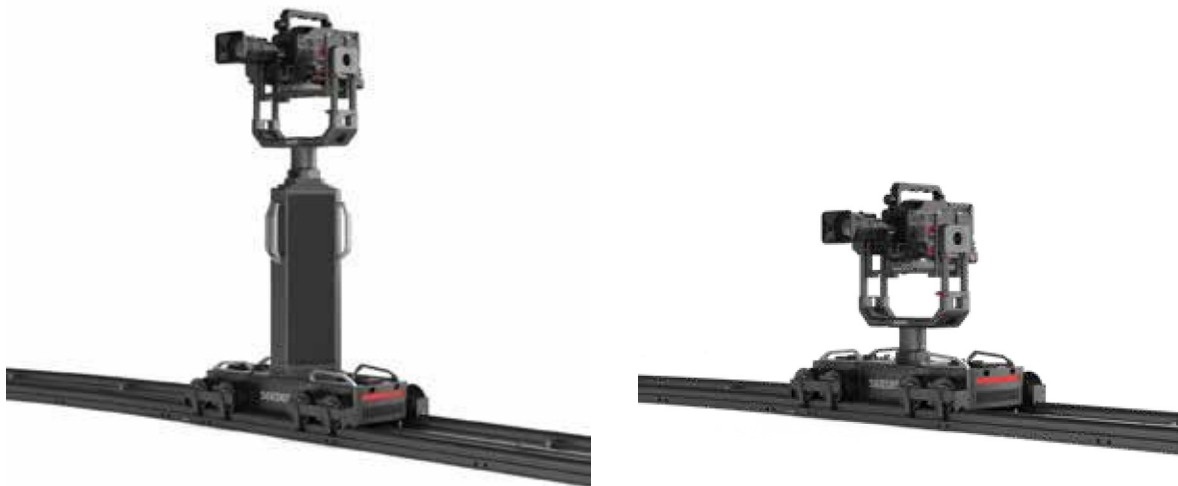


RB30(18)Rail

Rail Robotic Elevating System

The SEEDER RB30(18)Rail rail robotic elevating system is developed for automatic shooting of AR, VR, XR, MR or real scene in various broadcast studios, remote photography, government, education, event live and so on. Features such as anti shake technology, noise reduction technology and AI curvilinear motion technology ensure the shooting of complex motion video and meet every need of professional broadcast television studios. Fully integrated, highly accurate, smooth motion control in all axes. Precision engineered lifting system makes it possible to raise cameras to the heights while retaining stability and smoothness of on-air control. Tracks design can be straight or curved, and they are available in various sizes and can be customized to achieve the required min/max length.



Applications

1. Enables professional-quality camera operation without a dedicated operator.
2. Standardizes open/close shots for news and feature programs.
3. Delivers highly accurate image synchronization for AR/VR productions.
4. Provides professional tracking data for large-scale real-virtual productions.
5. Supports OB van and large studio automated camera positions.
6. Delivers effective telephoto stabilization for UHD shooting.
7. Reduces operator error during critical live events.
8. Enables smooth remote operation over IP networks.

Basic Functions		
Built-in System	Embedded OS; standalone operation without an external control panel	
Motion Axes	7-axis motion: Head Pan/Tilt, Track Travel, Lift, Zoom, Focus, Iris	
Mounting Method	Floor	
Robotic Head	U-type Robotic Head	
Start/Stop Anti-shake	Anti-shake for rapid start/stop	
Acceleration/deceleration	Automatic acceleration/deceleration based on motion position and duration; smooth 16-point curved motion	
Position Memory	Permanent storage of preset motion and tracking positions	
Motion Path	Automatic motion path planning	
Track specs	Straight/curved tracks; curved track min. inner radius: 3 m; single track section: 2 m (L) × 360 mm (W); height adjustment: +20 mm	
Lifting Range	965–1765 mm lift height; 0.8 m travel	
Max camera height	1765 mm	
Lens Control	20-pin lens cable with automatic compatibility for Canon/Fujinon full-servo lenses; optional M2 lens servo	
Auto Tracking	Pan-tilt head automatically tracks the primary subject	
Safety Limits	Head Pan/Tilt; Track Forward/Backward; Lift — 8-direction safety limits	
Safety Features	Standard travel direction indicator, anti-derail guide wheels, end bumpers, end-limit sensors, and obstacle-detection LiDAR	
Emergency Stop	Dual buttons for power and motion (control panel)	
Backup Power	V-mount battery backup power	
Quick-release Design	Quick-release robotic head; direct installation on the track dolly without readjustment	
Scene Sequence Combination	Motion triggering at any point in sequences and scenes; free sequence combination	
Flexible Motion Control	Motion interruption with target switching; manual/auto pause; adjustable dwell time	
Loop Timing Control	Seamless continuous looping; independent loop/reverse settings for each sequence; high-precision countdown timer	
Advanced Tracking Capability	HDSDI input; CPU-based face tracking; reduced hardware dependency; improved shooting performance	
Collaborative Control	Multi-console coordinated control with priority management	
VR Tracking Specifications		
VR tracking Accuracy	23-bit absolute encoder; 8.3M/360°; <0.000043°	
Lens Delay	Auto calibration for full-servo lenses	
Tracking Sync	Supports BB and 3G/1.5G/SD-SDI reference input with loop-through and internal sync	
Virtual Tracking Calibration	Motion-compensation calibration based on virtual tracking error values	
Tracking Output	3-way directional UDP output supported	
Movement Specifications		
Head Pan	±170°; 0–20°/s; accuracy 0.001°	
Head Tilt	±55°; 0–20°/s; accuracy 0.001°	
Track Motion	0.1–1.2 m/s; accuracy 0.1mm	
Lift Motion	0.2 m/s; accuracy 0.001°	
Lens Motion	Full-servo lens compatible; 0–52 mm/s; accuracy 0.001 mm	
Basic Specifications		
Third-party Control	Free standard TCP/IP control protocol	
Scene Backup	Scene file import/export/backup	
Operation Monitoring	Long-term system log recording and storage	
Motion Storage	32 programs × 16 sequences × 16 scenes = 8192 scenes	
Keyframes per Sequence	16, supporting 16-point curvilinear motion	
Modular Installation	Tool-free modular design; installation completed in 15 minutes	
Operating Noise	≤40 dB (≤0.7 m/s); ≤60 dB (≤1.2 m/s)	
Head Payload	30(18) kg	
Total Weight	82.54 kg (including column, excluding tracks)	
Input Voltage	90–264 V	
Max. Power Consumption	300 W	
Configuration list		
1. Robotic U-type omnidirectional pan-tilt head – 1 set		
2. Robotic track elevating platform – 1 set		
3. Control cables – 1 set		
Optional Feature	Model	Description
Tracking Output	RBVR	Directional UDP 3-channel tracking output supported
AI Auto Tracking	RBAI	HDSDI input from the primary camera with AI face and skeletal tracking for low-latency automatic camera tracking
Control panel	RBCS300、RBCS300PRO、RBCS1	RB Series control panel
Scene Composition Snapshots	RBCS300PRO	Supports scene preset composition snapshot capture

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Ordering Information

Product Model	Product Name
RB30(18)Rail	Rail Robotic Elevating System