

Heavy-load Delivery Robot

S100



Key Features

- **Multi-Modal SLAM:** Utilizing multiple sensors and modules, including dual LiDAR, tri-stereo vision, and image modules, to enhance localization accuracy.
- **360° Obstacle Detection and Avoidance:** Capable of accurately identifying and avoiding lowlying and suspended obstacles, ensuring safe movement of the robot.
- **Human-Robot Coexistence:** Providing ultimate safety assurance in environments where humans and robots coexist, ensuring secure interaction between humans and machines.
- **IoT Connection with Essential Facilities:** Support lifting taking, passing through automatic doors, and support the integration of complete call systems.
- **7*24 Working:** 15-second battery swap for uninterrupted 24/7 delivery, supports auto, manual charging and battery swap for diverse operational needs.
- **Stability and Maneuverability:** The machine exhibits exceptional stability and maneuverability, adapting to various complex terrain environments to ensure smooth motion.

Specifications Performance

Robot Dimensions	925 × 620 × 1282 mm
Load Capacity	120 kg
Minimum Passage Width	900 mm (without rotation); 1200 mm (able to turn around)
Standard Passage Width	1200 mm
Maximum Compatible Shelf Size	913 × 616 × 800 mm
Standard Shelf Size	865 × 600 × 800 mm
Max Moving Speed	1 m/s
Battery Life	8 h
Charging Time	2.5 h (0–100%)
Robotic Travel Direction	Unidirectional Travel
Rotation Capability	360° rotation in place
Multi-robot Collaboration	10 robots
Slope Angle	≤5°
Docking Accuracy	±10 cm, ±10° (±2–3cm for special point)
Gap Crossing Ability	≤35 mm
Obstacle Crossing Ability	≤10 mm
Chassis Ground Clearance	≤25 mm (safe for normal footwear)

Environment

Operating Temperature and Humidity	0–50°C , RH: 5~95%
Operating Environment	Indoor environment, flat ground, no dust
Storage Temperature	0–55°C
Noise	<60 dB

Battery and Charging

Battery Type	Ternary lithium battery
Battery Capacity	DC 48 V 12 Ah
Battery Dismountable	Yes
Charging Mode	Automatic charging with charging pile, manual charging by recharger and battery Swap
Charging Input	100–240 V~, 3.5 A (MAX.) 50/60 Hz
Charging Output	54.6 V, 5 A
Charging Pile Dimension (W × D × H)	220 × 146 × 305 mm

Hardware

Machine Material	ABS & aluminum alloy
Robot Weight	90.6 kg
Positioning Method	Laser & Label Positioning
Sensing Techniques	Lidar, Image module, Stereo vision, Collision sensor, IMU
Emergency Stop Button	Front, Side, Rear
Network	Wi-Fi/4G
Touch Screen	10.1" (1280×800)
Interactive Ability	Light/Touch/Voice Prompt
WIFI	802.11 b/g/n transmission
WIFI Frequency	2.4–2.484 GHZ
LoRa Frequency	850.125~930.125 MHz

System and Function

System App	Linux (Control) & Android (Interaction)
Language	Chinese, English, Japanese, Korean, Thai
App Functions	Direct delivery, Multi-point delivery, Cycle Mode
Voice Reminder	Different voice prompt in different working mode and general operation

Official Standard and Optional Parts

Package Main Contents	Robot x1, Battery Recharger x1, Charging Pile x1, Product Manual x1
Optional Part	Calling System, Shelf, TBD

Package Content



Battery Recharger x1

*The actual recharger may be different.



Product Manual x1



Charging Pile x1

Optional Parts



Call Button



Control Center



Shelf