Flexible and Interactive Delivery Robot

T11

Key Features

- **Extraordinary Moving Ability:** With a minimum path width requirement of just ONLY 49 cm, T11 navigates narrow spaces, making it versatile for various environments.
- **Optional Headwear:** Optional cat ear and rabbit ear makes T11 more adorable.
- **Intelligent Self-Pickup Experience**: T11's plate detection sensors, tray indicators, NEW TRAY INDICATION SPOTLIGHT, voice prompts, and visual guidance streamline self-pickup while offering interactive feedback for a seamless customer experience.
- **Advertising Capabilities**: Equipped with a 18.5-inch 1080 P advertising screen and two advertising modes, T11 transforms into a powerful marketing tool to engage customers.
- **New Guidance Mode**: T11 guides customers to their destinations and returns to the start point autonomously, making it ideal for restaurants, hotels, airports, and more.
- **Enhanced Safety**: T11 incorporates FIVE stereo vision sensors for enhanced safety and obstacle avoidance, setting new standards for food delivery robots.
- **Intuitive Operation Screen**: Featuring an 10.1-inch 1080 P operation screen, T11 provides a user-friendly interface for easy interactions.
- **Sensor Fusion**: T11 features an advanced VSLAM sensor for markerless deployment and precise navigation through sensor fusion with LiDAR, expanding its versatility.
- **Smooth Delivery**: Ensured by a shock-absorbing chassis.

Specifications

Performance

Maximum Coverage Area per Device	200 × 200 ㎡
Minimum Passage Width	49 cm
Moving Speed	0.1~1.0 m/s adjustable
Braking Distance	70 cm (Moving Speed 1.0 m/s and Full Load on dry road)
Slope Angle	≤5°
Battery Life	Up to 9 h (Battery from 100% to 5%, brightness of the advertising screen is set to 100%, actual performance may vary)
Service Life Circle	20000 h
Multi-robot Collaboration	Maximum 20 robots
Multi-point Delivery	Up to 20 points (single delivery)
Intelligent Obstacle Avoidance Maximum Detect Range	≤1.5 m
Rated Power	55 W

Environment

Operating Temperature and Humidity	0 -40°C, RH： 5～85%
Operating Environment	Indoor environment, flat ground, no dust
Storage Temperatureand Humidity	Temperature: From –15–45°C; Humidity: 20–80 % RH

Battery and Charging

Battery Type	Ternary lithium battery
Battery Capacity	DC25.9V, 20.8Ah
Charging Mode	Automatic charging with charging pile and manual charging by recharger
Charging Input	100-240 V~, 50/60 Hz
Charging Time	5.5 h (With recharger or charging pile, and robot powered on)
Charging Pile Dimension	305 × 220 × 146 mm
Charging Pile Weight	2.2 kg

Hardware

Machine Material	ABS & aluminum alloy
Positioning Method	Sensor Fusion (LiDAR and VSLAM Sensor)
Positioning Accuracy	Centimeter Level
Sensing Techniques	Lidar, Stereo vision, Image module, Collision sensor, IMU
Sensor Coverage	Lidar detection range: 210°, <=25 m; Stereo Vision range: 260°, <=1.5 m; VSLAM Sensor, celling height required 2-6m
Network	Wi-Fi: 2.400–2.4835 GHz, max 13.90 dBm; ESP01: 2.400–2.4835 GHz, max 13.90 dBm
Memory and Internal Storage	2 GB RAM + 16 GB ROM
Touch Screen	10.1" (1280 × 800)
Advertisement Screen	18.5" (1080 × 1920)
Interactive Ability	Light / Touch / Voice Prompt

Measurements

Robot Dimension (W × D × H)	384 x 463 x 1123 mm
Robot Weight	38 kg
Tray Amount	3 (fixed)
Tray Dismountable	No
Space of Each Layer	383 × 342 × 220 mm (The upper two), 383 × 342 × 285 mm (The bottom layer)
Tray Access	300° easy access
Load Capacity	20 kg (5 kg per layer for the upper two layers, with 10 kg for bottom layer)

System and Function

System	Linux (Control) & Android (Interaction)
App Language	Chinese, English, Japanese, Korean, German, French, Italian, Spanish
App Functions	Food Delivery, Multiple Delivery, Dish Return, Greeting and Escort, Celebration
Expression	5 types
Voice Reminder	Different voice prompt in different working mode and general operation

Official Standard and Optional Parts

Package Main Contents	Robot ×1, Silicone Pad ×2, Battery Recharger ×1, Charging Pile ×1, Product Manual ×1
Robot Color Optional	White

Package Content

Silicone Pad ×2

Battery Recharger ×1

*The actual recharger may be different.

Product Manual ×1

Charging Pile ×1

Main Unit and Dimension