Stable and High-capacity DinerBot

T5 LS

Key Features

➢ Up to 40Kg full load ability for high demand ensured by reliable structure.

➢ Smooth delivery ensured by shock-absorbing chassis.

➢ Flexible trays can be adjusted to make the best of the space

➢ Smart charge: autonomous timed and quantitative charging with charging pile.

➢ Independently developed SLAM(synchronous localization and mapping) to ensure precise positioning and movements.

➢ Intelligent obstacle avoidance ability with multiple sensor provides secure service.

➢ Convenient use: open access of the tray from the front and the rear.

➢ Multi-Robot collaboration: multiple robots can cooperate smoothly in the same working environment.

➢ Unique expression screen with vivid expressions to impress the customer.

Specifications

Performance

Maximum Coverage Area per Device	200*200㎡
Minimum Passage Width	70cm
Moving Speed	0.1~0.8m/s adjustable
Braking Distance	41cm(Max. moving speed & full load)
Slope Angle	≤ 5°
Battery Life	10-14h(actual results may vary)
Service Life Circle	20000h
Multi-robot Collaboration	Maximum 20 robots
Multi-point Delivery	Up to 20 points(single delivery)
Intelligent Obstacle Avoidance Maximum Detect Range	≤1.5M
Rated Power	50W

Environment

Operating Temperature and Humidity	0 - 40℃, RH：5％～85％
Operating Environment	Indoor environment, flat ground, no dust
Storage Temperature	-30℃-60℃

Battery and Charging

Battery Type	Ternary lithium battery
Battery Capacity	DC48V，12Ah
Battery Dismountable	No
Charging Mode	Automatic charging with charging pile and manual charging by recharger
Charging Input	100-240V~,50/60Hz
Charging Time	6h(With recharger or charging pile, and robot powered on)
Charging Pile Dimension	215*290*230mm
Charging Pile Weight	2.2kg

Hardware

Machine Material	PC & ABS
Positioning Method	Laser Positioning/Label Positioning(for the start point if charging pile is not used)
Positioning Accuracy	Centimeter Level
Sensing Techniques	LiDAR, Stereo Vision, Image Module, Collision Sensor, IMU(Inertial Measurement Unit)
Sensor Coverage	LiDAR detection range: 180°, ≤10m (V3 Laser),216°, ≤10m (V4 Laser). Stereo vision range: 140°，0.1-1.5m
Image Module	120°, celling height required 2-8m
Network	Wi-Fi(2412-2472MHz)
Memory and Internal Storage	2GB RAM + 16GB ROM
Touch Screen	7 inch(1024*600)
Interactive Ability	Light/Touch/Voice Prompt

Measurements

Robot Dimension(WxDxH)	506*502*1205mm
Box Dimension(WxDxH)	550*610*1305mm
Robot Weight	50Kg
Tray Amount	4(Can be adjusted to 3)
Tray Dismountable	Yes
Space of Each Layer	490*404*185mm(The 1st upper layer)， 490*404*169mm(The lower three layers)； 490*404*243mm(The 1st upper layer, trays adjusted to 3 layers), 490*404*228mm(The lower three layers, trays adjusted to 3 layers)
Tray Access	Open access from the front and the rear
Load Capacity	40Kg (10kg per layer)

System and Function

System	Linux(Control) & Android(Interaction)
App Language	Chinese, English, Japanese, Korean, Thai language, Cantonese, Germany, French, Italian, Arabic, Vietnamese, Russian, Spanish, Portuguese, and other language customizable
App Functions	Food delivery, Snack, Direct delivery, Multi-point delivery, Blessing Mode, Welcome Mode
Expression	10 types
Front Screen Expression	26 types
Voice Reminder	Different voice prompt in different working mode and general operation.

KEENON

Official Standard and Optional Parts

Package Main Contents	Robot*1, Silicone Pad*4(V4) , Battery Recharger*1, Product Manual*1, Charging Pile*1
Robot Color Optional	White

Package Content

Silicone pad*4

Battery recharger*1
*The actual recharger may be different.

Product Manual*1

Charging pile*1

Main Unit and Dimension

506mm
Touch Screen
Expression Screen
1205mm
Tray
Stereo Vision
LiDAR
Anti-collision Bar

502mm
1205mm

Loudspeaker
Power Switch
&
Manual
Charging Port

506mm
502mm
Emergency Stop Button
Image Module