

FURIO

Furio SE Studio
| The Smart Evolution
of Camera Robotics.



ROSS

Production Technology Experts

| Make your move.

Furio track-based systems are used in top productions around the world to deliver dramatic and compelling moving shots, while also providing industry-leading accuracy and repeatability for automated and / or virtual productions. As a modular system, the improved Furio SE is available in a variety of configurations (Live or Studio) with a silky smooth 3-stage lift, or a fixed column. The Furio SE Studio systems are paired with either a VR100 or VR600 pan/tilt head, depending on the payload requirements.

The Furio SE takes the world's leading rail-based camera robotic system to the next level, delivering unmatched performance, a wealth of intelligent features, and a safer, more robust design.



HIGH-PERFORMANCE

- 100% faster lift speed.
- 50% increase in lift range and 21% improvement in maximum height.
- 33% increase in upper limit on Track Speed.
- Stronger, more linear lift design.

EXTENSIVE LIST OF SMART FEATURES

- Complete redesign of power management and connectivity streamlines installation and setup.
- Common Dolly and Lift hardware can be configured to support both Furio Live (formerly RC) and Furio Studio (formerly Robo) applications.
- Extensive number of targeted features make it the safest dolly system on the market.

ROBUST DESIGN

- Improved diagnostics, fault tolerant circuits, and field replaceable electronics modules make Furio even easier to operate and maintain.
- Fewer exposed components, embedded linear rail technology, and advanced carbon fiber construction ensure longterm reliability and performance.

FURIO
SMART EVOLUTION



| Evolved

LIFT OFF

The all-new Carbon Fiber Design enables a taller lift without adding weight or sacrificing strength or rigidity - ensuring a low center of mass and maintaining system stability for even better moving shots.

- Max. Height of 2.2 m (7' 3"), and Elevation Range of 87 cm (34") provides a much greater range of shots and perspectives for even more artistic freedom and creativity.
- Superior Lift Linearity provides greater pan accuracy and repeatability across the entire lift range.
- Powerful, rugged lift design can support even the 700XY head and it's full 90 kg (200 lb) payload.
- Lift speed doubled to 15 cm/s (6"/ sec), enabling Furio to get into position faster and create more dynamic on-air movements.

DOLLY SHOTS

Packed with clever design ideas, the Furio SE dolly is easier to setup and maintain, more robust, and safer to operate.

- All electrical circuits are contained in two Field Replaceable Units (FRU), featuring blind mate connections. Either unit can be quickly replaced with the removal of just 4 screws.
- Dual-switched DC power supplies automatically detect and switch between 110V and 220V, offering global compatibility without reconfiguration.
- Simplified integrated connectivity minimizes cabling.
- DC Power outputs eliminate need for external power bricks for pan / tilt heads.
- Integrated power bar distributes mains power for cameras, prompters, monitors, clocks and more.
- Complete array of status LEDs accelerate fault detection and diagnosis.
- Self-recovering over-current detection on all electrical ports protects electrical circuits.
- The same Dolly can now be configured for both Furio SE Studio (formerly known as Robo) and Furio SE Live (RC) applications.

SMART EVOLUTION FROM START TO FINISH

A long list of design enhancements guarantees the lift arrives safely, is easy to setup, operates flawlessly, and requires minimal servicing over its lifespan:

- Struts have moved to interior of lift tube for a cleaner appearance and protection against cable snags or incidental damage.
- Internal Linear Guides maintain superior column alignment over the life of the system – with zero maintenance.
- Internal magnetic encoder is immune to potential snags or interference with cables while accurately tracking absolute lift position.
- Ergonomic top and bottom handles facilitate lift installation, where the exterior profiles have been carefully sculpted to ensure that cables never snag as the head or lift are repositioned.
- A rocker switch on the dolly permits the lift to be raised and lowered locally, without requiring a control system or joystick panel.
- Lift position can be read off the lift extension scale integrated on the side of the second stage of the lift.
- Integrated cable management features permit cables to be neatly and safely secured to the lift.
- Blind mate electrical connection between lift and dolly simplifies installation and protects cable and connectors from damage.

SAFETY FIRST > Industry's Safest Rail System

Safety is designed into all aspects of the Furio SE, from eliminating pinch points, simplifying high voltage connections, and preventing derailments, to adding motion indicators and Electronic Stops (E-Stops).

- On-board Front and Rear E-Stop Buttons on dolly and remote E-stop immediately cut power to the dolly, lift and head in order to ensure maximum safety.
- Failsafe brake keeps lift in position during power loss (or when e-Stop triggered), ensuring the camera does not drop if on-air.
- When power is cut, lift stays in current position, head becomes free-wheeling and dolly comes to a rapid controlled stop, thanks to unique constant current regenerative braking.
- Safe-T-Glide wheels prevent the dolly from tipping without introducing any additional rolling resistance or noise during normal operation.
- Gently flashing front and rear light bars provide visible indicator that system is in motion.

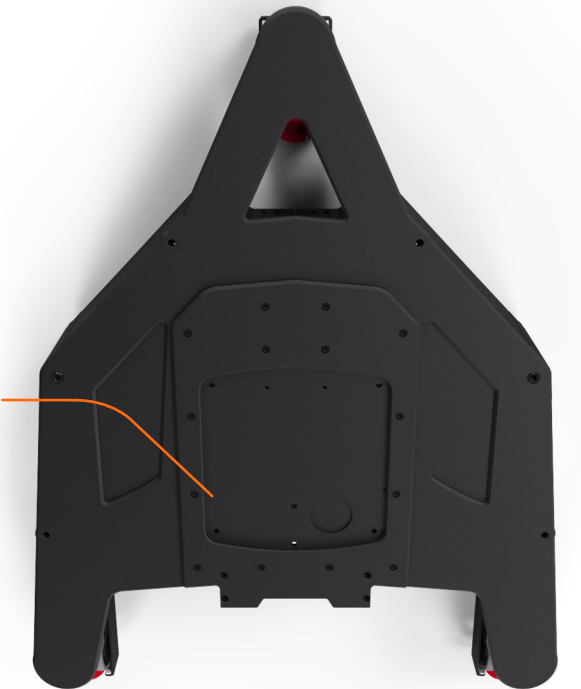
| Smart

FURIO SE BlackBird PEDESTAL

In situations where robotic floor movement is not required, the Furio SE BlackBird pedestal provides a simpler alternative, with fully robotic control of pan, tilt, lens and elevation on an ultra-stable, smooth-rolling base.

- Three 12.7 cm (5") diameter dual-casters ensure smooth, quiet movement across the studio floor.
- Combines with Furio SE lift to provide a wide array of camera angles and shots, while offering the ability to add silky smooth vertical movement to on-air moving shots.
- Each caster features adjustable cable guards to prevent cable snags, while foot-activated brakes that lock both wheel rotation and caster rotation, enable the pedestal to be securely locked in position on the floor.
- Two unique outrigger feet prevent tipping, while permitting the base to maintain an 81 cm (32") width, narrow enough to fit through a standard office door.
- Removable stabilizing weights in the pedestal base combine with the outriggers to prevent tipping even at full height and maximum payload, making this the most stable elevation system in the industry.
- Includes alignment features to ensure that the pedestal can be accurately repositioned in the same floor location over and over again, ensuring each shot is accurately recalled every time - making it particularly convenient for VS/AR applications.

BlackBird Pedestal



Fast-Tracked

RUN IT DOWN

The Furio SE dolly rides on precision extruded aluminum rails that are custom built to your exact specifications. Available in curved or straight sections, their narrow 36 cm (14") track width makes them perfect for small sets where space is at a premium, and there simply is not enough room for a camera operator.

A collision avoidance module permits two dollies to safely share the same track for increased flexibility. Dolly position is tracked by an absolute wiredraw encoder that avoids any errors caused by wheel slip or other momentary disturbances, ensuring that Furio SE always knows exactly where it is.

Combined with absolute encoders in the lift, head and lens, Furio SE provides accurate and reliable 7-axis tracking data in multiple formats, making it the perfect solution for Virtual Sets and Augmented Reality. Integrate with an existing third party render engine or enjoy the peace of mind of a total Ross solution - the industry's only single supplier Virtual and Augmented Reality solution.

SmartShell CONTROL SYSTEM

All Ross Robotic studio solutions can be controlled from a flexible, intuitive user interface that can be scaled to suit both large and small installations.

The SmartShell Control System combines a touchscreen interface with an ergonomic joystick control panel. So, whether you have Furios, free-roaming CamBots, PT heads or PTZ pedestals, all of your Ross Robotic systems can be controlled by a common control system using a centralized Ethernet-based architecture.

Each SmartShell control station communicates with the robots using native IP-based protocols over an Ethernet infrastructure. To minimize latency, the joystick panel communicates directly with each head, providing a responsive and natural feel.

FURIO SE PRE-CONFIGURED PACKAGES. Furio SE Studio is available with 2 Pan / Tilt heads: VR100 for lighter payloads and VR600 for higher payloads. Both are capable of supporting teleprompters.

Specifications and Ordering

FURIO SE STUDIO MODEL	DESCRIPTION
FRO-VR100-PT	VR100 Pan / Tilt head only; to be mounted on existing tripod or pedestal
FRO-VR100-PTZ-SE	VR100 Pan / Tilt head with Furio SE Robotic Lift mounted on BlackBird manual floor pedestal
FRO-VR100-FULL-SE	Full Furio rail system with VR100 Pan/Tilt head, Furio SE Robotic Lift and Furio SE Dolly
FRO-VR100-DLY-SE	Furio rail system with VR100 Pan/Tilt head and Furio SE Dolly, but without Furio SE Robotic Lift
FRO-VR600-PT	VR600 Pan / Tilt head only ; to be mounted on existing tripod or pedestal
FRO-VR600-PTZ-SE	VR600 Pan / Tilt head with Furio SE Robotic Lift mounted on BlackBird manual floor pedestal
FRO-VR600-FULL-SE	Full Furio rail system with VR600 Pan/Tilt head, Furio SE Robotic Lift and Furio SE Dolly
FRO-VR600-DLY-SE	Furio rail system with VR600 Pan/Tilt head and Furio SE Dolly, but without Furio SE Robotic Lift

FURIO SE STUDIO SPECIFICATIONS	FURIO SE / VR100 FULL DOLLY	FURIO SE / VR600 FULL DOLLY	FURIO SE / VR100 BlackBird	FURIO SE / VR600 BlackBird
Max. Net Payload	20 kg (44 lbs)	30 kg (66 lbs)	20 kg (44 lbs)	57 kg (125 lbs)
Max. Prompter Size	Max. 15"	Max. 19"	Max. 15"	Max. 21"
Min. - Max. Pan / Tilt Speed	0.001 – 60 deg/sec	0.001 – 90 deg/sec	0.001 – 60 deg/sec	0.001 – 90 deg/sec
Max. Track Speed	1 - 3 m/s on straight track / 0.5 - 1 m/s on curved track (depends on payload and track length)		N/A	
Max. Lift Speed	15 cm/s (6"/ sec)			
Max. Track Length	30m (98 ft)		N/A	
Min. & Max. Radius Curved Track	min. 3 m (10 ft.) / unlimited max (any radius and section can be custom built)		N/A	
Pan/Tilt Repeatability	< 0.02 deg			
Track Or Floor Repeatability	<1 cm (absolute positioning)		N/A	
Lift Max. Height Optical Center	2208 mm (86.9")	2228 mm (87.7")	2223 mm (87.5")	2243 mm (88.3")
Lift Total Range Min / Max	871 mm (34.3")		871 mm (34.3")	
Lift Payload	123 kg (270 lbs)		123 kg (270 lbs)	
Dolly Track Width	36 cm (14.17")		N/A	
Dolly / Base Length x Width x Height	89 cm x 46 cm x 23 cm (34.9" x 18.0" x 9")		Max 128 cm (50.5")	
Total System Weight	104 kg (229 lbs)	114 kg (251 lbs)	101 kg (223 lbs)	111 kg (245 lbs)
Tracking For VS / AR	Yes			

ROSS

ROSS VIDEO

Production Technology Experts

MOTION GRAPHICS

XPRESSION | Studio, BlueBox, Prime, Go!, Designer, Developer, Quad
XPRESSION CLIPS
XPRESSION TESSERA
XPRESSION MAPS
XPRESSION TELESTRATE
XPRESSION TOUCH FACTORY
XPRESSION BRAND IT
XPRESSION TICK IT



CREATIVE SERVICES

ROCKET SURGERY | Graphics Creation



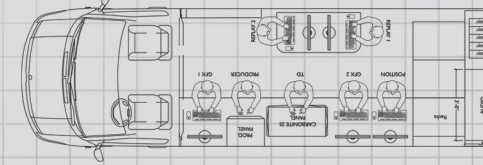
STUDIO IN A BOX

GRAPHITE | All-in-One Live Production Vehicle



OPENTRUCK

OPENTRUCK | Flight Case through 40-foot Truck Designs



PRODUCTION SERVICES

ROSS MOBILE PRODUCTIONS



ASSET MANAGEMENT



CAMERAS

ACID CAMERA | H200-UCHR, Z50-UCHR
PIVOTCAM | PIVOTCam-20



CHROMA KEYING

ULTRACHROME HR



* Carbonite Black Chassis with UltraChroma HR Software

NEWS & SOCIAL MEDIA

INCEPTION NEWS | Academic, Express, Standard, Enterprise
INCEPTION LIVE
INCEPTION SOCIAL
INCEPTION.CLOUD
HORIZON



CONTROL SYSTEMS

OVERDRIVE | Premiere, Prime, Express
DASHBOARD
LIGHTNING CONTROL SYSTEM



PRODUCTION SWITCHERS



ACUITY | Panel: A1s, A2m, A2x, A3m, A3, A4 Frame: 4RU, 8RU
CARBONITE BLACK | Panel: C1, C1s, C2, C2s, C3s, C3x Frame: 2RU
CARBONITE BLACK PLUS
CARBONITE BLACK SOLO

INFRASTRUCTURE

ULTRIX ROUTER | 16x16-72x72
NK ROUTER | 16x4 -144x144
OPENGear | Modular Signal Processing
MASTER CONTROL | MC1 openGear Card, MC1 Panel



GEARLITE | Point of Use Signal Processing
AUDIO MONITORING | MB 651, MB-652
MASTER SYNC & REFERENCE | SRG-2200, SRG-4400, ACO-4400



IP TECHNOLOGY

COVELOZ | OEM Hardware, Virtual Chip, Engineering Services



VIDEO SERVERS & REPLAY

ABEKAS MIRA | Replay, Production Server
ABEKAS TRIA | Production Server
ABEKAS AIR CHANNEL | Profanity Delay



ROBOTICS

FURIO SE LIVE | Live Head, SE Dolly and SE Lift; PanBar and Joystick Controls
FURIO SE STUDIO | VR100, VR600 Heads; SE Lift and SE Dolly; SE BlackBird
CAMBOT | 520PT, 600PT, 700PT Heads; 600 PTZ; 600XY & 700XY Free-Roaming Peds
SMARTSHELL | Robotic Camera Control System



VIRTUAL & AUGMENTED REALITY

TRACKLESS VIRTUAL UX VIRTUAL TRACKING SYSTEM



FURIO

Ross Video has a complete range of technical services available to ensure that your Furio SE Studio 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.

Furio SE Studio 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.**

Contact Us

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www.rossvideo.com

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Replay & Production Servers
Robotic & Camera Systems
Control Systems
Routing Infrastructure
Signal Processing Infrastructure
News, Live & Social Production Management
Media Asset Management

SERVICES

Creative Services
Mobile Production

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