CLASSROOM TECHNOLOGY

GUIDE

For Technology Assistance Please Contact
NCWC Information Systems Department
Email: Helpdesk@ncwc.edu
Phone: 252-984-5000

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EPSON Projector & Whiteboard

EPSON Projector & PC Workstation

Projector Control Box

Whiteboard Pen

E. **Power** button

F. **Source** button

G. **Volume Control**

Projector Remote

A. Power ON/OFF button
  ➢ Used to turn ON/OFF Epson Projector in classrooms

B. Whiteboard button
  ➢ Creates a whiteboard area on side of projector display for notes (page #)

C. Source Search button
  ➢ Switches projector display to another display (page #)
    (HDMI, AppleTV, Project Wirelessly from PC)

D. Whiteboard Pen
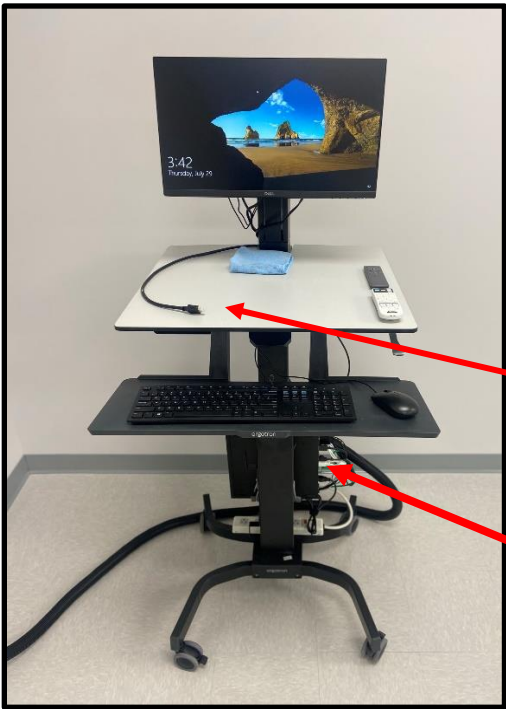 ➢ Used for writing notes on the whiteboard

Computer PC / Workstation

EVERY workstation is equipped with a **HDMI** cable

HDMI cable

Windows 10 PC Box

Wall Components

A

B

C

D

E

F

COMPUTER

AUDIO

HDMI

USB
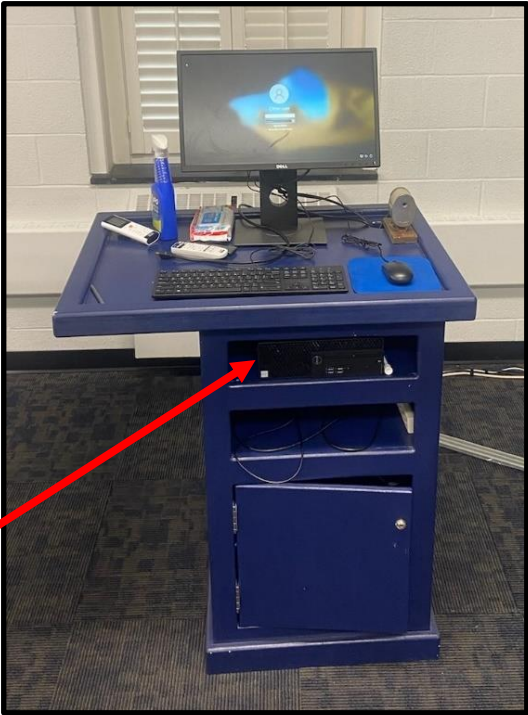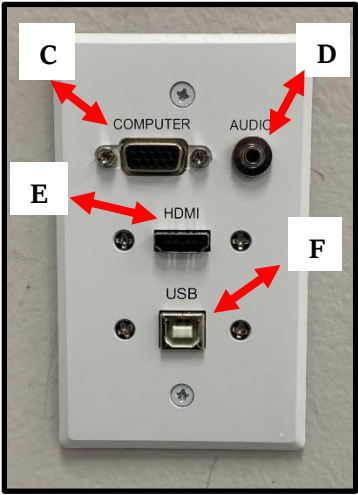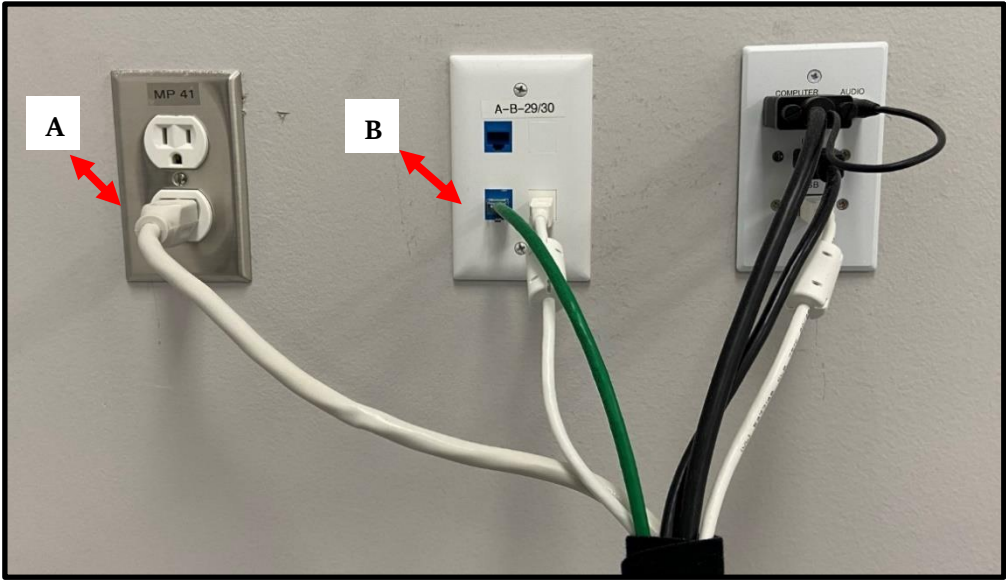
Surge Protector	**Ethernet (LAN) cable**	**VGA cable**	**Audio cable**	**HDMI cable**	**USB cable**
A	B	C	D	E	F

Video Conferencing – Camera & Microphone

Camera - UVC84

Wired Micorphone - VCM38

Windows 10 PC (OptiPlex 3050 located at Podium/PC Workstation)

Audio Port | HDMI Port | Display Port | VGA Port | Ethernet "LAN" port | Keyboard & Mouse cables | Power
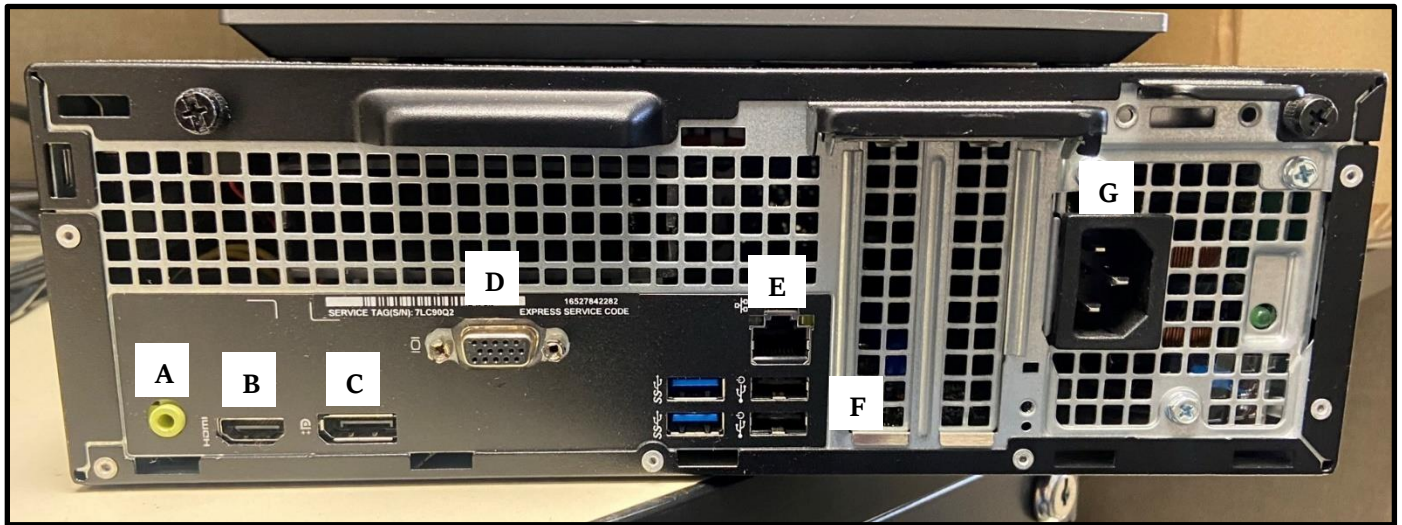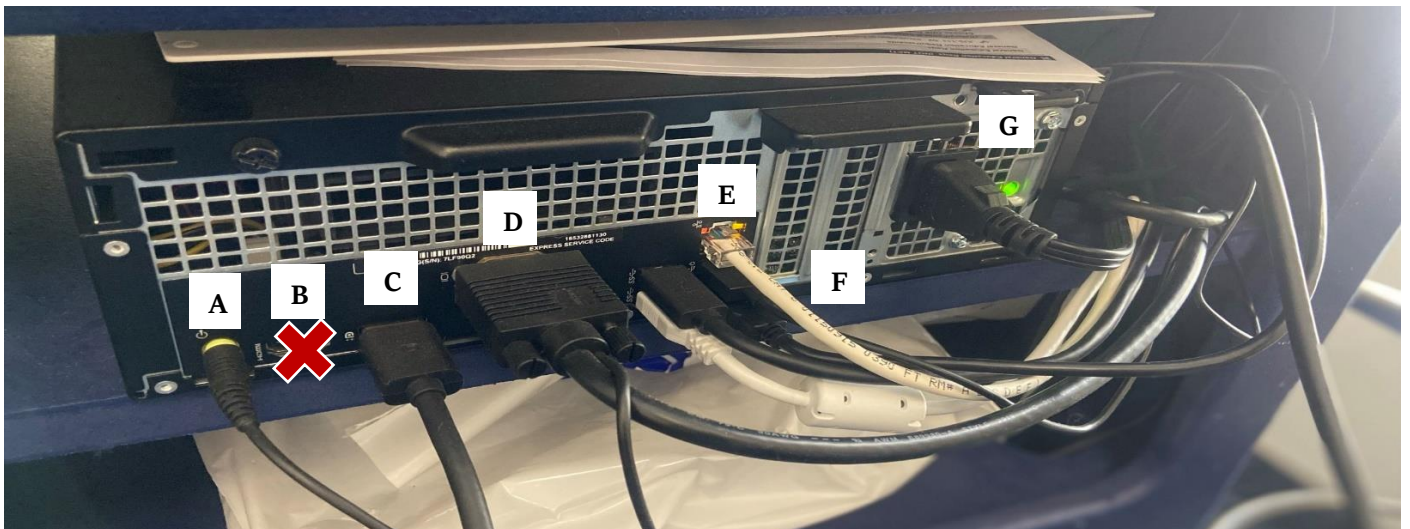
A	B	C	D	E	F	G

Windows 10 PC (with cables setup)

Audio Cable | HDMI | Display Cable | VGA-Cable | Keyboard & Mouse USBs | Ethernet (LAN) | Power Cable

A	B	C	D	E	F	G

CLASSROOM TECHNOLOGY

HOW TO GUIDE

How to Connect/Project display from/to Windows PC, HDMI, AppleTV, Screen Mirroring (PC)
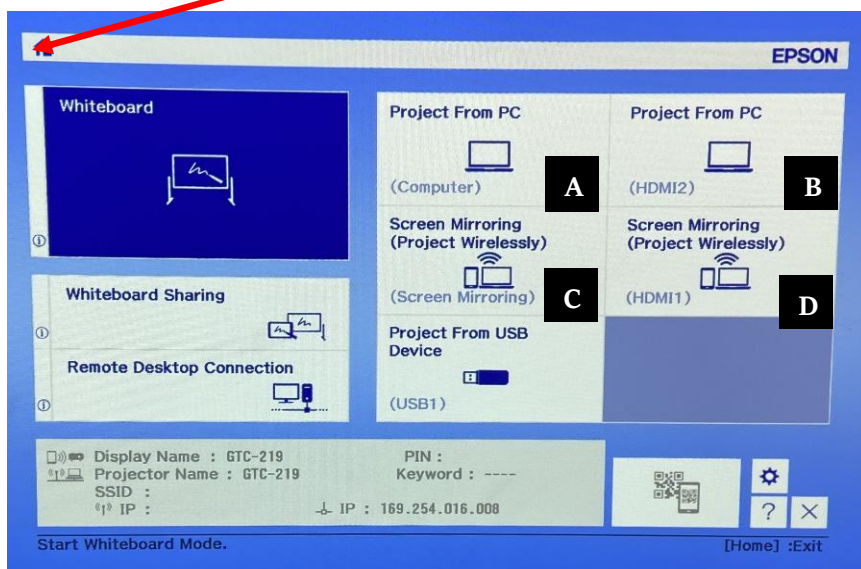
1. **Control Box**
2. **Epson Remote**

Source Search button

3. **Epson Interactive Control mode**

Click ANYWHERE on Whiteboard screen to bring up Epson Control Panel (bottom of page) --> Click the 🏠 icon
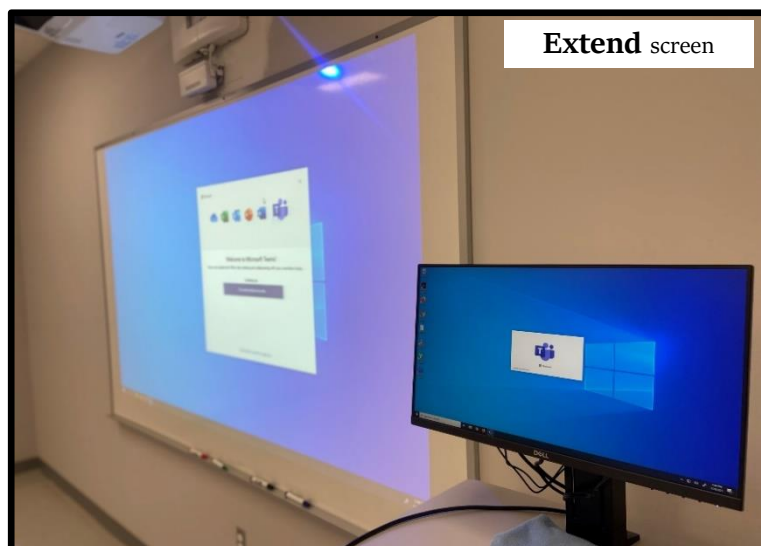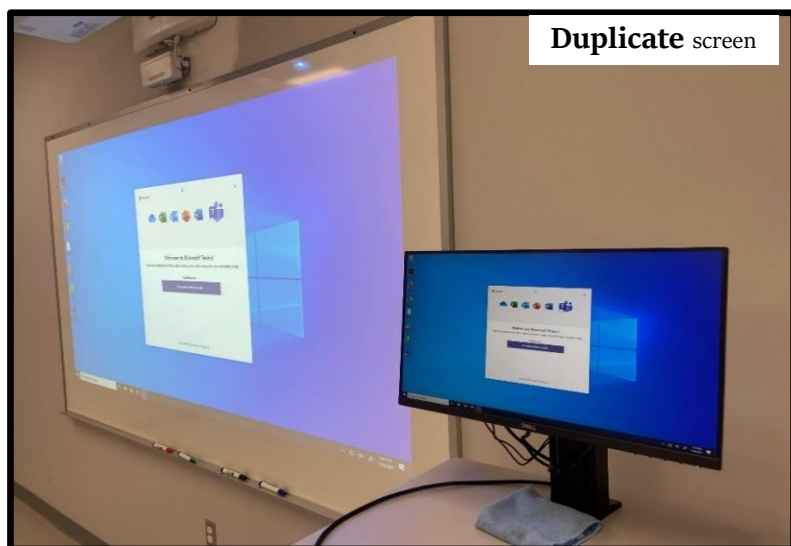

Switch Projector display to project from:

A PC Workstation

B HDMI cable (Laptop)

C Screen Mirroring (Project Wirelessly from Laptop)

D Apple TV - AirPlay

✚ How to Extend/Duplicate screen while display is projecting from "Windows PC"

1. Images below are examples of what **Duplicate & Extended** screen displays looks like…

Duplicate screen

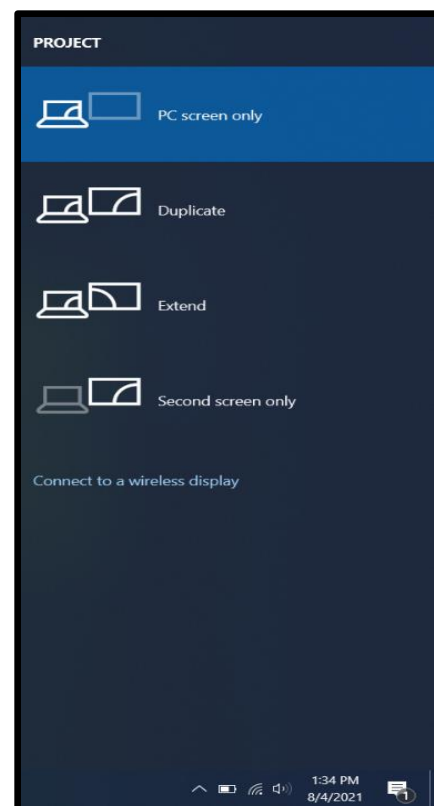Extend screen

In **Duplicate** mode,

o   Projector and PC Workstation display are *Identical*.

o   Taskbar (bottom of screen) is displayed on both displays

In **Extend** mode,

o   Projector and PC Workstation screen displays are different

o   Taskbar (bottom of screen) is only on PC Workstation display (which is the Primary Monitor (page #)

o   Also, you the option of a secondary screen for multitasking.

To **Duplicate/Extend** screen displays:

1. click on the **Desktop** screen

2. From the **Keyboard** → click **Windows Key** ⊞ + **P** (**key**) → Project pane displays…

    a.   *PC screen only* – only display on PC monitor

    b.   *Display* – both screen are identicial

    c.   *Extend* – option to have a mutiple/secondary screen display (for multi-tasking)

    d.   *Second screen only –* displays ONLY on Projector Screen

⊞ How to setup Primary and Secondary monitors in "Extended View"

1. How can you tell when the Primary and Secondary Monitor has been modified?
   - The Primary screen displays on Projector Screen, and Secondary screen displays on PC Monitor.
   - The "mouse cursor" is on "Screen 1". **Look at Image Below**
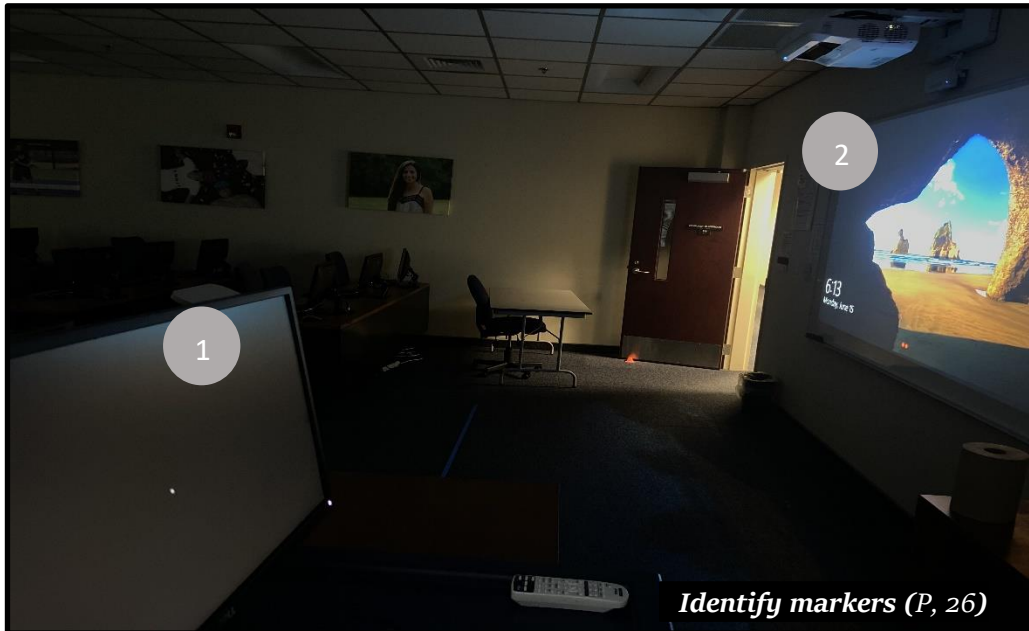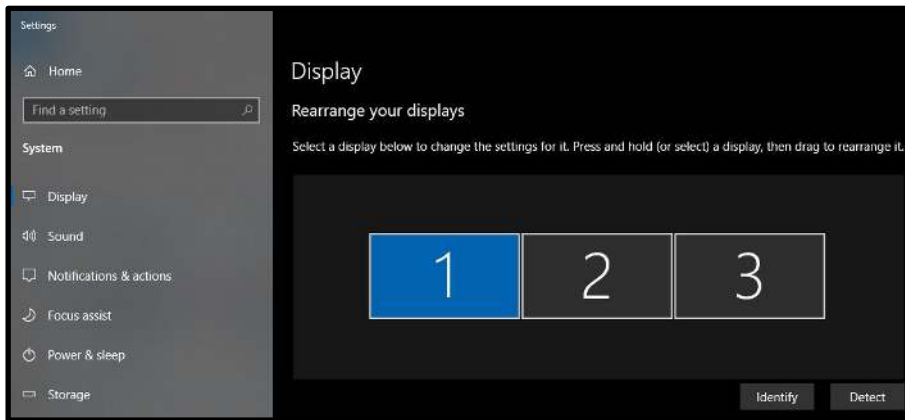

1   **Primary Monitor**

2   **Secondary Monitor**

Identify markers (P, 26)

To revert back to original settings, **follow the steps below**:

➢ Log in to PC --> right-click on Desktop screen

➢ select **Display Settings** → Display pane window appears **(Image below)**

Display Settings

➢ Click **Identify** to see what monitor is primary/secondary in its current state

➢ Select **1** to highlight primary monitor

➢ Scroll down to **Multiple Displays** section

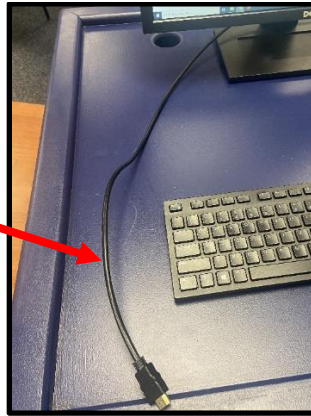➢ Check the box ⬛ to **CONFRIM** primary display
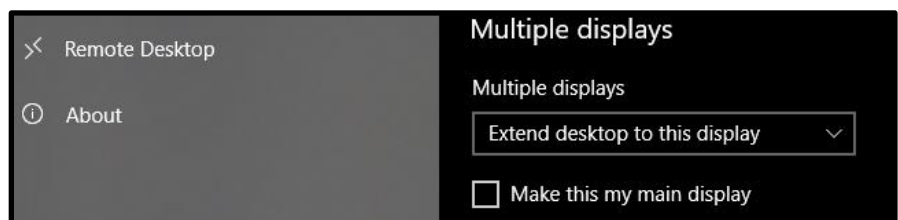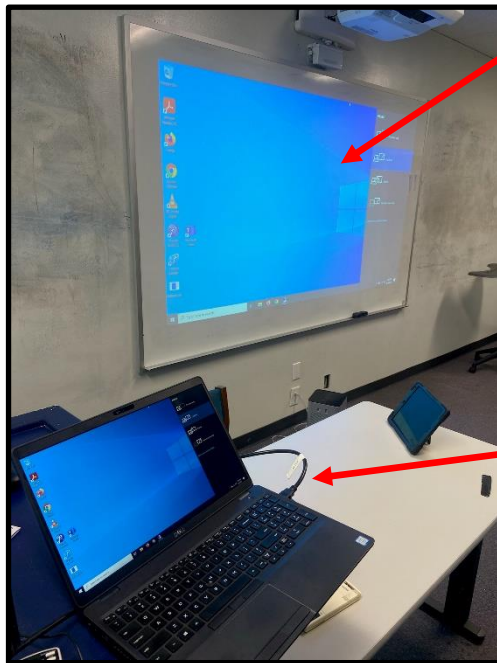

Multiple Displays section

⚜ How to connect Windows Laptop device using HDMI cable

1. Each classroom is equipped with a HDMI cable (on PC Workstation) for Laptops

HDMI cable

⚜ Connect **HDMI cable** to Laptop --> Then, switch Projector display to **Project from PC (HDMI-2)** (page # 8)

HDMI cable connected to laptop

⚜ Once a connection is established, both displays (from Projector and Laptop) will set to "**Duplicate**" (the image above)

⚜ "Sound" or "Audio" will be switched automatically to classroom speakers. If there is **NO SOUND**, please refer to the

Troubleshooting Guide (page #19)

How to project from Windows Laptop using "Screen Mirroring – Project Wirelessly" feature

1. Turn ON Epson Projector from the **Remote Control** or **Projector Control Box**
2. Click on Desktop screen -> On the **Keyboard**, click **Windows Key** + **P** (**key**) -> Project pane appears.
3. Click on **"Connect to a wireless display" -->** select **Classroom #** (ex – PCB-276). **Look at images below**
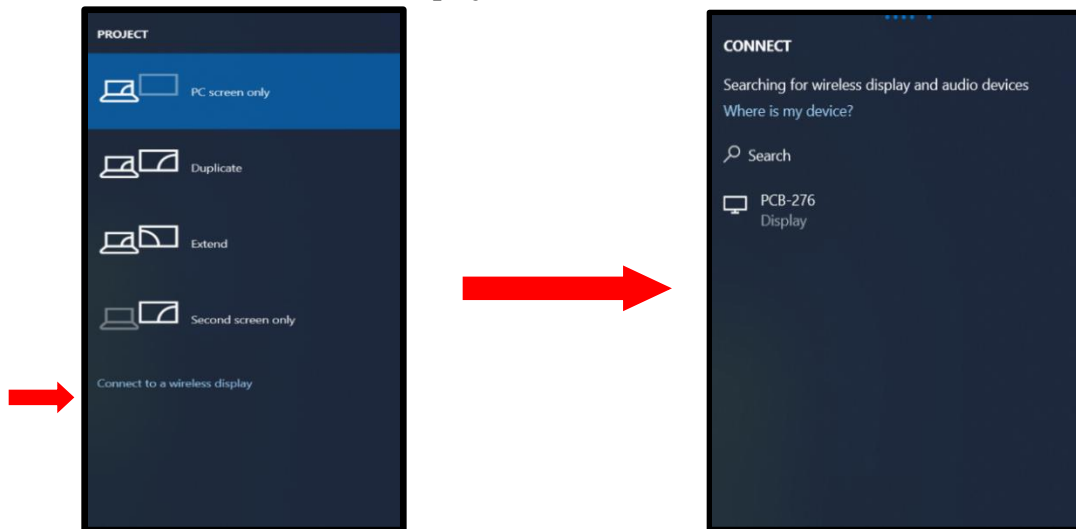
Once a connection is established, switch the Projector display to **Screen Mirroring - Project Wirelessly (page #)**

- Both displays (from Projector and Laptop) will set to "**Duplicate**" (the image above)

- Check the box to "**Allow mouse, keyboard, touch and pen input from this device**". **Look at image below**
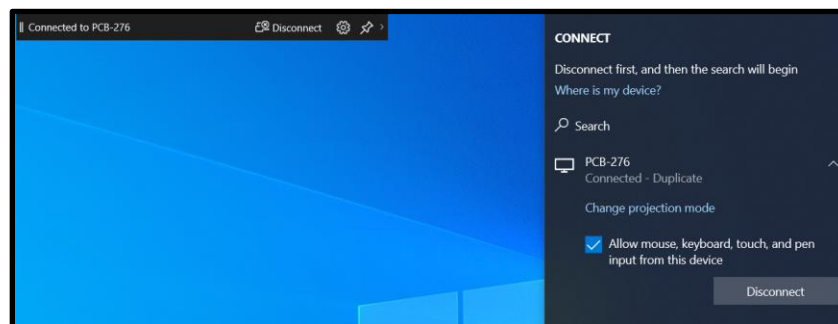
The image below shows the **Screen Mirroring - Project Wirelessly (page #12)** feature once a connection has been established:

✚ How to project from mobile device using the "AppleTV – AirPlay" feature

1. Switch Projector display to **Screen Mirroring (Project Wirelessly-HDMI 1**) (page #12).
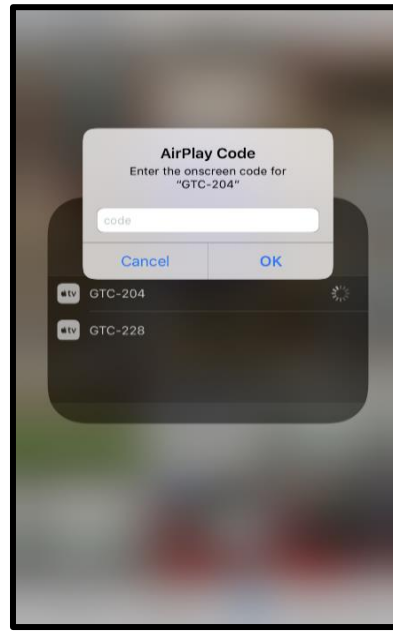2. **Follow the steps below:**
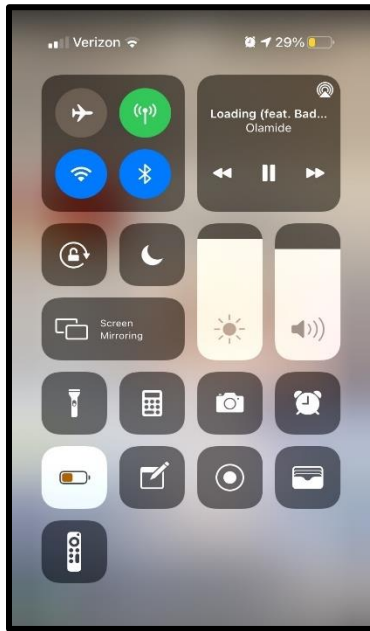
1.

- On the Apple device, Navigate to the **Control Center**
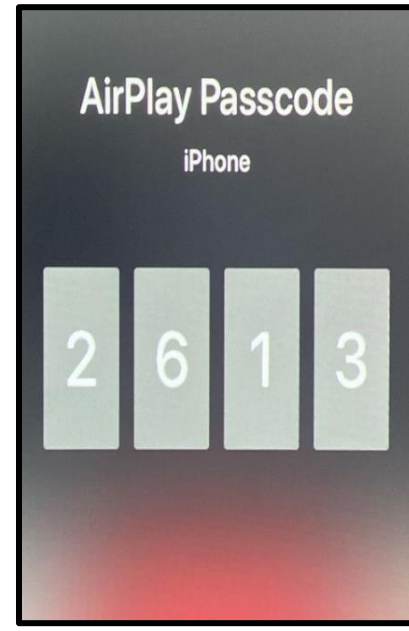
- Click on **Screen Mirroring**
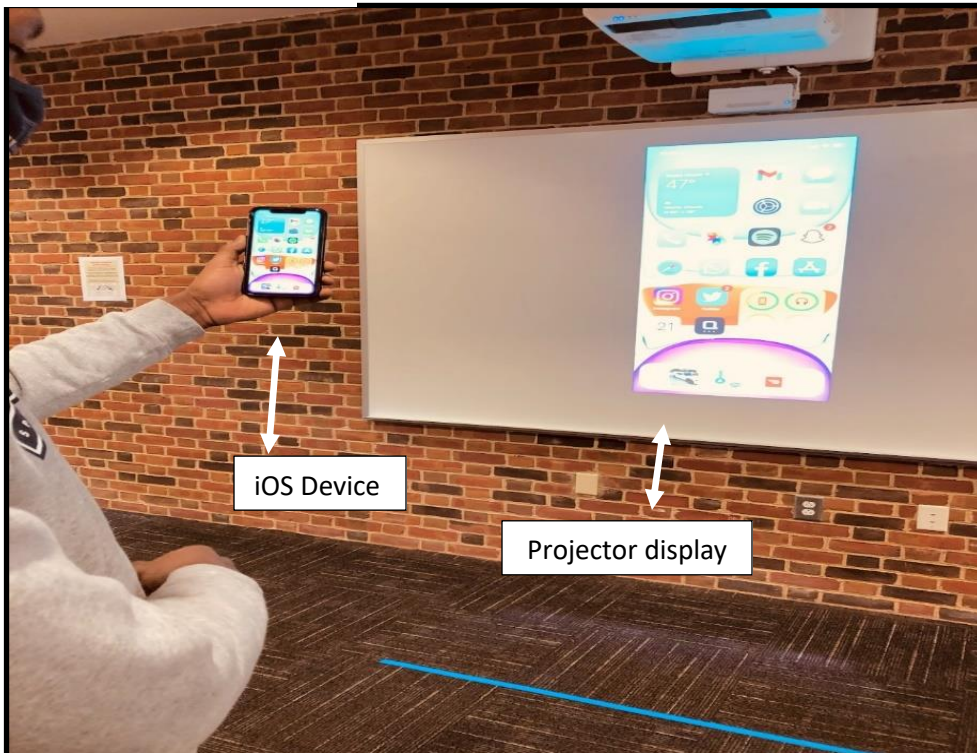

2.

- select **Classroom #** to initiate connection

3.

- You will be prompted for a **4-digit code**

- Code is displayed on Projector Screen

4.

- Enter **Passcode** to establish connection


iOS Device

Projector display

5.

- After code is entered, both displays should look like this…

- Both screens will be displayed and set to **Duplicate**

- **Sound** is automatically setup to use classroom speakers

# ✚ How to use/open up Whiteboard and its Functionality

Whiteboard Pen

➢ Drag **PEN** or **your finger** as directed by **RED ARROWS** to access whiteboard functions.

➢ An **Accessibility Panel** is available at the bottom of screen

| 1	2	3	4	5	6	7	8	9	10	11
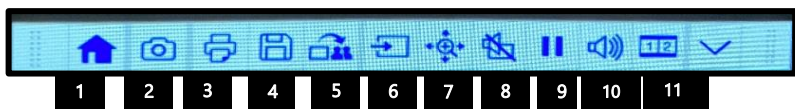
1. **Home (P, 24)** – this is the inbuilt control interface for the projector
2. **Screen Capture** – takes a picture of the current screen session
3. **Print** – allows you to print a document on projector screen
4. **SAVE** – allows you to save a document or session
5. **N/A**
6. **Source** – allows you to switch displays
7. **Magnifier** – allows you to magnify screen view
8. **Turn OFF Display** – temporary turns off screen display
9. **PAUSE** – freezes the projector screen display
10. **Volume Control** – allows you to modify volume (UP/DOWN)
11. **Split screen** - allows you to host two sessions on one screen

A. **Pen Tools** pane (**P, 20**)
B. **PC Interactive** Mode
   ➢ You can control PC workstation from the Projector Screen.
C. **Pen Annotation Mode**
D. Slider icon for Whiteboard screen
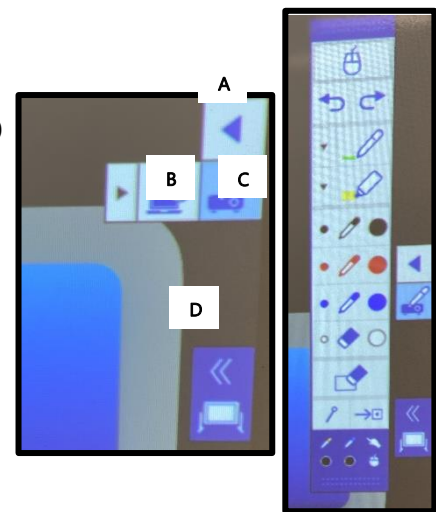
Whiteboard Mode
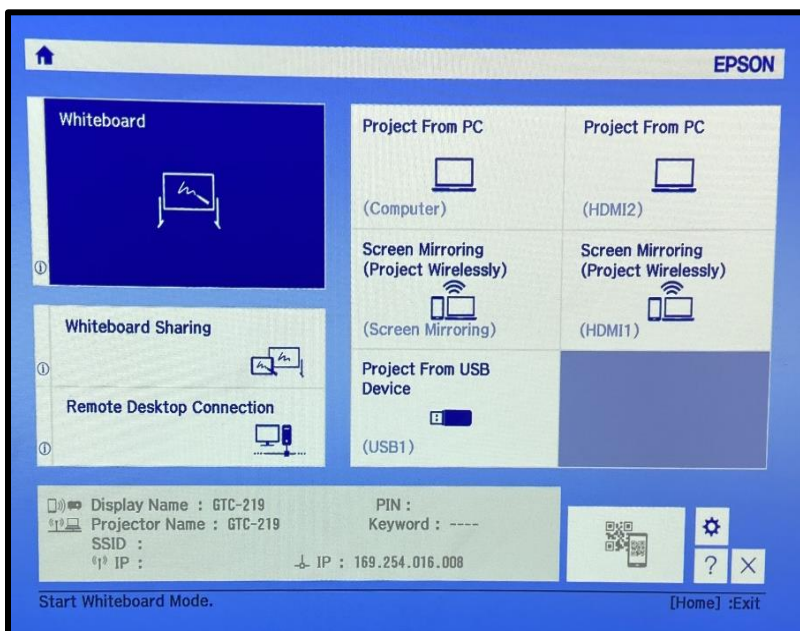
Virtual classroom environment utilizing the Yealink room conferencing camera/microphone with Microsoft Teams.

1. Log into the instructor workstation PC in the front of the classroom with you NCWC username and password. This may take a few minutes if you have never logged into the PC before.

You should only need to do the following steps upon your first login to each PC. Subsequent logins on the same PC should auto launch Teams and retain your settings.

2. Click or double click on the Teams icon on the desktop. It should already be installed on every workstation. If you do not see the icon the Teams auto installer may still be running in the background; this could take up to a minute or slightly longer if it is your first login to this PC. (If it takes longer than a few minutes, see the troubleshooting notes at the end of this document. Step by step images are also located at the end of the document.)

3. After clicking on the icon a window should appear Welcoming you to Microsoft Teams. Your user information should be pre-populated to continue to login. Click on the button with your username.

4. The next window will appear asking for which type of account you are singing in from. On NCWC assets using your NCWC account, you will select Work or School account created by your IT department.

5. The next window will have a NCWC logo and prompt you to Enter password. Enter your NCWC password and click Sign in.

6. On the next window click OK to stay signed in to all of your apps.

7. Click done on the next screen and You're all set.

8. If you get a Windows Defender Security pop-up window you can click Cancel as it will not affect the functionality of Teams.

9. Now that you are logged in to Teams you can begin a call with an individual or entire Teams that you have set up. You may need to adjust the device setting if it is your first time using this PC for Teams.

10. The easiest way to change the device settings and make a test call to ensure your settings are correct is to Click on the Calls icon in the left-hand column.

11. At the bottom of the screen, under the dial pad, you will see Yealink UVC84 Audio listed as an Audio Device. Click on this and then Device settings in the pop-up.

12. The Settings window will open so that you may adjust the settings for the Yealink UVC84 Audio.

13. The only setting that needs to be changed is the Speaker. Click on the Speaker dropdown arrow and change the speaker **from** Echo Cancelling Speaker Phone (Yealink UVC84 Audio) **to** Speakers / Headphones (Realtek Audio).

14. You should now see that you have a Custom Setup with the following settings:

    - Speaker: Speakers / Headphones (Realtek Audio)

    - Microphone: Echo Cancelling Speakerphone (Yealink UVC84 Audio)

    - Camera: Yealink UVC84 Camera

If you scroll down in the settings window you will see the camera setting and a preview of the room.

15. At this point, while still in the Settings menu, you can click on the Make a test call button to test the setup of the room audio and video capabilities.

16. The Teams Echo attendant call window will open for you to preview the audio and video as if you were in a real call.

17. You may now call any of your contacts or teams and the settings will carry over to each session. Use the camera icon to make video calls or the phone icon if you only require audio. The recipient(s) on the other end will have the same options based on their system configurations.
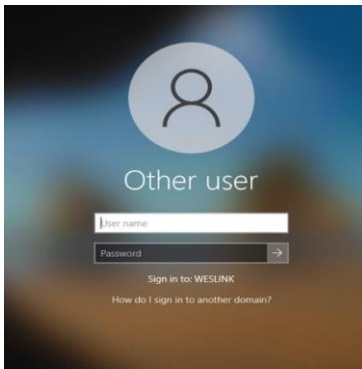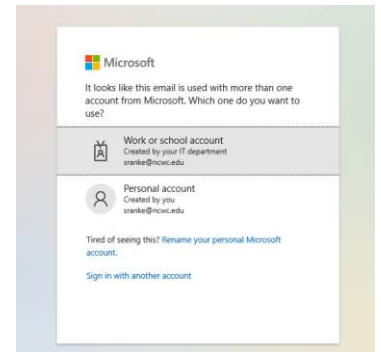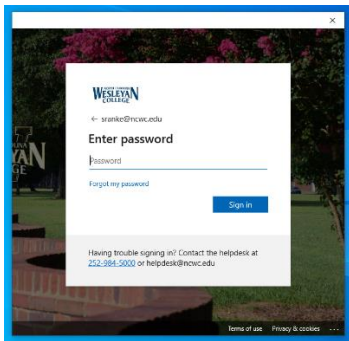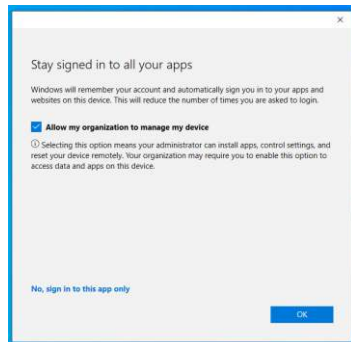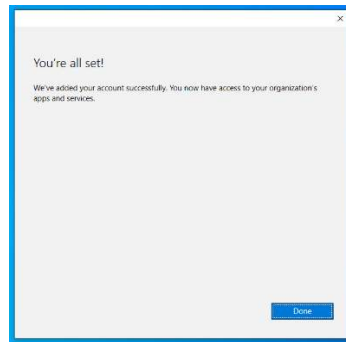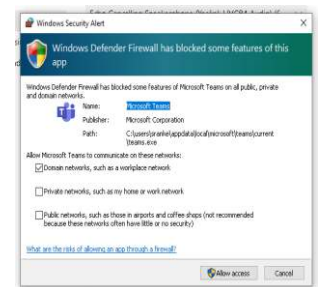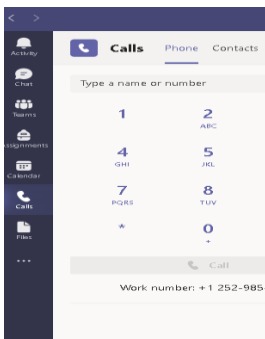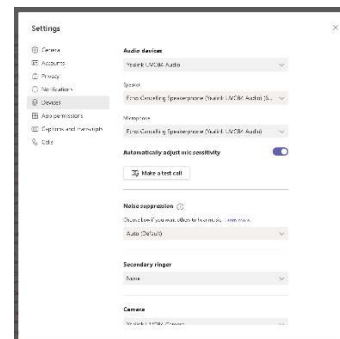

Step 1.

Step 2.
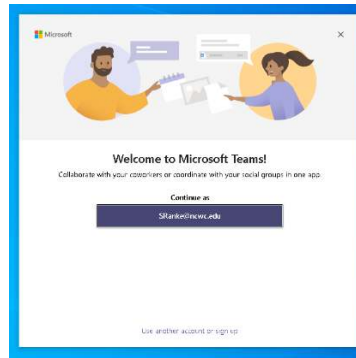
Step 3.

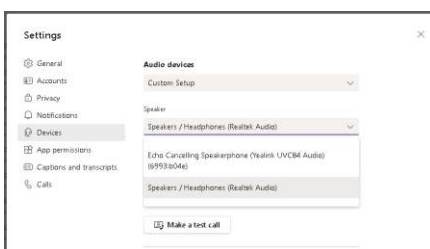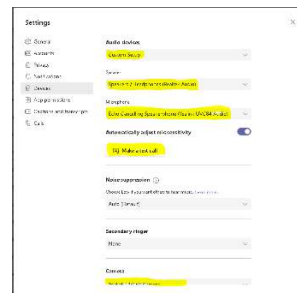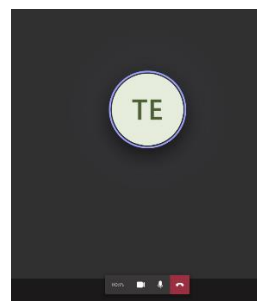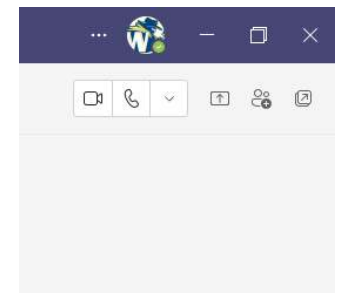Step 4.

Step 5.

Step 6.

Step 7.

Step 8.

Step 10.
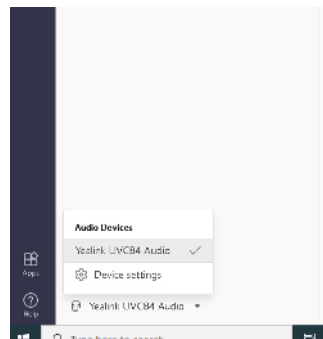
Step 11.

Step 12.

Step 13.


Step 14 & 15.

Step 16.

Step 17.

Troubleshooting Notes: If Teams does not automatically open and there is no icon on the desktop, you may search for Teams in the Programs or Start menu. Click the Windows key or Start icon in the lower left corner of the screen on the taskbar. You can scroll through the programs or type Teams in the search bar

In the event that you cannot find Teams or it is not installed on the PC you can open a browser and go to https://www.microsoft.com/en-us/microsoft-teams/download-app and Download for desktop. This is a quick download and you do not need administrative rights to install this program.

If you have any questions or need further information or would like to schedule a brief training session, email helpdesk@ncwc.edu or call the Information Systems helpdesk at (252) 984-5000.
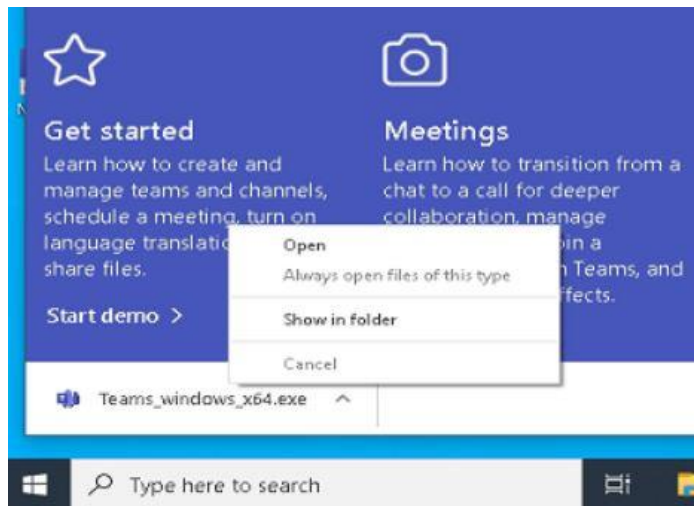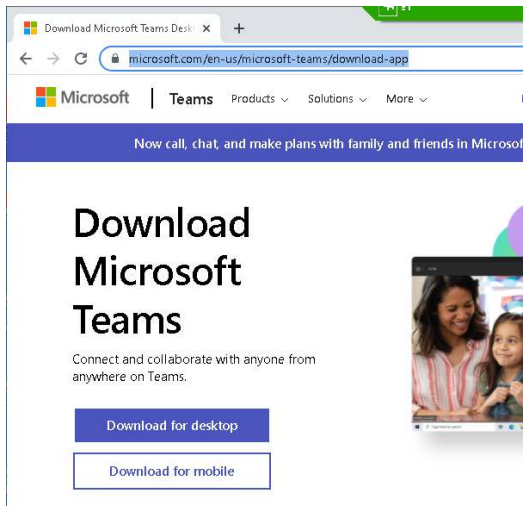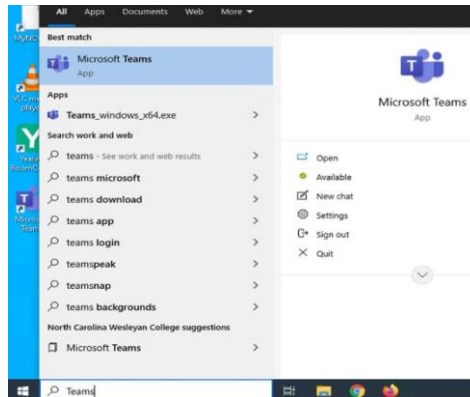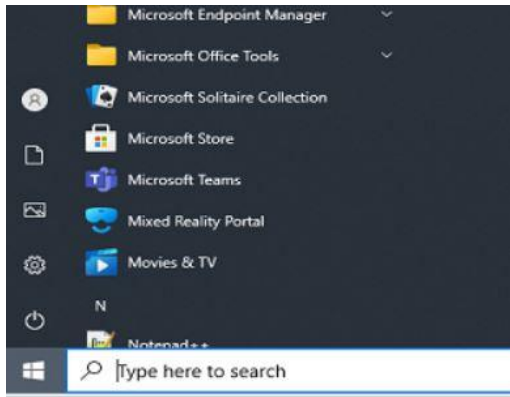
CLASSROOM TECHNOLOGY

TROUBLESHOOTING GUIDE

⬥ NO SOUND issue in classroom

➢ **SOUND** is a common issue in classrooms, especially from the PC Workstation.
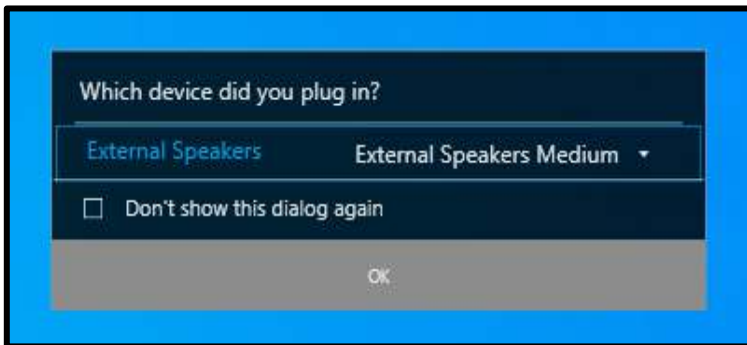
➢ **Follow the steps below:**

Sound "AUX" cable

➢ Cable should be plugged into "AUDIO" port

➢ Unplug and Reconnect sound cable, **IF** necessary

Sound "AUX" cable

➢ Cable should be plugged into "AUDIO" port

➢ Unplug and Reconnect sound cable, **IF** necessary

➢ After reconnecting cable, a *Sound Dialog box* will pop-up on PC display (look at image below)

➢ click **OK**

➢ Test the sound output to make sure it's working

➢ **DO NOT** setup or choose a different speaker configuration

+ NO SOUND issue when using HDMI cable

Complete all steps on the previous page. If NO SOUND issue occurs, follow the steps below:

➢ After connecting HDMI cable to laptop, click on 🔊 icon to select **playback device** for audio output (bottom-right of taskbar)
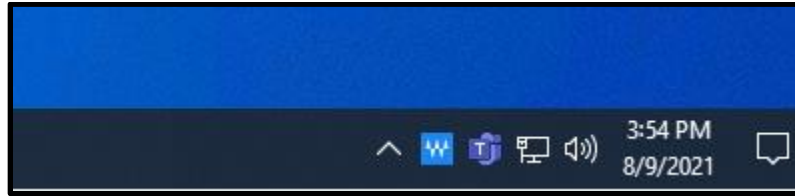

➢ select **EPSON PJ (2-Intel® Display Audio**) as the default settings for audio output
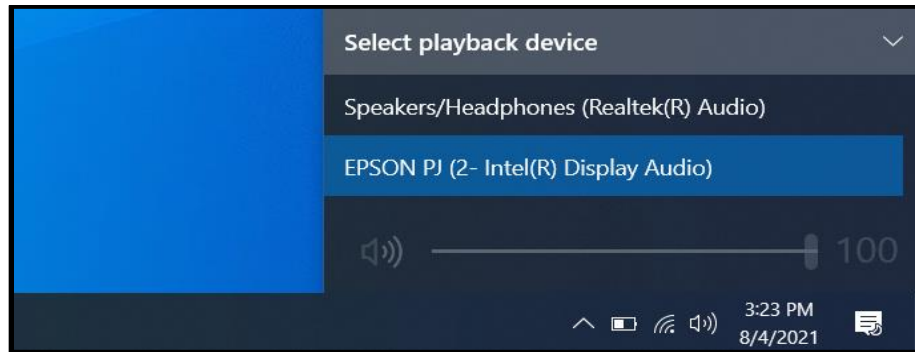
+ NO SOUND issue when using Screen Mirroring (Project Wirelessly from Laptop) feature

➢ After establishing a connection to Project Wirelessly from laptop, click on 🔊 icon to select default **playback device** for audio output (bottom-right of taskbar)

➢ select **Digital Output ()** as the default settings for audio output
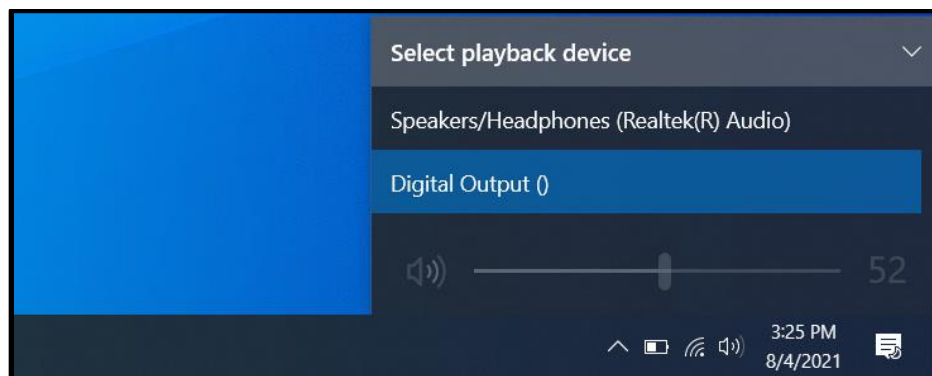
+ Test SOUND OUTPUT to make sure it is working properly.

♣ No Display from PC Monitor

➢ NO DISPLAY issues can occur on the PC Monitor. If no signal is detected, you will see one of these messages. <u>Look at images below:</u>
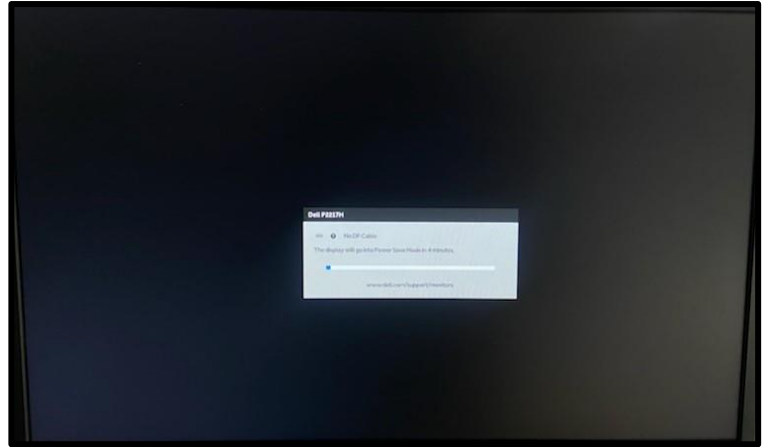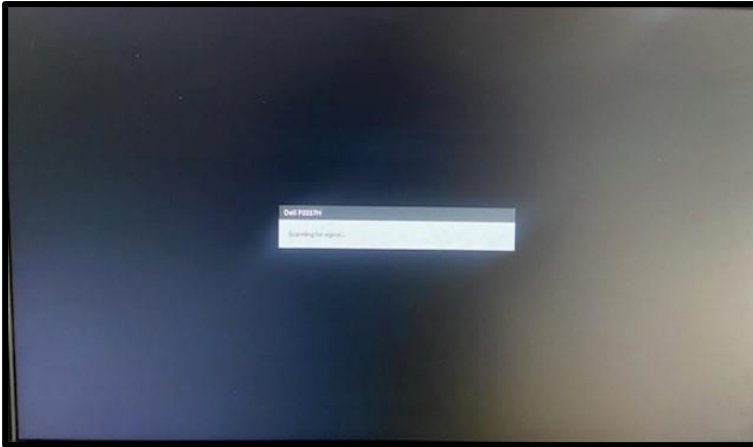
♣ Follow these steps below to troubleshoot this issue

    ➢ First, confirm that Windows 10 Box is powered ON

    ➢ Unplug and reconnect the **Display cable** back into the Display Port (page #6)

Power cable

Power LED light
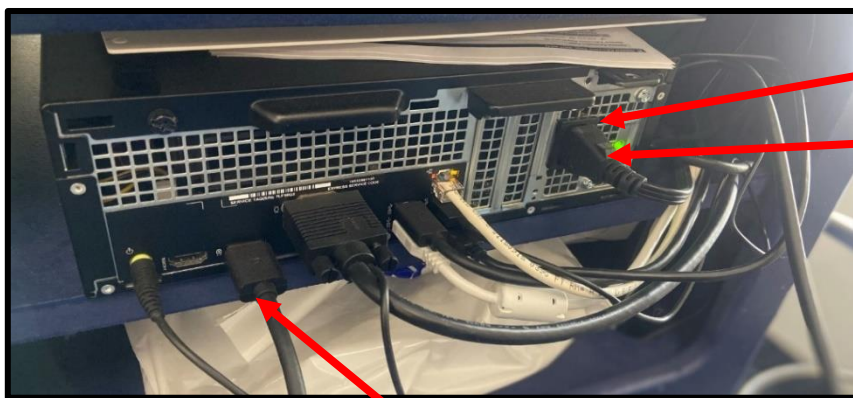
Display cable connected to PC Monitor

➢ Unplug the Display cable and reconnect cable back into the port (as displayed in image)

Display cable connected to PC Monitor

# ✚ NO DISPLAY issue on Projector Screen display?

- ➢ **No Display** is also another COMMON ISSUE that occurs in classrooms.
- ➢ This can occur on a **PC Monitor** or **Projector Screen**

VGA cable

- ➢ Make sure **VGA cable** is plugged into wall port
- ➢ Unplug & reconnect cable back into port, **IF** necessary

VGA cable

- ➢ Make sure **VGA cable** is plugged into wall port

- ➢ Unplug & reconnect cable back into port,

  IF necessary
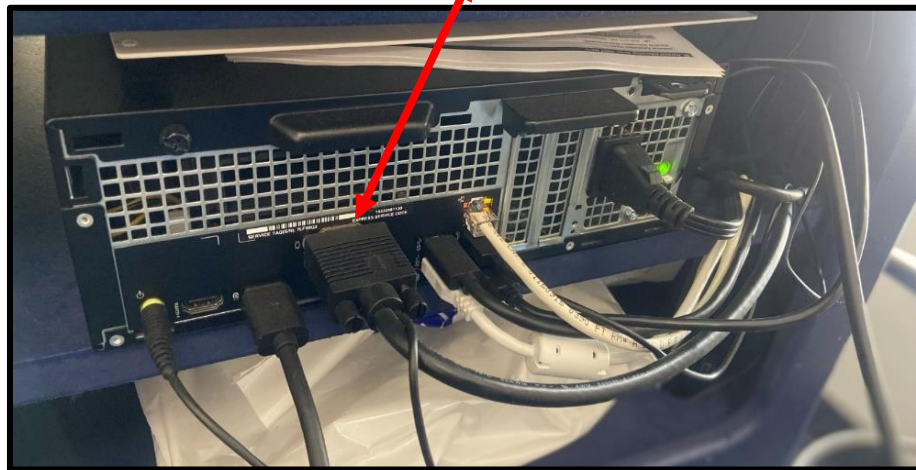
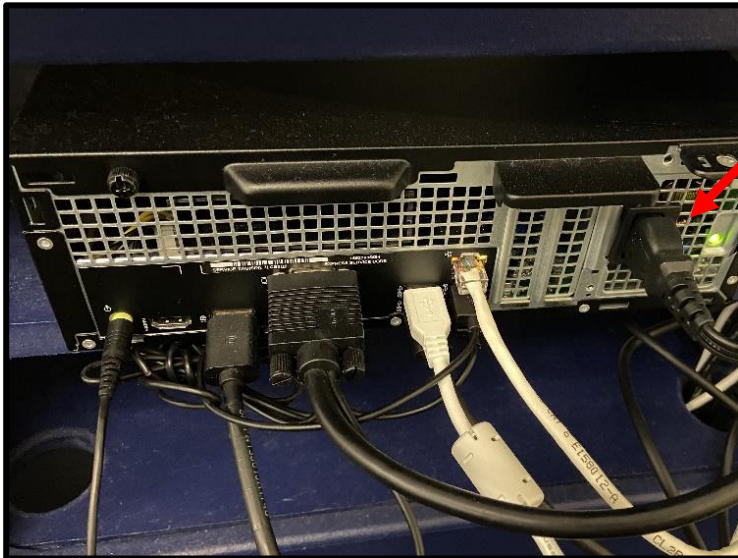**Display cable (connected to PC Monitor)**

✦ Windows Desktop **not Powering ON** / Has **NO POWER** issue?
✦

➢ **No POWER** is a common issue in Classroom PCs. **Follow the steps below to fix this issue**:

➢ Make sure **Surge Protector** is plugged into the Wall Outlet

Surge Protector

Power cable

➢ Remove **Power cable** from back of PC

➢ Wait for 6-10 seconds

➢ Reconnect Power cable to power up PC

Power button

➢ Hold down **Power** button for about **6-10 seconds** to release flee power (FAN noise shuts off)

➢ Reconnect **Power cable** --> Press the **Power** button to boot-up PC.

Front of *PC*