AV Collaboration for Education Environments

Products and System Designs for Sharing AV Content with Groups of Users



Extron Electronics
INTERFACING, SWITCHING AND CONTROL

Extron
Satisfaction Guarantee

As a leading manufacturer in the AV industry, we are committed to engineering and manufacturing our products to the highest standards of quality, performance, and value. From our advanced product design, manufacturing and quality control procedures to our friendly and knowledgeable support teams, our commitment to satisfy you is paramount. In every interaction with Extron, you can be confident you will receive our S3 commitment to Service, Support, and Solutions. For 33 years, our objective has been to ensure that every customer is completely satisfied with every purchase.

To underscore this commitment, we offer our Satisfaction Guarantee. This means we will work diligently to resolve any issue you have with your purchase until you are completely satisfied. Our dedicated K-12 Education Support Team will contact you after installation to ensure your satisfaction and that systems are being used to their full potential. We are prepared to do whatever it takes to make certain that the entire process of doing business with us is a positive and professionally rewarding experience for you.

I'm so confident in our ability to deliver on this pledge that I back it personally. If you are not satisfied with any part of your transaction with Extron, I want to know. Please contact me at president@extron.com. I will personally address any unresolved customer issue. We greatly appreciate your business. It is our intent to keep you as a customer for life.



Andrew C. Edwards

President

TABLE OF CONTENTS

Collaboration Technology for K-12 Classrooms

Instructional Strategies 4
Extron Solutions and Support Programs 5






Extron Collaboration Products

PoleVault Digital Systems 6
TeamWork Systems 7
ShareLink 200 7
eLink 100 7







System Designs

Blended Learning Classroom 8
Collaboration Retrofit 10
Wireless BYOD Classroom 12
Active Learning Classroom 14
1:1 Huddle Room 16
Wireless BYOD Study Room 18

Additional Resources

Extron Grant Program and K-12 Web Site 20

Instructional Strategies

Teaching pedagogy is shifting away from strictly lecture, and including more collaborative and cooperative learning. These changes can have a dramatic impact on curriculum, technology, and even the design of the classroom. Interactive engagement between students, faculty, and technology has given rise to the concept of active learning, which numerous studies have linked to significant increases in student achievement. In this guide, we'll outline some basic collaboration concepts and techniques, as well as AV solutions to address them.

Flipped Classrooms

The simplistic definition of flipped instruction is school work at home and home work at school. In practice, this means that students receive initial instruction in the form of a video or other resource outside of class where they can proceed at their own individual pace. During class, instructors help students apply the concepts learned.

One-to-One Computing and BYOD

One-to-One computing is a strategy where every student has an electronic device to access the internet and digital course materials. In traditional form, the academic institution supplies the devices to students in order to promote equal access and capability. However, the ubiquity of smartphones and other devices as well as tight technology budgets have given rise to the concept of Bring Your Own Device, or BYOD, where students use their own mobile device to access school resources.





Huddle Spaces

The current emphasis on collaborative instruction and assignments has created a need for spaces that allow small groups of students to meet and exchange ideas. Huddle spaces may be located within the classroom, library or common areas. These technology enabled areas typically include a flat panel display that allows members to display their work to the group.

Distance Learning

A method of remote instruction where the instructor and students are in different locations. Advancements in AV and videoconferencing technology make it possible for districts to offer access to course material that may have been difficult to justify in the past.

Planning and Implementation

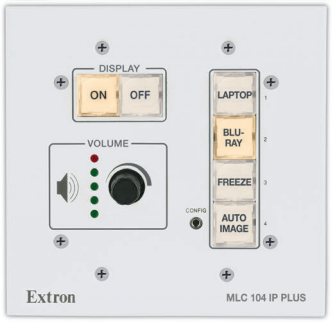
No matter what type of collaboration you decide on, buy-in and communication of the strategy to all stakeholders is vital. This includes administrators, IT, facilities, teachers and students, as well as architects, consultants, and parents. All these groups have a vested interest during the various phases of these projects whether it's designing, building, supporting, using or financing. Clearly identifying requirements and communicating the plan and progress will go a long way towards implementing a successful collaboration strategy.

Extron Solutions and Support Programs

Extron Product Solutions

Extron Electronics is the leading manufacturer of classroom audio and video systems for the education market. Since 1983, Extron has pioneered computer video interfaces, setting standards for matrix switching, signal processing, and transmission, and simplifying the control, installation, and set-up of AV systems. These efforts have resulted in solutions that meet the specific performance and value requirements of the education market, including those uniquely suited for collaboration environments.

PoleVault® Digital Systems are easy-to-use AV switching and control systems that include all necessary audio and video switching, audio amplification, system control, source connectivity, speakers, mounting hardware and cabling for a complete classroom AV solution. We have found that ease-of-use and reliability are leading factors in the successful adoption of educational technology, and used this knowledge as the guiding principle for development of our PoleVault Digtial Systems. The key component is a MediaLink® Controller that is designed to simplify AV operations. With large, backlit buttons and a basic volume control knob, the controller is almost as easy to use as a light switch. Users with little or no training can learn to operate the system in a few minutes. This ease-of-use allows teachers to focus on instruction, and not waste time dealing with technology.



MediaLink Controller

TeamWork® Systems are a simple, intuitive digital collaboration system that enhance engagement between small groups. Packages include source cables, a switcher, a system controller, and a Cable Cubby® enclosure. The key to the simple and intuitive operation of TeamWork is the Show Me cable. Just connect the Show Me cable to a laptop or tablet to start the system. As soon as a signal is detected, the display will be powered on. By pressing the Share button, the switcher automatically selects the appropriate input and the button lights for easy identification. When done, students disconnect their devices and the system automatically shuts down.

Wireless Solutions: The growth of 1:1, BYOD, and collaboration programs are dramatically increasing the number of mobile computing devices in the classroom. However, physical inputs for the AV system are not growing at the same rate. Our ShareLink wireless gateway allows any smartphone, tablet, laptop, or PC to display content to the AV system. For some installations, running cables through walls or ceilings is problematic. In these cases, our eLink wireless extender can wirelessly transmit a professional grade AV signal from a remote source, such as a collaboration table, to the classroom AV system.



ShareLink Wireless Gateway

Extron Support Services

System Design Service: We understand that it can be daunting to create an AV system that addresses all your requirements. Extron has over 30 years of experience developing products and solutions for the education market, and we want to share our experience with you. Contact our S3 support line at 800.633.9876 with your project details and we will create a solution to suit your needs.

Grant Programs: Extron provides several grant programs to qualified educational institutions and large-scale organizations. Each grant award includes installation of Extron technology and complete training. Our system grants enable key decision makers to evaluate technologies and define collaboration system standards. To apply for a grant, simply provide your contact information and location, as well as details on your installation environment at www.extronclassroom.com/grants.

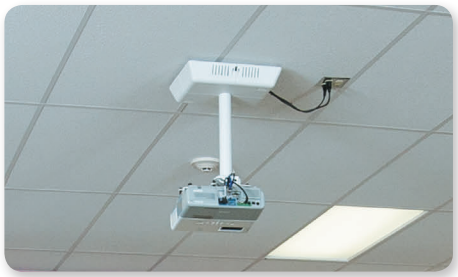
Education Pricing: Extron collaboration products are listed on cooperative purchasing agreements available in most states. These agreements provide not to exceed pricing for schools, libraries, government, and other eligible non-profit agencies. By centralizing the process, these agreements save you time and money. Extron does not sell directly to end users, but contract pricing is available through our Authorized Resellers.

PoleVault Digital Systems

PoleVault Digital Systems are easy-to–use AV switching and control systems that seamlessly integrate the most common digital and analog video formats used in modern classrooms, and serve as the foundation for AV collaboration. At the heart of each system is an ENERGY STAR® qualified switcher designed to lower energy usage and reduce operating costs. PoleVault Digital Systems transmit AV signals over economical CATx shielded twisted pair cable and include network connectivity for Web-based AV resource management, monitoring, and control. These systems also include unique mounting options to protect critical components from tampering and theft

PoleVault®

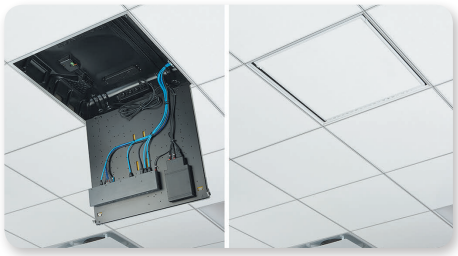
Digital PoleVault systems are ideal for classrooms with a ceiling mounted projector. The unique PMK 560 Pole Mount Kit securely mounts and conceals system components above the projector. A projector drop ceiling mount is included with adjustable pole and universal projector bracket. PVS 201D systems support three HDMI and one VGA input. PVS 401D systems support five HDMI and one VGA.



Model	Version	PART#
PVS 201D	2+2 Input Digital PoleVault	42-307-03
PVS 401D	4+2 Input Digital PoleVault	42-308-03

PlenumVault®

Digital PlenumVault systems use the PVM 220 PlenumVault Mounting Kit that securely mounts and conceals system components in the plenum area above a suspended ceiling. Ceiling Mount versions include a projector drop ceiling mount with adjustable pole and universal projector bracket. No Mount, NM, versions do not include projector mounting. PLS 201D and PLS 211D systems support three HDMI and one VGA input. PLS 401D and PLS 411D systems support five HDMI and one VGA.



Model	Version	PART#
PLS 201D	2+2 Input Digital PlenumVault, ceiling mount	42-320-03
PLS 401D	4+2 Input Digital PlenumVault, ceiling mount	42-321-03
PLS 211D	2+2 Input Digital PlenumVault, no mount	42-330-03
PLS 411D	4+2 Input Digital PlenumVault, no mount	42-331-03

WallVault® Short-Throw

Digital WallVault Short-Throw, systems were specifically developed for classrooms with an ultra short-throw projector. The unique USFM 100 ultra short-throw projector mount and equipment enclosure securely mounts the projector to a wall, and conceals system switching and amplification components. WVS 201D systems support three HDMI and one VGA input. WVS 401D systems support three HDMI and one VGA.



Model	Version	PART#
WVS 201D	2+2 Input Digital WallVault with USFM 100	42-309-03
WVS 401D	4+2 Input Digital WallVault with USFM 100	42-310-03

WallVault® Wall Mount

Digital WallVault Wall Mount systems were designed for classrooms with a flat panel display or wall mounted projector. They take their name from the unique WMK 160 wall mount kit that securely mounts and conceals system switching and audio amplification components to a wall. WVS 211D systems support three HDMI and one VGA input. WVS 401D systems support five HDMI and one VGA.



Model	Version	Part#
WVS 211D	2+2 Input Digital WallVault with WMK 160	42-311-03
WVS 411D	4+2 Input Digital WallVault with WMK 160	42-312-03

Collaboration Solutions

In addition to industry standard classroom AV systems, Extron has developed a number of platforms to enhance collaboration in educational environments. This includes east-to-use systems for small groups, wireless solutions for the entire class, and specialized products that simplify the integration of multiple systems. Below are several of the Extron products that are uniquely suited for collaboration applications.

TeamWork Systems



Extron TeamWork® Systems are simple, intuitive digital collaboration systems for groups of up to six users. Packages typically include HDMI and VGA Show Me cables, a switcher, a system controller, a Cable Cubby® Series/2 enclosure, and other necessary system cables. Students simply connect their laptop or tablet to a TeamWork Show Me cable to start the system, and then press the Share button to show their content on the presentation display. When done, students disconnect their devices and the system automatically shuts down.

Model	Version	Part Number
TeamWork 601	120 VAC, with US AC outlets	42-241-01
TeamWork 600	120 VAC, with US AC outlets	42-247-01
TeamWork 400	120 VAC, with US AC outlets	42-246-01

ShareLink 200



Extron ShareLink 200 is a wireless collaboration gateway for sharing content from computers, smartphones and tablets. It can be used to create a stand-alone wireless collaboration and presentation system or to add wireless presentation capabilities to an existing classroom AV system. Sharelink allows any authenticated instructor or student to send their content to the display and control the presentation. When multiple users are connected, the systems will display the content of up to four simultaneously to enhance collaboration. The WebShare application enables content to be sent over the network to the web browser, allowing users to view the presentation on their own device.

Model	Version	Part Number
ShareLink 200	Wireless Collaboration Gateway - with WAP	60-1508-01
ShareLink 200 N	Collaboration Gateway – Network Version - no WAP	60-1508-02

eLink 100



Extron eLink 100 is a professional-grade wireless transmitter and receiver set for extension of HDMI video and multi-channel audio up to 100 feet (30 meters). This HDCP-compliant extender features a robust wireless communication technology to ensure high reliability and real-time performance with exceptional image quality for resolutions up to 1920x1080, including HDTV 1080p/60. The extender uses the 5 GHz spectrum for transmission through multiple walls. Extron eLink™ technology ensures reliable operation of up to four eLink extender sets, even if other wireless systems are within the same facility. In addition to point-to-point designs, one transmitter can support four receivers to create a wireless distribution system.

Model	Version	Part Number
eLink 100 T US	Transmitter - US/Canada version	60-1490-02
eLink 100 R US	Receiver - US/Canada version	60-1490-03

Blended Learning Classroom



Overview

The district is interested in creating a classroom that combines tradition lecture instruction with active learning. The AV system should accommodate a large format display and source connectivity at the front of the room as well as collaboration pods for group work. With these capabilities, the instructor can teach a traditional lesson then allow students to work in guided groups to apply key concepts. The AV system should allow both instructor materials as well as content from the student collaboration pods to be presented on the main display for viewing by the entire class. The district has a 1:1 computing program that provides each student and faculty member with a laptop computer. Laptops output HDMI video signals.

Room Needs Assessment

Purpose	AV switching, control, and amplification system that supports both HDMI and VGA signals as well as two pods where students can collaborate on the application of lecture concepts with instructor assistance
Viewing Distance Ranges	8 to 40 feet for Main Display Up to 60 inches for Pods
Display Requirements	Projector for Main Display Flat panel for Pods
Sources	Teacher laptop and document camera for main display and student laptops for pods
Control Interface	Display power and input selection should be as intuitive as possible
Audio Requirements	Program audio for sources should be distributed evenly throughout the classroom
Equipment storage and mounting	Secure AV from tampering and theft

System Design Solution

Below are Extron products and detailed descriptions for creating a classroom AV system that combines traditional instruction with active learning.

Qty	Description	Model	Part #
1	PoleVault Digital System with PlenumVault Mounting Kit	PLS 411D	42-331-03
2	TeamWork Collaboration System for Four Digital Sources	TeamWork 400	42-246-01
2	Two Output HDMI Distribution Amplifier	HDMI DA2	60-997-01

Display Components

One ultra short-throw projector with 3,000 ANSI lumen brightness and HDMI input. Projector native resolution is 1280 x 800 and supports an image size of up to 100". In addition, each pod will include a 42" flat panel display supporting up to 1920 x 1080 resolution.

Sources and Connectivity

Teacher Laptop with HDMI output and Document Camera with VGA output will connect to a PVT HDMI RGB wallplate. HDMI outputs from the pods will connect to a PVT HDMI mounted on the wall between them. Each of the pods includes four HDMI Show Me cables to connect student laptop computers.

Switching System

The Extron PVS 407D in the PlenumVault Digital System provides two inputs for dual input switching wallplates which transmit high resolution AV signals to the switcher over a single, economical CATx cable. Each pod includes a SW4 HDMI switcher allows content from one of the four HDMI sources to be routed to the pod's flat panel display and PVT Wallplate via a HDMI distribution amplifier.

Control System

The Extron MLC 104 IP Plus MediaLink Controller provides user control of the main system including display power, volume control and source selection. The SW4 HDMI switcher and AC Power Controller of each pod work with the Show Me source cable to control the operation of each pod's flat panel.

Audio System

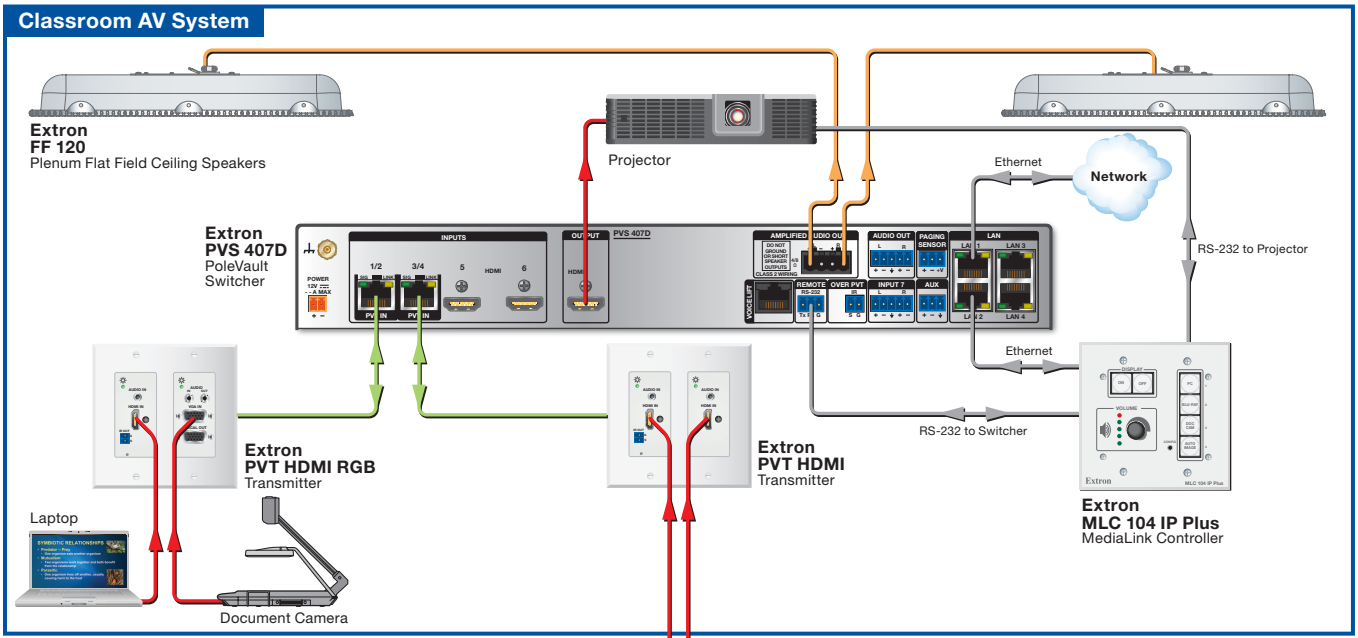
The PVS 407D also offers an integrated 50 watt amplifier that drives a pair of Extron FF 120 speakers. The FF 120 speakers feature Extron patented Flat Field technology that provides consistent sound levels throughout the classroom using only two speakers.

Mounting

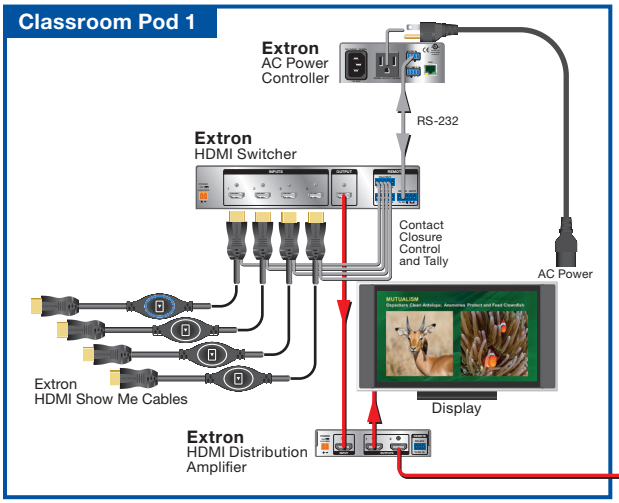
Key AV system components such as the main switcher and power supply are mounted above the suspended ceiling in the Extron PVM 220 PlenumVault Mounting Kit, protecting them from tampering and theft. Each collaboration pod has a Cable Cubby enclosure for easy access to Show Me cables and AC power.



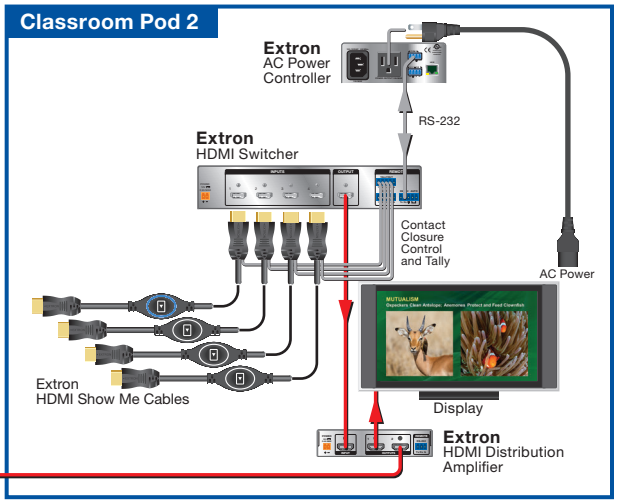
Classroom AV System



Classroom Pod 1



Classroom Pod 2



Collaboration Retrofit



Overview

The district wants to add a collaboration station to a technology enhanced classroom that already has a classroom AV system. Ideally, the instructor would like to be able to show group work from the collaboration pod on the large display as examples for the class. Unfortunately, the room walls are predominately cinder block and officials do not like the appearance of surface mount raceway for routing cables.

Room Needs Assessment

Purpose	Add a collaboration pod to a classroom that already has the WallVault Digital classroom AV system installed. Transmit AV signals wirelessly from the pod to the main AV system to avoid long cable runs across walls.
Pod Viewing Distance	Up to 60 inches
Pod Display Requirements	Flat panel
Pod Sources	Student laptops
Pod Control Interface	Display power and input selection should be as intuitive as possible
Pod Mounting	Source cabling and switching components should be mounted on the collaboration table

System Design Solution

Below are Extron products and detailed descriptions for integrating a new collaboration pod into an existing classroom AV system via wireless HDMI extender.

Qty	Description	Model	Part #
1	PoleVault Digital System with WallVault Ultra Short-throw Mount and Enclosure	WVS 201D	42-309-03
1	TeamWork Collaboration System for Four Digital Sources	TeamWork 400	42-246-01
1	Two Output HDMI Distribution Amplifier	HDMI DA2	60-997-01
1	eLink Wireless Transmitter for HDMI	eLink 100 T US	60-1490-02
1	eLink Wireless Receiver for HDMI	eLink 100 R US	60-1490-03

Classroom AV System

This room is already equipped with an Extron WallVault Classroom AV System and projector. The WallVault system includes an AV switcher and input wallplates for managing teacher and pod sources, and displaying them on the projector. An easy-to-use MediaLink controller is included for control of power, source selection, and audio level. The audio amplifier in the switcher and Flat Field speakers evenly distribute sound throughout the classroom. The WallVault enclosure secures critical components from tampering and theft.

Pod Display Components

One 42" Class flat panel display supporting up to 1920 x 1080 resolution.

Pod Sources and Connectivity

The collaboration station includes four HDMI Show Me cables to connect student laptop computers. The TeamWork HDMI switcher connects to the HDMI DA2 that provides content to the flat panel and eLink transmitter. An eLink receiver is connected to one of the local HDMI inputs of the WallVault System switcher.

Pod Control System

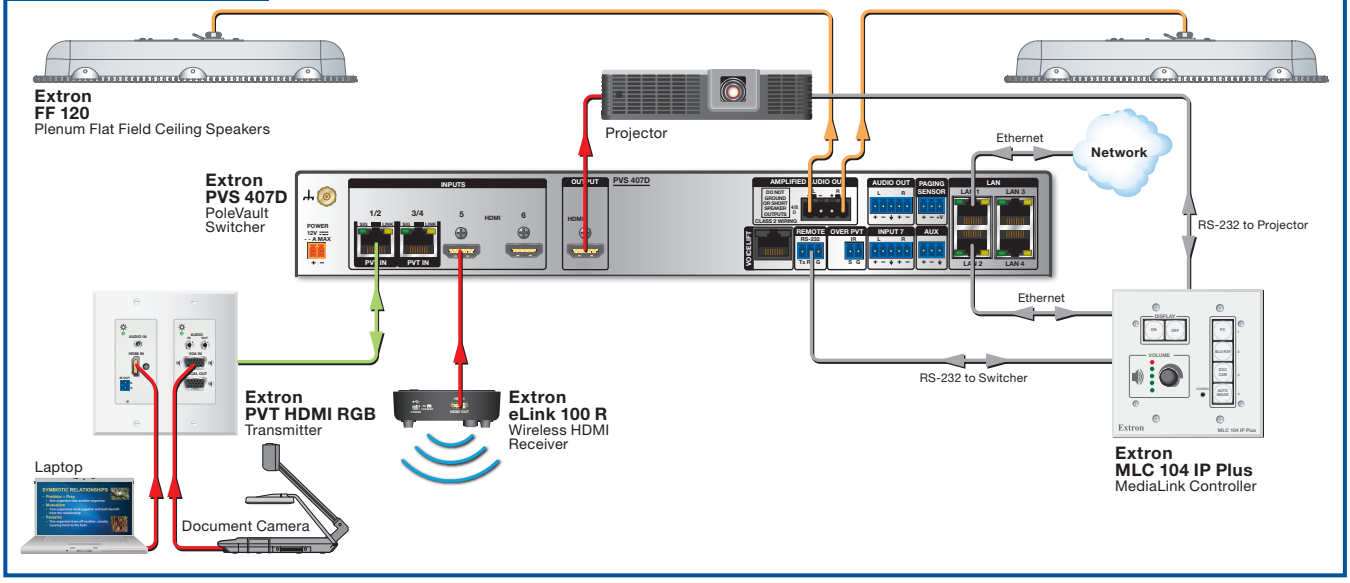
The SW4 HDMI switcher and AC Power Controller of the collaboration station work with the Show Me source cables to control the operation of the flat panel.

Pod Mounting

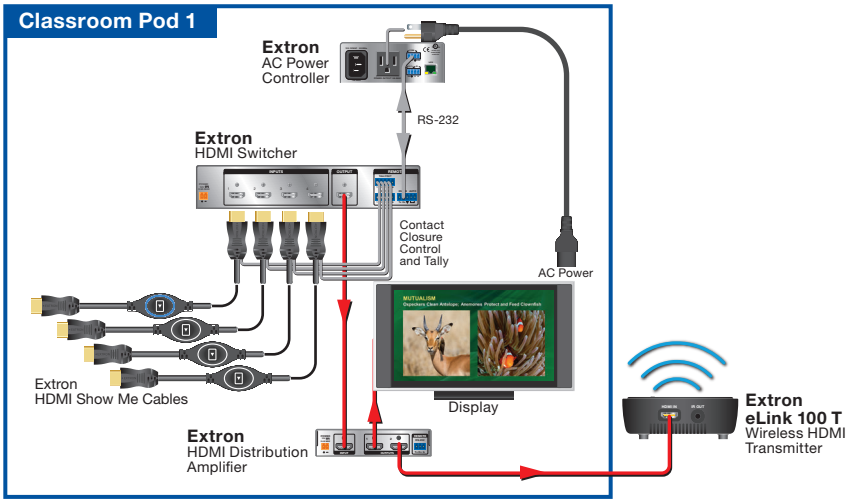
The furniture system associated with the collaboration pod has a Cable Cubby enclosure for easy access to Show Me cables and AC power. The switcher and power controller are mounted under the table of each pod and the display is mounted at the end.



Classroom AV System



Classroom Pod 1



Wireless BYOD Classroom



Overview

The district supports a BYOD policy where students and faculty can use their personal smartphones, tablets, and computers to access the school network and technology. Classrooms currently offer a complete classroom AV system and a projector. The district would like a simple and reliable method for allowing one or more users to share content from their mobile devices on the projector.

Room Needs Assessment

Purpose	Add wireless collaboration capability to WallVault Digital classroom AV system that supports a variety of mobile computing devices.
Sources	Up to 64 devices including a variety of smart phones, tablets, and laptops
Presentation Control	Instructor needs control over whose content is displayed

System Design Solution

Below are Extron products and detailed descriptions for a system that allows students and faculty to wirelessly transmit content from their personal device to the classroom AV system.

Qty	Description	Model	Part #
1	PoleVault Digital System with WallVault Ultra Short-throw Mount and Enclosure	WVS 201D	42-309-03
1	ShareLink Wireless Collaboration Gateway	ShareLink 200	60-1508-01

Sources and Connectivity

ShareLink 200 allows content from a variety of smartphones, tablets, or computers to be displayed on the projector connected to the WallVault Digital system. The MirrorOp® for Extron ShareLink™ app enables wireless connection of Apple and Android smartphones and tablets and is available from the iTunes App Store or Google Play. Windows or an OS X computers access the ShareLink 200 software through a web browser directed to the IP address of the unit.

Switching System

The Extron PVS 407D switcher of the WallVault Digital system provides two HDMI inputs at the teacher's station for a laptop and a document camera. It also provides a local HDMI connection for the ShareLink 200.

Control System

The Extron MLC 104 IP Plus of the WallVault digital system will provide user control of the main system including display power, volume control and source selection.

Moderated Presentation

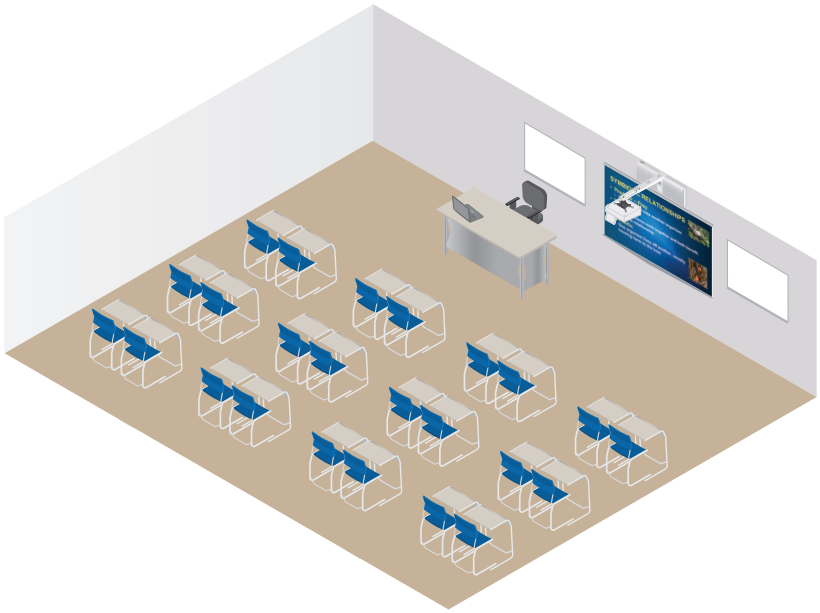
ShareLink 200 offers a moderator mode that enables complete control over device access and presentation. The instructor decides which users can access the display and how the content is presented, ensuring only approved content is displayed.

Full Screen or Multiple Windows

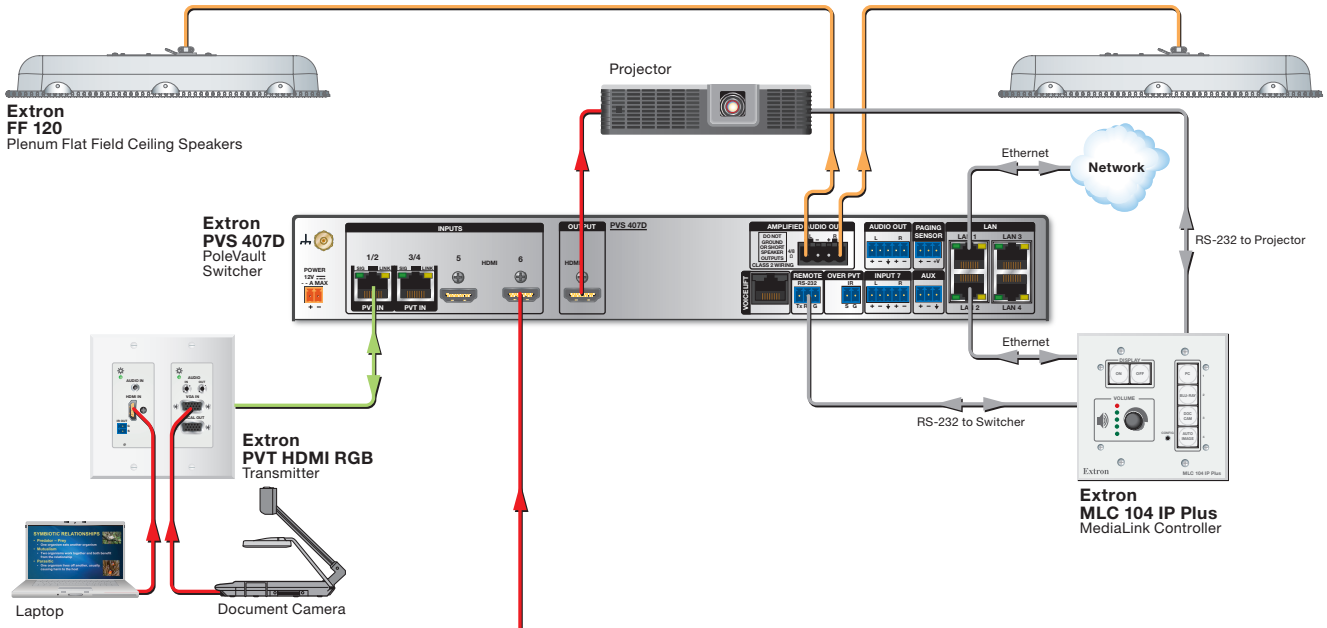
Content from a single connected device may be shown full screen, or in one of four windows. When multiple devices are connected, up to four sources can be displayed simultaneously to enhance collaboration.

Audio System

The PVS 407D also offers an integrated 50 watt amplifier that drives a pair of Extron FF 120 speakers. The FF 120 speakers feature Extron patented Flat Field technology for consistent sound levels across the listening area, and reduce the number of speakers required in the room.



Classroom AV System



Wireless BYOD System



Active Learning Classroom



Overview

A school is interested in adding up to five technology enabled collaboration pods in a standard classroom. These pods will facilitate active learning by allowing students to seamlessly transition from lecture based instruction to interactive group work overseen by the instructor to re-inforce concepts. The district has a 1:1 computing program that provides each student and faculty member with a laptop computer. Laptops output HDMI video signals.

Room Needs Assessment

Purpose	Create five pods in classroom where students can collaborate on the application of lecture concepts with instructor assistance
Viewing Distance Range	Up to 60 inches
Display Requirements	Flat panel for each pod
Sources	User supplied laptops
Control Interface	Display power and input selection should be as intuitive as possible
Mounting	Source cabling and switching components should be mounted on each pod

System Design Solution

Below are Extron products and detailed descriptions for creating multiple AV collaboration areas within a standard classroom.

Qty	Description	Model	Part #
5	TeamWork Collaboration System for Four Digital Sources	TeamWork 400	42-246-01

Display Components

One 42" Class flat panel display supporting up to 1920 x 1080 resolution for each pod.

Sources and Connectivity

Each pod includes four HDMI Show Me cables to connect student laptop computers.

Switching System

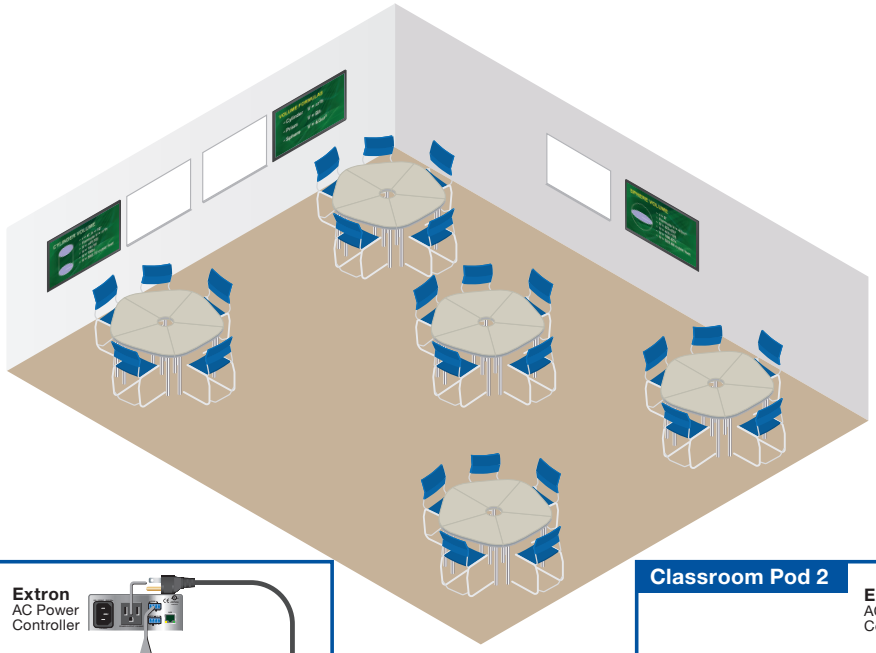
Each pod includes a SW4 HDMI switcher allows content from one of the four HDMI sources to be routed to the pod's flat panel display.

Control System

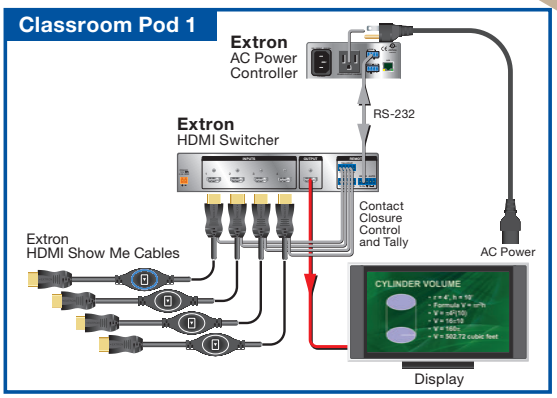
The SW4 HDMI switcher and AC Power Controller of each pod work with the Show Me source cable to control the operation of the flat panel. Simply connect a Show Me cable to a laptop and press the Share button. As soon as an active signal is detected, the display will be powered on and the active source displayed. When done, disconnect the Show Me cable and the display will be powered down.

Mounting

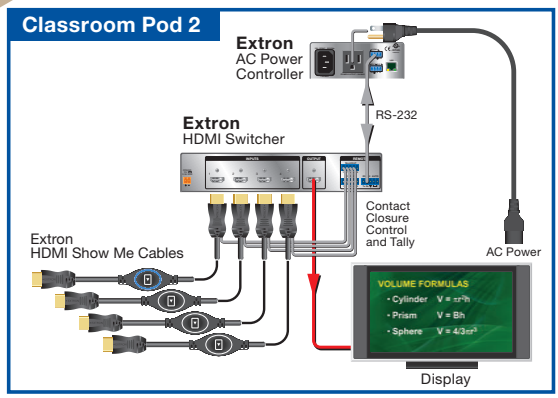
The furniture system associated with each pod has a Cable Cubby enclosure for easy access to Show Me cables and AC power. The switcher and power controller are mounted under the table of each pod.



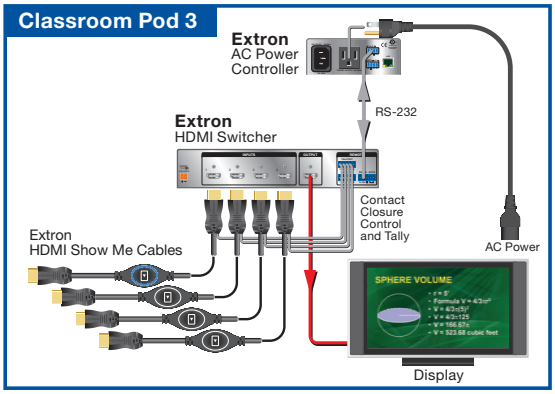
Classroom Pod 1



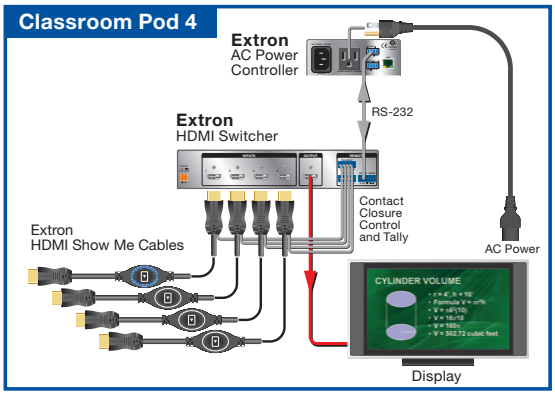
Classroom Pod 2



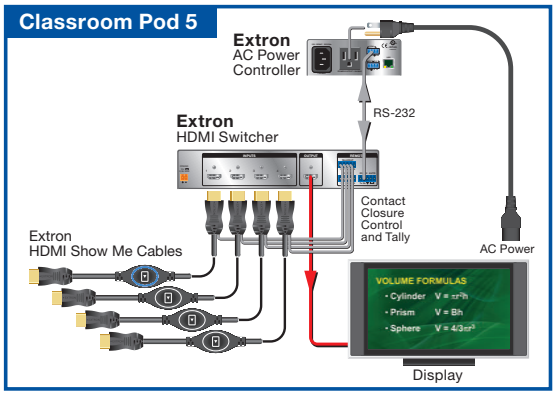
Classroom Pod 3



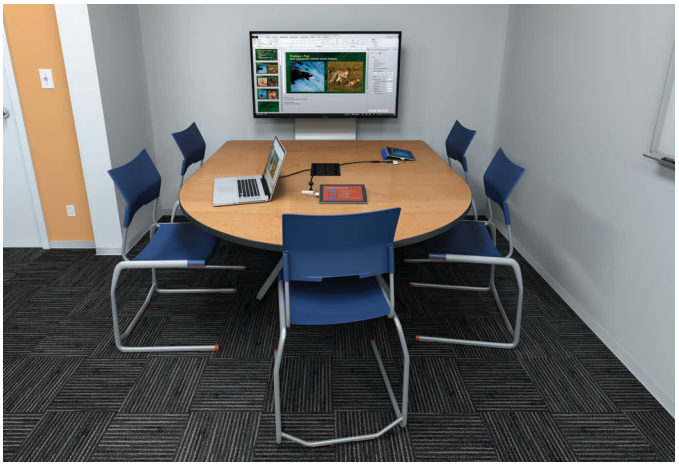
Classroom Pod 4



Classroom Pod 5



1:1 Huddle Room



Overview

A school is interested in providing technology enabled spaces for small groups of students to meet and discuss projects. These collaboration spaces will be located in library meeting rooms as well as certain common areas. The district has embarked on a 1:1 computing program that provides each student and faculty member with a laptop computer. Laptops output either a VGA or HDMI video signals.

Room Needs Assessment

Purpose	Create stand-alone collaboration stations where groups of up to six users can meet and discuss projects
Viewing Distance Range	Up to 60 inches
Display Requirements	Flat panel
Sources	User supplied, VGA and HDMI
Control Interface	Display power and input selection should be as intuitive as possible for operation by non-frequent users
Mounting	Display, switching components, and source cabling should be mounted on the collaboration table

System Design Solution

Below are Extron products and detailed descriptions for creating AV collaboration spaces where small groups can meet and discuss projects.

Qty	Description	Model	Part #
1	TeamWork Collaboration System for Four Digital Sources and Two Analog Sources	TeamWork 601	42-241-01

Display Components

One 42" Class flat panel display supporting up to 1920 x 1080 resolution.

Sources and Connectivity

The system includes four HDMI and two VGA Show Me cables to connect user laptop computers.

Switching System

The included MPS 601 switcher digitizes analog signals so that they can be switched along with native HDMI signals, on a single HDMI cable that is routed to the flat panel display.

Control System

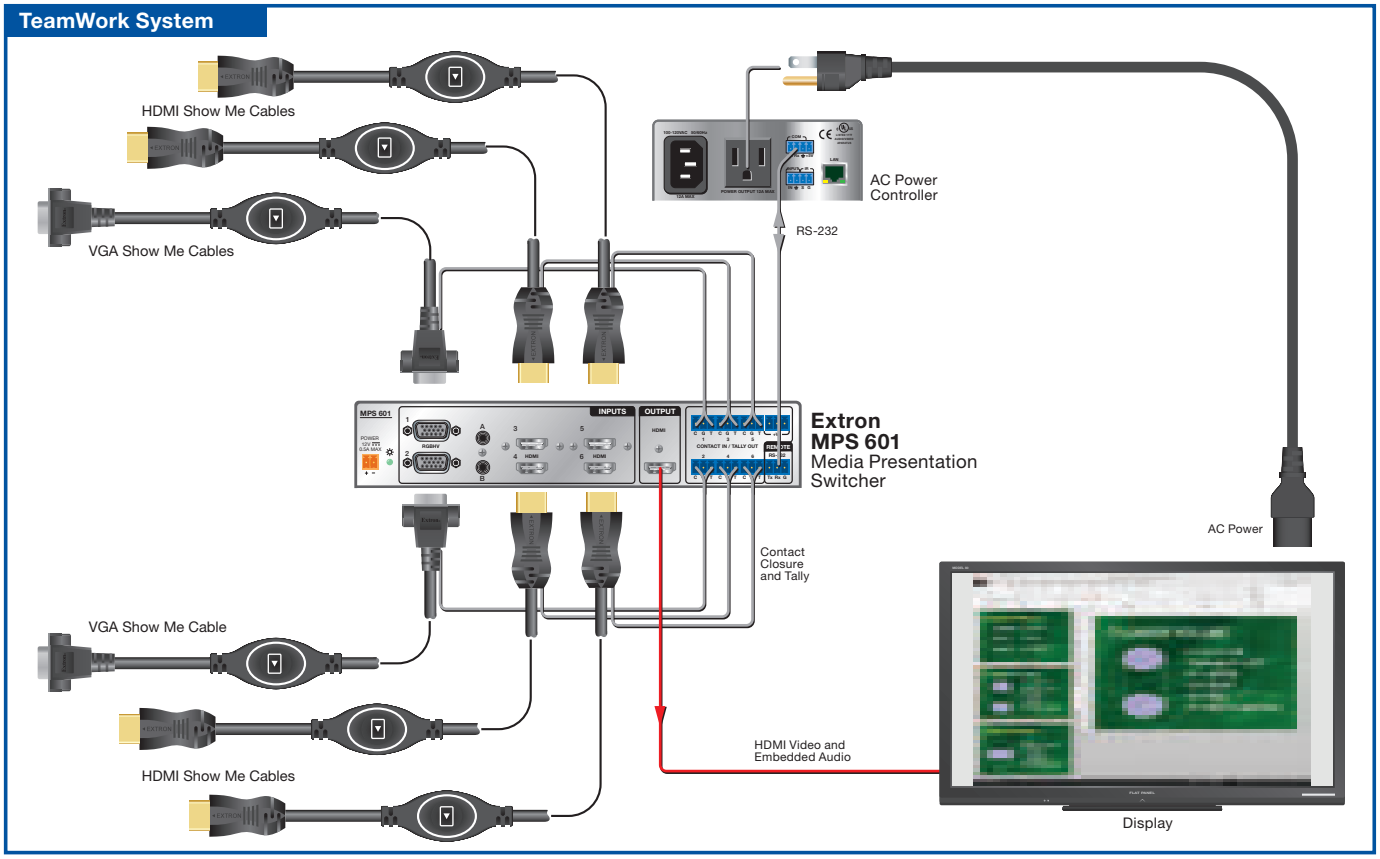
The included MPS 601 switcher and AC Power Controller work with the Show Me source cable to control the operation of the flat panel. Simply connect a Show Me cables to a laptop and press the Share button. As soon as an active signal is detected, the display will be powered on and the active source displayed. When done, disconnect the Show Me cable and the display will be powered down.

Mounting

This TeamWork system can be integrated with any furniture system, and the included Cable Cubby enclosure and Table Mount Kits provide the finishing touch. The Cable Cubby enclosure provides easy access to Show Me cables and AC power. The switcher and power controller are mounted under the table.



TeamWork System



Wireless BYOD Study Room



Overview

A school is interested in providing technology enabled spaces for groups of users to meet and discuss projects. These collaboration areas will be located in library meeting rooms, conference rooms, or common areas. The district supports a BYOD policy where students and faculty can use their personal smartphones, tablets, and computers to access the school network and technology. For convenience and compatibility, the school prefers that sources connect to the display wirelessly

Room Needs Assessment

Purpose	Create wireless collaboration rooms where groups of users can meet and discuss projects
Viewing Distance Range	Up to 12 feet
Display Requirements	Flat panel
Sources	Smartphones, tablets and laptops from various manufacturers
Access	Users should be able to access the presentation system via local Wi-Fi connection or through the school's network

System Design Solution

Below are Extron products and detailed descriptions for creating AV systems that allow students to collaborate wirelessly from their personal devices.

Qty	Description	Model	Part #
1	ShareLink Wireless Collaboration Gateway	ShareLink 200	60-1508-01

Display Components

One 60" Class flat panel display supporting up to 1920 x 1080 resolution.

Sources

ShareLink 200 allows content from a variety of smartphones, tablets, or computers to be displayed on a presentation system. The MirrorOp® for Extron ShareLink™ app enables wireless connection of Apple and Android smartphones and tablets and is available from the iTunes App Store or Google Play. Windows or an OS X computers access the ShareLink 200 software through a web browser directed to the IP address of the unit.

Access and Security

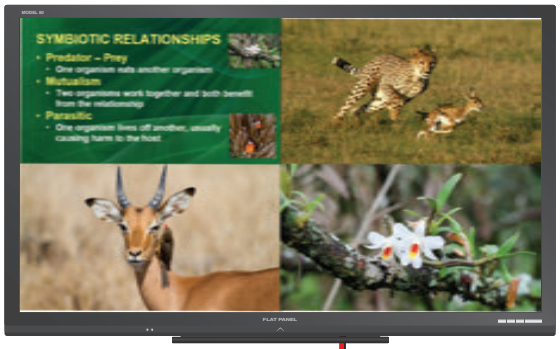
ShareLink 200 includes an integrated wireless access point provides connection using 802.11b/g/n wireless standards, enabling local connections to segment public and private networks. It also includes a Gigabit Ethernet connection to provide access for users on the schools network as well as computers or laptops that are unable to connect wirelessly. ShareLink 200 features security authentication consisting of randomly generated or user-defined security codes to ensure only approved devices can access the system and share content.

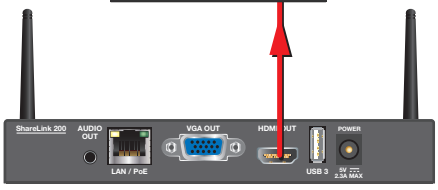
Mounting

ShareLink 200 can be placed on a desktop or tabletop using the included rubber feet, or mounted to a wall by the display using the included wall mount kit.



Wireless BYOD System





Extron ShareLink 200
Wireless Collaboration Gateway



Tablet



Tablet



Laptop



Laptop

Extron Grant Program and K-12 Web Site

Extron's aggressive Classroom Technology Grant Programs are just one more example of our commitment to enhancing the K-12 learning environment. The goal of these programs is to provide increased visibility and expanded access for AV technology by supplying selected pilot classrooms with advanced audio video solutions at no cost to the district. To date, Extron has granted more than $8 million worth of equipment to over 1,280 classrooms in U.S. school districts

The **Extron ShareLink Grant Program** enables schools to test wireless collaboration capabilities with any Extron PoleVault® classroom AV system.

The **Extron VoiceLift® Microphone Grant Program** allows pilot classrooms to experience the benefits of voice amplification in K-12 learning environments.

The **Extron Classroom AV Grant Program** provides a complete, easy-to-use AV switching, control, and audio amplification system that seamlessly integrates all sources.

The **Extron GlobalViewer® Enterprise Grant Program** provides qualifying school districts with our server-based, AV system monitoring and resource management software.

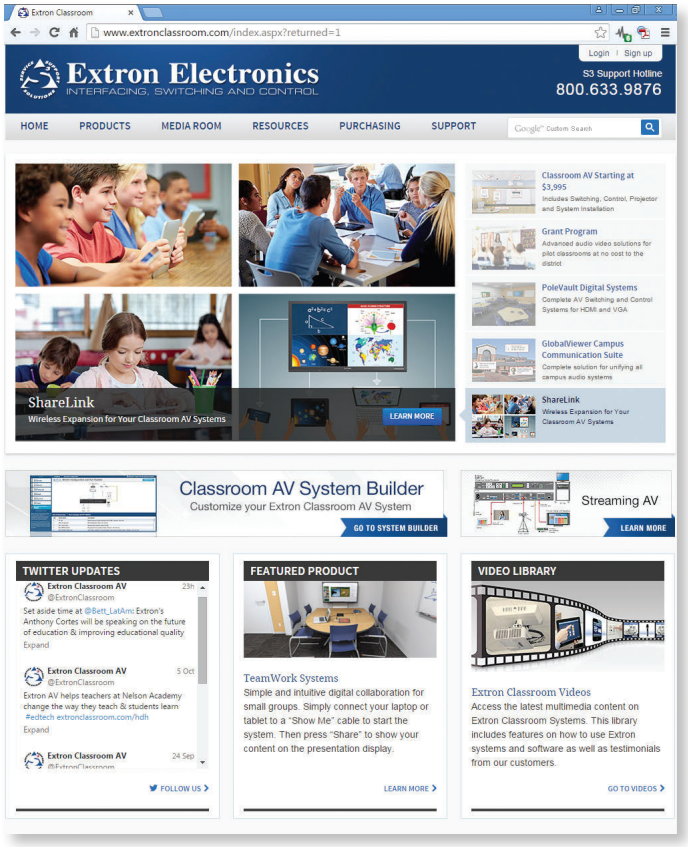
Each grant award includes installation of Extron classroom system technology, along with complete training.

How to Apply

Applying for the Extron Classroom AV System Grant is easy using the online form available at www.extronclassroom.com/grant. There is no need to commit valuable resources to generating a lengthy grant proposal. Simply provide your contact information and location, as well as details on your classroom environment. Once your information has been submitted, an Extron Grant Administrator will review the application and contact you to discuss your project.

Training and Support Included

When a grant is awarded, an authorized Extron integrator will contact you to review the details of the system and schedule installation and training. From that point forward, you will have all the time you need to evaluate the system and its impact on teachers and students. All equipment, installation, and training are provided free of charge, with no required commitment for future purchases.



K-12 Web Site for Education Users - www.extronclassroom.com

The Extron Classroom Web site is designed exclusively for anyone at K-12 institutions involved in selecting, purchasing, or supporting AV presentation equipment.

Sign up for a Login and gain access to:

- Design guides, white papers, product brochures and a wealth of other AV technology resources
- Education pricing
- Classroom AV System Builder - Powerful online tool for configuring and pricing custom classroom AV systems
- An expanded tradeshow list that includes instructional technology events
- Case studies, quotes, and video testimonials

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