

# Heavyload Delivery Robot

## S300



### Key Features

- **Heavy-load Delivery Ability:** Capable of 300kg objects lifting and transporting.
- **Laser+Vslam Development:** 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 low-lying 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 lifttaking, passing through automatic doors, and support the integration of complete call systems.
- **24/7 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 Dimension	925 × 640 × 1282 mm
Load Capacity	300 kg
Minimum Passage Width	900 mm (without rotation); 1200 mm (able to turn around)
Standard Passage Width	1200 mm
Maximum Compatible Shelf Size	1000 × 1000 mm
Minimum Shelf Size	820 × 800 mm
Lifting Height	5 cm
Moving Speed (Unloaded)	0.2~1 m/s
Moving Speed (Fully Loaded)	0.2~ 0.8 m/s
Robotic Travel Direction	Unidirectional Travel
Rotation Capability	360° rotation in place
Multi-robot Collaboration	10 robots
Slope Angle	≤ 5°
Precise Docking Accuracy	2–3 cm (shelf points, charging points and other special points)
Gap Crossing Ability	≤30 mm
Obstacle Crossing Ability	≤10 mm
Chassis Ground Clearance	≤23 mm (safe for normal footwear)

## Environment

Operating Temperature and Humidity	0–45°C, RH: 5~95%
Operating Environment	Indoor environment, flat ground, no dust
Storage Temperature	-20–50°C
Noise	<

## Battery and Charging

Battery Life	6 h (< 300 kg)
Charging Time	3.5 h (0–100%)
Battery Type	Ternary lithium battery
Battery Capacity	DC 48 V 15 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	115 kg (including battery)
Positioning Method	Laser & Vslam
Sensing Techniques	Lidar, Image module, Stereo vision, Collision sensor, IMU
Emergency Stop Button	Front, Side, Rear
Network	Wi-Fi/4G
Touch Screen	10.1 inch (1280 × 800)
Interactive Ability	Light / Touch / Voice Prompt
WIFI	802.11 b/g/n transmission
WIFI Frequency	2.4-2484 GHZ
LoRa Frequency	850.125~930.125 MHz

## System and Function

System	Linux (Control) & Android (Interaction)
App Language	Chinese, English, Japanese, Korean, Thai, Traditional Chinese, French, German
App Functions	Direct delivery, Multi-point delivery, Cycle, Lift, Follow 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, Product Manual ×1
Optional Part	Calling System, Shelf, TBD

### Package Content



Battery Recharger ×1

\*The actual recharger may be different.



Product Manual ×1



Charging Pile ×1

### Optional Parts



Call Button



Control Center