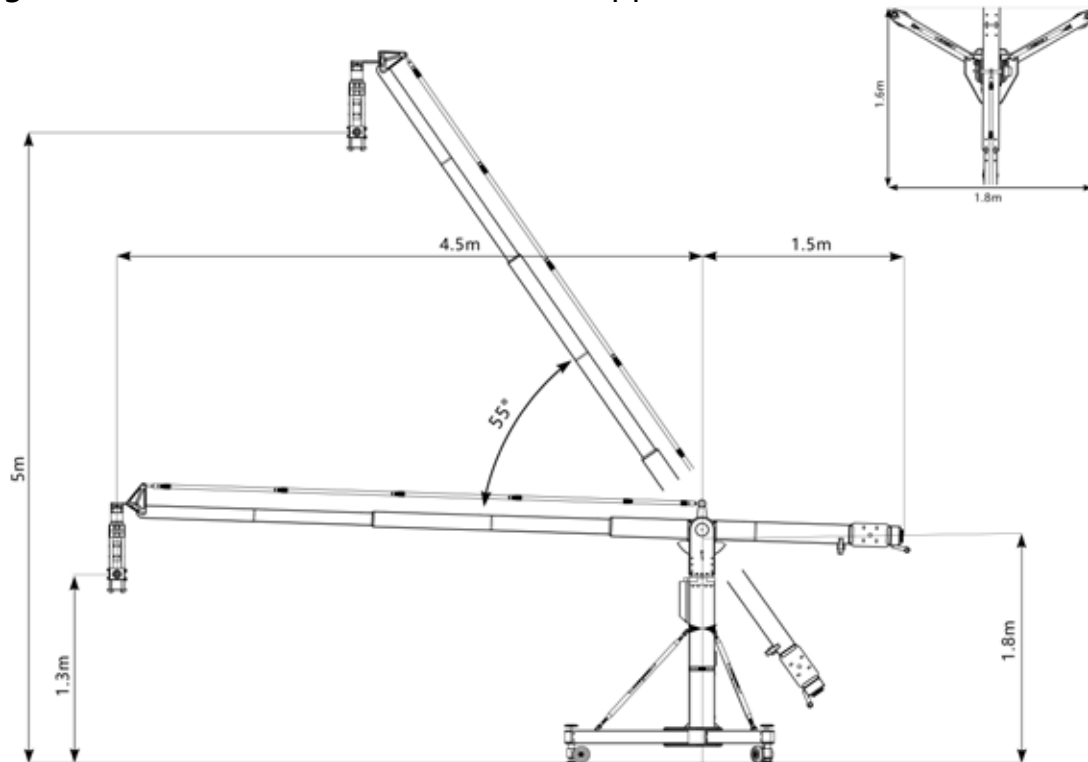


RB20CR-6M

Robotic Crane System



SEEDER RB20CR-6M robotic crane system features the 3rd-generation robotic pan/tilt head and new robotic chassis, with an electronic level system as standard. It enables automated shooting as a broadcast-grade auxiliary camera system for pre-production, suited for real-scene and AR/VR/XR/MR virtual production in studios and live events. The telescopic arm reaches 6 m with flexible length adjustment to adapt to site environments. Modular design allows tool-free assembly and disassembly. Absolute encoders record position and tracking data; the unit is operational within 10 seconds after power-up and requires no startup calibration, making it ideal for studio and live broadcast applications.



Applications

1. Automates camera crane operation
2. Standardizes opening and closing shots for news & feature programmes
3. Ensures high precision for combined live-action & virtual production
4. Provides professional tracking data for virtual production at large live events
5. Enables automated camera positions in OB vans & large studios
6. Provides telephoto image stabilization for UHD camera operation
7. Minimizes human shooting errors for high-profile live productions
8. Enables smooth remote camera motion over the network

Basic Functions		
Built-in System	Embedded OS with integrated 7" touchscreen; standalone operation without an external control panel	
Motion Range	7-axis motion — Pan/Tilt (head), Pan/Tilt (arm), lens zoom, focus, iris	
Robotic Head	U-shaped 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	
Arm Length	6 m; front arm extension: 4.5 m; rear arm extension: 1.5 m; manually adjustable.	
Max Camera Height	Camera height up to 5.0 m	
Lens Control	20-pin lens cable with automatic compatibility for Canon/Fujinon full-servo lenses; optional M2 lens servo	
Tracking shoot	Pan-tilt head automatically tracks the primary subject	
Safety Limits	Head: Pan / Tilt; Arm: Left/Right, Up/Down — 8 direction protection	
Anti-collision	Safety limits, 4-way optical collision avoidance, and dynamic collision avoidance	
Emergency Stop	Dual buttons for jib arm power and motion (control panel)	
Scene Sequence Combination	Motion trigger at any point within sequences & scenes; freely combinable sequences for flexible operation	
Flexible Motion Control	Motion interruption with target switching; manual/auto pause; adjustable dwell time	
Loop Timing Control	Seamless continuous looping; per-sequence independent loop/reverse settings; high-precision countdown timer	
Advanced Tracking Capability	HD-SDI input; CPU-based face tracking; reduced hardware dependency; improved shooting performance	
Safe Collaborative Control	Multi-console coordinated control with priority management	
VR Tracking Specifications		
Electronic Leveling	Dual electronic leveling system for head and arm chassis	
Virtual Tracking Accuracy	23-bit absolute encoder; 8.3M/360°; <0.000043°	
Tracking Sync	Supports BB and 3G/1.5G/SD-SDI reference input with loop-through and internal sync	
Lens Delay	Auto-calibration for full servo lenses	
Virtual Tracking Calibration	Motion compensation based on virtual tracking errors	
Tracking Output	3-way directional UDP output supported	
Movement Specifications		
Head Pan	±170°, 0-20°/s, accuracy 0.001°	
Head Tilt	±60°, 0-20°/s, accuracy 0.001°	
Arm Pan	±170°, 0-20°/s, accuracy 0.001°	
Arm Tilt	±55°, 0-20°/s, accuracy 0.001°	
Lens Motion	For full-servo lenses; 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	
Operating Noise	<40dB	
Motion Storage	32 programs × 16 sequences × 16 scenes = 8192 scenes	
Counterweight Travel	150 mm, front/rear adjustment for fine center-of-gravity tuning	
Keyframes per sequence	16, supporting 16-point curvilinear motion	
Modular Installation	Modular design, tool-free assembly and disassembly, 15-minute setup	
Head Payload	20 kg	
Total Weight	192 kg	
Input Voltage	220V	
Max Power	500W	
Configuration list		
1. U-shaped omnidirectional robotic pan and tilt head ×1 set		
2. 6 m arm ×1 set		
3. Robot chassis ×1 set		
4. Control cables ×1 set		
Optional Feature	Model	Description
AI tracking shoot	RBAI	Supports 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
Manual Control Module	RBMC1	Manual control handle supporting motion path learning and recording

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Ordering Information

Product Model	Product Name
RB20CR-6M	Robotic Crane System