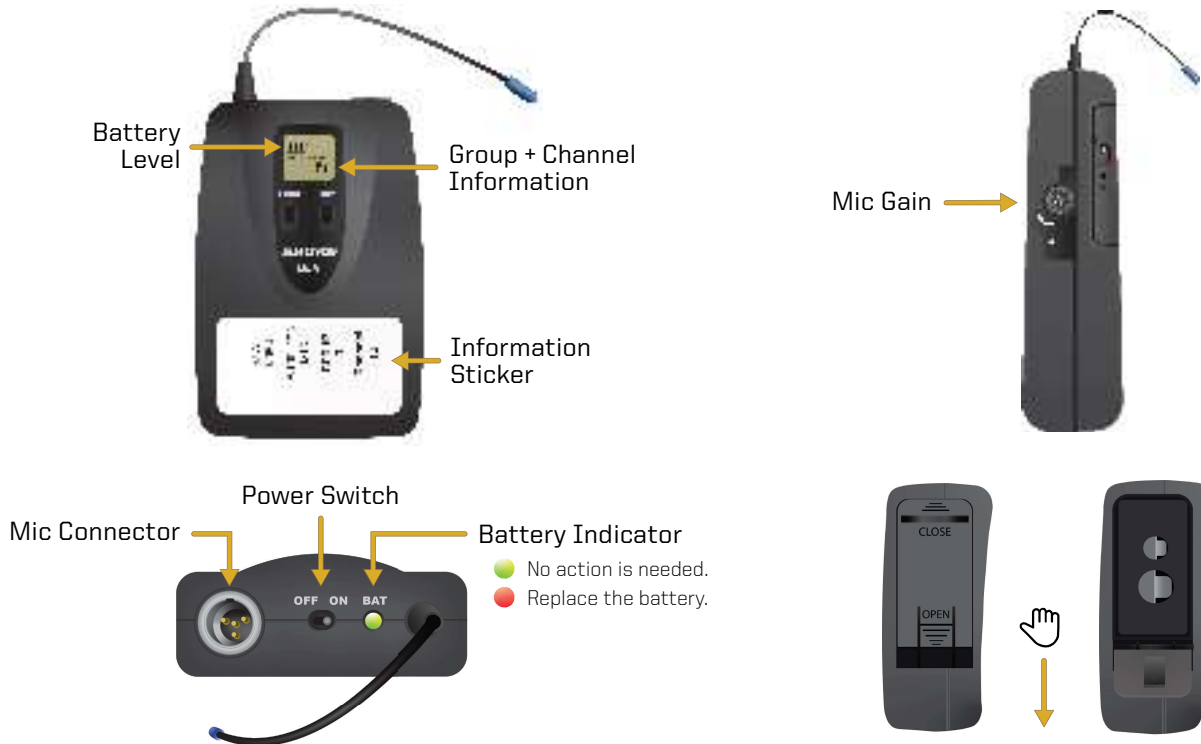
Ceiling Microphone Device



Ceiling Microphone in the Classroom

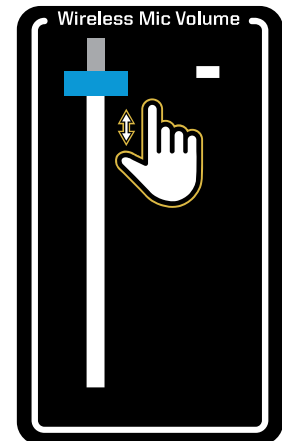


## 12.2 Wireless Microphones



The wireless microphone is located on the lectern in a black pouch.

1. Locate the microphone pack and connect your microphone to the microphone connector.
2. On the top of the microphone pack, turn on the mic.
3. Check the battery status.
  - Batteries are located on the lectern. If needed, they can be replaced by sliding your thumb downwards across the bottom of the pack. Make sure the battery prongs are facing down inside the microphone pack.
4. Clip the microphone on the center of your chest.
5. Clip the body pack to a pocket.
6. Adjust the audio control level on the Crestron Control panel.
  - If the audio volume is still not adequate, adjust the gain on the side of the microphone pack by rotating the dial clockwise to increase the volume and counter clockwise to decrease the volume.



Crestron Wireless  
Mic Volume

## 12.3 Wired Microphone

A wired microphone option is available in the classroom. The cable needed to connect your microphone to the AV system is on the right side of the AV Rack, next to the lectern.

To operate the wired microphone:

1. Locate the **wired microphone adapter cable** on the AV rack.
2. Connect your microphone into the end of the cable.
3. Clip the microphone to your chest with the end of the microphone pointing directly up at your mouth. This will ensure the microphone will pick up everything you are saying.
4. Adjust the audio control level on the Crestron Control Panel.

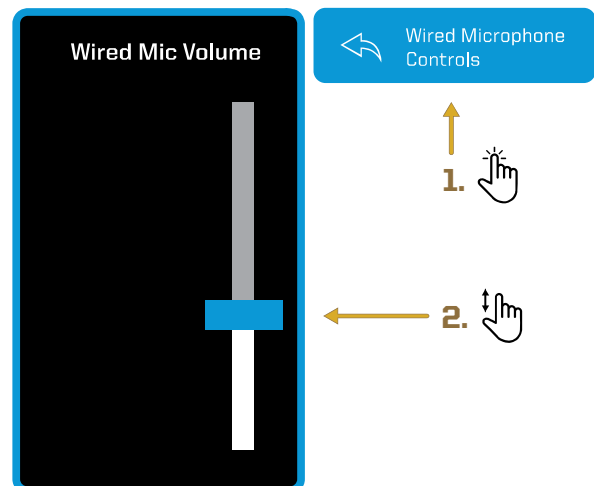


See Section 2.1 Crestron Controls for information on how to control Crestron audio.

To adjust the wired microphone volume:

1. Select **Wired Microphone Controls** on the right side of the Crestron Control Panel screen.
2. Use your finger to move the audio level slider to your desired volume.

You can still access other controls while this volume slider control is on the screen. The control will disappear after five seconds whether you make an input or leave the screen alone.



## 13 Instructional Technology (iClicker, HotSeat)

Purdue supports two student response systems: **iClicker and Hotseat**. These are used within a class to solicit student questions, answers, etc. The instructor can then use this information to determine student understanding, lead discussions, etc.

**iClicker** is a classroom response system that allows instructors to capture student participation and poll responses. Students must have their own personal iClicker response remote. It may be used with pre-selected or ad-hoc questions. If an instructor requires an iClicker Instructor Hub and one is not currently installed in the classroom, please contact [InnovativeLearningTeam@purdue.edu](mailto:InnovativeLearningTeam@purdue.edu).

**Hotseat** provides all learners a place to quickly and easily participate in a productive back-channel discussion during class. Hotseat allows learners to post questions and comments using whatever technology they have available – SMS texting, iOS and Android mobile apps, and desktop and mobile websites. This gives everyone a chance to actively engage in classroom activities.

To see more information about using iClicker and Hotseat, please visit:

[PURDUE.EDU/INNOVATIVELEARNING/](http://PURDUE.EDU/INNOVATIVELEARNING/)

From this page, select the **Supporting Instruction** menu in the top navigation bar.



In the drop-down menu that appears, click **Instructional Technology**. This is where you can view all of the guides and resources for the equipment. There are self-service video series that will walk you through each step needed to engage learners using these classroom tools.

If you need further assistance, you can also e-mail the Teaching and Learning Technologies support ([TLT@purdue.edu](mailto:TLT@purdue.edu)) to request a consultation.

## 14 Classroom Courtesy

Classes should be planned so that they dismiss by the end of the prescribed time period. The first five minutes after the official dismissal should be considered a shut-down period for the class that is in session. This shut-down period allows the instructor time to log out of devices and turn off any equipment used during class and pack-up materials. The second five-minute period preceding the start of the next class should be considered preparation time for the incoming class.

It is expected that disputes arising over violations of these guidelines will be resolved in a friendly and respectful manner. If an instructor has a continuing problem with another instructor who either starts using the room early or stays beyond the shut-down period, the problem should be addressed by reporting the situation to the schedule deputy who can then speak with the classroom scheduling unit of the Office of Registrar about it should the problem not be able to be resolved between the two instructors.

Please do not move classroom furniture between rooms, as this adversely affects the class or event scheduled for that other room. If you need a larger room for your class, please contact your departmental schedule deputy.

In addition to the above, the following courtesies upon leaving a room will help avoid ill-will:

- Log off the computer.
- Turn off the equipment.
- Put away the wireless microphone and any used laptop cables.
- Clean the whiteboard.
- Place markers and batteries in their respected areas.
- Return any desks or chairs to their normal arrangement.
- Collect any items brought in or used during the class.

For additional classroom information, please visit:

**[PURDUE.EDU/REGISTRAR/FACULTY/SCHEDULING/INDEX.HTML](http://PURDUE.EDU/REGISTRAR/FACULTY/SCHEDULING/INDEX.HTML)**

### **Technical Assistance:**

For technical assistance with the supported technology, please contact ITaP at 765-494-4400, email [ITaP@purdue.edu](mailto:ITaP@purdue.edu).