Hybrid Teaching - Using the Technology at Warwick

2021 AV Training - Hybrid Teaching

Wednesday 22nd September

"Hybrid teaching refers to a scenario where teaching takes place at the same time for students who are physically present in the classroom and for students who join the classroom remotely via a web platform such as MS Teams."

But wait … should **you** hybrid teach?

- The first question...
- Are you confident with the basics of AV in rooms (attended the AV Basics Course)
- Have you thought about your learning design (attended the Design for Hybrid Teaching Workshops)
- Have you seen:
  - https://go.warwick.ac.uk/academictechnology/extendedclassroom/hybridandonline/hybridteaching/
  - https://warwick.ac.uk/coronavirus/intranet/continuity/teaching/teaching2020-21/deliverymodels/

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What hybrid technologies … are not.

- No giant walls of screens showing your audience
- No automatic focusing on audience members speaking or with questions
- In-room and remote audiences can’t seamlessly interact without significant input
- Easy to use on your own...

Hybrid technologies at Warwick ...

.. . are essentially audio and video conferencing for rooms that let you be heard and seen by the remote audience.

- Without interactivity this would 'dual mode' teaching.
- Hybrid technology is HOW YOU USE IT.

Affordances of hybrid technologies

- Deliver teaching simultaneously to a local and remote audience
- Bring in remote external speakers and experts
- Promote audience interactivity between in-room and remote audiences using chat, audio and other technologies
- Share screens to demonstrate software or use document visualisers
- Recording Content

Levels of teaching technologies to support hybrid teaching

- MS Teams with audio of lecturer
  MS Teams Microphone

- MS Teams with audio and video of lecturer
  MS Teams Video Camera

- MS Teams with audio and video of lecturer and audience
  MS Teams Enhanced AV

- Live streaming using Echo360

https://go.warwick.ac.uk/academictechnology/extendedclassroom/hybridandonline/hybridteaching/

Why MS Teams?

- Most people are familiar with Teams and teams meetings after the last 18 months
- We have a site licence
- Accessible on almost any device
- Live and interactive, students can engage and ask questions
- Chat, shared documents, polling
- Can be linked to Moodle courses and groups

https://warwick.ac.uk/services/its/365collaborate/microsoftteams/teaching/

MS Teams with audio of lecturer

- *MS Teams Wireless Microphone*
- *Teams - Audio Only*

- **Audio only** using the existing room microphone systems

- Share visual content through:
  - Screen Sharing
  - Document Camera/Visualiser
  - Software solutions Miro, Padlet etc.
- Presenters act as a relay between online and physical spaces.

https://go.warwick.ac.uk/av/hybridteaching/teamswirelessmic

MS Teams with video of lecturer

- *MS Teams Video Camera*
- *Teams – Tutor Camera*

- **Audio & Video** using the existing in-room microphone & camera systems

Share visual content through:

- **Room camera**
- Screen Sharing
- Document camera / Visualiser
- Software solutions Miro, Padlet etc.

https://go.warwick.ac.uk/av/hybridteaching/teamsvideocamera

MS Teams with audio and video of lecturer and audience

- *MS Teams Enhanced AV*
- *Teams – Tutor/Room Camera & Audio*

- **Audio & Video with additional microphone & camera options**
- Tutor and in-room participants can be seen and heard

Share visual content through:

- **Room camera**
- **'Picture in Picture' viewing option**
- Screen Sharing
- Document camera / Visualiser
- Software solutions Miro, Padlet etc.

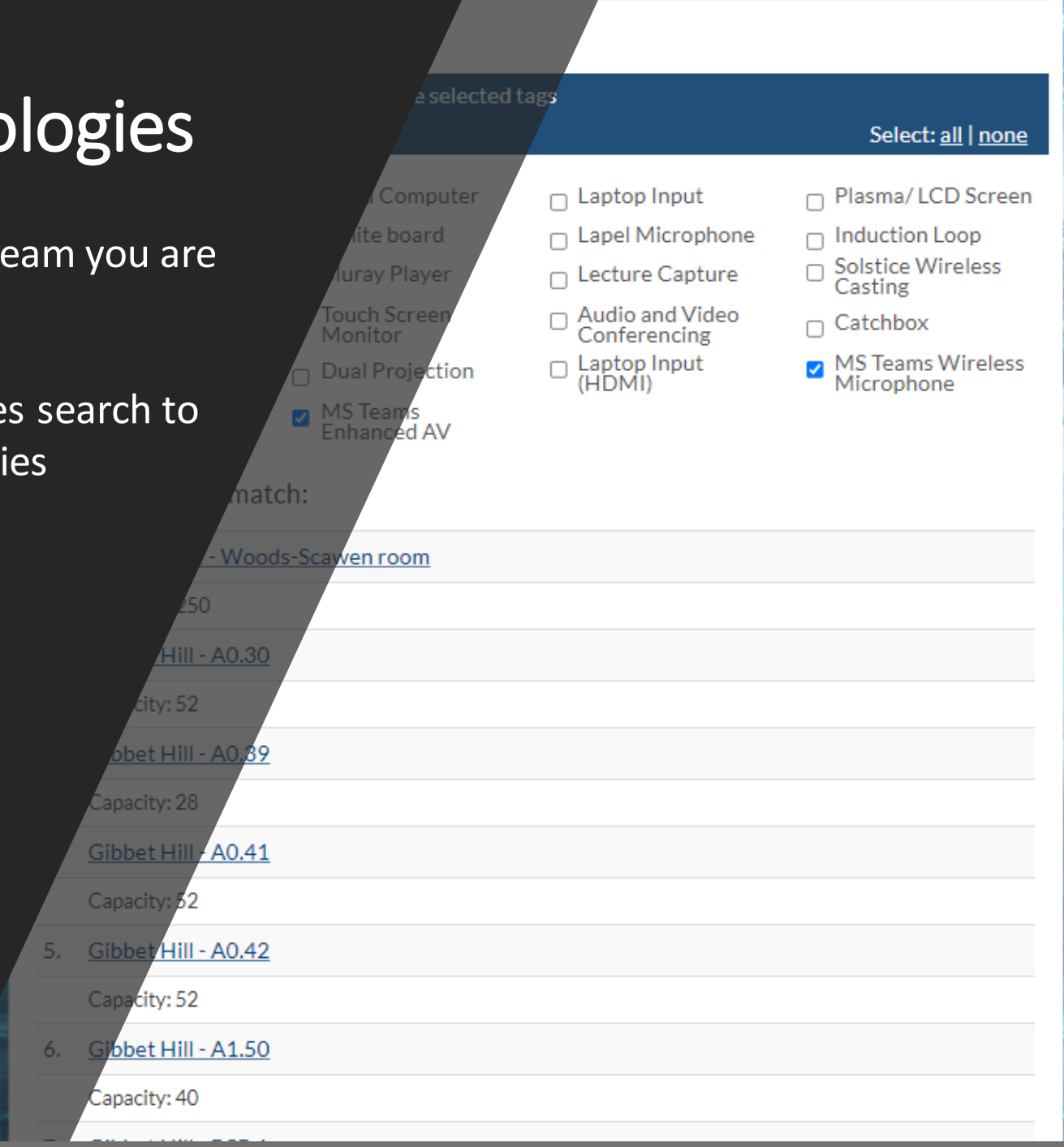
https://go.warwick.ac.uk/av/hybridteaching/msteamsenhancedav

How to access these technologies

The terminology will change depending on the team you are contacting.

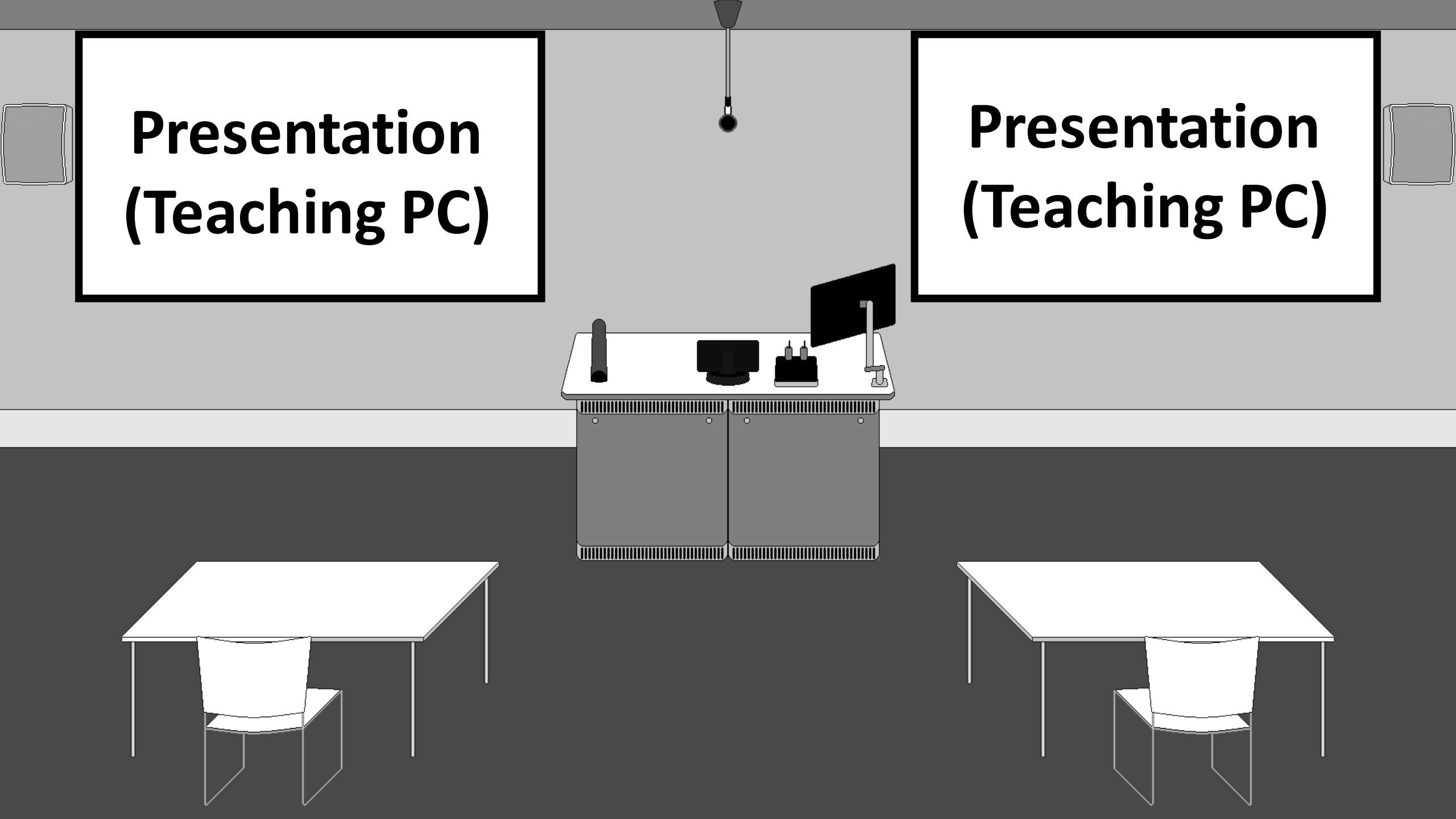
- Use the AV Room information page & facilities search to find locations of rooms and their other facilities
  - MS Teams Wireless Microphone
  - MS Teams Video Camera
  - MS Teams Enhanced AV
  - Lecture capture camera
  - Lecture capture

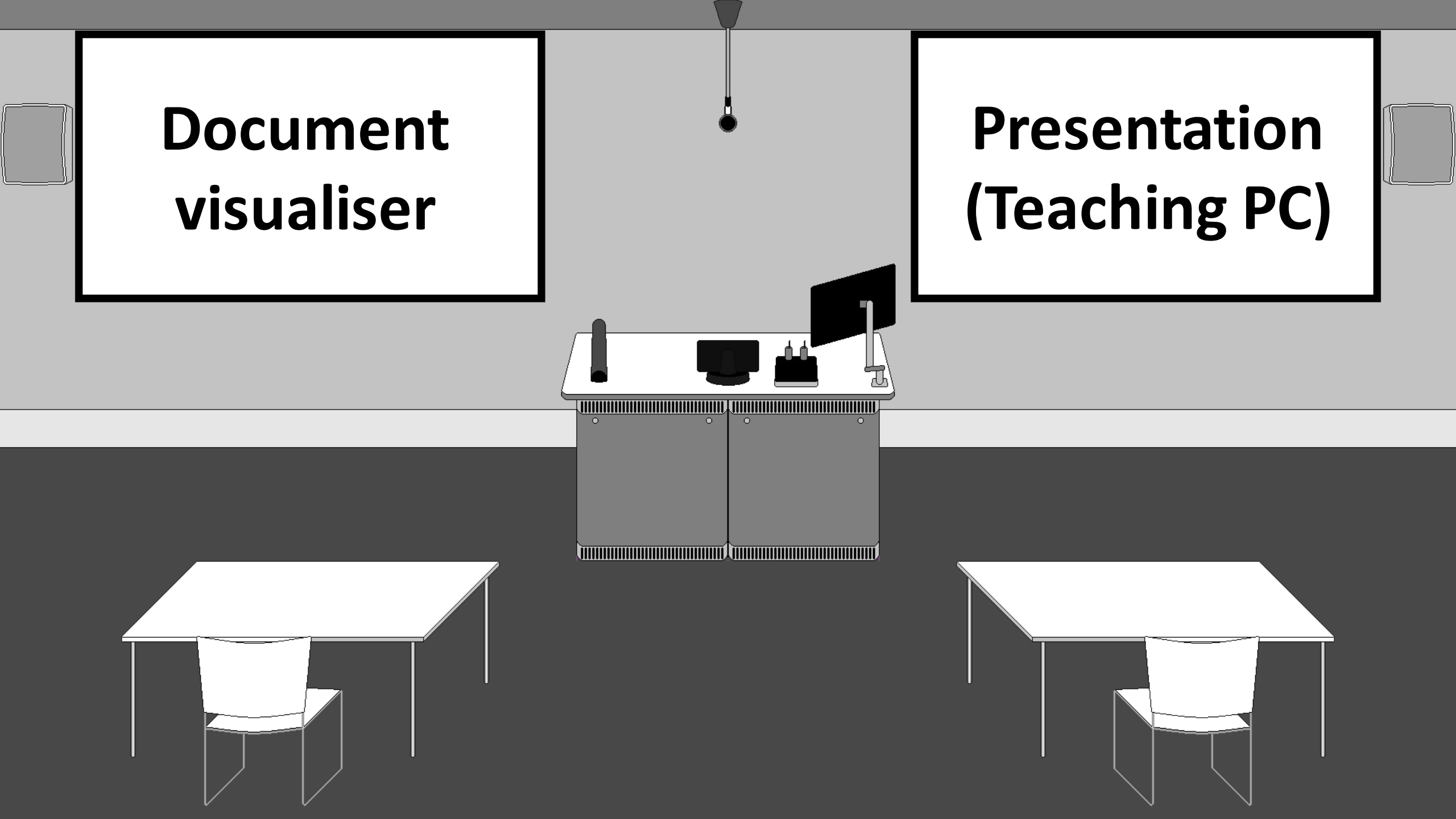
- Request the technology via Room Bookings
  - Teams - Audio Only
  - Teams - Tutor Camera
  - Teams - Tutor/Room Camera
  - Lecture capture camera

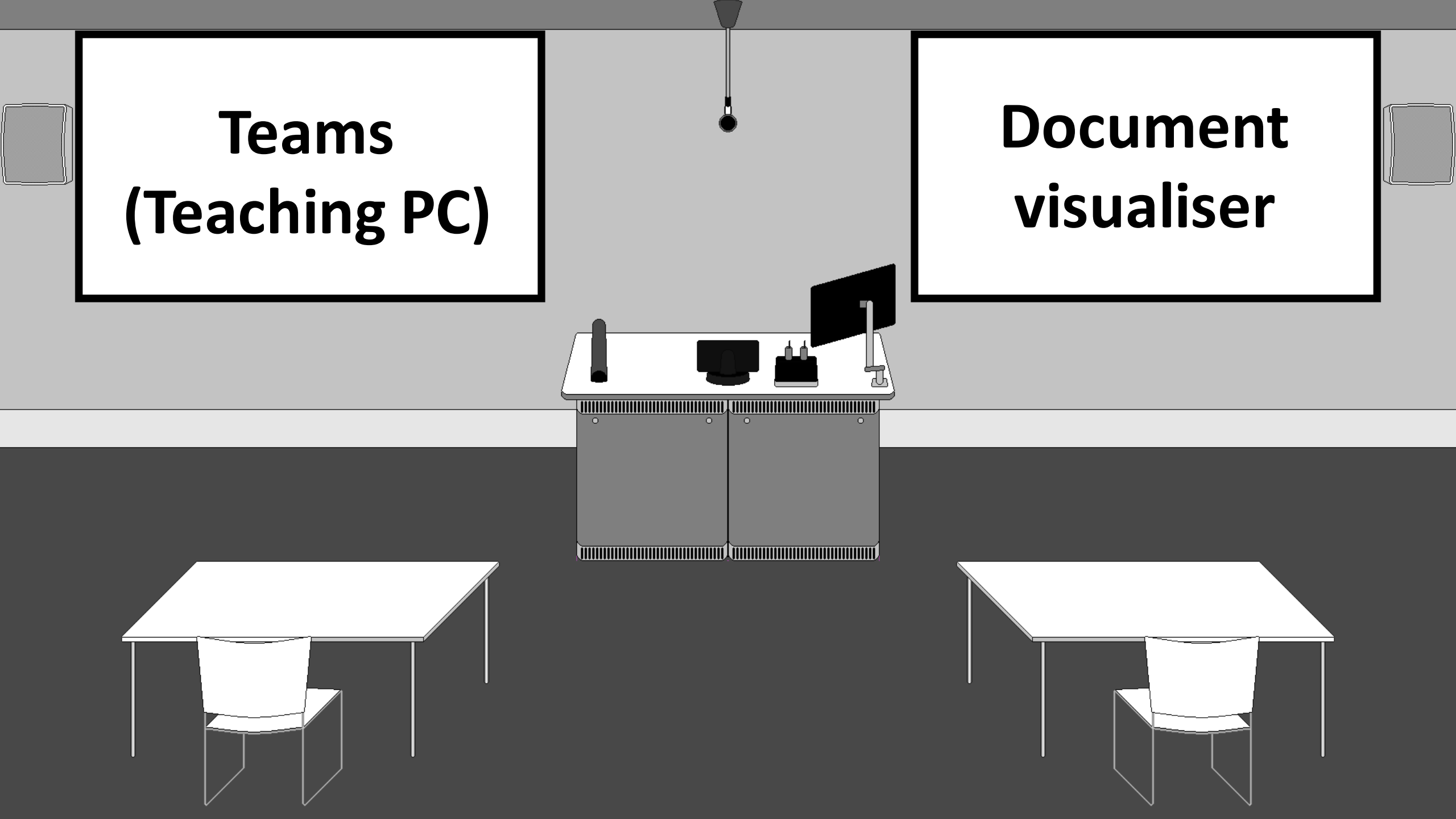


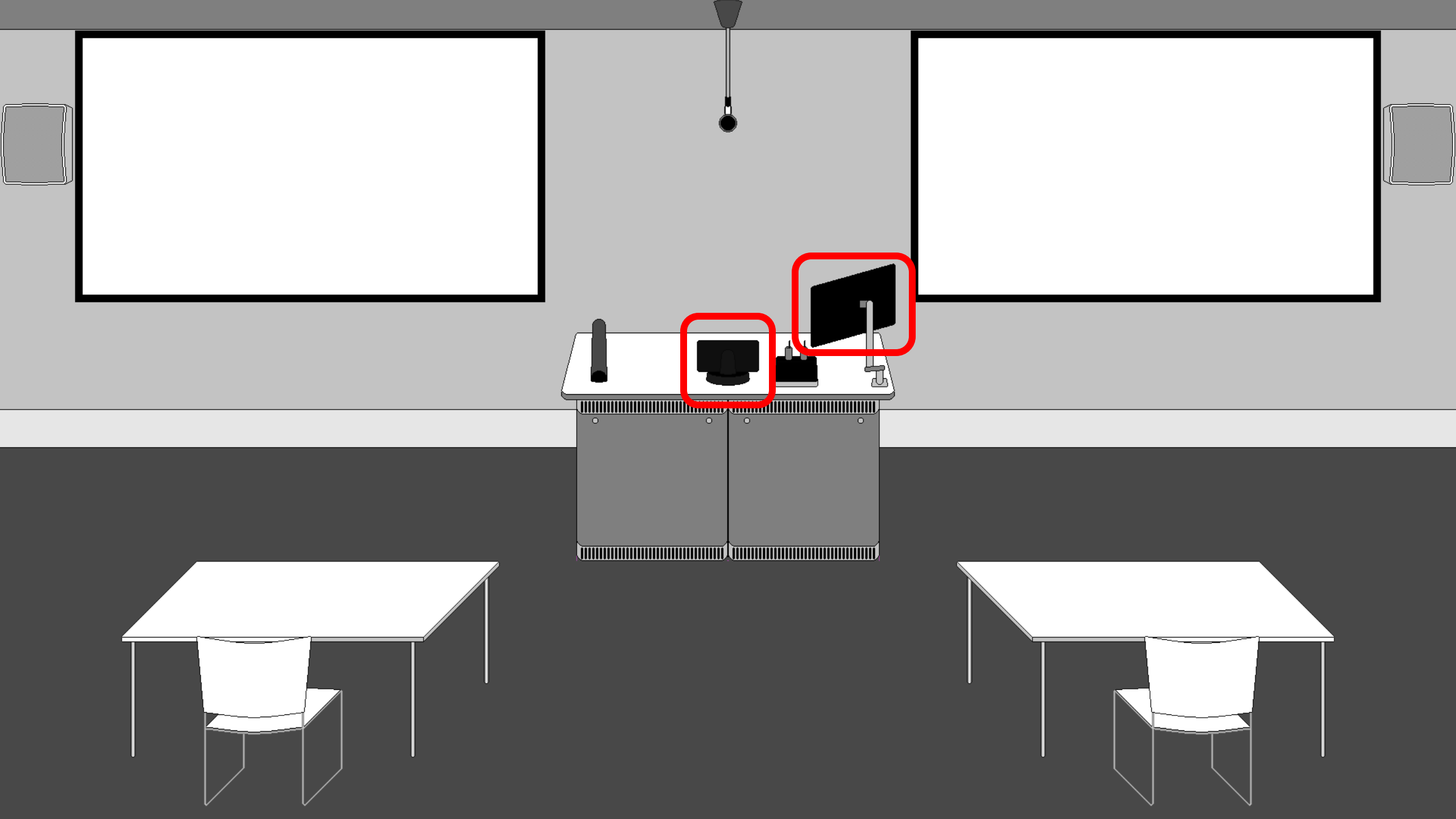
Centrally Timetabled Room Information (https://warwick.ac.uk/services/its/servicessupport/av/lectureroomsr/roominformation/)

What does teaching look like in a hybrid room


Presentation
(Teaching PC)
Presentation
(Teaching PC)


Document visualiser
Presentation (Teaching PC)

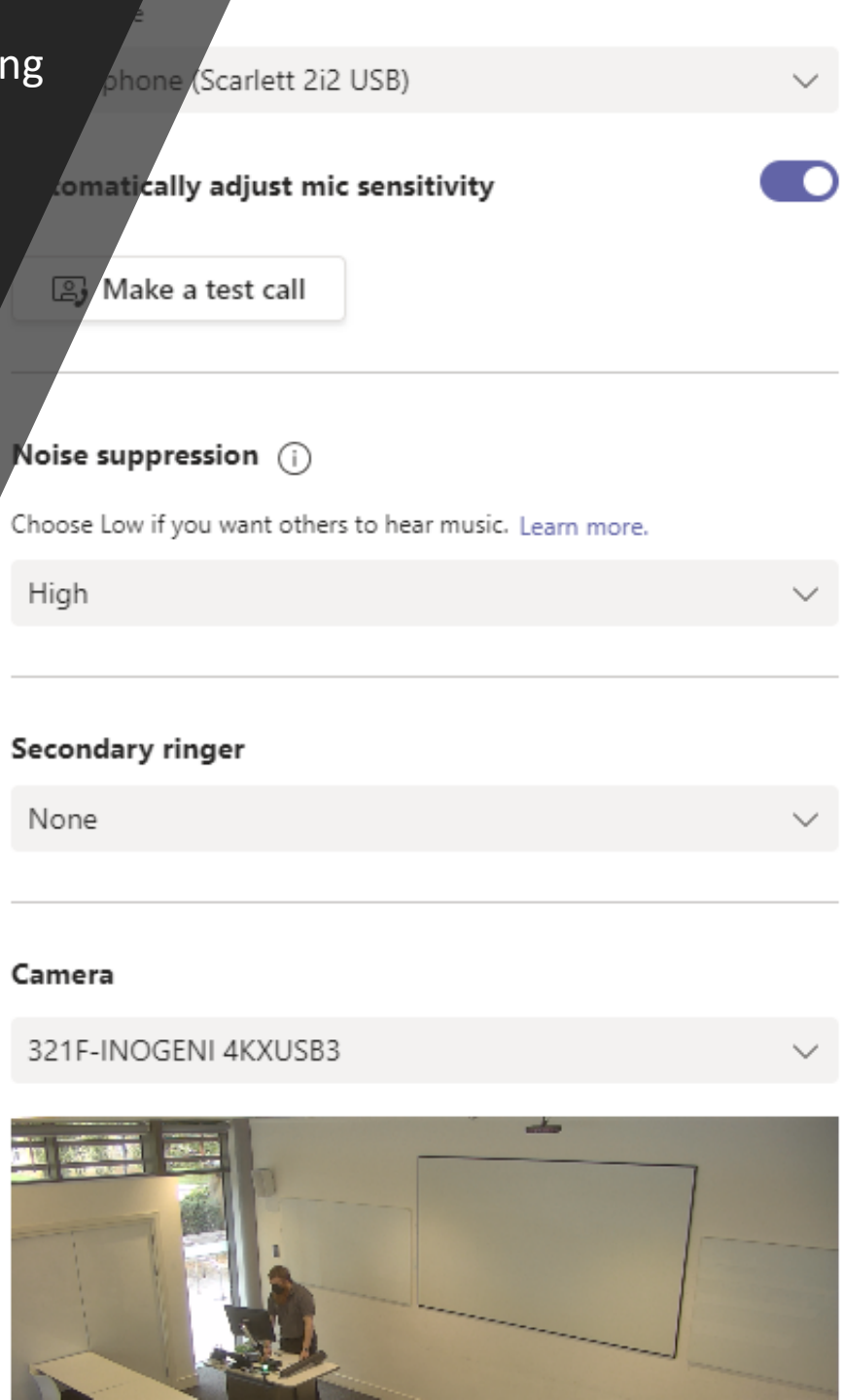

Teams
(Teaching PC)
Document
visualiser



https://warwick.ac.uk/services/its/servicessupport/av/hybridteaching

Getting started with MS Teams in a teaching room

- You must be using the Teaching PC
- Login to the teaching PC
- Open MS Teams
- Click on the … menu, and select settings and then devices
- In audio enabled rooms, select the audio input containing '… **Scarlett** … ' and
- In video enabled rooms, select the video input containing '… **INOGENI** …'
- In enhanced AV rooms, select audio ' Shure P300 ' and video '… **INOGENI** …'
- Test call …

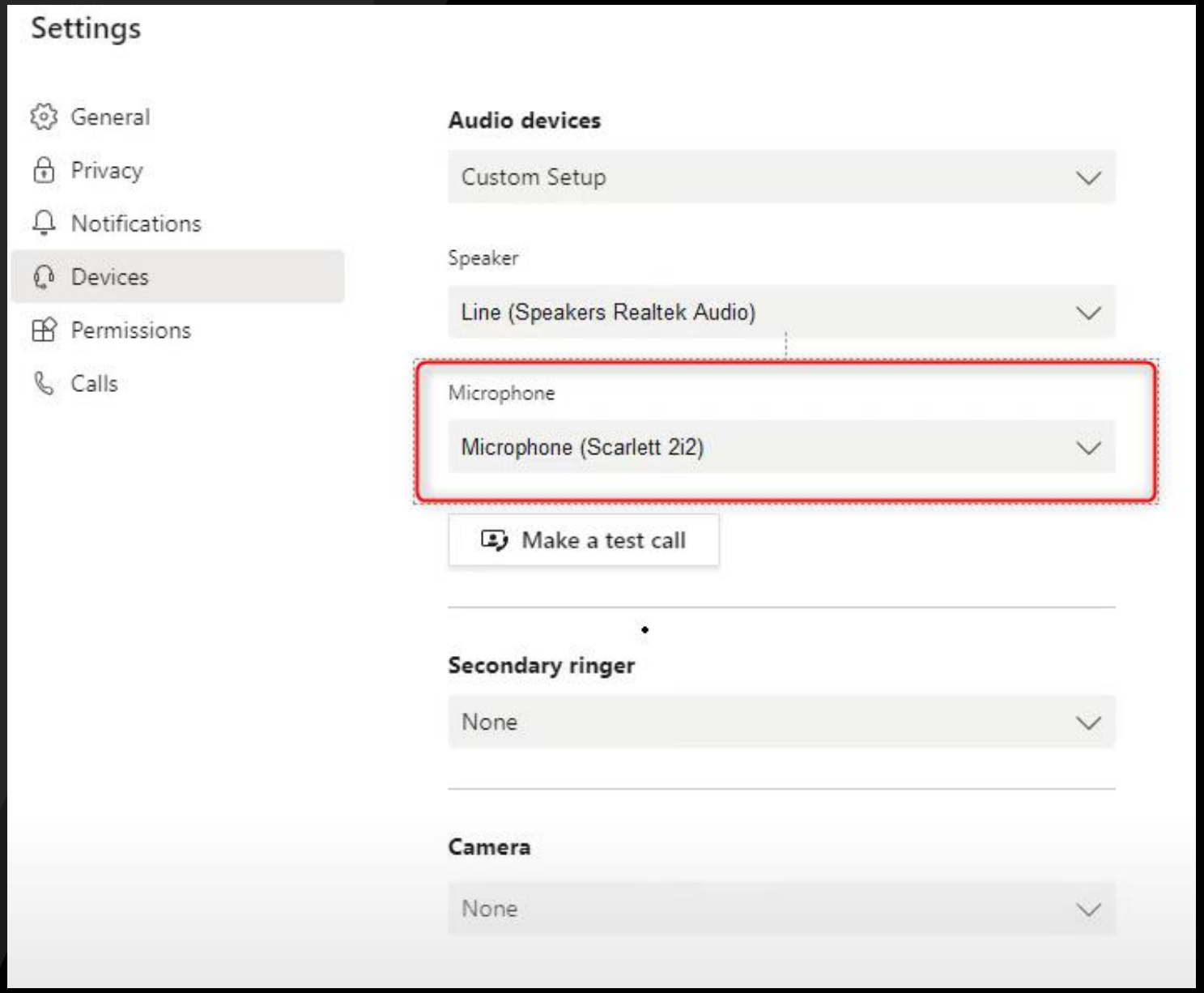


https://warwick.ac.uk/services/its/servicessupport/av/hybridteaching

Audio rooms

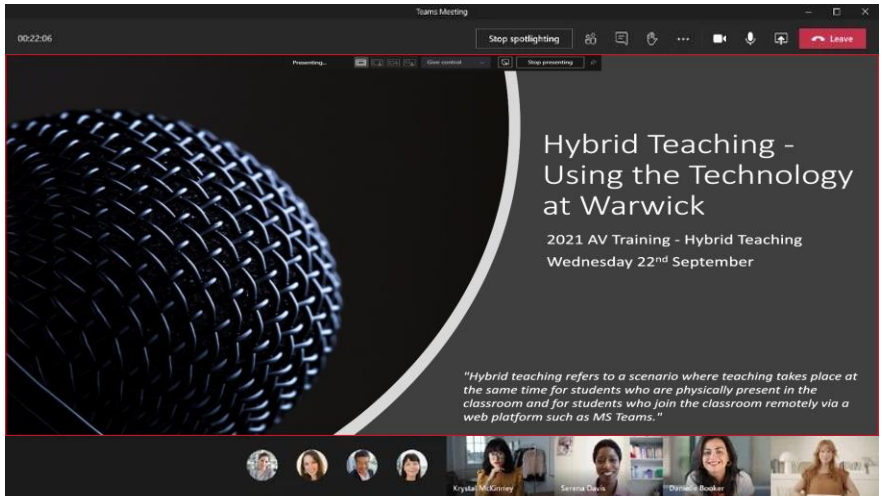
MS Teams Microphone

- Login to the teaching PC
- Open MS Teams
- Click on the … menu, and select settings and then devices
- In audio enabled rooms, check that the audio input is '… Scarlett … '
- This links to the lapel microphones
- Make a test call to check this is working.



MS Teams Microphone

(With audio of lecturer)



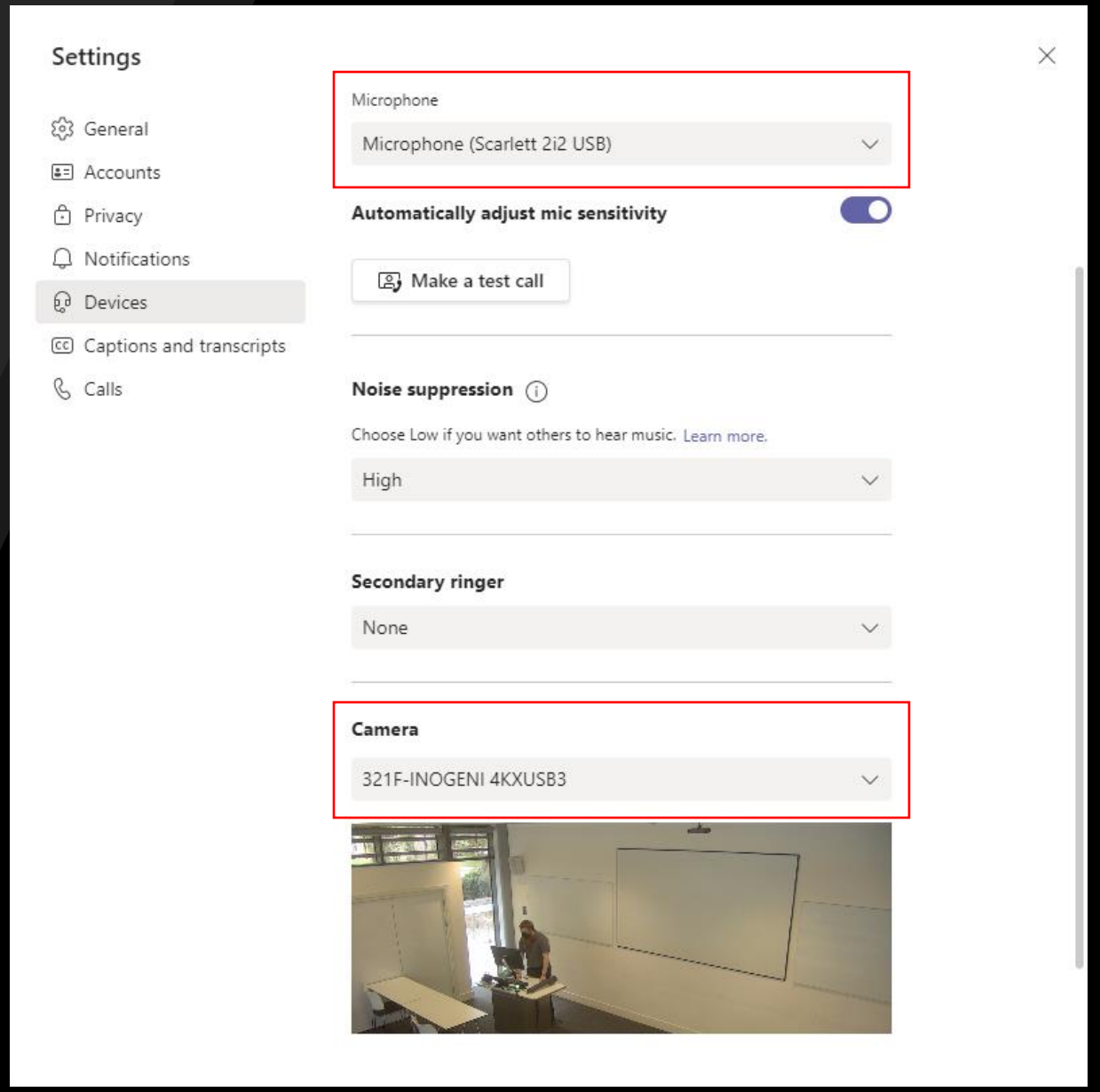
- Presentation
- Audio of lecturer
- Screensharing
- Document Camera
- Teams Chat

https://warwick.ac.uk/services/its/servicessupport/av/hybridteaching

Video enabled rooms

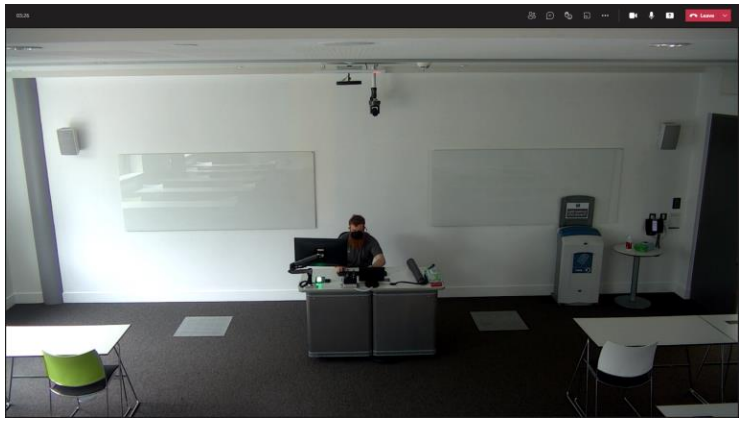
MS Teams Video Camera

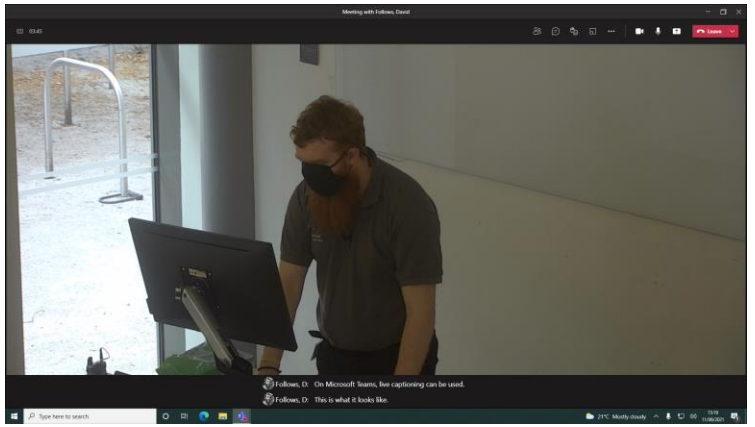
- Login to the teaching PC
- Open MS Teams
- Click on the … menu, and select settings and then devices
- As before, audio should be '… Scarlett … '
- Select the video input containing '… INOGENI …'
- This links to the room camera and uses the settings you choose via the touch panel
- Make a test call to check this is working.

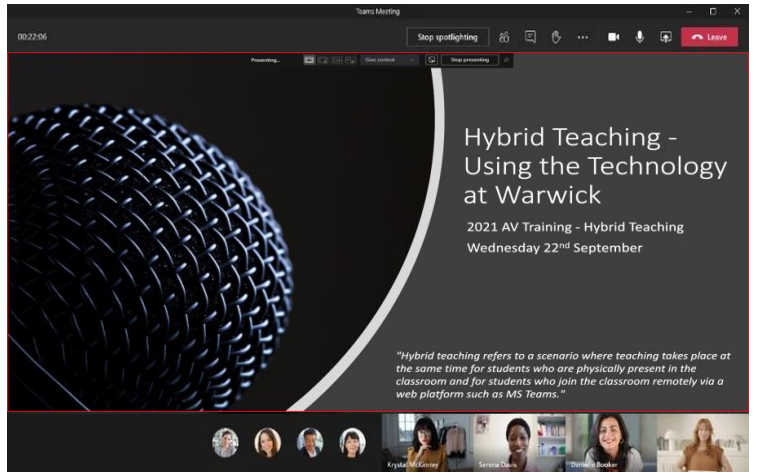


MS Teams Video Camera

(Audio & video of lecturer)







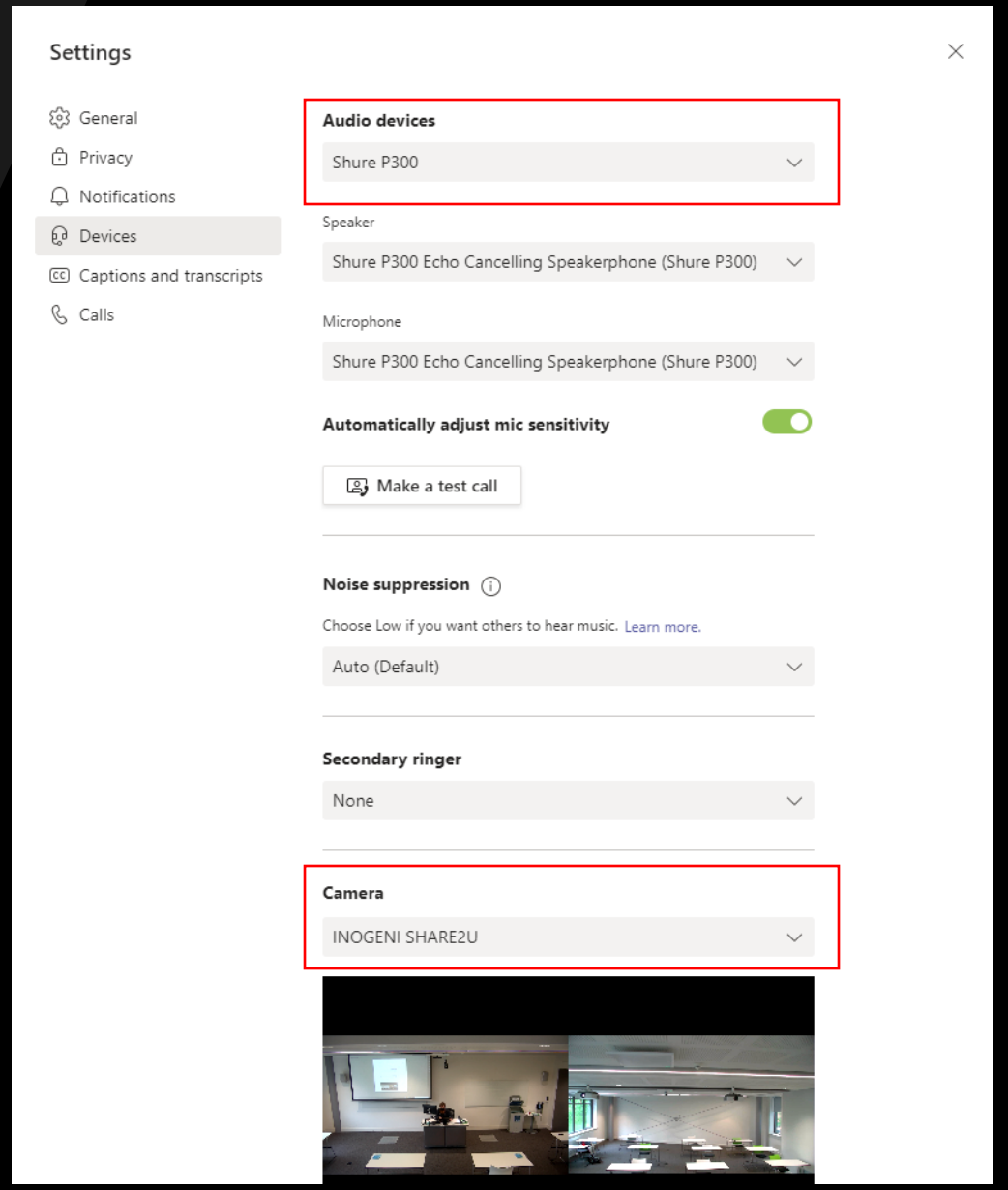
- Presentation
- Audio of lecturer
- Video of lecturer
- Screensharing
- Document Camera
- Teams Chat
- Black/Whiteboards

https://warwick.ac.uk/services/its/servicessupport/av/hybridteaching

Video and audio enhanced rooms

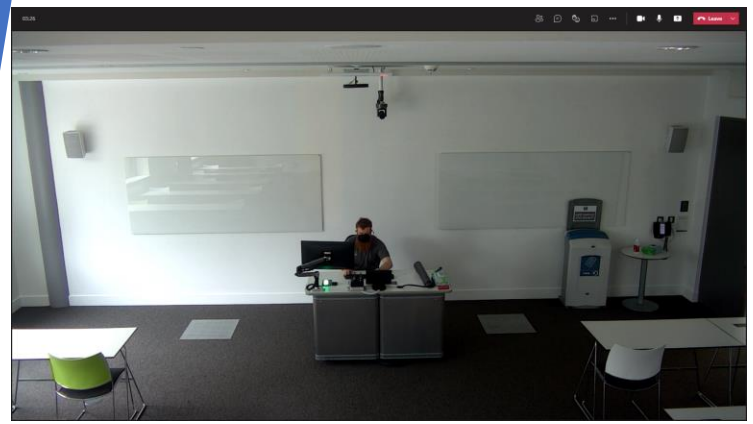
MS Teams Enhanced AV

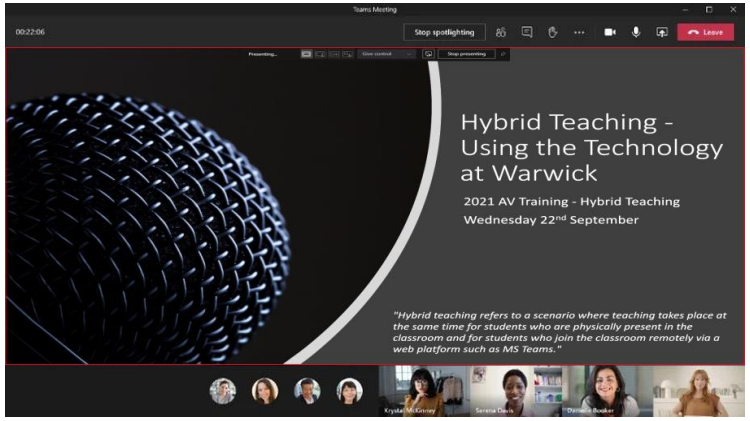
- Login to the teaching PC
- Open MS Teams
- Click on the … menu, and select settings and then devices
- Check that the audio input is '… Shure P300 … ' . This links to the ceiling microphone
- Select video '… INOGENI …'. This links to the room cameras and uses the settings you choose on the touchpanel.
- Make a test call to check this is working.

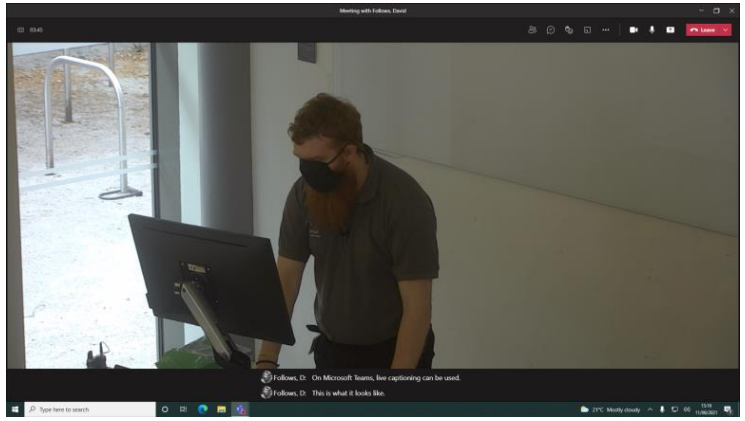


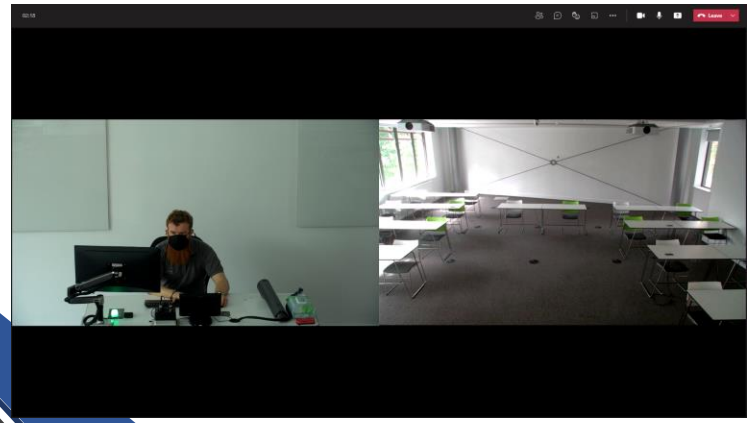
MS Teams Enhanced AV

(Audio & video of class & lecturer)









- Presentation
- Audio of lecturer
- Video of lecturer
- Screensharing
- Teams Chat
- Black/whiteboards
- Audio of audience
- Video of audience

Letting your (remote) audience hear you

Using the in-room microphones

https://warwick.ac.uk/services/its/servicessupport/av/hybridteaching/teamswirelessmic

Lapel microphones

- Remove Microphone(s) from charging dock and wait for them to automatically power on.
- Alternatively, power button is located on left side of the belt pack.
- Green light on top of belt pack indicates microphone is live.

- Attach lapel mike and belt pack in the locations as shown.

- Always replace Microphones carefully into the charging dock!

Handheld microphones

- Remove Microphone(s) from charging dock and wait for them to automatically power on.
- Alternatively, power button is located on the bottom light.

https://warwick.ac.uk/services/its/servicessupport/av/training/

Control Panel
Ceiling Microphones
(Enhanced AV Rooms Only)

Left Projection
Right Projection
Next Recording
PC
Laptop HDMI
Laptop VGA
Doc Cam
Solstice
Display
Mute
PC
Volume
PC is currently selected.
Please use the keyboard and mouse provided on the lectern.
Camera Controls
Audience Mic Off
Room Mode
Help
Lights
October 4, 2021 - 09:00 AM
Technician
Power Down
Extron

Left Projection
Right Projection
Next Recording
PC
Laptop HDMI
Laptop VGA
Doc Cam
Solstice
Display
Mute
PC
Volume
PC is currently selected.
Please use the keyboard and mouse provided on the lectern.
Camera Controls
Audience Mic Off
Room Mode
Help
Lights
October 4, 2021 - 09:00 AM
Technician
Power Down
Extron

Left Projection
Right Projection
Next Recording
PC
Laptop HDMI
Laptop VGA
Doc Cam
Solstice
Display
Mute
PC
Volume
PC is currently selected.
Please use the keyboard and mouse provided on the lectern.
Camera Controls
Audience Mic Off
Room Mode
Help
Lights
October 4, 2021 - 09:00 AM
Technician
Power Down
Extron

Left Projection
Right Projection
Next Recording
PC
Laptop HDMI
Laptop VGA
Doc Cam
Solstice
Display
Mute
PC
Volume
PC is currently selected.
Please use the keyboard and mouse provided on the lectern.
Camera Controls
Audience Mic On
Room Mode
Help
Lights
October 4, 2021 - 09:00 AM
Technician
Power Down
Extron

Audio / microphone summary

Letting everyone hear YOU

- Use the lapel microphones for the presenters as it provides best tutor audio both in-room and remotely.

Letting everyone hear the IN-ROOM AUDIENCE

- Where available, use the spare lapel microphone or handheld mics for the room audience (and ceiling microphones in Enhanced AV Rooms)
- In-room audience should have speakers and microphone muted on personal devices if joined to Teams meeting to prevent audio feedback.

Letting everyone hear the REMOTE AUDIENCE

- Remote audience use their personal device audio (ideally headsets) and must be unmuted on Teams when speaking.

Letting your (remote) audience see you

Using the Control Panel to control the in-room camera

https://warwick.ac.uk/services/its/servicessupport/av/hybridteaching/teamsvideocamera
https://warwick.ac.uk/services/its/servicessupport/av/hybridteaching/msteamsenhancedav

Left Projection
Right Projection
Next Recording
PC
Laptop HDMI
Laptop VGA
Doc Cam
Solstice
Display
Mute
PC
Volume
PC is currently selected.
Please use the keyboard and mouse provided on the lectern.
Camera Controls
Audience Mic Off
Room Mode
Help
Lights
October 4, 2021 - 09:00 AM
Technician
Power Down
Extron

Left Projection
Right Projection
Next Recording
PC
Laptop HDMI
Laptop VGA
Doc Cam
Solstice
Display
Mute
PC
Volume
PC is currently selected.
Please use the keyboard and mouse provided on the lectern.
Camera Controls
Audience Mic Off
Room Mode
Help
Lights
October 4, 2021 - 09:00 AM
Technician
Power Down
Extron

Left Projection
Right Projection
Next Recording
PC
Laptop HDMI
Laptop VGA
Doc Cam
Solstice
Display
Mute
PC
Volume
PC is currently selected.
Please use the keyboard and mouse provided on the lectern.
Camera Controls
Audience Mic Off
Room Mode
Help
Lights
October 4, 2021 - 09:00 AM
Technician
Power Down
Extron

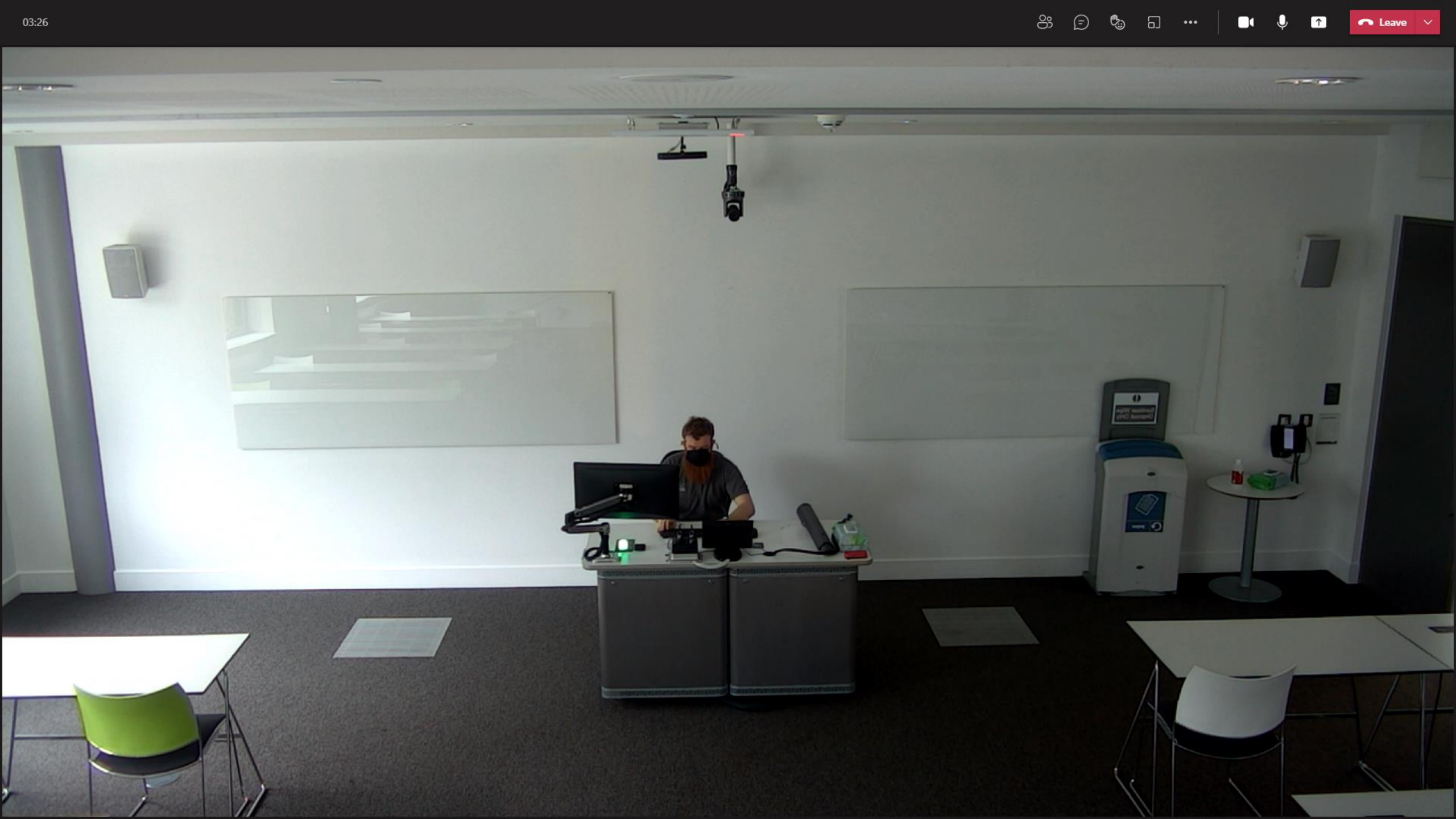
Press F11 to exit full screen
Single Projection
Camera Control
Close
Camera Capture
On
Off
Presets
1
Lectern & Stage Wide
2
Lectern Close Up
3
Whiteboard Left
4
Whiteboard Right
Zoom
Pan/Tilt
Home
Camera Control
Help
Lights
August 17, 2021 - 11:03 AM
Technician
Power Down
Extron

Camera Control

Video Enabled Rooms

Presets, pan, tilt and zoom controls

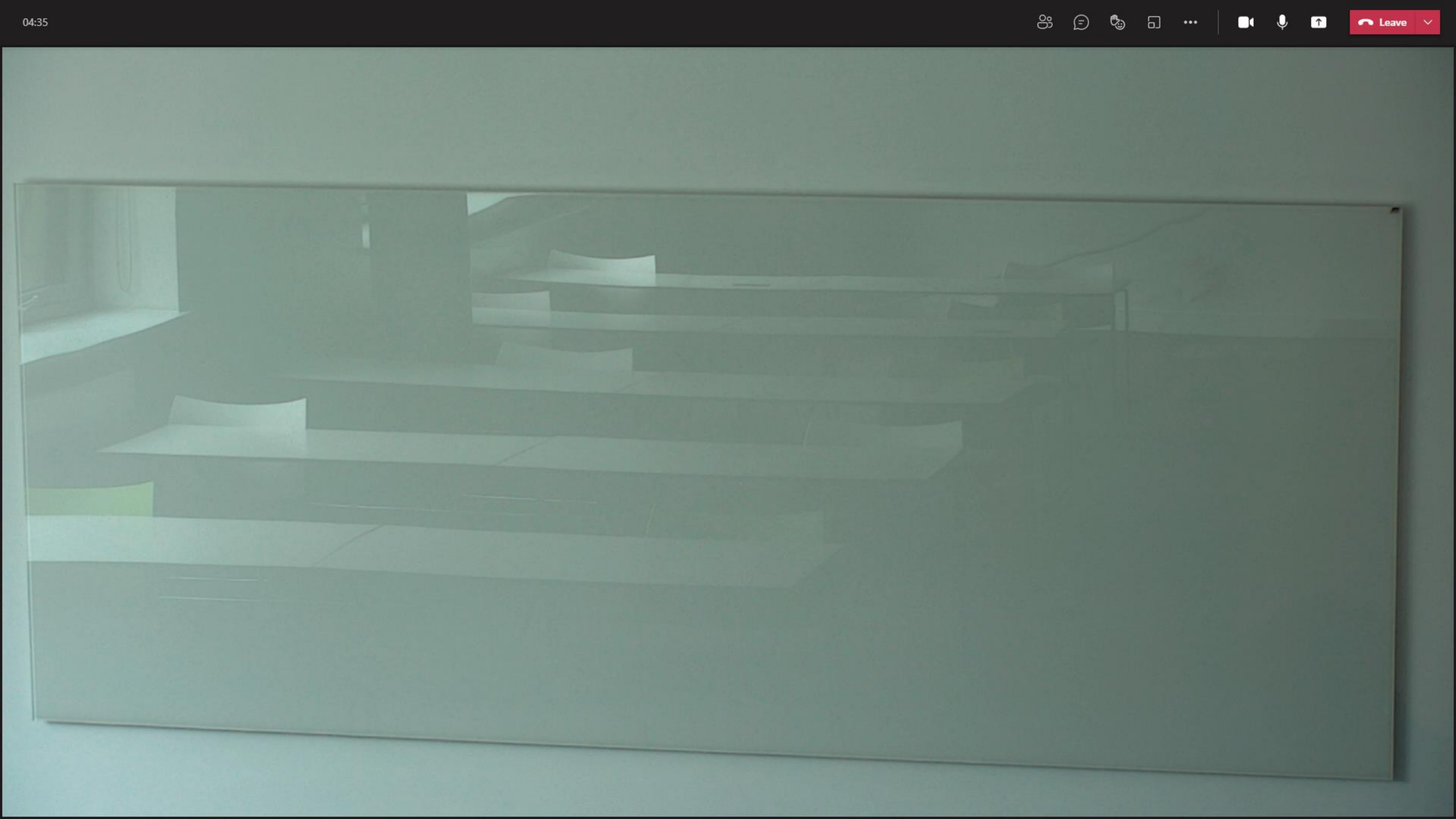
Press F11 to exit full screen
Single Projection
Camera Control
Close
Camera Capture
On
Off
Presets
1
Lectern & Stage Wide
2
Lectern Close Up
3
Whiteboard Left
4
Whiteboard Right
Zoom
Pan/Tilt
Home
Camera Control
Help
Lights
August 17, 2021 - 11:03 AM
Technician
Power Down
Extron


03:26
Leave

Single Projection
Camera Control
Close
Camera Capture
On
Off
Presets
1
Lectern & Stage Wide
2
Lectern Close Up
3
Whiteboard Left
4
Whiteboard Right
Zoom
+
—
Pan/Tilt
Home
Camera Control
Help
Lights
August 19, 2021 - 2:21 PM
Technician
Power Down
Extron

03:43
Leave

Single Projection
Camera Control
Close
Camera Capture
On
Off
Presets
1
Lectern & Stage Wide
2
Lectern Close Up
3
Whiteboard Left
4
Whiteboard Right
Zoom
+
—
Pan/Tilt
Home
Camera Control
Help
Lights
August 19, 2021 - 2:25 PM
Technician
Power Down
Extron


04:35
Leave

Press F11 to exit full screen
Single Projection
Camera Control
Close
Camera Capture
On
Off
Presets
1
Lectern & Stage Wide
2
Lectern Close Up
3
Whiteboard Left
4
Whiteboard Right
Zoom
+
—
Pan/Tilt
Home
Camera Control
Help
Lights
August 19, 2021 - 2:26 PM
Technician
Power Down
Extron

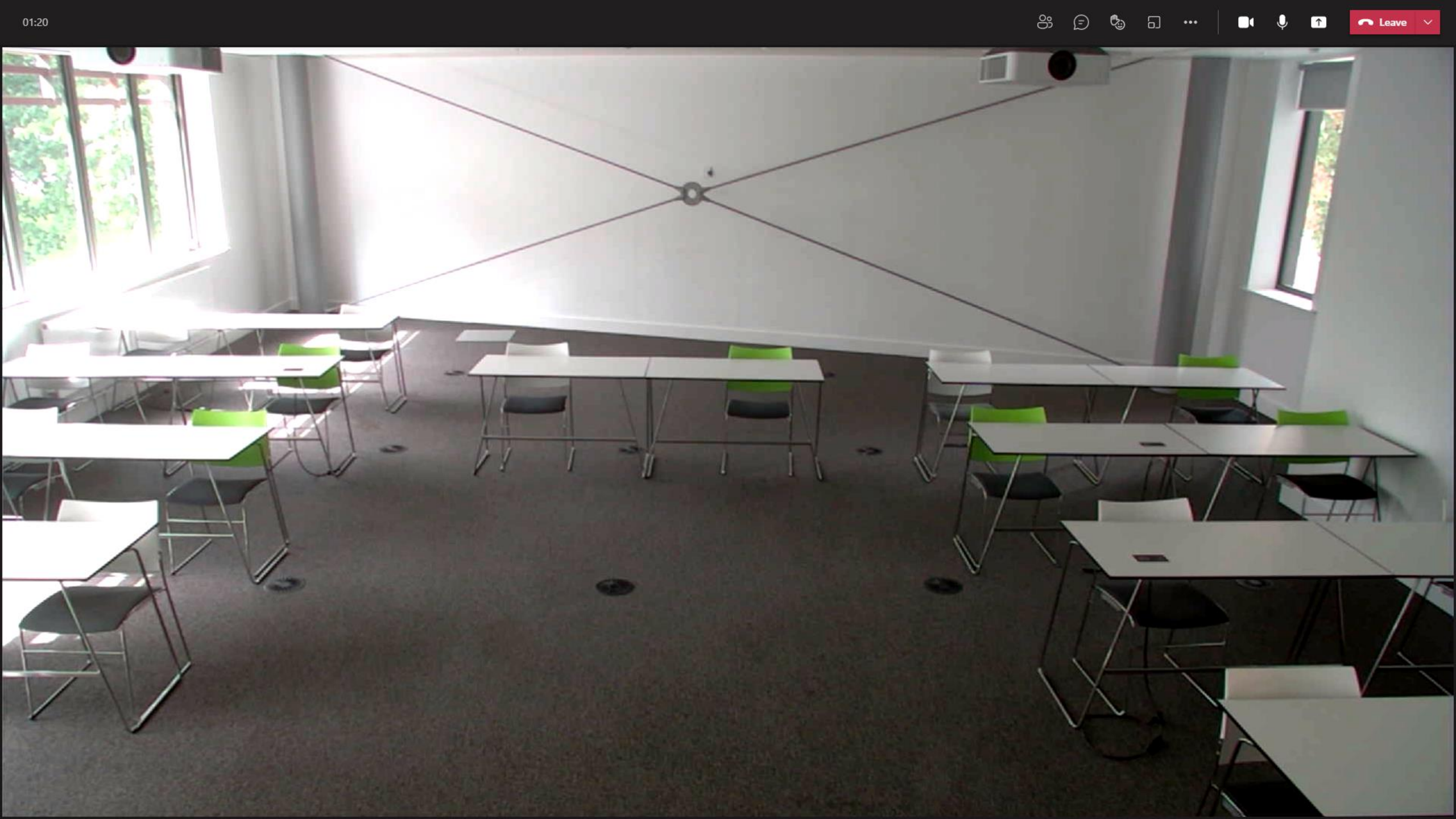
05:26
Leave

Camera View Options

Enhanced AV Rooms ONLY

Left Projection
Right Projection
Camera Controls
Close
Front Camera Control
(Audience)
Rear Camera Control
(Lecturer)
Camera View Options
Front Camera
(Audience)
Rear Camera
(Lecturer)
Front and Rear
Camera
Front and Rear
Camera
1
2
1
2
1
2
Room Mode
Help
Lights
October 4, 2021 - 09:00 AM
Technician
Power
Down
Extron

Left Projection
Right Projection
Camera Controls
Close
Front Camera Control
(Audience)
Rear Camera Control
(Lecturer)
Camera View Options
Front Camera
(Audience)
1
Rear Camera
(Lecturer)
2
Front and Rear
Camera
1
2
Front and Rear
Camera
1
2
Room Mode
Help
Lights
October 4, 2021 - 09:00 AM
Technician
Power
Down
Extron


01:20
Leave

Left Projection
Right Projection
Camera Controls
Close
Front Camera Control
(Audience)
Rear Camera Control
(Lecturer)
Camera View Options
Front Camera
(Audience)
1
Rear Camera
(Lecturer)
2
Front and Rear
Camera
1
2
Front and Rear
Camera
1
2
Room Mode
Help
Lights
October 4, 2021 - 09:00 AM
Technician
Power
Down
Extron

02:02
Leave

Left Projection
Right Projection
Camera Controls
Close
Front Camera Control
(Audience)
Rear Camera Control
(Lecturer)
Camera View Options
Front Camera
(Audience)
1
Rear Camera
(Lecturer)
2
Front and Rear
Camera
1
2
Front and Rear
Camera
1
2
Room Mode
Help
Lights
October 4, 2021 - 09:00 AM
Technician
Power
Down
Extron

Left Projection
Right Projection
Camera Controls
Close
Front Camera Control
(Audience)
Rear Camera Control
(Lecturer)
Camera View Options
Front Camera
(Audience)
1
Rear Camera
(Lecturer)
2
Front and Rear
Camera
1
2
Front and Rear
Camera
1
2
Room Mode
Help
Lights
October 4, 2021 - 09:00 AM
Technician
Power
Down
Extron

Camera Presets

Enhanced AV Rooms ONLY

Left Projection
Right Projection
Camera Controls
Close
Front Camera Control
(Audience)
Rear Camera Control
(Lecturer)
Camera View Options
Front Camera
(Audience)
1
Rear Camera
(Lecturer)
2
Front and Rear
Camera
1
2
Front and Rear
Camera
1
2
Room Mode
Help
Lights
October 4, 2021 - 09:00 AM
Technician
Power
Down
Extron

Left Projection
Right Projection
Camera Controls
Close
Front Camera Control (Audience)
Rear Camera Control (Lecturer)
Camera View Options
Front Camera (Audience)
Rear Camera (Lecturer)
Front and Rear Camera
Front and Rear Camera
1
2
1
2
1
2
Room Mode
Help
Lights
October 4, 2021 - 09:00 AM
Technician
Power Down
Extron

Single Projection
Front Camera Control
(Audience)
Close
Presets
1
Audience Wide Shot
Zoom
Pan/Tilt
Home
Camera View Options
Front Camera
(Audience)
Rear Camera
(Lecturer)
Room Mode
Help
Lights
July 15, 2021 - 2:31 PM
Technician
Power
Down
Extron

Front Camera Control
(Audience)
Close
Presets
1
Audience Wide Shot
Zoom
Pan/Tilt
Home
Extron

Left Projection
Right Projection
Camera Controls
Close
Front Camera Control
(Audience)
Rear Camera Control
(Lecturer)
Camera View Options
Front Camera
(Audience)
1
Rear Camera
(Lecturer)
2
Front and Rear
Camera
1
2
Front and Rear
Camera
1
2
Room Mode
Help
Lights
October 4, 2021 - 09:00 AM
Technician
Power
Down
Extron

Left Projection
Right Projection
Camera Controls
Close
Front Camera Control (Audience)
Rear Camera Control (Lecturer)
Camera View Options
Front Camera (Audience)
Rear Camera (Lecturer)
Front and Rear Camera
Front and Rear Camera
1
2
1
2
1
2
Room Mode
Help
Lights
October 4, 2021 - 09:00 AM
Technician
Power Down
Extron

Single Projection
Rear Camera Control
(Lecturer)
Close
Camera
Capture
On
Off
Presets
1
Lectern & Stage Wide
2
Lectern Close Up
3
Whiteboard Left
4
Whiteboard Right
Zoom
+
—
Pan/Tilt
Home
Room Mode
Help
Lights
July 15, 2021 - 2:35 PM
Technician
Power
Down
Extron

Handwritten content

Teams Whiteboard

- Built into Teams, works best with a tablet or touchscreen

Physical Whiteboard/Chalkboard

- Requires you to understand the touchpanel and camera controls

Document Camera

- Need to choose the correct input in Teams, and understanding the touchpanel

The AV basics course covers choosing inputs to show on the projector screens

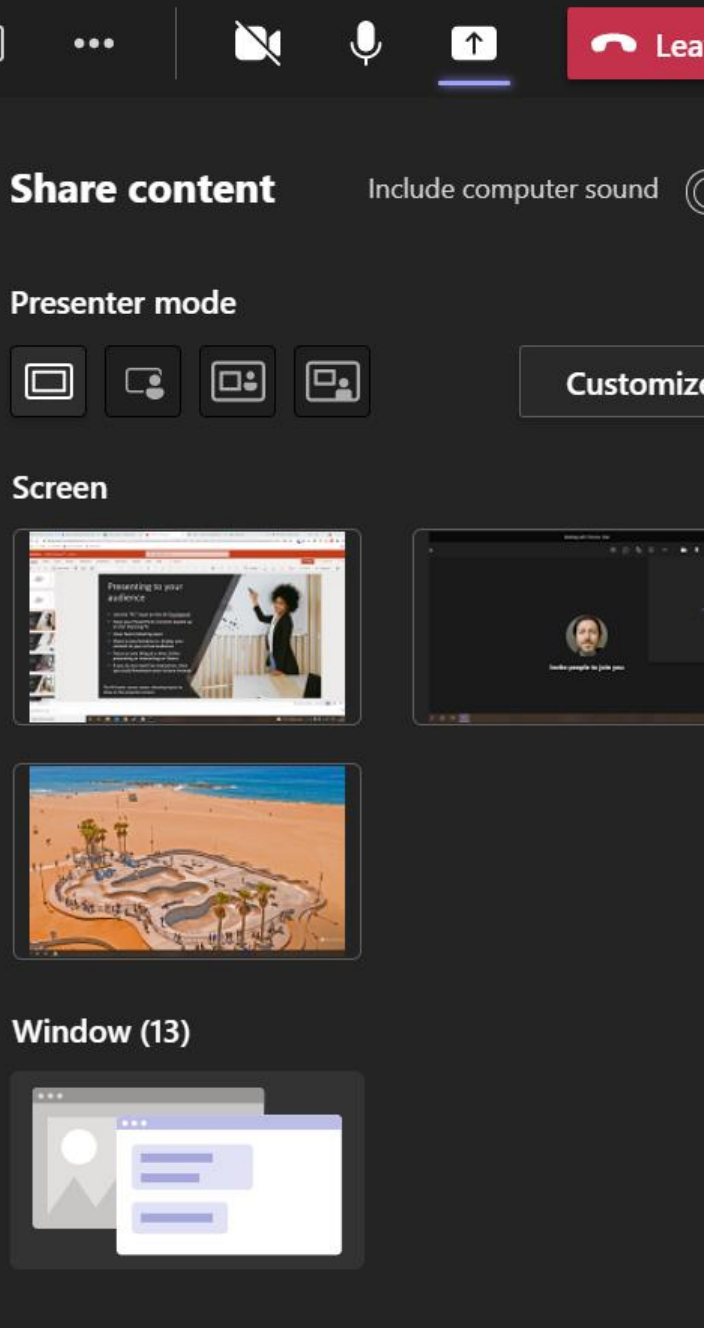
Presenting to your audience

Focus on either presenting or interacting on Teams

- Have your PowerPoint /content loaded up on the Teaching PC
- Have Teams Meeting open
- Share screen/window to display your content to your virtual audience at the same time as projecting in the room
- Choose your presenter mode option

- If you do not need live interaction, then you could livestream your lecture instead.

The AV basics course covers choosing inputs to show on the projector screens



Seeing your remote audience

- Etiquette – do people want to be seen etc.

- Via the teaching PC monitor, on screen or on the projector.
- You cannot do this at the same time as presenting unless you use a second device.

The AV basics course covers choosing inputs to show on the projector screens

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Hearing your remote audience

- In room speakers project audio of the PC (including Teams)
- Remote participants can use laptop microphone or a headset
- Mute until invited to speak
- Remote participants can then be heard via the in-room speakers when speaking

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Interacting with your audience

- Check for hands up – in the room and on the screen. Remote students can turn on their microphone to ask a question.
- Check the chat or ask students to keep track for you and alert you to any questions – the backchannel
- Choose a student to act as spokesperson. Think about inclusion and bias.
- Combine with Vevox, Padlet or Miro - screensharing

Interactive content

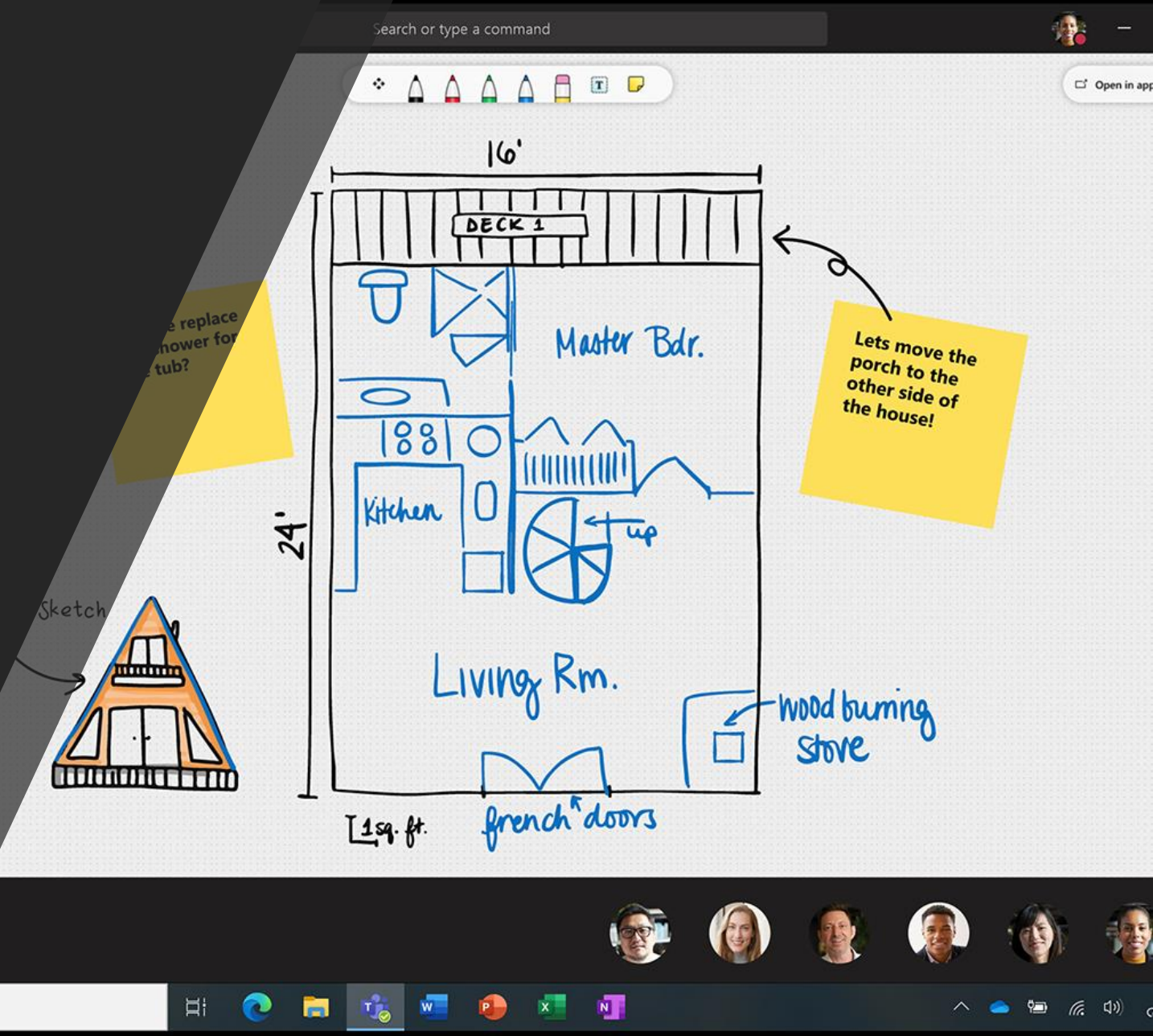
Teams Whiteboard

Padlet

Miro

Vevox

- When comfortable with the other techniques / technology
- Can be used for all students in-room, all remote, or anywhere in between as part of a blended approach



https://go.warwick.ac.uk/academictechnology

Are there alternative approaches?

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Live streaming using Echo 360

- Not recommended for hybrid teaching
- Useful for timetabling purposes
- May be suitable where student engagement is not real time (1 minute delay)
- Available in more locations i.e. anywhere that has Lecture Capture enabled

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Requesting live streaming

- Schedule a lecture capture recording
- Request 'live streaming'
- Ensure your students know to login via the Echo360 block on Moodle
- Allow for 1 minute delay
- Upload your presentation to Echo360 to enable students to commentor flag confusion.

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Bring your own device?

- Technology to support hybrid teaching is not available in all centrally timetabled rooms.
- Hybrid teaching is not recommended in spaces without proper in-room equipment.
- Bringing your own equipment is not recommended for hybrid teaching as it can make the process more complicated and lower quality e.g. laptop webcam & microphone vs the in-room versions.
- If you are trying to hybrid teach in a room without the technology described in this presentation contact AV Services for support and note your requirements with the Space Management / CTT / RB teams for future planning.

Questions