VISUAL DISPLAYS

Case study

James McCune Smith Learning Hub at the University of Glasgow

Visual Displays' unique combination of AV standards expertise and specialist display solutions made us the ideal partner to support global AV integrator, Kinly, to create a world-class venue at the University of Glasgow's new £90.6 million James McCune Smith Learning Hub.

The building, which opened in April 2021, provides a state-of-the-art learning and teaching facility with a capacity for more than 2,500 students and includes a flagship lecture theatre with a capacity for 500 students. Interactive teaching spaces range in capacity from 340 – 75 students, while the hub can also accommodate a number of seminar/group study spaces.

We installed thirty (30) dnp Supernova projection screens and Complete Laser Display systems (curated bundles of Epson laser projectors and dnp Supernova screens).

Our brief

Our client, the global AV integrator Kinly, was tasked with not only developing a creative environment to provide leading-edge teaching and learning experiences but also to be able to deliver exceptional experiences for their planned international conferences and events.

This project presented various AV challenges, particularly in delivering content to some viewer locations. This required sequences of CAD design and application of AVIXA's AV standards, using our advanced parametric 3D CAD modelling tools and optical calculators.

Project facts

Client
Kinly

Site
University of Glasgow James McCune Smith Learning Hub

Visual Displays provided a full service installation package, including bespoke mounts to handle complex architectural features.

This project was shortlisted for the prestigious AV Awards Education Project of the Year 2021 Award.

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Our solution

Working closely with our partners at Kinly, we created standards-based complex AV solutions in all the principal teaching spaces.

The project team faced stern challenges in the two main conjoined spaces: adjacent auditoria to be used as a single space or separated into two spaces with a retractable dividing wall. These spaces were made complex by their shape and the seating plans - including students' ability to collaborate with those in the row behind. An iterative and collaborative process ensued, refining plans based on AVIXA's DISCAS standard – both for image size and viewing angles. This led to a complex design of multiple screens.

We created display specifications based on their deliverable performance to ensure conformance in excess of required standards.

The centrepiece of the main auditoria are two giant 6.2m wide 4K UHD displays. The initial assumption was that dvLED displays would be needed. But by using the AVIXA PISCR standard it was calculated that the most suitable displays would be ALR (ambient light rejecting) projection screens, specifically dnp's Supernova 08-85 material.

These giant displays are positioned at high level to address the main and rear parts of the spaces. Additional large screen displays were carefully designed to ensure every participant has an exceptional viewing experience, using 100" and 120" Complete Laser Displays (CLD). The CLD range by Visual Displays are standards-curated bundles of Epson laser projectors, ALR (ambient light rejecting) dnp Supernova projection screens and mounts.

Careful consideration within the planning process was given to environmental and ergonomic issues, driven by the WELL Building Standard and CIBSE lighting and environmental standards. By using projection rather than dvLED, over the lifetime of the installation, kilowatts of power will be saved in addition to expensive heat management. The projection screens can be used indefinitely as projectors are upgraded over the coming decades. The toxic landfill associated with the disposal of dvLED displays at end of life is also avoided.

Not only do these spaces give a visually stunning experience but they are designed and deployed in a dual tech way that combines new AV over IP technology with standard tried and tested XTP backbone also. The current spaces are 4K but are future-proofed and upgradeable to 8K in the future.

These are also hybrid learning spaces with video and audio enabled so that Microsoft Teams, Zoom, Cisco Webex, and more can be utilised for remote participants (via Extron MediaPort) and content from each space can be also be broadcast to other spaces, helping to support social distancing demands in the short term.
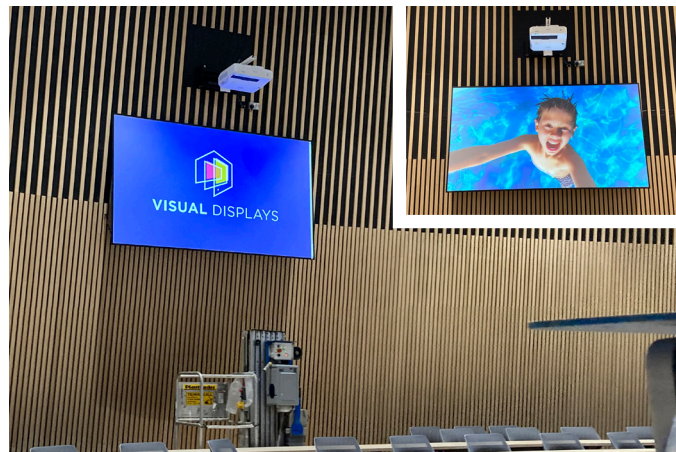
Project at a glance

Screen and projector specs

- 2 x dnp Supernova Infinity, 16:9, 6185mm x 3479mm

- 2 x Panasonic PT-RQ22K (4K UHD)

- 2 x dnp Supernova Infinity, 16:9, 4000mm x 2250mm

- 1 x Epson EB-L12000Q (4K UHD [pixel shift])

- 1 x Panasonic PT-RQ13K (4K UHD [pixel shift])

- 2 x dnp Supernova Infinity, 7200mm x 2250mm [Double width]

- 2 x Epson EB-L1750U WUXGA

- 2 x Epson EB-L1500UH WUXGA

- 16 x dnp Supernova Blade 120"

- 16 x Epson EB-L1070U WUXGA

- 4 x Complete Laser Display, 120" (dnp Supernova UST screen, Epson EB-700U UST [WUXGA])

- 4 x Complete Laser Display, 100" (dnp Supernova UST screen, Epson EB-700U UST [WUXGA])

" Client feedback

"We were pleased to use Visual Displays' standards expertise to plan, supply, install and sign-off a building full of dnp projection displays that the client is delighted with – plus their practical team support at every stage of the project."

Kinly, UK