

# **ROSS** Robotics

## BLACKBIRD PEDESTAL



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The Ross family of BlackBird PTL (Pan/Tilt/Lift) Pedestals combines robotic elevation with a pan & tilt head for cameras that are typically left in a fixed floor position for the duration of a show. They provide both the flexibility to remotely adjust the height of the camera in an automated environment, as well as the ability to combine smooth vertical movement with pan, tilt, and zoom to create dynamic on-air moving shots.

All our PTL systems are built on the revolutionary BlackBird base, which provides a smooth, ultra-stable platform for one of our high performance 2 or 3-stage lifts, combined with a choice of pan-tilt heads. They provide a cost-effective alternative to the Furio SE Dolly or the CamBot free-roaming XY pedestal systems, while providing greater flexibility and efficiency than a fully manual tripod.

Our entry-level system is based on the 2-stage C2 lift with integrated electronics that comes from the original CamBot 600PTZ. Dubbed the C2 lift to reflect its CamBot heritage, it is paired with the 600PT to create our most cost effective robotic elevation solution. With proprietary anti-backlash technology, it delivers an industry-leading 57 kg / 125 lb payload capacity and an unbeatable combination of smooth and accurate movements at a very competitive price.

The S-series versions of the BlackBird base add a number of convenience and safety features, enabled by an advanced, field-replaceable electronics module that is based on the same design used in the Furio SE dolly. In addition, all S models output accurate and reliable Virtual Tracking data for virtual and augmented reality, and include alignment aids to ensure the base is accurately positioned on the floor.

The S-Series BlackBirds are available with two choices of lifts: the S2, 2-stage lift based on the same core design as the C2 lift, and the top of the line, 3-stage carbon fiber SE lift that delivers dramatic increases in both maximum height and elevation range. These can be combined with either the X350 or VR600 head depending on the payload requirements.

C2



S2



SE



FEATURES	BENEFITS
<b>COMMON FEATURES OF THE BLACKBIRD PEDESTAL BASE</b>	
Large 5" diameter dual-wheeled casters	Provide smooth, quiet movement across the floor, allowing the pedestal to be easily repositioned around the studio
Foot-activated wheel locks for securely locking the pedestal in position on the floor	Provides a stable, shake-free base required for on-air camera moves, while ensuring that shot recalls are accurate and repeatable
Anti-tip features: <ul style="list-style-type: none"> <li>two unique outrigger feet prevent the pedestal from tipping</li> <li>Stability weights in the base lower the center of gravity for improved stability, but can be removed for shipment and transport (not required for C2 and S2 lift)</li> <li>Adjustable cable guards integrated in casters prevent cable snags</li> </ul>	The BlackBird base is the most stable platform in the industry, ensuring that the system can be safely moved around the studio, even with the maximum payload and at full extension - with minimal risk of injury or damage to equipment due to tipping.
Overall pedestal width is 81 cm (31.5") – Narrow enough to fit through a standard office door	Allows the BlackBird to be moved between sets, without any disassembly
<b>ADVANCED FEATURES (S-SERIES ONLY):</b>	
Powered by MotionDirector	The S2/SE models unleash the full power of MotionDirector, combining the unequaled beauty of naturally smooth and synchronized programmed key-frame moves, with the flexibility to make in-flight manual corrections from the joystick panel.
Provides 5-Axis (Pan/Tilt/Lift/Zoom/Focus) Tracking data for VS/AR	Add silky smooth vertical movement to a virtual set or augmented reality without the need for adding expensive and cumbersome external tracking systems
BlackBird base is compatible with FRU from Furio SE Dolly	Simplifies spare parts manage,emt - same spare FRU can be used for both Furio SE Dolly and BlackBird pedestal
Alignment markers assist in aligning pedestal to marks on the floor	Enables the pedestal to be accurately re-positioned in the same floor location over and over again, ensuring each shot is accurately recalled every time – particularly important in a Virtual Set environment
Integrated AC power strip provides convenient mains distribution for cameras, prompters, monitors, tally lights and more.	Simplifies cable management, eliminating the need to mount a power strip on the pedestal base.
Hand-wheel attached to top of lift (optional on S2 and C2 lifts)	Provides a safe and convenient hand hold for repositioning the pedestal
Field replaceable electronics module based on the Furio SE dolly design provides the pedestal with all the same advantages:	
Auto-sensing power supplies	No need to reconfigure for 110 or 220V if moved to another location
Array of Status LEDs	Accelerates fault detection and diagnosis
Motion Indicator Light bar	Provides a subtle visible warning that the robot is starting to move
E-stop	Provides a means for stopping all motion at the press of a button
<b>SE LIFT FEATURES</b>	
71% increase in elevation range and 23% increase in max height relative to the S2 lift	Greater flexibility to create shots from different perspectives, while also enabling more dramatic moving shots
Integrated cable management features	Tie wrap holes the length of the lift together with upper and lower handles provide ample locations for tying off cables between the head and the pedestal base for a cleaner, safer setup

<b>SPECIFICATIONS</b>			
PARAMETER	C2 SERIES	S2 SERIES	SE SERIES
MAX.NET PAYLOAD	57 kgs (125 lbs)	X350: 6.8 kg (15 lbs) VR600: 57 kgs (125 lbs)	
MIN.-MAX. PAN/TILT SPEED	0.001 – 90 deg/sec	X350: 0.01 – 45 deg/sec VR600: 0.001 – 90 deg/sec	
PAN/TILT REPEATABILITY	< 0.02deg	< 0.02deg	< 0.02deg
LIFT MAX. HEIGHT OPTICAL CENTER	1.80 m (70.8")	X350: 1581 mm (62.2") VR600: 179.2 cm (70.5")	X350: 1980 mm (78.0") VR600: 220.8 cm (86.9")
LIFT TOTAL RANGE MIN / MAX	48.3 cm (19.0")	48.3 cm (19.0")	87.1 cm (34.3")
MAX. LIFT SPEED	12 cm/sec (5"/sec)	12 cm/sec (5"/sec)	15 cm/sec (6"/sec)
BASE WIDTH	81cm (32")	81cm (32")	81cm (32")
POWER REQUIREMENT	100-240V AC (autoselect)	100-240V AC (autoselect)	100-240V AC (autoselect)
TRACKING FOR VS/AR	None	Pan, Tilt, Elevation, Zoom and Focus	
MOTIONDIRECTOR COMPATIBILITY	None	Yes	Yes



# ROSS Robotics

## | BLACKBIRD PEDESTAL

Ross Video has a complete range of technical services available to ensure that your BlackBird 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 production 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.

Your BlackBird 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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