

# SmartShell

One Control System for All



**ROSS**

# Control Revolutionized

## The Industry's Broadest Portfolio of Studio Robotics

Ross gives you the flexibility to match any production need, boosting creativity, consistency, and control.

From ultra-smooth cable and track systems to free-roaming pedestals, robotic Pan/Tilt heads, and PTZ integrations, every solution is built in-house with advanced technology for unmatched precision and reliability.



## Seamless Control for Every Robotic Workflow

SmartShell delivers a unified, intuitive control experience, giving operators the flexibility to manage any Ross robotic solution with ease, whether in compact setups or large scale studios.

Combining a touchscreen GUI with an ergonomic joystick panel, SmartShell lets you control everything—from Furio and SkyDolly rail-based systems to Artimo and CamBot pedestals, PT heads, and PTZ cameras, through a single, scalable, ethernet-based system.

With built-in MotionDirector technology, you get smooth, natural-looking camera moves with the precision of pre-programmed motion and the freedom to adjust on the fly. Now available across all Ross Robotics.



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## SmartShell Configurator

- Group camera by studios and shows for easy access to just the cameras you need when you need them.
- Put full system configuration in the hands of studio engineers without needing to manage config files.
- A single configuration for all control stations.



## Camera View

- Quickly set up pre-programmed camera positions and program complex on-air moves.
- Group cameras into studio setups and switch between them instantly.
- Organize shots with customizable categories, by show, scene, or operator, and lock presets, moves, and categories for security.
  - Design complex signature shots with simple drag-and-drop keyframes or record live operator movements. Combine both for hybrid moves, with keyframes that can be added or edited anytime.

## Axis Control View

- Each control axis can be customised to suit your requirements, by setting the speed, damping, zoom-dependent sensitivity, and axis inversion.
- These settings can be saved and recalled for each operator separately.

## The Matrix View

- A single consolidated matrix of shots where you can recall presets and moves from any connected camera simply by touching a thumbnail.
- Simultaneous preparation of camera presets and moves while executing others, with no need to wait for one command to complete before initiating the next.
- Recall shots on multiple cameras simultaneously.

# Take Control

An elegantly designed control panel that serves as your intuitive, versatile command station.



**2 high quality Hall-effect joysticks** provide responsive, progressive control of Pan, Tilt, Elevation, Floor/Track and Zoom - even while a programmed movement is in progress!

A **24" user interface** is available as either a quiet all-in-one touchscreen PC\* with separate 1RU thumbnail and/or Vision[Ai]ry server or a compact desktop PC with separate touchscreen and SDI input card for grabbing thumbnails.

*\* Touchscreen not shown on this version*

**15 colour LCD camera buttons** with a definitive, tactile feel show camera status and name

**4 customizable knobs** with LCD touch panel are used for Camera and pre-shot duration control

**2 angled rollers** provide accurate focus pull and move duration control while the robots are moving

**Touchscreen** with turn knob gives status information like e.g. IP address

**15 customizable colour LCD action buttons** with a tactile feel give instant access to the most common SmartShell and Vision[Ai]ry functions. Crucial actions are now just a button press away :

- Standard Cut, Cue and Run
- Alternative Cut and Cue
- Halt and Operate
- AI on/off toggle

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## IP-Based Control

Each SmartShell control station communicates with the robots over an ethernet infrastructure using an Open API, simplifying integration into new or existing facilities.

Presets and moves are stored on the robots, streamlining communication with the control system. This distributed network architecture is not only more robust, but also enables remote and automated production by consistently delivering the same visual results, whether controlled locally, remotely over a low-latency network or via automated control software.

## Control Systems specs

SmartShell	
Supported Robots	Ross PT heads, Artimo and CamBot XY pedestals, BlackBird pedestals and Furio and SkyDolly rail systems
Supported PTZ Integration	Ross PTZ-12G/NDI/12G+ cameras Sony BRC and ILME series * Panasonic AW-UE100/UE150/UE160 * Canon CR-N300, CR-N500 and CR-X300 * * with optional plugin
Comm. Robots – Control System	Ethernet
Video Router control	IP or RS232/422
Tally Inputs	TSL v3.1 and v5.0 over IP

SmartShell Station	
Operating System	Windows 11 Professional
Form Factor	RRB-CTL-AIO : All-in-One PC with integrated 24" Touchscreen Display RRB-CTL-PC : Compact Desktop PC with integrated Robotics Server and separate 24" Touchscreen Display RRB-CTL-SW : SmartShell Software license

Robotics or Vision[Ai]ry Server	
Operating System	Windows 11 Professional
Form Factor	RRB-SRV : 1RU rack mounted server with 1x SDI input for thumbnail capture RRB-CTL-PC : SmartShell station with integrated server, see above * RRB-VAI-SRV : Vision[Ai]ry server with 4x SDI inputs * * need additional RRB-SRV-SW license

CX-3R Control Panel	
Right Joystick Control	Pan/Tilt/Zoom
Left Joystick Control	Track/XY/Lift
Roller Encoders	Focus and On-Air Duration
Camera Selection Buttons	15 with colour LED for status and name
Action Buttons	Cut, Cue, Run Alt Cut, Cue Operate, Force Operate Off Halt AI on/of
Control Knobs with Touchscreen	Iris, Black and pre-shot Duration
Communication with Workstation and Robots	UCP and TCP/IP over Ethernet
Power Supply	24 VDC External Power Supply

## Total Robotics Control, Simplified

Unlock the full potential of your robotics workflow with the Robotics Server, your all-in-one hub for thumbnail capture, video router control, tally management, and seamless integration with legacy or third-party devices.

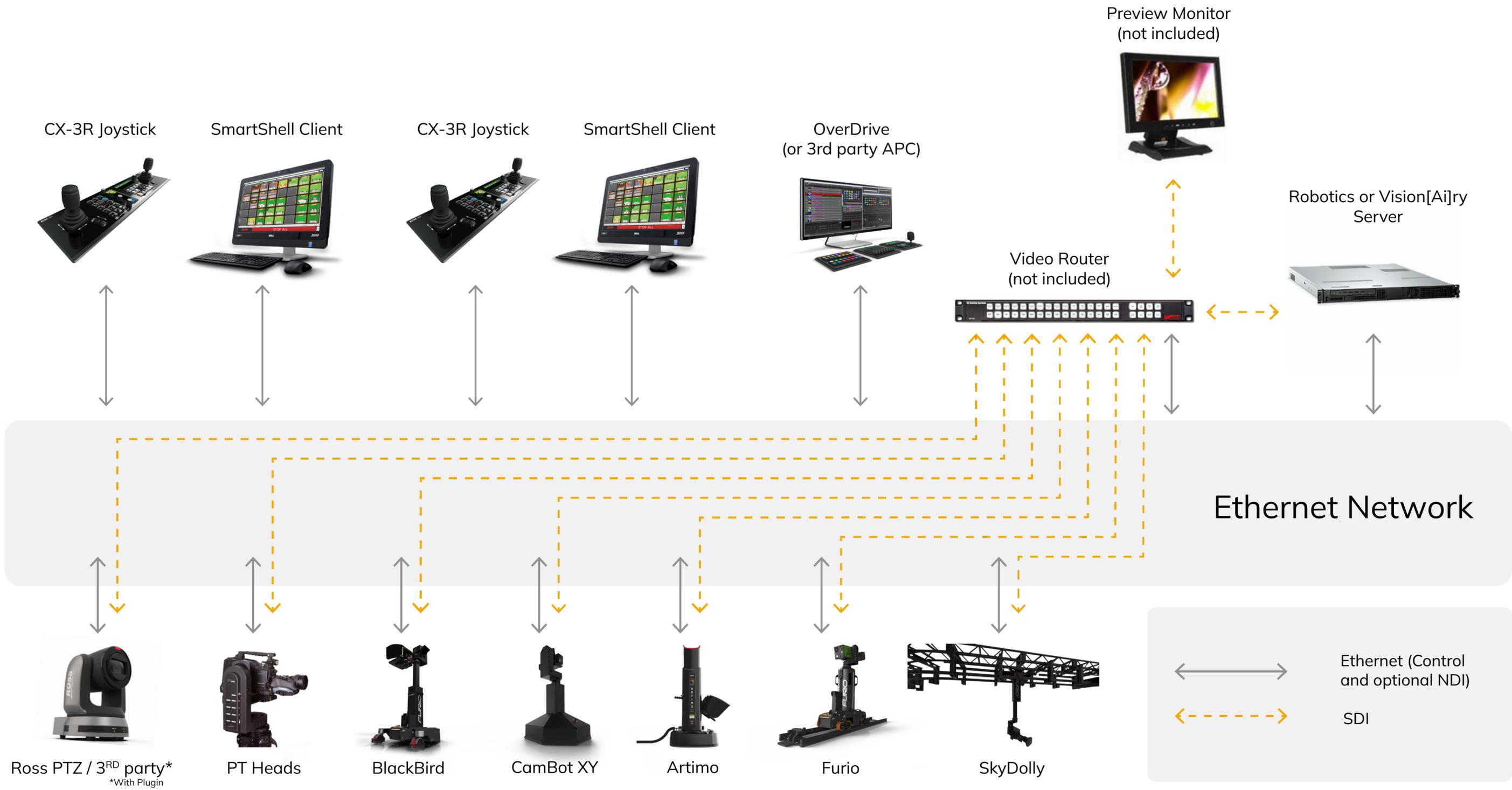
Available as a 1RU rack server or for smaller setups, the all-in-one integrated control station, combining server, SmartShell software, and control panel in a single cost-efficient unit.

Alternatively, supercharge your production with the Vision[Ai]ry Server, which doubles as a robotics server and delivers AI-driven face and body tracking. Get up to 4 tracking channels with NDI video (3 with SDI), all from one powerful platform.

## Global Deployments - Global Support

As the leading camera robotics supplier worldwide, few have more experience with installing, commissioning, and maintaining robotic systems than we do at Ross Video. As with all Ross Video products, the industry's best support - legendary for its flexibility and customer-oriented approach - is an important part of the solution. In addition to comprehensive maintenance and hardware warranty plans, Ross offers all of its customers free 24/7/365 worldwide support.





CX-3R Joystick

SmartShell Client

CX-3R Joystick

SmartShell Client

OverDrive  
(or 3rd party APC)

Preview Monitor  
(not included)

Video Router  
(not included)

Robotics or Vision[Ai]ry  
Server

Ethernet Network

 Ethernet (Control and optional NDI)  
 SDI

Ross PTZ / 3<sup>RD</sup> party\*  
\*With Plugin

PT Heads

BlackBird

CamBot XY

Artimo

Furio

SkyDolly

Ross Video has a complete range of technical services available to ensure that your SmartShell Live installation is a success.

Operational Training can be provided at Ross Video, on-site or on the web. Experienced Ross operators will teach your staff to get the most out of your new system, and enhance your productions.

Commissioning is a service to help get your robotics system properly configured, connected and installed. This service is performed by factory trained Ross technical staff.

Technical Training can be provided at Ross Video, on-site or over the web. Technical training will teach your engineering staff the technical details of the system you have purchased. System configuration, interfaces, databases, and routine maintenance procedures are some of the topics covered.

SmartShell Live comes standard with a 1 year comprehensive warranty. Extended Warranties on hardware and software maintenance are available for an annual fee.

Technical advice is available on-line, by telephone, or email to Ross Video – Included for the life of your system.

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