

Omnidirectional Humanoid Robot Chassis

AB-HRC-200



ATOMBOTIX

Multi-Level Safety Protection



Integrates front and rear LiDAR obstacle detection, 3D vision, contact safety edges, and emergency stop buttons for comprehensive protection.

Intuitive Human-Machine Interaction



Provides system status monitoring together with audio-visual alerts for clear and convenient operation.

Flexible Control Modes



Supports automatic, manual, and remote control modes to meet different operating and commissioning requirements.

200 kg Payload Capacity



Supports a rated payload of up to 200 kg, providing a stable mobile base for humanoid robots and customized upper structures.

Reliable Wireless Connectivity



Supports Wi-Fi communication and seamless roaming, with optional 5G network expansion for stable connectivity across operating areas.

Precise LiDAR SLAM Navigation



LiDAR SLAM navigation enables accurate positioning and reliable autonomous movement in industrial environments.

Omnidirectional Motion Control



Four-wheel omnidirectional drive supports forward, backward, rotational, and lateral movement for highly flexible maneuvering.

Intelligent Power Management



Supports multi-level battery threshold control, configurable charging levels, and idle-time charging management for efficient energy use.

Model	AB-HRC-200
Basic Information	
Dimensions (L × W × H)	720 × 550 × 335 mm (±2 mm)
Track Width	385 mm
Wheelbase	560 mm
Wheel Diameter	130 mm
Turning Diameter	850 mm
Rated Load	200 kg
Ground Clearance	40 mm
Self-weight	70 kg
Performances	
Rated Operating Speed (No Load)	90 m/min
Rated Operating Speed (Rated Load)	72 m/min
Drive Mode	Four-wheel omnidirectional drive
Navigation & Positioning	
Navigation Mode	LiDAR SLAM
Positioning Accuracy	±10 mm
Angular Accuracy	±1°
Battery	
Battery Type	Lithium Iron Phosphate / Ternary Lithium (Optional)
Capacity / Rated Voltage	20 Ah / 48 V + 40 Ah / 48 V (Optional)
Safety Protection	
Front LiDAR Installation Height (Scanning Plane)	310.5 mm
Front LiDAR Opening Angle	270°
Rear LiDAR Installation Height (Scanning Plane)	310.5 mm
Rear LiDAR Opening Angle	270°
3D Obstacle Avoidance	Optional: Front / Rear / Left / Right
Emergency Stop Buttons	2 pieces (1 left and 1 right)
Acoustic-Optic Alarm	Standard



