

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:** Supports lift-taking, passing through automatic doors, and supports 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 x 620 x 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 x 616 x 800 mm
Standard Shelf Size	865 x 600 x 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

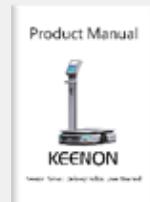
Official Standard and Optional Parts

Package Main Contents	Robot ×1, Battery Recharger ×1, Charging Pile ×1, Product Manual ×1
Optional Part	Calling System, Shelf, TBD

Package Content



Battery Recharger ×1



Product Manual ×1



Charging Pile ×1

*The actual recharger may be different.

Optional Parts



Call Button



Control Center



Shelf