

Multiway Robotics

Differential Drive

AMR

MW-C04/C06/C10

www.mw-r.com





Introduction

Multiway Robotics' natural navigation dual differential drive AMR can automate material transportation, improve intralogistics efficiency, and free employees from repetitive and dangerous work, thereby ensuring work safety and efficiency and reducing corporate costs.

Multiway Robotics uses AGV forklifts/Four-way shuttles/AMRs/AGV tow tractors as hardware carriers, and through machine vision system, it can provide complete intelligent manufacturing and smart warehousing solutions, with an investment return cycle of generally no more than 18 months. And it can be equipped with different accessories to meet the needs of facilities and payloads. Automatic charging technology can support 7x24 hours of uninterrupted operation, and can easily cope with even the busiest business.

Features



Environment Adaptive

Laser navigation and positioning
No need to renovate the on-site environment



Highly Intelligent

Mapping, path planning, and auto-charging
Applicable to multiple scenarios with intelligent operations



High Precision

Primary positioning precision: ± 5 mm
Secondary positioning precision: ± 2 mm



Intelligent Safety

Perfect fault self-detection
All-round safety with obstacle avoidance
and sound & light warning

Specifications

		C04	C06	C10
Navigation	Navigation Method	QR Code Navigation / Laser Navigation(2D SLAM)	QR Code Navigation / Laser Navigation(2D/3D SLAM)	
Communication	Wireless WiFi	●	●	●
	Optical Communication	○	○	○
	5G	○	○	○
Basic Specifications	Rated Load (kg)	400	600	1000
	Dimensions LxWxH(mm)	778x540x268	950x650x268	1150x820x260
	Weight (kg)	98	130	180
Movement Features	Driving Features	Forward, Reverse, Turning, 360° Rotation, Vehicle Rotates While Load Remains Stationary		
	Driving Speed (m/s)	1.9/1.5	2/1.5	1.8/1.5
	Positioning Precision (mm)	±10		
	Stop Angle (°)	±1		
	Cross-Groove Capability (mm)	≤30		
	Control Mode Climbing Capacity (mm)	≤3°(5%)		
	Obstacle Clearing Capability (mm)	≤5		
	Lifting Stroke (mm)	60		
Safety Protection	Path Deviation Protection	●	●	●
	Positioning Fault Protection	●	●	●
	Obstacle Detection LiDAR	●	●	●
	3D Obstacle Detection & Avoidance	○	○	○
	Dynamic Obstacle Detouring	○	○	○
	Anti-Collision Strip	●	●	●
	Emergency Stop Button	●	●	●
	Sound & Light (Warning)	●	●	●
	HMI	○	○	○
Battery Specifications	Charging Mode	Auto/Manual		
	Battery Type (Standard)	Lithium Iron Phosphate		
	Rated Voltage (V)	48		
	Standard Capacity (Ah)	16	24	40
	Discharge Rate/Runtime (h)	6~8h		
	Battery Life	Complete charge-discharge 1500 times		

● Standard ○ Optional

The dimensions can be customized to satisfy project requirement

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Recommended Applications

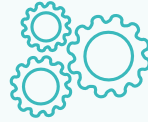
Automobile and supporting industries, food, microelectronics, machining, medical apparatus and instruments, aerospace, printing and packaging, express delivery...



Automobile and
supporting industries



Food



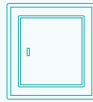
Machining



Medical apparatus
and instruments



Aerospace



Building materials



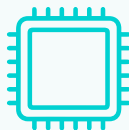
New energy



Garment



Cold chain distribution



Microelectronics



Hardware & tools



E-commerce logistics



Military



Printing and packaging



Express delivery



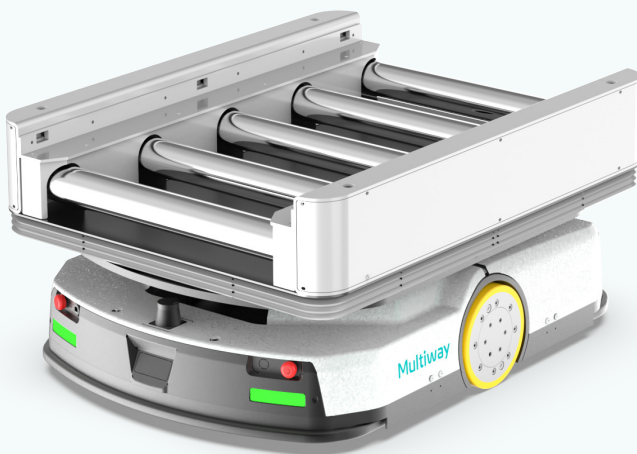
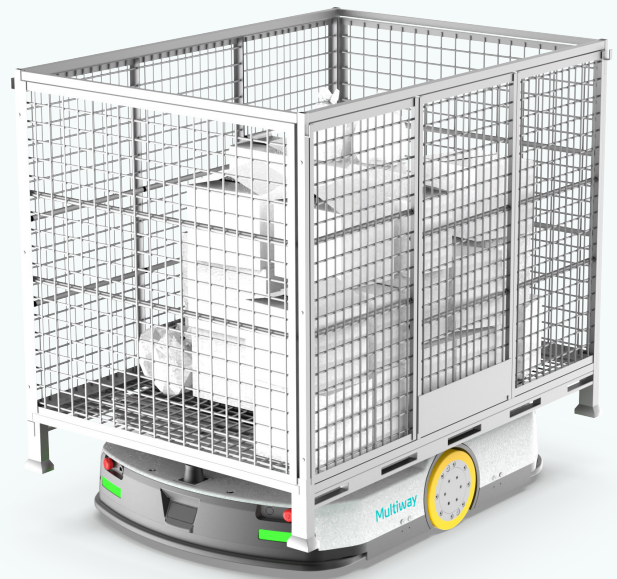
Household

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Top Module Options

Lifting Mechanism

The AMR moves beneath the load and lifts the carrier for transportation. The combined weight of the load and carrier must not exceed the rated payload capacity. The lifting mechanism enables flexible material handling and offers excellent performance in narrow aisles and confined spaces.



Conveyor Mechanism

Integrated with a belt or roller conveyor, the AMR enables automatic transfer of goods to and from production lines, supporting automated loading and unloading while improving operational efficiency.

Multiway Robotics

Multiway Robotics is committed to "Empowering the World with Billions of Robots" and takes "To create a new and efficient operating mode" as its mission, continuously driving the advancement of global productivity.

Global Presence: The headquarters is located in Shenzhen, China, with production facilities in Zhejiang Wuzhen. Multiway has also established subsidiaries in the United States, Germany, Japan, South Korea, and more, extending business, operations, and services to 40+ countries and regions worldwide.

Our Expertise: Focusing on advanced robotics and AI technology, Multiway Robotics is committed to delivering cutting-edge Smart Intralogistics Solution to our customers. Multiway offers a comprehensive, integrated innovation delivery platform and solutions, ranging from core sensors and algorithms to self-developed unmanned forklifts and upper-level control systems. Hardware products include a full range of unmanned forklifts and four-way shuttle, while software systems encompass WMS, RCS, WCS, on-site management systems, and various visual solutions.

Software: WMS, RCS, WCS, Multiway Horizons, Simulation

Hardware: AGV forklifts, AGV Tugger, AMR & Four-way Shuttle

After successfully delivering numerous benchmark projects in industries such as factories, warehousing, and logistics, Multiway has become a trusted and ongoing collaborative partner for many industry-leading customers.



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