Robox
Crafting powerful machines

TECHNICAL DATASHEET



AUTONOMOUS DELIVERY ROBOT

Delbot

Reliable, precise
tray delivery

3 × 10 kg	10–12 h	360°	800 mm
TRAY PAYLOAD	TYPICAL WORKING DAY	4D LIDAR SENSING	MIN. AISLE WIDTH

TECHNICAL DATASHEET

Delbot

Autonomous Delivery Robot

Reliable, precise tray delivery for restaurants, hotels, cafés and hospitals — with robust navigation, intuitive interaction and a modular design.



30 kg	800 mm	10–12 h	≈ 3.5 h
3 TRAYS × 10 KG	MIN. AISLE WIDTH	TYPICAL WORKING DAY	FULL CHARGE

01

Product Overview

Delbot is Robox's autonomous delivery robot, designed to raise operational efficiency and improve the guest experience in service environments. Staff load up to three trays, choose a destination on the touchscreen, and Delbot delivers autonomously, guides the recipient by voice and screen, and returns to its home position.

A 2D LiDAR and a 360° 4D LiDAR give Delbot a full view of its surroundings, including low-lying and overhanging obstacles, so it moves safely through narrow aisles and busy dining rooms.

02

Navigation & Safety

Advanced 3D perception

Unitree L2 4D LiDAR with a 360° × 96° field of view for a full understanding of the environment.

Intelligent obstacle avoidance

Rapid detection of static and moving obstacles, including low-lying and overhanging ones, with responses as short as 0.25 s.

Agile manoeuvrability

Turns on the spot and navigates passages as narrow as 800 mm.

Autonomous navigation

SLAM-based self-localisation and autonomous task execution on ROS 2.

03

Delivery & Operation

Multi-layer delivery

Three detachable 450 × 500 mm trays, 10 kg each, removable for cleaning.

Humanised interaction

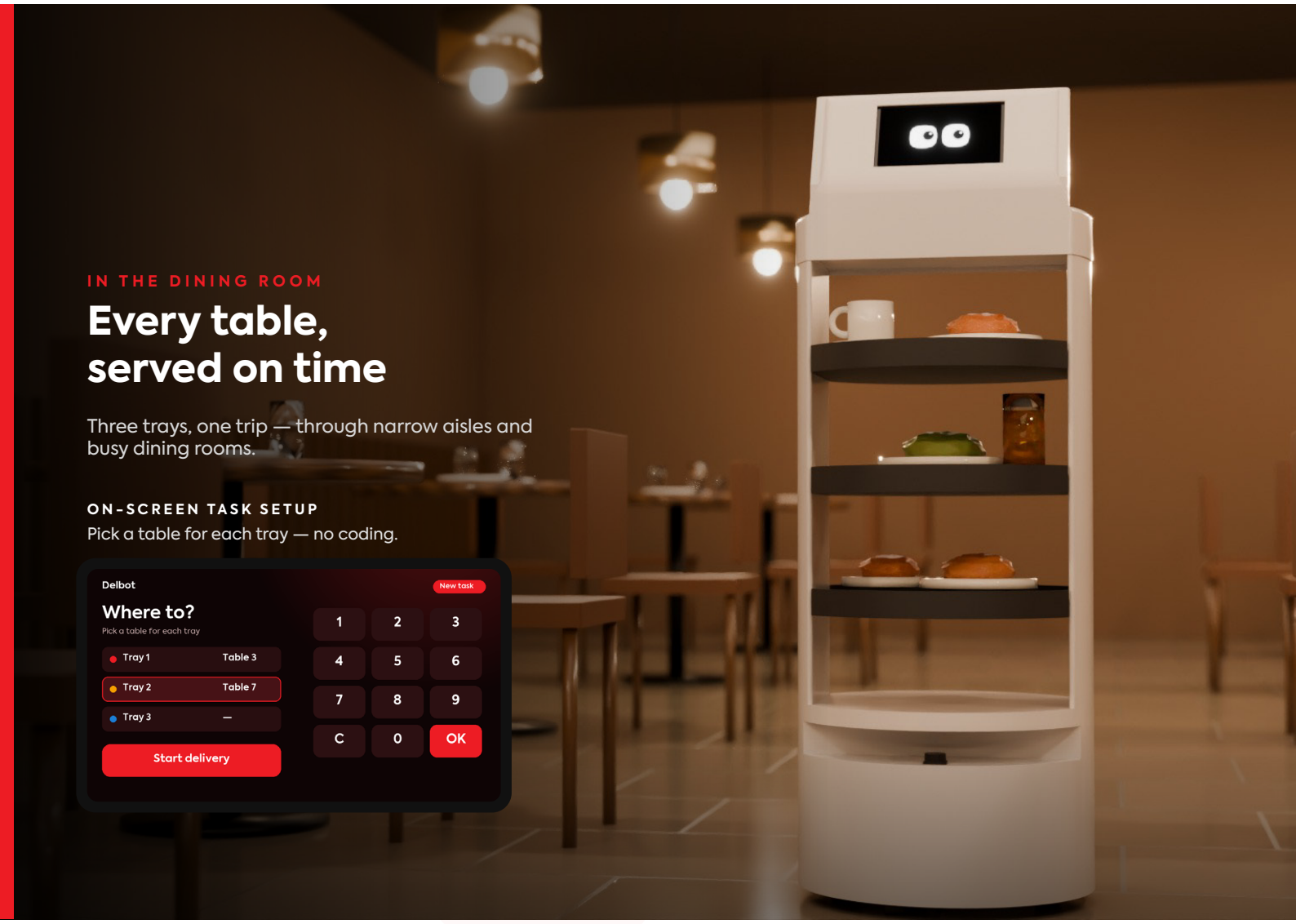
Voice announcements and an interactive screen guide each pick-up.

Effortless deployment

Set up through the on-screen interface — no coding required.

Internal Wi-Fi access point

Runs on its own network, independent of venue Wi-Fi.



IN THE DINING ROOM

Every table, served on time

Three trays, one trip — through narrow aisles and busy dining rooms.

ON-SCREEN TASK SETUP

Pick a table for each tray — no coding.

04

Operational Workflow

STEP 01

Task assignment

Staff place items on the trays and enter the destination (for example, a table number) on the touchscreen.

STEP 02

Autonomous navigation

Delbot travels from its home position to the destination using its localisation and mapping.

STEP 03

Customer interaction

On arrival, Delbot announces the delivery by voice and shows on-screen prompts to collect the items.

STEP 04

Task completion

Once the items are collected, the customer or waiter taps "OK" on the screen to confirm.

STEP 05

Return to base

Delbot returns to its home position, ready for the next delivery.



Sensing visualisation shown for illustration.

SAFETY IN NUMBERS

0.25 s
OBSTACLE RESPONSE

360° × 96°
3D FIELD OF VIEW

40 m
2D LIDAR RANGE

5 cm
MIN. BLIND ZONE

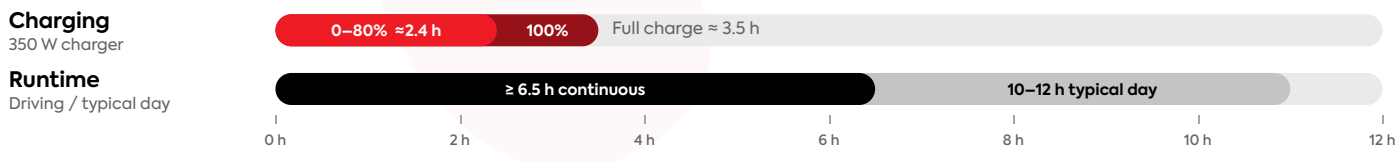
05

Technical Specifications

GENERAL	Dimensions (Ø × H)	Ø500 × 1,300 mm
	Net weight	≈57 kg
	Trays	3 × 450 × 500 mm, detachable for cleaning
	Payload	10 kg per tray, 30 kg total
MOBILITY	Maximum speed	1.0 m/s (software-adjustable)
	Turning	Zero-radius turn in place, 254 mm swing radius
	Minimum aisle width	800 mm
	Maximum incline	5°
SENSING & SAFETY	Navigation LiDAR	2D LiDAR — 180° scan, up to 40 m range
	3D perception	4D LiDAR — 360° × 96° field of view. Up to 30 m range (90% reflectivity), 5 cm minimum blind zone. Detects low-lying and overhanging obstacles outside a 2D scan plane
	Obstacle response time	As short as 0.25 s
POWER	Battery	LiFePO4 12S, 38.4 V / 24 Ah (0.92 kWh)
	Runtime	≥ 6.5 h guaranteed continuous driving; 10–12 h typical working day
	Charger	350 W, 220 V AC 50 Hz input
	Charge time	0–80% in ≈2.4 h, full in ≈3.5 h
INTERFACE & CONNECTIVITY	Screen	10-inch touchscreen, 1280 × 720
	Voice prompts	At home position, on arrival and on task completion
	Task configuration	On-screen interface
	Connectivity	Internal Wi-Fi access point
ENVIRONMENT	Operating conditions	Indoor, 5–40 °C

Runtime and charge-time figures are calculated from component power budgets on a new pack at 25 °C. Guaranteed runtime assumes continuous driving at 1.0 m/s with displays at full brightness; typical-duty figures assume intermittent operation.

POWER AT A GLANCE



06

Dimensions



FRONT VIEW



SIDE VIEW

Ø500 mm
DIAMETER

1,300 mm
HEIGHT

≈57 kg
NET WEIGHT

800 mm
MIN. AISLE WIDTH

Turning

Zero-radius turn in place, 254 mm swing radius.

Trays

3 × 450 × 500 mm, 10 kg each (30 kg total), detachable for cleaning.

07

Applications



Restaurants

Table delivery and plate return.



Hotels

Room service and amenity delivery.



Cafés

Order delivery at peak hours.



Hospitals

Meals and supplies to wards.

08 CONTACT

Bring Delbot to your venue

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