


Specialized Mobile Robots

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General Mobile Robot Platform

The Mecanum wheel chassis is known for its omnidirectional movement, high maneuverability, and smooth operation. This chassis can perform a wide range of movements, including forward, backward, sideways, and rotational maneuvers, providing simple and flexible control. The robot's adaptability makes it suitable for applications in research, industrial automation, healthcare, logistics, warehousing, education, and entertainment.

Movement Mode	Mecanum wheel omnidirectional chassis with in-place rotation capability.
Models	MK-01
Images	
Dimensions	807*512*474 (mm)
Speed	1.2m/s
Load Capacity	200KG
Battery Life	3H
Battery Capacity	24V 40AH
Applicable Terrain	Best suited for indoor environments with moderately rough, hard surfaces such as factory floors, shopping malls, and indoor courtyards.



Features :

1	Compatible with standard CAN communication protocol for control.
2	Allows for chassis data retrieval through an upper computer interface.
3	Supports ROS development, with ROS capabilities enabled by integrating an industrial computer.
4	External power supply: Equipped with a module that allows for the powering of additional devices.
5	Automatic recharging: Supports automated charging within a designated range using a one-button remote control.
6	Customizable appearance: Options for custom colours, and other personalized features.
7	Structural modifications: Capable of supporting additional mounted equipment.



MK-01 Intelligent Mobile Navigation Robots

The MK-01 SLAM Mecanum wheel intelligent navigation robot is designed for omnidirectional movement, providing high-precision positioning, smooth operation, and efficient energy use. This platform is highly versatile and is widely used in logistics, warehousing, service robotics, healthcare, and educational research.

Category	Parameters	
Function Support	Laser Mapping	The MK-01 SLAM robots can generate high-precision laser maps using data captured by LiDAR, combined with built-in positioning and mapping algorithms. The mapping area can cover more than 100,000 square meters.
	Intelligent Path Planning	By leveraging LiDAR data and path planning algorithms, the MK-01 platform ensures precise navigation and positioning, supporting both free navigation and trajectory modes. The system achieves a standard positioning accuracy of ± 40 mm, with an end-point accuracy of ± 10 mm.
	Dynamic Obstacle	The LiDAR continuously monitors the environment to detect dynamic obstacles like people or moving objects. The robot can

	Detection and Avoidance	dynamically adjust its path to avoid collisions, ensuring safe operation.
	Open Protocol for Secondary Development	The MK-01 platform supports data openness and secondary development through MQTT/Http protocols, allowing users to control the robot's status, execute commands, and monitor performance, making customization straightforward.
	Customizable Operations	The platform offers customizable operations tailored to specific user needs, such as setting no-go zones, prioritizing obstacle avoidance, and enabling automatic recharging when the battery is low.
	Usage Scenarios	Best suited for environments with fixed features, such as offices, factories, or buildings with stationary objects like desks or shelves. It is less suitable for open spaces lacking distinctive features, as laser navigation requires these to create an effective map.