

Speedy Service Product Brief

Autonomous delivery robot for hospitality and retail sectors



Revision: v1.1

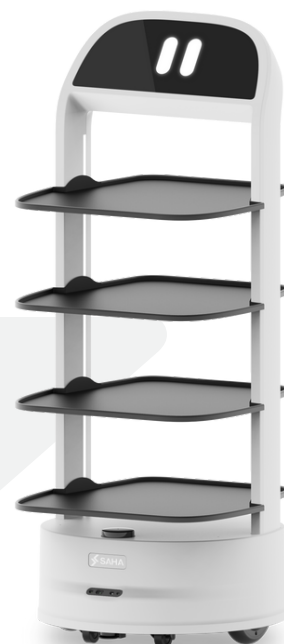
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HoReCa 4.0 by SAHA®

Product Overview

- **Fully Autonomous Operation** Navigate in complex environments and complete assigned tasks without requiring human intervention.
- **Advanced Precision Navigation** Powered by SAHA Simultaneous Localization and Mapping technology, our robots possess advanced spatial awareness.
- **Autonomous Charging** Our robots autonomously navigate to charging stations when the battery is low, ensuring they're always ready to serve.
- **Battery Life** All-Day Operation with an extended battery life, our robots can operate continuously, minimizing downtime and maximizing productivity.
- **360° Wide LiDAR Scan** Speedy Robots scan and map their surroundings with unparalleled accuracy, enabling safe and reliable operation in dynamic environments.
- **Compact Design** Our robots can autonomously pass through spaces with a minimum width of 58 cm, enabling seamless navigation in narrow environments.
- **High Load Capacity** Each tray supports up to 8 kg, with a total carrying capacity of 32–40 kg, ensuring efficient service in every trip.
- **Suspension System** Designed with advanced suspension systems, our robots glide effortlessly over various surfaces, ensuring smooth and stable navigation.
- **Fleet and Traffic Management** Efficient coordination of multiple robots ensures seamless collaboration and optimized performance.
- **SAHA Remote Monitor** Analytics at Your Fingertips. You can easily oversee your robot's actions, analytics, and effectiveness from any location, ensuring you maintain peace of mind.



General Specifications

Dimensions	525 x 537 x 1310 mm
Weight	59 kg
Cruise Speed	0,6 - 1,1 m/s
Slope Angle	≤5°
Tray Count	3 or 4 (Customizable)
Endurance	8 - 12 hours
Languages	Turkish, English, Spanish, German, French, Arabic
Additional Features	Customizable trays

Hardware

Materials	ABS+PC and aluminum alloy
Sensors	2D Lidar, Stereo Vision Sensor, IMU
Sensor Coverage	Lidar detection range: 360°, ≤30 m Stereo Vision range: 87°(H) × 58°(V) ≤4 m
Positioning Method	Sensor Fusion with Lidar, Wheel Odometry and IMU
Wireless	Wi-Fi: 2.4 GHz Lora 868 Mhz or 900 Mhz (According to regulations)
Tray Load Capacity	8 Kg per tray

Power

Battery Type	LiFePO4 (Lithium iron phosphate)
Battery Capacity	30 Ah
Dismountable Battery	No
Charging Input	100-240V AC, 50/60Hz
Charging Time	2h 20m

Environment

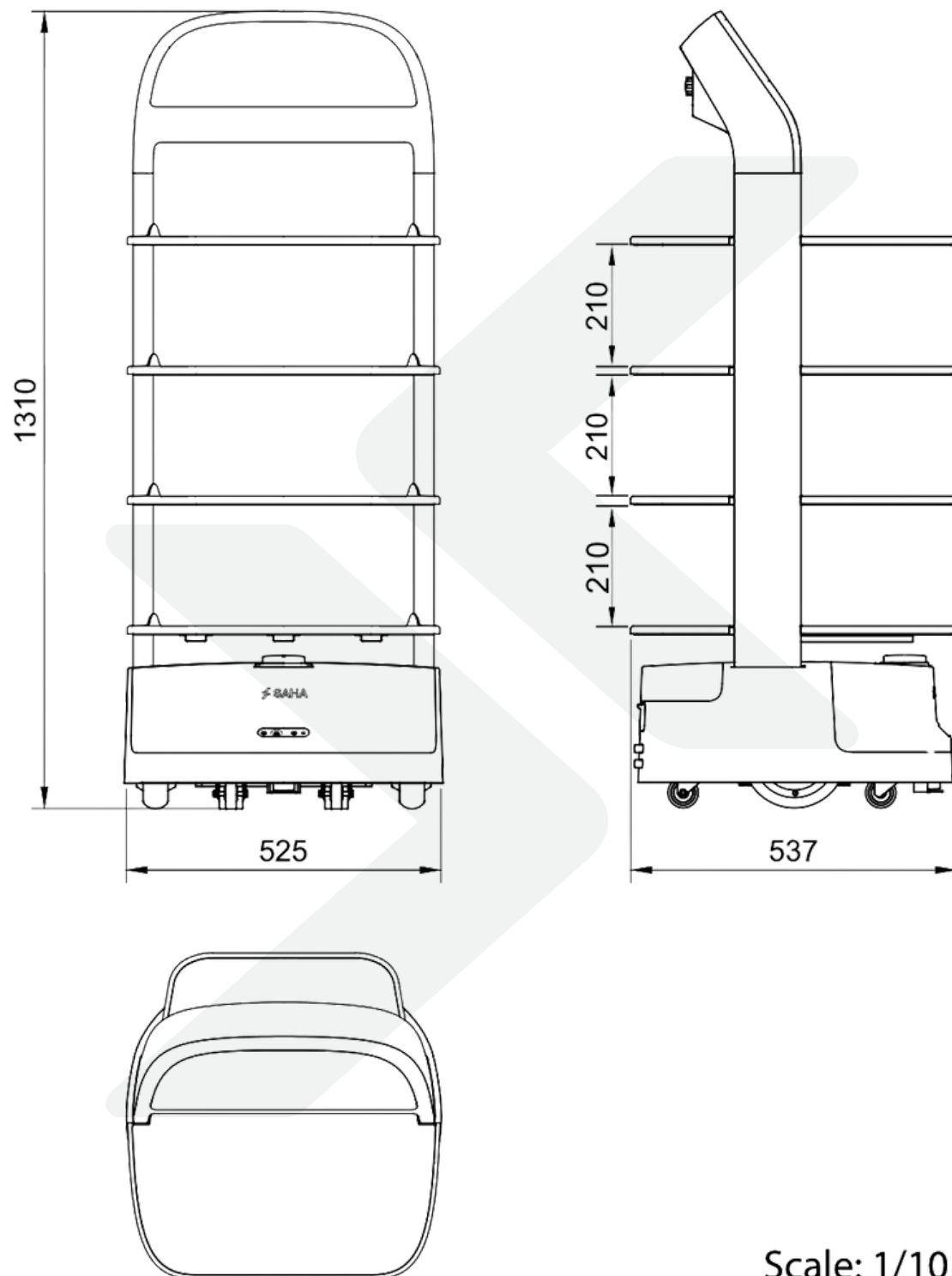
Maximum Coverage Area	160.000 m ² (400 m x 400 m)
Operating Temperature and Humidity	0 - 40°C, RH: 20% - 80%
Operating Environment	Indoor environment, flat ground

Compatible Accessories

Speedy Service can be seamlessly integrated with a wide range of complementary systems and components to enhance its functionality and user experience:

- **IoT Controller Board:** Enables integration with turnstiles, automatic doors, and elevator systems for seamless access control in complex environments.
- **UWB Based Indoor Localization System:** Provides precise indoor positioning by detecting customer locations in dynamic seating areas such as food courts, ensuring accurate delivery to any table.
- **QR Menu Integration:** Allows customers to scan QR codes for placing orders, which the robot can then autonomously deliver.
- **POS System Integration:** Synchronizes with Point-of-Sale systems to streamline order processing, real-time status tracking, and payment coordination.
- **AI-Powered Assistant HeyHolo:** Elevates the dining experience with a voice-interactive holographic avatar that intelligently manages order workflows, supports upselling, and delivers a cutting-edge, contactless customer journey.

Technical Drawings



Scale: 1/10