Media Technology Services
Classroom Equipment Guide

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Carnegie Mellon University
Computing Services

JULY 2010 • Small Classroom
Our Services

Media Technology Services (MediaTech), a group within Computing Services, provides the following in support of teaching and learning.

- **Classroom Technologies**
  Standard classroom technologies for over 100 lecture halls, classrooms and seminar rooms around campus with a centrally supported infrastructure. These include: projection, DVD/CD player, document camera, Clickers (classroom response system), videoconferencing and an auxiliary panel with inputs for a second laptop, VCR, camera, iPod, etc.

- **Classroom Technology Support**
  Classroom equipment demonstrations and equipment lending. MediaTech's most popular items for lending include: wireless clip-on microphones and instructor Clickers kits.

- **Media Production**
  Fee-based lecture recordings, analog to digital media conversions and video web streaming.

- **Videoconferencing**
  Video collaboration of two geographic locations for classroom content, presentations and lectures. MediaTech centrally maintains the supporting technical infrastructure for the videoconferencing service.

- **AV & Media Consultation**
  Onsite consultations for integrating personal technologies, such as iPods, video recorders and laptops, into a classroom setting. Consultants are available to assist with planning unique or complex presentations, such as a panel of speakers in a large auditorium, as well.

- **Facility Design and Consultations**
  Design and implementation consultations for departments creating distance education facilities, developing technology rich collaboration spaces, or upgrading departmental classrooms with classroom technology standards.

### More Information

Email: mediatech@cmu.edu  
Web: [www.cmu.edu/computing/mediatech/](http://www.cmu.edu/computing/mediatech/)

<table>
<thead>
<tr>
<th>Office Hours</th>
<th>Phone Hours</th>
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<tbody>
<tr>
<td>Cyert Hall A74</td>
<td>412-268-8855</td>
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<td>Monday - Friday</td>
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<td>8:00 a.m. - 5:00 p.m.</td>
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1 These technology rich spaces are centrally managed by the University Registrar or Computing Services (18 computer labs or “clusters”).
This manual provides comprehensive step-by-step instructions for the equipment found in University Registrar controlled classrooms and auditoriums. The aim of this guide is to help you successfully utilize this equipment for classes and presentations.

Microphones

Wireless microphones are available from the MediaTech office in Cyert Hall A74 and may be borrowed by faculty for a term. Contact MediaTech at 412-268-8855 or via email (mediatech@cmu.edu) to reserve one.

Equipment Cables and Adapters

Laptop VGA and audio cables are provided. If you are using the equipment below, please bring the appropriate cable or adapter to the classroom:

- VCR and video camera - RCA cable
- iPod video player - RCA to Mini cable
- Second laptop - VGA cable
- Musical device - Mini-to-mini cable
- Mac computer - Mac adapter

Support

This documentation, device descriptions, manufacturer information and video demonstrations are available online at www.cmu.edu/computing/mediatech/. If immediate assistance is needed, contact MediaTech at 412-268-8855.

Feedback

For classroom equipment improvements, suggestions or questions, send email to MediaTech at mediatech@cmu.edu.
The Lectern

The image below identifies the equipment found in a large classroom lectern. For more information on using the lectern equipment (e.g., DVD player, Document Camera, etc.), see the appropriate section following *Getting Started.*

**Tip!** The lectern can be moved. Make sure that the wheel brakes are unlocked before moving.

Turning On the Projector

Touch the **touch panel** to wake the system and then, touch **Yes** on the start screen to turn on the projector.

*Continued on reverse.*
Raise/Lower the Projector Screen

If the projector screen isn't positioned correctly, touch the arrow keys under **Screen** to move the screen up and down. The screen will stop automatically at the bottom or top, or you can press Stop to stop it at any other position.

Changing Devices

Touch the button for the device you would like to use (e.g., DVD, Laptop, Doc Camera). In the image below, the CD player is selected.

For more information on using these devices (e.g., Laptop, DVD, Document Camera, etc.), see the appropriate section following *Getting Started*.

Getting Help

For troubleshooting help, touch the question mark (upper right corner) on the touch panel and follow the prompts. If immediate assistance is needed, contact MediaTech at 412-268-8855.
Using a DVD or MP3 Disc

1. Touch **DVD** on the touch panel and place the DVD into the DVD player.
2. Control the volume and operate the DVD player from the touch panel.

   The buttons on the touch panel are like those on most standard DVD players. Chapter rewind, rewind, stop, play, pause, fast-forward, and chapter advance. To navigate through the menus, use the buttons to the lower right of the screen.

If you prefer, operate the DVD player from the DVD player controls instead.

Using a CD

1. Touch **CD** on the touch panel and place the CD into the DVD player.
2. Touch **Sound from CD**.
3. Control the volume and operate the CD player from the touch panel.

   The buttons on the touch panel are like those on most standard CD players (chapter rewind, rewind, stop, play, pause, fast forward, and chapter advance).

If you prefer, operate the CD from the DVD player controls instead.
Connecting a Laptop

1. A laptop VGA cable and audio cable are provided.

2. Connect the VGA cable to the port on your computer.
3. Touch Laptop on the touch panel.
4. Make sure the laptop sound setting is not too low to be heard or muted. If the laptop image does not display, do one of the following:
   - Reboot your laptop.
   - Select the “mirroring”/LCD/CRT button on your laptop. The location of this button varies between laptop manufacturers and can be any of the function keys. It may be F3, F5, F7 or F8. Look for a small square on top of, or next to, a small monitor icon. The images below are examples of this icon.
5. Operate the laptop.

   **Note:** For your convenience, power outlets are available on the far right side of the auxiliary input panel (see the image below).

Accessing the Internet

If you need Internet access, but do not have a wireless card, plug your Ethernet cable into the **Campus Network** port on the auxiliary panel.

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*Continued on reverse.*
Connecting a Second Laptop

1. Bring a laptop VGA cable and audio cable to the classroom.

2. Connect one end of the VGA cable to the port on your computer.
3. Connect the other end of cable to the **Aux VGA** jack on the auxiliary inputs panel. If sound is needed, connect the audio cable.
4. Touch **Aux (Video) Inputs** and then **VGA**.

5. Make sure the laptop sound setting is not too low to be heard or muted.
6. Operate the laptop.

**Note:** If you are using a Mac computer, please bring the appropriate Mac adapter for your model.
Connecting a Musical Device

**Note:** If you would like to show a video from an iPod video player, see *Connecting an iPod Video Player*.

1. Bring a mini-to-mini cable to the classroom.

2. Connect one end of the cable to the headphone jack on the music player.

3. Connect the other end of cable to the **AUX VGA AUDIO** jack on the auxiliary input panel and then turn on the music device.

*Continued on reverse.*
4. Touch **Aux (Video) Inputs** and then **VGA**.

5. Operate the music device. Control the volume using the touch panel.
Connecting an iPod Video Player

Follow the steps below to display a video from your iPod video player. To play music follow the steps for *Musical Devices.*

1. Bring an RCA to mini cable to the classroom for your iPod.

![RCA to mini cable](image1)

2. Connect the *yellow* cable to the **COMPONENT VIDEO Pb** jack, the *white* cable to the **AUDIO LEFT**, and the *red* cable to the **AUDIO RIGHT** jack on the auxiliary inputs panel.

![Auxiliary inputs panel](image2)

3. Connect the single-end of the cable to headphone jack on the iPod player.
4. On the iPod, select **Videos**, then **Video Settings**. The **TV Out** option should be set to **ask**.
5. Select your video from the iPod’s **Video Playlists** section.
6. When prompted for TV On or TV Off, select **TV On**. This will project your image on the screen, however it will not be displayed on your iPod. You will see a running counter instead.

*Continued on reverse.*
7. Touch **Aux (Video) Inputs** and then **Composite Video**.

8. Operate the iPod. Volume can be controlled from the touch panel.
Connecting a VCR

1. Bring the VCR and RCA cable to the room.

2. Connect the cable to the back of the VCR.
   - **RCA cable** (yellow, white and red) - connect the yellow cable to the yellow VIDEO OUT jack, and the white and red cables into the AUDIO L and R jacks, respectively.
   - **Component Video cable** (blue, green, red, plus audio cables) - connect the green cable to the Y jack, the blue to Pb and red to Pr. Attach the audio cables into the audio out jacks. The VCR back panel may vary between models.

3. Connect the cables to the auxiliary input panel.
   - **RCA cable** - connect the yellow cable to the Pb jack (below COMPONENT VIDEO). connect the white to the AUDIO LEFT jack (white), and the red into AUDIO RIGHT (red).

Continued on reverse.
- **Component Video cable** - connect green to Y, blue to Pb and red to Pr and then, the audio cables into the red and white AUDIO jacks.

4. Plug the VCR power cord into a power outlet and turn on the VCR. For your convenience, two power outlets are located on the far right side of the auxiliary input panel.

5. Touch **Aux Inputs** and then **Composite Video**. If using the component cables (green, blue and red), select **Component Video**.

6. Operate the VCR using the remote or the buttons on the VCR.
Connecting a Video Camera

1. Bring the video camera and appropriate the RCA cable for your camera model.

2. Connect the cable to the AV IN/OUT jack on the video camera. The location and names will vary due to different camera models.

3. Connect the cables to the auxiliary input panel.
   - **RCA cable** - connect the yellow cable to the **Pb** jack (below COMPONENT VIDEO). Connect the white and red cables to the AUDIO LEFT (white) and AUDIO RIGHT (red) jacks respectively.

   - **S-Video cable** - connect the cable to the S-VIDEO jack.

4. Turn on the camera.

*Continued on reverse.*
5. Touch **Aux Inputs** and then **Composite Video**. If using the s-video cable, select **S-Video**.

6. Operate the video camera directly from the device.
Setting up the Document Camera

1. Raise the camera arm and pivot the camera. If the camera arm is laying down, raise it into position by pressing the button on the base of the arm in the direction indicated by the arrows, while simultaneously lifting the arm up. Turn the camera until the lens is pointed down.

2. Move the lamp arms into position. If you will be using the arm lamps (for paper documents and objects), raise the lamp into position by lifting the arms toward the back of the unit, and rotating the lamps so the light is shining on the base. (The arm lamps are not needed for transparencies, slides or negatives.)

3. Touch **Doc Camera** on the touch panel. This will turn the device on. If it doesn’t, press the power button on the document camera itself.

   **Note:** The document camera has a slight delay when turned on. The power button will be green if on or red if off.

4. From the **touch panel**, select your lamp option.
   - **Arm** - turns on the side arm lamps.
   - **Base** - turns on the lower base lamp.
   - **Lamp** - cycles through the lighting options from side arm lamps on (for paper documents and objects), base light on (for transparencies, slides or negatives), or all off. The upper lamps will turn on by default.

5. Operate the Document Camera, using the touch panel.

   **Tip!** You can also use the buttons on the document camera panel itself. See “Using the Document Camera Panel” on the reverse for the function of each.

*Continued on reverse.*
Using the Document Camera Panel

**Power** - turns the device off or on. The light will be red if off or green if on.

**Freeze** - takes a snap shot image. Press once to take the image and display it. The image will remain on the screen until the freeze button is pressed again.

**AWC** - automatically adjusts the color to the lighting in the room.
*Tip: Only activate AWC with a white surface (printed text is okay), for best results.*

**Zoom** (- and +) - controls the image size. Press “-” for farther away or “+” for a closer view.

**TXT/IMG** - changes the mode from viewing text, to viewing images or objects.
*Tip: Books and documents display best in text mode. Charts, graphs, photos, slides and objects, display best in image mode. When in doubt, please try both options to determine the mode that works best for you.*

**Rotate** - changes the visual orientation. The image will rotate 90 degrees clockwise each time “rotate” is pressed.

**AF** - automatically focuses the camera.
*Tip: Keep the object stable during auto-focus. If blurry, press AF to refocus.*

**Lights for EXT1 and EXT2** - No image will project on the screen, unless both of these lights are off. If either is on, press the INT/EXT button until they cycle off.

**INT/EXT** - NOT AVAILABLE for classrooms. If either of the EXT1 or EXT2 lights are on, press this button until both cycle off. No image will be displayed until they are off.

**Lamp** - cycles through the lighting options. For transparencies or slides, turn the lower light on. For any object, book or paper with text on it, the upper lights need to be on. The upper lamps will turn on by default.
*Tip: If you are experiencing glare, turn the lamps off.*

**IRIS** (- and +) - adjusts the brightness.
*Tip: If there is a “hot spot”, or a portion of your display with a bright glare, use the “-” button until the glare is reduced.*

Using the Software

Software installed on large classroom and auditorium computers, gives you the option to save, freeze, and rotate document camera images. For more information, visit [www.cmu.edu/computing/mediatech/help/](http://www.cmu.edu/computing/mediatech/help/).

Playing Audio

If you would like audio to play while using the document camera do the following:

1. Touch **Doc Camera** on the touch panel, a selection of audio sources appears.
2. Touch the **audio source** (e.g., DVD, CD Player, etc.) you would like to use and adjust the volume as needed.
Using Clickers in the Classroom

The i>clicker classroom response technology is available in large classrooms, auditoriums and some small classrooms. For a list of classrooms, visit www.cmu.edu/computing/mediatech/clickers/.

Using a Laptop

**Important:** The i>clicker software MUST be loaded on your laptop prior to class.

1. Connect your laptop. See the *Laptop* section for steps.
2. Connect the **purple CLICKER cable** to your laptop’s USB port.
3. Launch the i>clicker software from your laptop to begin your session.

For detailed instructions on using Clickers visit www.cmu.edu/teaching/clickers/.