ROBOT Outsourcing Provider Co., Ltd.

Under Drive Lifting Mobile Robot-R1000LTS

LiDAR SALM Navigation+1000Kg Load

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Product Features

1. The LiDAR SLAM autonomous navigation mode is adopted for rapid deployment. The equipment only needs to scan the environment to build a map and achieve accurate positioning of ± 10 mm.
2. The carrying capacity is 1000kg, and it can complete most of the goods handling transport through jacking and rotation.
3. The equipment adopts the modular design of the whole machine, which makes the assembly and maintenance more convenient.
4. The battery life can last for more than 6 hours, and the robot can automatically charge with low power (set the low power value according to the customer's requirements).
5. Cluster scheduling, in the robot control system, you can view the working status, electricity, location and other information of all robots at the same time, and schedule all devices through the system.
6. Equipped with LiDAR safety barrier avoidance, front contact anti-collision bar, left and right emergency stop buttons, multiple safety protection to protect equipment and cargo safety.
7. Realizing unmanned operation by the system path planning, and the staff only need to give instructions through the control terminal.

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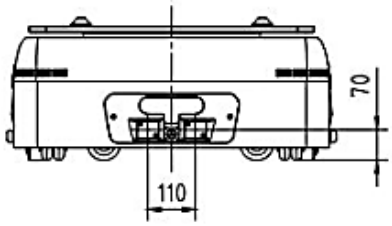
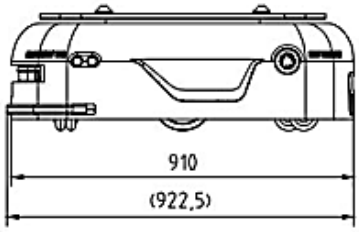
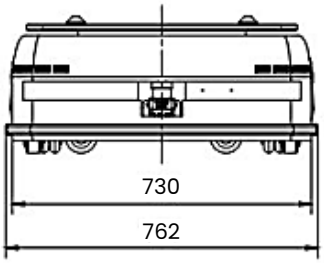
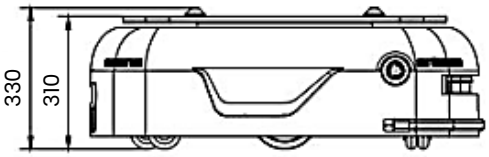
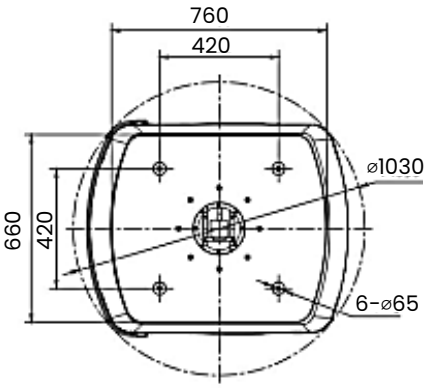
Dimension

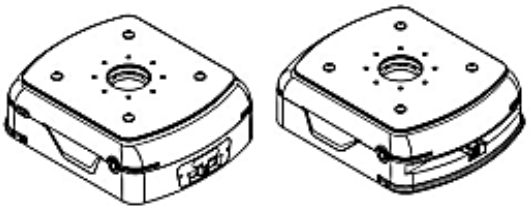












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Specification	
Basic parameters	
Name	Under Drive Lifting Mobile Robot-R1000LTS
Navigation mode	LiDAR SLAM Navigation
Drive mode	Double wheel differential
Dimension (L x W x H) (without bumper strip)	1000 x 760 x 310 mm
Maximum payload	1000 KG
Chassis ground clearance	30 mm
Maximum lifting height	60±2 mm
Lifting time	8±0.5 s
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]	±10 mm
Navigation angle accuracy [3]	±1°
Operation speed (no-load/full load)	1.5m/s, 0.8m/s
Battery Parameters	
Battery capacity	DC48V/40Ah (Lithium iron phosphate)
Endurance time	8 hr.
Charging time (10-80%)	≤1-2 hr.
Charging mode (optional)	Manual/Automatic
Battery life	1500 cycles, capacity > 80%
Safety Parameters	
LiDAR SLAM number	1
Emergency stop button	✓
Speaker	✓
Ambient light	✓
Bumper strip	✓
Functions	
Basic function [4]	✓
Wi-Fi Roaming	✓
Automatic charging function	✓
Shelf recognition function	✓
Follow-up function	×
QR code accurate positioning	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 is usually referred to as the repeatability of the robot's navigation to the target site, which can reach the expected value when the robot navigates from a fixed direction to the target site with a relatively stable environment scanned by the robot's LiDAR (variation rate <30%). When the robot runs along the virtual path, it will try to fit the path as closely as possible, but repeatability is not guaranteed. That is, the robot guarantees point-to-point accuracy, but not navigation path fit accuracy. The minimum sites pacing 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.