

ROSSRobotics



SMARTSHELL
ONE CONTROL SYSTEM FOR ALL

ROSS[®]
LIVING LIVE!

CONTROL. REVOLUTIONIZED.



The Industry's Broadest Portfolio of Studio Robotics

Ross has the most complete Studio Robotics offering available, whether you are looking for the unparalleled smoothness of a floor or ceiling track-based system, the unbeatable flexibility of a free-roaming pedestal, the efficiency of a standalone or robotic lift Pan/Tilt head or the simplicity of integrating a PTZ camera. Ross robotics systems are designed, developed and manufactured in-house using state-of-the-art technologies, providing industry-leading accuracy and precision

One Control System for All Ross Robotics

SmartShell provides a flexible, intuitive user interface for controlling all Ross Robotic solutions that can be scaled to suit both large and small installations.

The SmartShell Unified Control System combines a flexible touchscreen GUI with an ergonomic joystick control panel. So whether you have track-based Furios, SkyDollies, free-roaming CamBots, BlackBird PTL pedestals, PT heads or PTZ cameras, all your Ross Robotics can be controlled from a common control system using a flexible ethernet-based architecture.

Our unique MotionDirector technology produces consistently smooth, natural-looking camera movements, allowing the camera artist to focus on the subject and not the robot. Rather than requiring you to choose between programmed motion and remote manual (joystick) operation, MotionDirector gives you the best of both worlds; the precision and predictability of a pre-programmed trajectory, combined with the flexibility to speed up, slow down, or make small – or large – corrections to any axis while a programmed movement is in progress. MotionDirector is currently available on all Furio and SkyDolly Studio dollies, S-Series BlackBirds, VR-series PT heads, and CamBot XY pedestals.



Camera View

This SmartShell view enables the operator to setup pre-programmed camera positions (presets) and program complex on-air camera moves.

Cameras can be grouped in studio configurations which can be selected on-the-fly.

Categories permit you to organize your presets and moves, letting you group shots by show, scene, operator or anything else you desire. Categories, Moves and Presets can be locked off against deletion or editing by non-approved users.

Moves allow you to create the most complex signature moving shots by simply dragging and dropping presets as keyframes into a timeline or recording manual operator movements overtop of keyframes. Both manual recording and keyframes can be combined to create the perfect hybrid moves. Keyframes can be dynamically inserted and edited at any point in the timeline.

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.

Global Deployments – Global Support

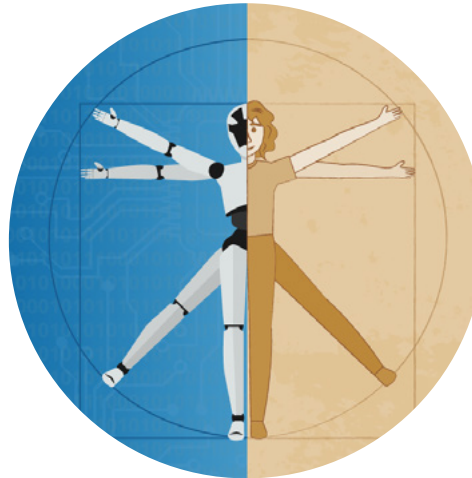
As the leading camera robotics supplier worldwide, few have more experience with installing, commissioning, and maintaining robotic systems than we do at Ross Video. As with all Ross Video products, the industry's best support - legendary for its flexibility and customer-oriented approach - is an important 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.

Take Control

The SmartShell control panel is available in both single and dual joystick models:

- 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! (Elevation and Floor/Track only on dual joystick models)
- Eleven (11) camera selection buttons for the operator to select the active camera/robot directly from the control panel
- Action buttons allow the operator to initiate a Cue, Cut or Run of presets and moves from the control panel, providing a definitive, tactile interface for the initiation of robotic movements.
- A 'time' knob that allows the user to change the duration of a timed preset directly from the control panel, either before or after the movement has started.
- The 'Iris' knob provides direct control of the lens iris via the robotic control panel.
- In addition to providing responsive focus control, pressing the 'Focus' knob activates the Quick Focus function, zooming the lens all the way in to achieve optimal focus. The head can be panned or tilted to allow focusing on the desired subject, automatically returning to its original position at the press of a button when focusing is complete.

The standard control system includes a quiet, high-performance all-in-one touchscreen PC, eliminating the need for space-hungry towers, and reducing the overall sound level in your control room.



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	All Ross PT heads, BlackBird pedestals, CamBot XY pedestals, Furio and SkyDolly Studio systems
Supported PTZ Integration	Ross PTZ-12G and PTZ-NDI camera Sony BRC-H800/H900/X1000 series * Panasonic AW-UE100/UE150 series * * 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 10 Professional
Form Factor	RRB-CTL-x : All-in-One-PC with integrated 24" Touchscreen Display RRB-CTL-x-SRV : Small Desktop PC with integrated Server and separate 24" Touchscreen Display

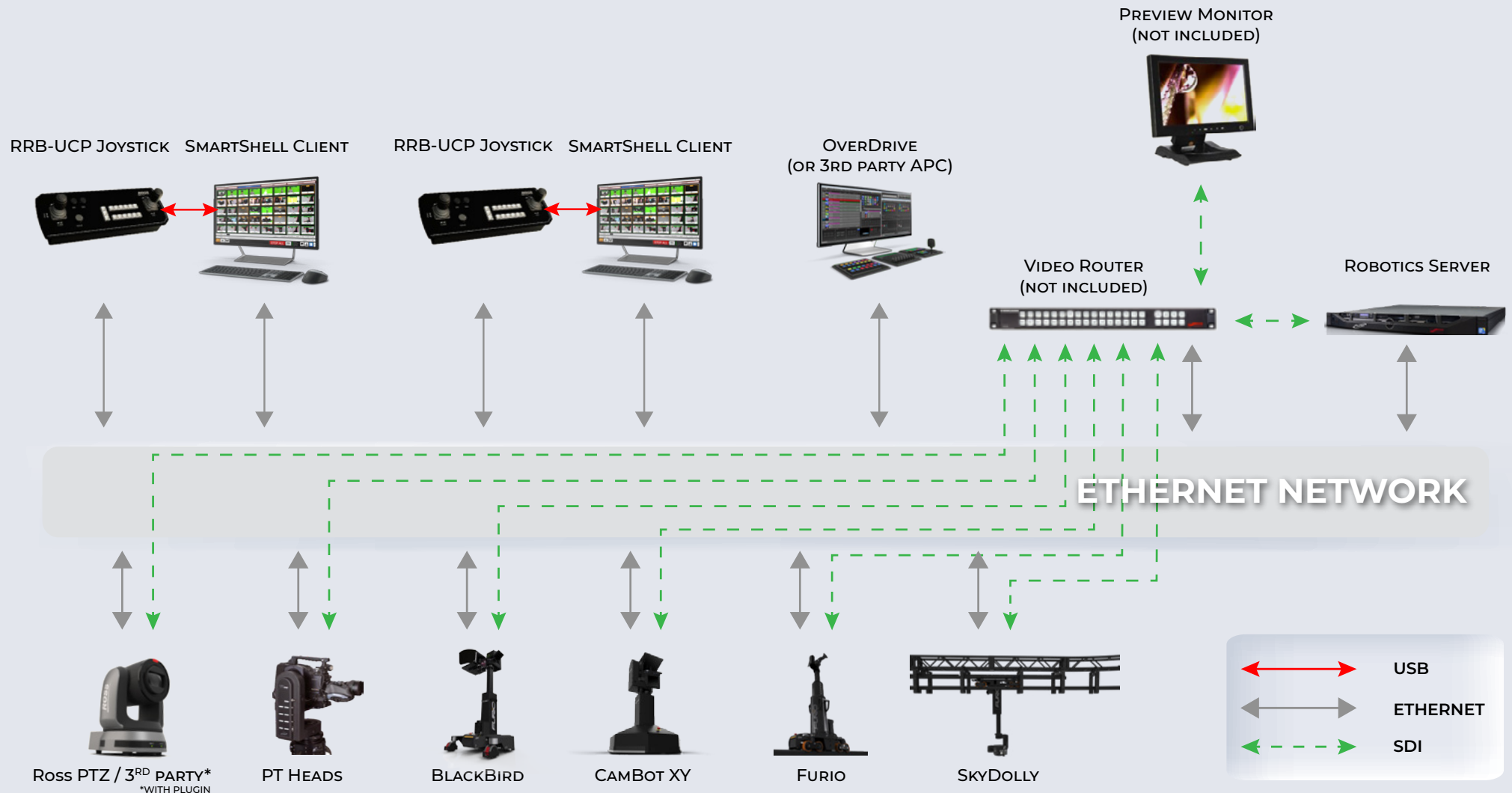
	Robotics Server
Operating System	Windows 10 Professional
Form Factor	RRB-SRV : 1U Rack Mounted Server RRB-CTL-x-SRV : integrated into SmartShell Desktop Station

	Unified Control Panel
Right Joystick Control	Pan/Tilt/Zoom
Left Joystick Control (6-Axis only)	Track/XY/Lift
Control Knobs	Focus, Time and Iris
Camera Selection Buttons	11
Action Buttons	Cue, Cut, Run, ALT
Comm. Joystick – Workstation	USB
Comm. Joystick – Robot	UDP over Ethernet
Power Supply	24 VDC External Power Supply

Command Interface

The SmartShell architecture includes a 1RU Robotics Rack Server to grab thumbnails, control video routers, manage tally (TSL) and interfaces with legacy or third-party devices. With the ability to simultaneously support every control station within your facility, this server architecture consolidates your robotic control data, simplifies control station redundancy and easily pools and shares all your robot resources between control stations.

For single-station installations, there is the more cost-efficient option of a fully-integrated control station that includes all of the Robotics Server functionality, along with the SmartShell software and control panel.





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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