DT Series Two-Wheel Differential Mobile Robot

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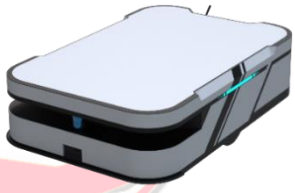
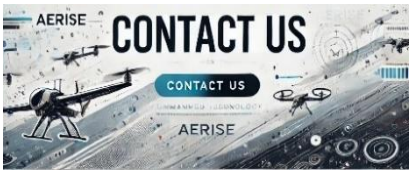
DT Series General Mobile Robot Platform

The DT series two-wheel differential mobile robot offers high flexibility, strong load capacity, automated operation, safety, reliability, and cost-effectiveness. It can be outfitted with various tools and equipment as needed, making it suitable for indoor environments such as factories, shopping malls, and courtyards.

Movement Mode	Two-wheel drive with differential steering, capable of in-place rotation.		
Models	DT-01	DT-01 Pro	DT-02 Pro
Image			
Dimensions	543x420x311 mm	730x460x253 mm	980x670x268 mm
Speed	1.2m/s	1.5m/s	1.2m/s
Load Capacity	35KG	100KG	200KG
Battery Life	3H	8H	5H
Battery Capacity	24V 12AH	24V 20AH	24V 40AH
Applicable Terrain	Suitable for indoor flat and moderately rough hard surfaces, such as those found in factories, shopping malls, and courtyards		

Features:

1	Supports control via standard 232 serial communication protocol.
2	Allows for the reading of chassis-related data and statuses via serial communication.
3	Compatible with ROS development, with available ROS driver package support.
4	Supports automatic recharging within a specified range via remote control.
5	Equipped with an external power supply module for additional equipment.
6	Customizable appearance.
7	Supports structural modifications for mounting additional equipment

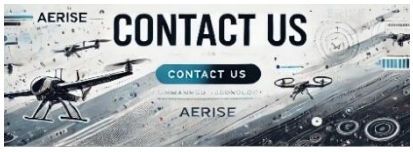


DT Series Intelligent Mobile Navigation Robots

DT-01 SLAM Intelligent Navigation Robot Platform

The DT-01 SLAM intelligent navigation robot is equipped with a single-line laser navigation module, making it ideal for applications requiring a load capacity of up to 50 kg. It offers features such as laser mapping, laser positioning, path planning, perception and obstacle avoidance, and collaborative interaction. This robot is primarily used in small industrial environments, service industries, and educational settings.

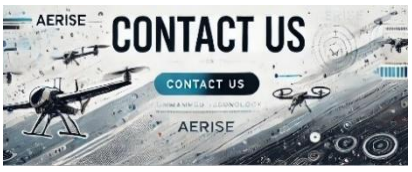
Category	Parameters	
Function Support	**Laser Mapping**	The DT-01 SLAM series robots can generate high-precision laser maps using environmental data gathered by LiDAR, combined with built-in positioning and mapping algorithms. The mapping area can exceed 50,000 square meters.
	Intelligent Path Planning	By utilizing LiDAR data and path planning algorithms, the DT-01 SLAM platform ensures precise positioning and path planning, enabling point-to-point navigation. The system supports both free navigation and trajectory modes, achieving a standard positioning accuracy of ±40 mm and end-point accuracy of ±10 mm.
	Dynamic Obstacle Detection and Avoidance	The LiDAR continuously scans the environment to detect dynamic obstacles (e.g., people or moving objects). The robot can then dynamically avoid these obstacles, preventing collisions.
	Open Protocol for Secondary Development	The DT-01 SLAM platform allows for data openness and secondary development through MQTT/Http protocols, enabling users to control the robot's status, execute commands, and monitor its performance, making customization and integration easier.
	Customizable Operations	The platform supports customizable operations tailored to specific user needs, such as setting no-go zones, prioritizing the avoidance of particular obstacles, and automatic recharging when the battery is low.
	Usage Scenarios	Suitable for environments with fixed landmarks, such as offices, factories, or buildings with stationary objects like desks or shelves. It is not ideal for open spaces lacking distinguishing features, as laser navigation cannot construct a map in such environments.



DT-01 Pro Slam Intelligent Navigation Robot Platform

The DT-01 Pro SLAM intelligent navigation robot is equipped with a single-line laser navigation module, designed for applications requiring a load capacity of up to 100 kg. It includes features such as laser mapping, laser positioning, path planning, perception and obstacle avoidance, and collaborative interaction. This platform is primarily used in medium-sized industrial environments, service industries, and educational settings.

Category	Parameters	
Function Support	**Laser Mapping**	The DT-01 Pro SLAM robots can generate high-precision laser maps using environmental data gathered by LiDAR, with mapping areas capable of exceeding 100,000 square meters.
	Intelligent Path Planning	Like the DT-01, the DT-01 Pro platform utilizes LiDAR data and path planning algorithms to ensure precise navigation and positioning, supporting both free navigation and trajectory modes, with standard positioning accuracy of ±40 mm and end-point accuracy of ±10 mm.
	Dynamic Obstacle Detection and Avoidance	The LiDAR continuously scans the environment to detect dynamic obstacles, enabling the robot to dynamically avoid them and prevent collisions.
	Open Protocol for Secondary Development	Similar to the DT-01, the DT-01 Pro supports data openness and secondary development through MQTT/HTTP protocols, making it easy to control and customize the robot's operations.
	Customizable Operations	The DT-01 Pro platform supports customizable operations, including setting no-go zones, prioritizing obstacle avoidance, and automatic recharging when the battery is low.
	Usage Scenarios	Suitable for environments with fixed landmarks, such as offices, factories, or buildings with stationary objects like desks or shelves. It is not ideal for open spaces lacking distinguishing features, as laser navigation cannot construct a map in such environments.



DT-02 Pro Slam Intelligent Navigation Robot Platform

The DT-02 Pro SLAM intelligent navigation robot is designed for scenarios requiring a load capacity exceeding 100 kg. This platform offers precise positioning, path planning, perception and obstacle avoidance, collaboration, and interaction, providing efficient and safe mobile solutions across various industries.

Category	Parameters	
Function Support	**Laser Mapping**	The DT-02 Pro SLAM series robots can create high-precision laser maps using environmental data captured by LiDAR and processed through internal positioning and mapping algorithms. The mapping area can cover more than 100,000 square meters.
	Intelligent Path Planning	By utilizing LiDAR data and path planning algorithms, the DT-02 Pro platform ensures precise navigation and positioning, enabling point-to-point movement. It supports both free navigation and trajectory modes, achieving a standard positioning accuracy of ±40 mm and end-point accuracy of ±10 mm.
	Dynamic Obstacle Detection and Avoidance	The LiDAR continuously scans the environment, detecting dynamic obstacles such as people or moving objects. The robot then dynamically adjusts its path to avoid these obstacles, preventing collisions.
	Open Protocol for Secondary Development	The DT-02 Pro SLAM platform supports data openness and secondary development via MQTT/HTTP protocols. This feature enables users to control the robot's data status, execute commands, and monitor performance, facilitating easy customization and integration.
	Customizable Operations	The platform supports a range of customizable operations based on user requirements and specific scenarios. Examples include setting restricted areas, prioritizing the avoidance of particular obstacles, and automatic recharging when the battery is low.
	Usage Scenarios	Best suited for environments with fixed landmarks, such as offices, factories, or buildings with stationary objects like desks or shelves. It is less suitable for open areas lacking distinctive features, as laser navigation requires these features to construct a map.