

ISS Meeting Room Specification

v1.8

Paul James

04/04/2024

Contents

- ISS Meeting Room Specification..... 1
- v1.8 1
- Standard Meeting Room equipment..... 3
 - Display screen..... 3
 - Audio 3
 - Connectivity..... 3
 - Microphones and Cameras 3
 - Control system 4
- Microsoft Surface Hub Alternative..... 4
 - Display screen..... 4
 - Audio 4
 - Connectivity..... 4
 - Control system 4
- Cabling and installation 5
 - Whiteboard 5
 - Physical space..... 6
 - Room Acoustics 6
- Appendix A – Control panel button layout..... 6

This specification must be used in conjunction with the installation guidelines document. Always check the [latest documents versions](#).

A meeting room would be used to hold meetings or as a breakout space and have the following properties:

- Flat-floored space
- Guideline size: Up to 20m²
- Guideline capacity: Up to 20 people

ISS will specify whether the standard meeting room equipment or the Microsoft Surface Hub Alternative equipment should be provided.

Standard Meeting Room equipment

Display screen

1. A wall mounted LED or LCD display screen of 16:9 widescreen format with RS232 control should be fitted of an appropriate size, e.g. 65", 75" or larger.
2. The screen should be capable of displaying a 4K resolution. Rooms will have capability to switch between various inputs.

Audio

3. For Sound output the Video Conferencing speaker bar must be included for program sound, the displays internal speakers must be by-passed.
4. Loop system if considered necessary to be provided as a single ceiling mounted microphone and Audio-Frequency Induction Loop System.

If required, a Loop system or additional speakers will be requested by ISS at the time of quotation.

Connectivity

5. A brushed aluminium input plate must be provided with the following inputs:
 - HDMI connection
 - USB Connection for laptop connection for Video Conferencing Speaker bar.
6. A wireless connection device should be provided to allow mobile devices to be connected to the display. The device should connect to the LU network and must not rely on using an internal wireless router for connections to devices. The device must be supplied with an Educational Perpetual License.

Microphones and Cameras

7. A suitable Video Conferencing speaker bar solution must be provided to be wall mounted below the display screen. It must include:
 - Microphone array sufficient to cover the space
 - A built in camera with intelligent tracking capability to fit the video frame to number of participants in the space. This feature must operate without requiring driver software on the connected host laptop/PC.

Control system

8. Control of input switching is via a push button control pad mounted on the wall to allow:
 - a. Screen power on/off.
 - b. Source selection of all inputs.
 - c. Volume control – up/down, audio mute.
 - d. Blank screen (if supported by display).

Control pad button layout must match Appendix A.

9. The controller *may need* to be connected to the University's network for the monitoring of any specified AV equipment.

If required, network monitoring will be requested by ISS at the time of quotation.

10. When a button on the control panel is pressed the button should illuminate to indicate the command was received.
 - a. The power on/off button should remain illuminated whilst the system is powered on.
 - b. The power on/off button should flash whilst the system powers down (this may be brief or not included if the screen is quick to power down).
 - c. The chosen source button should remain illuminated when that source is selected.
 - d. The volume up and volume down buttons should briefly illuminate for each press.
 - e. The audio mute button should flash slowly whilst muting is active.
 - f. If present, the blank screen button should flash slowly when active.

Microsoft Surface Hub Alternative

Display screen

11. Microsoft Surface Hub 2S 50" or 85" as appropriate to the room size
12. Microsoft Surface Hub wall mount fixed at appropriate height

Audio

13. Sound output should be from the screen's internal speakers very large meeting rooms consideration should be given to the provision of additional amplification and speakers or conversion to an Executive Meeting Room or Seminar Room.
14. Loop system if considered necessary to be provided as a single ceiling mounted microphone and Audio-Frequency Induction Loop System.

If required, a Loop system or additional speakers will be requested by ISS at the time of quotation.

Connectivity

15. A HDMI connection from the surface hub must be provided at the desk location.
16. A wireless keyboard with built-in trackpad must be supplied for use with the Surface Hub.

Control system

17. No additional control system is required. The room will operate from the Surface Hub utilizing it's interactive and presence detection features.

Cabling and installation

18. All cabling should run in suitable containment above the suspended ceiling, in wall voids or under the floor. Permitted containment options include copex, cable baskets or surface trunking to match existing installations.
- All cabling must be run in suitable containment, e.g. circular polypropylene flexible conduit.
 - It is not acceptable to share a cable conduit with power or data cabling.
 - Where three compartment shared trunking is used power cabling, data cabling and AV cabling must run in separate compartments.
 - Where individual conduits are installed for AV cabling 40mm conduit is preferred. Two 25mm conduits for AV cabling are also acceptable. This is the minimum requirement, additional conduits maybe requested depending on the number of cables required for the installation.
 - Cables running in ceiling voids must be installed within suitable containment used for AV cabling only sufficient to meet all current Fire, Electrical and Health and Safety regulations. Cabling must be rated CPR Cca or higher.

For example:

- Cables should be contained in 32mm Kopex, e.g. <https://uk.rs-online.com/web/p/conduit/0623710/>
- Fixed to the soffit/slab with metal tie wraps, plastic ties must not be used, e.g. metal tie wraps <https://uk.rs-online.com/web/p/cable-ties/1235035/>
- The metal tie wraps must be looped through flat hanger screws fixed with a nylon wall plug to the soffit/slab at no more than 1m intervals, e.g. <https://www.gexpro.com/usg/Root-Category/Fasteners/Fixture-Hardware/Hangers%2C-Bolts/Screws---Flat-Hanger/Multiple-631-Flat-Hanger-Screw/p/523430>

The containment must not be fixed to any existing data cabling baskets or trays as this contravenes the ISS Networking installation specifications.

19. Cables between any floor box and other devices should be braided in a black umbilical.
20. If floor boxes are in use then in all cases the floor box should be able to be fully closed; this may necessitate right angle connectors for shallow floor boxes.
21. All cables must be labelled at both ends with the following information: Signal type, Source, Destination, e.g. Sig - HDMI, Src – PC, Dest - Display.

Whiteboard

22. New vitreous enamel magnetic whiteboards should be provided in each room, these should be fixed mounted and cover as much of the teaching wall as possible. They should be installed either side of the display screen if space allows, otherwise they should be installed on other wall space. Additional whiteboards may be required on walls other than the main teaching wall, dependent on space.

Physical space

23. The room should contain one analogue clock without second hand affixed to the wall opposite the main teaching wall. The clock must be PoE powered and take a time signal using an NTP server.

Room Acoustics

24. Considerations must be given to the acoustics of the space in particular ambient noise levels and reverberation times, with appropriate acoustic treatments applied to the walls and or ceiling. A meeting room should have an ambient noise level of no more than 50db and the RT60 (reverberation time) should be less than 1 second. The minimum expected standard is BS8233.

Appendix A – Control panel button layout

Any buttons that are not functional should be left unlabelled.

(Below is an example configuration but not a design requirement and other solutions with different layouts can be specified)

