ROBOT Outsourcing Provider Co., Ltd.

Under Drive Towing Mobile Robot-R300TW

LiDAR SLAM + 300kg load

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Product Features

1. Using laser SLAM navigation mode, rapid deployment, the device only needs to scan the environment to build a map, to achieve accurate positioning of ±5mm.
2. The load weight can reach 300kg, and most of the goods can be handled and transported by traction.
3. The equipment adopts the modular design of the whole machine, which is more convenient for assembly and maintenance.
4. The battery life can reach more than 8 hours at full load, and the robot can realize automatic charging with low power (set low power value according to customer requirements).
5. Cluster scheduling, in the robot control system, you can view the working status, power, location and other information of all robots at the same time, and schedule all equipment through the system.
6. Equipped with lidar safety obstacle avoidance, front and rear contact anti-collision strips, left and right emergency stop buttons multiple safety protection, to protect the safety of equipment and goods.
7. System path planning, to achieve unmanned operation, staff only need to issue instructions through the control terminal.

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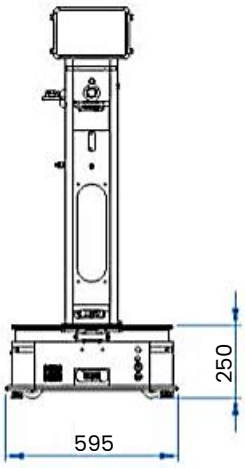
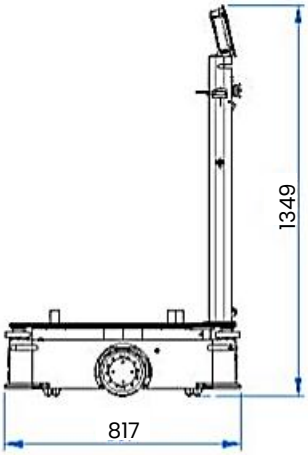
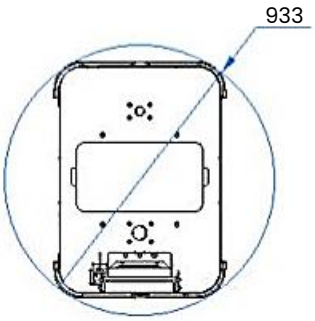
Dimension







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Specification	
Basic parameters	
Name	Under Drive Towing Mobile Robot-R300TW
Navigation mode	LiDAR SLAM
Drive mode	Double wheel differential
Dimension (L x W x H)	817 x 595 x 1349 mm (with bumper strip)
Weight (with batteries)	150 Kg (±10 Kg)
Maximum payload	300 Kg
Chassis ground clearance	25 mm
Network	Ethernet / Wi-Fi 802.11 a/b/g/n/ac
Ambient temperature and humidity range	Temperature: 0~50℃ / Humidity: 10~90%, No compression condensation
IP rating [1]	IP20
Performance Parameters	
Possibility (slope/step/gap) [2]	≤5%/5 mm/30 mm
Navigation position accuracy [3]	±5 mm
Navigation angle accuracy [3]	±1°
Max speed (Adjustable)	≤1.5 m/s
Battery Parameters	
Battery capacity	DC51.2V/23Ah (Lithium iron phosphate)
Combined endurance time	8 hr.
Charging time (10-80%)	≤1 hr.
Charging mode	Manual/Automatic
Cycle times	1500 cycles, capacity > 80%
Safety Parameters	
LiDAR SLAM number	1 (or 2)
E-stop button	✓
Speaker	✓
Ambient light	✓
Functions Parameters	
Basic functions [4]	✓
Wi-Fi roaming	✓
Automatic charging	✓
Follow-up function	✓
QR code accurate positioning function	Optional

[1] Designed for indoor transport, not recommended for outdoor environments.

[2] Road surface is smooth, clean and without significant undulations. Slope5%= arctan (0.05) ≈ 2.8°. The robot may not stop or turn at ramps, steps, or gaps, but may only pass quickly perpendicular to them.

[3] Navigation accuracy usually refers to the repeated accuracy of the robot navigation to the target site. When the environment scanned by the robot LiDARis relatively stable (change rate <30%), the repeated accuracy of the robot navigation from the fixed direction to the target site can reach the expected value. When the robot runs along the virtual path, it will try to fit the path, but it does not guarantee repeatability. That is, the robot can guarantee the accuracy of the point, without guaranteeing the accuracy of the navigation path. The minimum site spacing supported by the robot is 1cm.

[4] The basic functions include map editing, model editing, positioning and navigation, basic motion model (differential), API interface, etc.