

UNIVERSITY OF NEVADA, LAS VEGAS

### ELEVATE HYBRID LEARNING EXPERIENCES WITH INOGENI'S MULTI-CAMERA MIXER



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### **A SUCCESS STORY**

## INOGENI's multi-camera mixer enables the vast majority of multimedia classrooms to be set up in a hybrid learning environment at UNLV for meeting equity.

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In response to the challenges caused by the COVID-19 pandemic, the <u>University of Nevada, Las Vegas (UNLV</u>) recognized the need to adapt its teaching methods and embrace hybrid learning. This case study explores <u>UNLV</u>'s journey in implementing multi-camera setups in its classrooms to enhance the remote learning experience and improve instructional delivery.



## UNIV



# A historical problem and a new opportunity

When the pandemic hit, <u>UNLV</u> faced the challenge of transitioning its classes to remote learning. The university realized the potential of hybrid learning, which required the integration of room cameras and content to facilitate seamless interaction between in-person and remote students.

### THE SOLUTION: Multi-camera setups

<u>UNLV</u> identified the need for flexible multi-camera setups to enable instructors to share the same in-room experience with remote students.

**INOGENI's SHARE2** 





**Frank Alaimo**, Manager of Classroom Technology Services (left), and **Michael Theil**, Senior Classroom Control Systems Specialist (right), were responsible for the project and implementing a successful solution.



The AV team aimed to standardize these setups across various room types within the university. The College of Education's computer lab was selected for a pilot project to make it exceptionally user-friendly for instructors.

The chosen solution was **INOGENI'S SHARE2**, which enabled the use of two HDMI cameras or content sources. The system leveraged RS232 control through Crestron touch panels such as TSW760, TS1070, or TS770, which provided a user-friendly interface for instructors to manage the cameras and content.

## SHARE2U approved by HETMA

The HETMA Approved program evaluates products through the lens of higher education technical managers, ensuring they meet stringent UC requirements. INOGENI'S SHARE2U has received high marks, exceeding expectations in quality and performance. Evaluators praised its solid build, quick switching capabilities, and reliable performance in classrooms, auditoriums, and theaters. The SHARE2U's ease of use and robust documentation make it a must-have for higher education environments. With certifications like CTS, CTS-I, and Crestron Master Technology Architect among the evaluators, SHARE2U stands out as a top choice.

Click here to learn more about all INOGENI's HETMA-approved products. a top choice.



INOGENI's SHARE2U



# Initial implementation and end-user reactions

<u>UNLV</u> successfully deployed the multi-camera setups in the most learning spaces, offering equitable experiences for offering equitable experiences for both in-person and remote students. By sharing the native image with remote participants, UNLV bridged the gap between those physically in the classroom and those attending remotely. This setup facilitated effective knowledge transfer and engagement.

**With new learning spaces**, <u>UNLV</u>'s capabilities expanded to include other features, such as recording and accommodating students with disabilities. These enhancements significantly increased the accessibility and flexibility of <u>UNLV</u>'s educational offerings.



### **Outstanding results**

**UNLV**'s standardized multicamera setup in classrooms yielded positive outcomes. Implementing **Vaddio** cameras, known for their quality and zooming capabilities, ensured clear visuals and enhanced the overall learning experience. In addition, the integration of document cameras, specifically the **vSolution from Wolfvision**, enabled instructors to effectively present physical documents and objects to remote students.

Different room types were equipped with suitable camera setups. Large auditoriums used <u>Vaddio</u> RoboSHOT 30E HDBT OneLINK HDMI PTZ Camera System with 30x zoom capabilities to capture high-quality video content. Standard classrooms featured cameras that captured the presenter and other video sources, such as computers, document cameras, Blu-ray players, and laptops.



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# Troubleshooting & collaboration

<u>UNLV</u> encountered connection issues with the <u>INOGENI</u> - <u>Crestron</u> HDMI switcher during the implementation process. The university got support from <u>INOGENI</u> to address these problems and ensure seamless integration with its <u>Crestron</u> system.

<u>UNLV</u>'s collaboration with technology providers, including <u>Sennheiser</u> and <u>Panopto</u>, played a crucial role in the success of its hybrid learning initiative. <u>UNLV</u> integrated <u>Sennheiser TeamConnect Ceiling 2</u> beamforming microphones, improving classroom audio quality. Panopto provided a robust video platform that enabled <u>UNLV</u> to create a HyFlex teaching environment.

## **Standardization and future plans**

<u>UNLV</u> recognized the importance of standardizing its rooms to optimize scheduling and usage flexibility. By creating a simple and personalized technology environment, <u>UNLV</u> elevated the user experience for both instructors and students.



## Conclusion

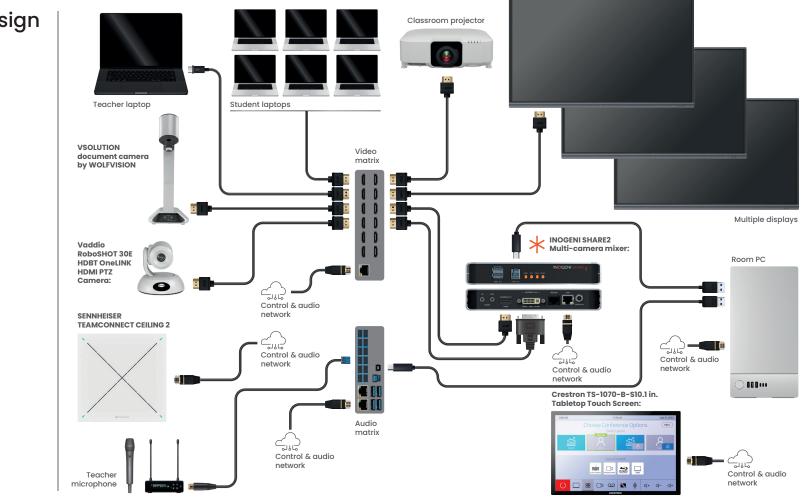
Through implementing multi-camera setups, <u>UNLV</u> successfully addressed the challenges posed by the COVID-19 pandemic and embraced the potential of hybrid learning. By standardizing these setups across various room types, <u>UNLV</u> improved instructional delivery, increased accessibility, and enhanced the overall learning experience for its students. The university's collaboration with technology providers and dedication to innovation positions it at the forefront of educational advancements in the digital era.

# The complete solution: Details about each product used for this solution

**Product description** 

<u>UNLV</u> implemented a comprehensive multi-camera solution to facilitate hybrid learning and enhance instructional delivery. The chosen solution, <u>INOGENI's SHARE2</u> multi-camera mixer, revolutionized the classroom experience by seamlessly integrating multiple video sources and providing a user-friendly interface for instructors. Let's explore the key components of this innovative setup.

NB: For the complete list and description of each device, please contact sales@inogeni.com



Setup design example



#### SHARE2

#### Multi-camera mixer:

The **INOGENI SHARE2** mixer is the backbone of **UNLV**'s multi-camera setup. It allows for the simultaneous capture and transmission of two HDMI cameras or content sources. This feature enables instructors to switch between different video sources effortlessly, providing 14 different presentation solutions, such as picture-in-picture, side-by-side, small/big or full-screen. These capabilities create a dynamic and engaging learning environment for both in-person and remote students.



#### Crestron TS-1070-B-S 10.1 in. Tabletop Touch Screen:

To simplify the management of the multi-camera system, <u>UNLV</u> uses <u>Crestron</u> touch panels, such as TSW760, TS1070, or TS770. These touch panels offer an intuitive user interface, allowing instructors to control camera switching, adjust settings, and manage various video sources effortlessly. The RS232 control ensures seamless integration and smooth operation of the system.



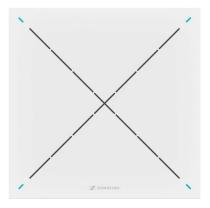
#### Vaddio RoboSHOT 30E HDBT OneLINK HDMI PTZ Camera:

<u>UNLV</u> selected <u>Vaddio</u> cameras for their exceptional video quality and zoom capabilities. The cameras capture crystal-clear visuals, ensuring that remote students have a clear view of the presenter and any additional video content. Vaddio cameras come in different models suitable for various room types, ranging from large auditoriums to standard classrooms, ensuring optimal video capture in any learning environment.



#### vSolution document camera by Wolfvision:

To facilitate sharing physical documents and objects with remote students, <u>UNLV</u> integrated the <u>vSolution document camera by Wolfvision</u>. This document camera allows instructors to effectively present live demonstrations, handwritten notes, or other physical content. It ensures that remote students receive the same level of interaction and engagement as their in-person counterparts.



### Integration with Sennheiser audio solutions Team Connect Ceiling 2 Mic Array:

<u>UNLV</u> collaborated with <u>Sennheiser</u> to integrate the <u>TeamConnect Ceiling 2</u> beamforming microphones. These microphones offer superior audio quality, ensuring clear and immersive sound for both in-person and remote students. Integrating high-quality audio solutions enhances the overall learning experience and fosters effective communication in the hybrid learning environment.

#### Conclusion

<u>UNLV</u>'s multi-camera solution, featuring the <u>SHARE2</u> system, <u>Crestron</u> touch panel control, <u>Vaddio</u> cameras, <u>vSolution</u> document camera, and integration with <u>Sennheiser</u> audio solutions, has transformed the university's approach to hybrid learning. The system enables instructors to switch between different video sources seamlessly, present physical content to remote students, and provide a dynamic and engaging learning environment. With enhanced accessibility, flexibility, and audio-visual capabilities, <u>UNLV</u> is at the forefront of using advanced technology to deliver a high-quality education experience in the digital age.

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