



CASE STUDY

Extron AV Powers Kentucky's Largest High School Esports Arena

Extron



The new esports arena is the largest in Kentucky, spanning nearly 4300 square feet.

“Our vision was to create a dynamic esports center where visitors enter our doors and immediately want to join our program and spread the word.”

Greg Fehr
Project Manager
Western High School - The STEM Magnet

INTRODUCTION

Western High School (WHS) recently underwent a significant transformation from a residential academy into Louisville, Kentucky’s first and only STEM magnet school. The shift was made to revitalize the school’s reputation, increase enrollment, and create a more engaging learning environment. WHS provides students with distinct learning opportunities while using state-of-the-art technology, such as drones, robots, and virtual reality headsets. Among these engaging learning opportunities is a dynamic new esports arena.

The new esports facility is a collaborative learning environment, where students come for both competitive gaming and academic instruction. Classes in video game design and computer science are held right in the arena, giving students valuable hands-on experience and the opportunity to earn industry-recognized certifications.

Studio production room delivers professional shoutcasting and live commentary for every match.



CHALLENGES

Western High School sought to take its STEM program to the next level by building a top-notch, state-of-the-art esports arena. Greg Fehr, Project Manager at Western High School, The STEM Magnet, saw an exciting opportunity to attract students and generate buzz around WHS and decided to spearhead this project. Fehr and his team envisioned an esports arena that would captivate students as soon as they walked in and be a main attraction in Louisville.

"We knew our esports arena needed to have that unforgettable 'wow' factor." Greg Fehr, Project Manager at Western High School - The STEM Magnet. "It had to be a space that inspired students and showcased the innovation behind our STEM program."

To achieve this, they needed an AV system that would support various learning environments and help streamline operations during classes and esports events. The team faced multiple challenges, including delays, vendor changes, and approval requirements. Despite these obstacles, they succeeded in bringing their vision to life. Fehr and his team relied on Extron's cutting-edge technology to design a flexible space that supports classroom instruction, small group meetings, and esports competitions.



The Extron XTP II CrossPoint 6400 matrix switcher is the heart of the system. It supports 4K/60 resolutions and video and audio signal routing between gaming station feeds and displays.



Extron AV switching, scaling, and control products were integrated to support both daily classroom instruction and statewide esports competitions.

“Extron’s on-site support was outstanding. Their expertise and commitment helped get our space up and running quickly and effectively.”

Greg Fehr
Project Manager
Western High School - The STEM Magnet

DESIGN SOLUTION

The new esports arena is the largest facility of its kind in Kentucky, spanning nearly 4300 square feet with a competitive gaming area, Shoutcast station, studio production room, and two instructional spaces set up to host multiple classes simultaneously. Stage lighting and sound systems were installed to enhance visibility and provide clear audio during lessons and tournaments.

Behind the welcome desk sits a Nintendo island. The eye-catching display draws attention upon entry. The island features Nintendo gaming consoles, such as Nintendo Switches, large wall-mounted displays, and accessories designed to capture attention and spark interest amongst students and visitors. Gaming chairs, desks, and other furniture are carefully arranged throughout the room to accommodate various classroom sizes, group activities, and esports tournaments.

The touchscreen interface displays various sources including Competition Cluster, North Cluster, South Cluster, Nintendo Island, and Welcome Desk, with controls for audio, display, lighting, and cameras.



Western High School's new Esports arena features Extron solutions that deliver reliable AV connectivity and control, ensuring a seamless gaming experience for students and spectators alike.

Seamless Switching & Connectivity

Fehr and his team wanted a future-proof AV system that would allow them to make additional upgrades without needing to replace equipment. The Extron XTP II CrossPoint 6400 matrix switcher is the heart of the system and was selected for its modularity and ability to support 4K/60 resolutions, as well as video and audio signal routing between gaming feeds and displays.

Intuitive Control

An Extron TLP Pro 1725TG touchpanel provides centralized control of the AV system. Its intuitive interface allows coaches and teachers to route content to various displays, adjust lighting, and audio levels. The touchpanel works in conjunction with an IPCP Pro 360Q xi control processor, enabling seamless coordination of all AV components across the esports arena.

"The TLP Pro 1725TG touchpanel has been a game-changer for us," says Greg Fehr. "Its intuitive interface makes it incredibly easy for our staff to operate the AV system during classroom instructions and esports events."

The IPCP Pro 360Q xi control processor, along with the matrix switcher, simplifies video and audio management, ensuring reliable communication and reduced technical issues. With integrated Extron AV solutions, teachers and coaches can seamlessly transition between classroom instruction and esports tournaments.



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“Our vision is to be a vibrant STEM magnet school with 1,000 STEM students in the next four years. The new esports arena plays a pivotal role in attracting and retaining students.”

Greg Fehr
Project Manager
Western High School - The STEM Magnet

RESULTS

The new esports arena has become a sought-after space at Western High School. The feedback from students has been enthusiastic and impactful, with many expressing newfound excitement about attending classes. Visitors are captivated by the facility, often commenting on how transformative a dynamic esports arena would be at their school.

WHS has positioned itself as a leader in esports and technology education, inspiring students to join its STEM magnet program and pursue careers in computer science, broadcasting, and video game development. WHS will continue to expand its new esports arena and plans to rely on Extron’s scalable and flexible products to support future upgrades.

“Our vision is to be a vibrant STEM magnet school with 1,000 STEM students in the next four years,” adds Greg Fehr. “The new esports arena plays a pivotal role in attracting and retaining students.”

FEATURED EXTRON PRODUCTS

Model	Description
XTP II CrossPoint 6400	Modular Matrix Switchers from 4x4 to 64x64 with SpeedSwitch Technology
XTP T HD 4K	4K HDMI Transmitter
XTP T HWP 101 4K	4K HDMI Transmitter - Decorator-Style Wallplate
XTP SR HD 4K	4K HDMI Scaling Receiver
TLP Pro 1725TG	17" Tabletop TouchLink Pro Touchpanel
IPCP Pro 360Q xi	IPCP Pro xi Quad Core Control Processor

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