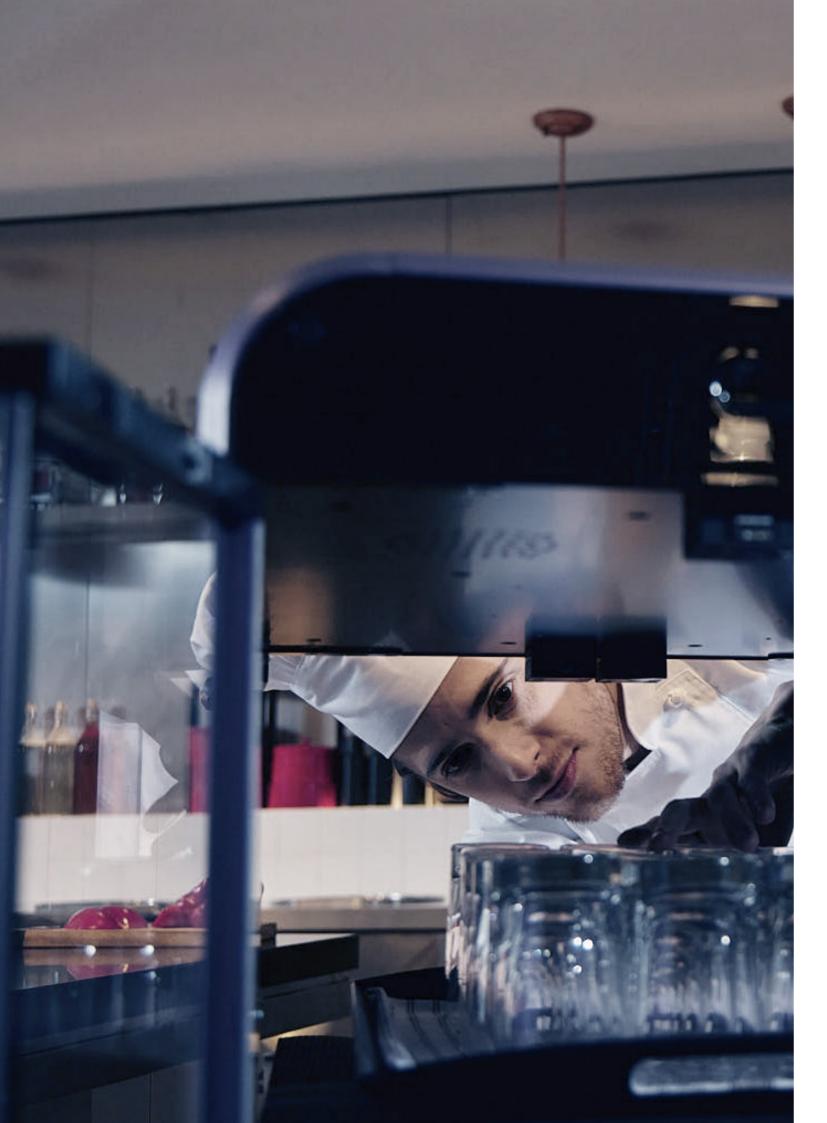


**KEENON Robotics Co., Ltd.** 

+86-400-8335-808 global@keenon.com www.keenon.com

#### KEENON THIRTEEN YEARS

Over 13 years of impressive knowledge and experience in developing indoor intelligent unmanned distribution robots.



FOUNDED IN 2010, KEENON ROBOTICS IS A GLOBAL AWARD-WINNING TECHNOLOGY PIONEER OF INDOOR INTELLIGENT AUTONOMOUS DISTRIBUTION ROBOTS.
WE ARE DEDICATED TO CREATING A SEAMLESS EVERYDAY LIFESTYLE FOR OUR END CONSUMERS THROUGH THE PRODUCTS WE CREATE.

None of this would be possible without a sizable investment from our R&D technology team - who work daily to develop new cutting-edge hardware and software that constantly improve our range of robots.

Through these efforts, our leading autonomous robots can be found in premium restaurants, hotels, bars, and hospitals around the world.

Thanks to our team's dedication to their craft, we have received multiple prestigious awards and created important industry-leading patents. We have also assisted in the formulation of safety standards for service robots, and helped to create CR, CE, and KC certifications in the robot market.

Like our robots, we work with our clients worldwide to ensure their product satisfaction.



Established company

Developed specialist science laboratory

Developed the first AI restaurant robot

Created the first laser guided robot

Tens of millions of RMB- Series A round

Listed on the Top 100 Best Artificial

Intelligence Companies

funding by Yunqi Capital and Songhe Capital

Launched the GUIDERBOT G1 and GUIDERBOT G2

robot for sensitive experiments

2018 A

Launched the DINERBOT T2

Awards & Accolades:

- High-Tech Enterprise of the Year
- Best Scenario Application Enterprise
- Listed in the Top 50 Best Artificial Intelligence

2019

RMB 200 million – Series B round funding by Source Code Capital, Walden International and Vision Ventures

Expanded to over 600 cities around the world

Launched the advanced DINERBOT T5 and DINERBOT T6

Listed as one of the Top 100 Best Artificial Intelligence Companies

2020

RMB 100 million – Series C round funding by Alibaba and SoftBank Ventures Asia

Developed the M1 medical distribution robot and M2 disinfection robot

Awards & Accolades:

- German Red Dot Design Award for DINERBOT T1
- Listed in Deloitte's China's Rising Stars
- Listed in the Top 50 Technologies in China's Science and Technology Innovation industry
- Founder of the company was listed as one of the 40 Business Elites Under 40 on Fortune China
- Other respected awards

2021

USD 200 million – Series D round funding by SoftBank Vision Fund 2, Prosperity7 Venture and China Capital Investment Group

Awards & Accolades:

- Listed in the Top 30 Products by the Cutting Edge Robotics Company
- Most Innovative Benchmarking Enterprise by the Chinese Catering Innovation Conference
- Other respected awards

7077

The pace of globalization was accelerated with subsidiaries opened in the United States, the Netherlands, the United Arab Emirates, Japan, South Korea and Hong Kong SAR

Disclosed KEENON Digital & Smart Hospital Solution

Launched medical delivery robots of Series X flagship robots

Launched the building delivery robot BUTLERBOT W3 Pro flagship version

Awards & Accolades:

- Listed in Global Unicorn Index 2022 Half-Year Report
- Listed as a national-level specialized and special new "little giant" enterprise
- Awarded the first robot comprehensive intelligence grade certificate
- Founder and CEO of the company Li Tong was awarded "Top 10 Outstanding Young Entrepreneurs in Pudong New Area"
- Listed in 2022 TOP 50 Chinese Technology Robot Enterprises

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Redefining indoor delivery

 $\label{lem:continuous} \mbox{Upgraded smart catering solution} - \mbox{one store} \\ \mbox{with multiple robots}$ 

New product release:
DINERBOT T9 Pro — Grab and go with zero-distance robot deliveries.

DINERBOT T3 — A robot for secure, long-distance deliveries.

Awards & Accolades:

- Listed in the 2023 Hurun Global Unicorn List
- Received the Capek Annual Technology Innovation Product Award for 6 consecutive years
- KEENON Robotics Emerges as Market Leader Once Again with Over 60% Market Share in the report titled "Market Share of Commercial Service Robots in China" by renowned market research institution IDC





# WE ARE PROUD OF OUR OUTSTANDING R&D TEAM FOR DEVELOPING A WIDE RANGE OF PATENTED TECHNOLOGIES THAT WE UTILIZE IN OUR PRODUCTS.

Self-Developed Patents:

- · Laser Radar Based Ranging System
- · Feature Recognition Based Positioning
- · Automatic Image Calibration Method of Robot
- · Items Recognition of Hotel Robot
- · Multimode Disinfection Method of Disinfection Robot
- · Items Recognition of Delivery Robot
- · Robot Taking Lift Method
- · Multi-Robot Collaboration System
- · Movable Robot Speed Control Method
- · Signal Synchronization System
- $\cdot \operatorname{Chassis} \operatorname{Shock} \operatorname{Absorption} \operatorname{Method}$



#### DINERBOT



DINERBOT T5

- · Adjustable trays
- · Highly adaptable
- ·Stable

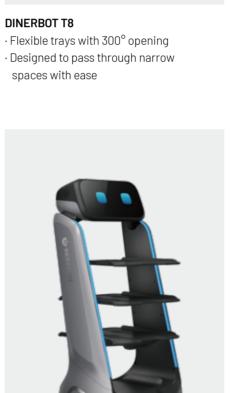


- spaces with ease



DINERBOT T3

- · 180L capacity
- $\cdot$  Automatic doors, one-step operation
- $\cdot \, \text{Smooth and steady delivery} \\$



**DINERBOT T9 Pro** 

#### **BUTLERBOT**



#### **BUTLERBOT W3**

- · Large capacity
- · Cabin can be adjusted easily
- · Capable of riding the elevator autonomously

#### **GUIDERBOT**



#### **GUIDERBOT G2**

· Double-sided large-size HD display screen

#### **DISINFECTION ROBOT**



DISINFECTION ROBOT M2

· Ultra-effective spray disinfection module



#### DINERBOT T6

- · Avoid obstacles in all directions
- · Flexible trays
- ·Stable



- · Smart self-pickup
- · VSLAM positioning
- $\cdot$  3D-vision obstacle avoidance





#### ENGAGING

15 languages to engage with a worldwide customer base.

#### INTELLIGENCE

Multiple sensors to enable autonomous positioning and navigation.

#### **SMART CHARGING**

Autonomous timed or quantitative charging.

#### DOUBLE-SIDED LARGE-SIZE HD DISPLAY SCREEN

With a double-sided large-size HD display screen, GUIDERBOT G2 can display any information desired, including videos and advertisements.





RODUCT DIMENSION	600 x 500 x 1450 mm	
ET WEIGHT	70 kg	
AXIMUM SPEED	1.2 m/s	
LIMBING ANGLE	≤5°	
ISPLAY SCREEN	21.5 inches, 1080P double-sided screen	
ATTERY CAPACITY	DC 48V 12Ah	
ATTERY LIFE	≥7h	





#### HIGH LOAD CAPACITY

Ready for heavy loads with a maximum load capacity of 40Kg.

#### MULTI-ROBOT COLLABORATION

Self-developed communication system allows multiple robots to smoothly communicate and complete distributed tasks together.

#### SPEED LIMIT

Ultra-flexible regional speed limit function which adjusts the speed to best suit the environment.

#### MULTI-SCENARIO USAGE

Easily adapt to different scenarios and avoid obstacles from all directions.

#### SMART CHARGING

Autonomous timed or quantitative charging.

#### INTELLIGENT OBSTACLE AVOIDANCE

- · Avoid obstacles in all directions.
- $\cdot \ \text{Increased robot interaction diversity and scene adaptability}.$



#### FLEXIBLE STRUCTURE

Suitable for different heights of plates.





#### ROBUST CHASSIS

- Shock-absorbing chassis, super-strong obstacle jumping ability and obstacle avoidance ability.
- · Adapt to various complex ground environments, smooth and safe two-way operation.

PRODUCT DIMENSION	506 x 502 x 1205 mm	
NET WEIGHT	50 kg	
LAYER SIZE	Top Layer: 490 x 404 x 188 mm	
	Other Layer: 490 x 404 x 176 mm	
LOAD CAPACITY	40 kg (10 kg per layer)	
MAXIMUM SPEED	1.2 m/s (Label Version); 0.8 m/s (Laser Version)	
CLIMBING ANGLE	≤5°	
BATTERY CAPACITY	DC 48V 12Ah	
BATTERY LIFE	12-15 h	





#### SMART EXPRESSIONS

Rich expressions and 15 languages to engage with a worldwide customer base.

#### INTERACTION

Multiple interactive designs and ambient light to make delivery more interactive.

#### PRECISE POSITIONING

Independently developed synchronous localization and maps construction system (SLAM) to ensure precise positioning and movements.

#### INTELLIGENT OBSTACLE AVOIDANCE

Triple stereo vision, collision bar, and other high accuracy sensors.

#### SMART CHARGING

Autonomous timed or quantitative charging.

#### FLEXIBILITY

Designed to pass through narrow spaces with ease.





#### CONVENIENCE

 $300^{\circ}$  opening, making it possible to fetch items from every angle.

PRODUCT DIMENSION	384 x 468 x 1123 mm 38 kg	
NET WEIGHT		
LAYER SIZE	Top Layer: 383 x 342 x 220 mm	
	Middle layer: 383 x 342 x 220 mm	
	Bottom layer: 383 x 342 x 285 mm	
LOAD CAPACITY	20 kg	
	(5 kg per layer with bottom layer capacity up to 10 kg	
MAXIMUM SPEED	1.2 m/s (Label Version); 0.8 m/s (Laser Version)	
CLIMBING ANGLE	≤5°	
BATTERY CAPACITY	DC 25.9V 20.8Ah	
BATTERY LIFE	10-15 h (Label Version); 8-10 h (Laser Version)	



## INTELLIGENT SPEED LIMIT AND ENVIRONMENTAL ADAPTABILITY

#### SPEED LIMIT

Ultra-flexible regional speed limit function to adjust speed that best fits the environment.

#### **ENGAGING**

9 vivid expressions and 15 languages to engage with a worldwide customer base.

#### SLAM TECHNOLOGY

Independently developed synchronous localization and maps construction system (SLAM) to ensure precise positioning and movements.

#### INTELLIGENT OBSTACLE AVOIDANCE

Easily adapt to different scenarios and avoid obstacles smartly.

PRODUCT DIMENSION	519 x 531 x 1256 mm	
NET WEIGHT	52 kg	
_AYER SIZE	515 x 426 x 180 mm	
_OAD CAPACITY	35 kg (10 kg per layer with top layer 5 kg)	
MAXIMUM SPEED	1.2 m/s	
CLIMBING ANGLE	≤5°	
BATTERY CAPACITY	DC 48V 12Ah	
BATTERY LIFE	12-15 h	





#### SPACIOUS CABIN

Enclosed cabin with large capacity.

#### AUTOMATIC DOORS

Automatic doors, one-step operation.

#### SAFE OPERATION

3D-vision obstacle avoidance.

#### SMOOTH AND STEADY

Advanced shock absorption.

#### PROMPT DISH RETURN

Remote call.

#### ALL-NEW SHOCK ABSORBING CHASSIS

Shock-absorbing chassis 4.0 is here, with an increased smoothness and the ability to adapt to even more complex environments. It boasts centimeter-level stability and prevents dish and beverage spillage while in travel.



### ONE-STEP OPERATION, AUTOMATIC DOORS

Doors automatically open at the origin point and can be controlled by stepping on the projection at the destination point, enabling convenient delivery and prompt dish return.

#### 180L CAPACITY

Designed for high-end restaurants and bars, the robot can deliver large dishes, and each shelf can hold three standard trays of food.



PRODUCT DIMENSION	623 x 496 x 1351 mm	
NET WEIGHT	71 kg	
CABIN SIZE	575 x 422 x 230 mm	
LOAD CAPACITY	40kg (top and middle shelves 10kg; lower shelf 20kg)	
MAXIMUM SPEED	1m/s	
CLIMBING ANGLE	≤5°	
BATTERY CAPACITY	DC 48V 12Ah	
BATTERY LIFE	10-12 h	





#### PLATE DETECTION

Allows for smart self-pickup, consecutive task delivery.

#### MULTIPLE WAYS TO INTERACT

Light-based expression for more and better service notification.

#### VSLAM POSITIONING

Ceiling detection for precise positioning and navigation.

#### SAFE AND STABLE

3D vision actively avoids steps, feet, and other tiny obstacles.

#### SMOOTH AND STEADY

Equipped with multi-link damping shock absorption system.

#### VSLAM INTELLIGENT POSITIONING SYSTEM

Upgraded visual sensors allow the robot to map and recognize its location, doing away with the need for unsightly labels attached to the ceiling. This ensures more reliable navigation and positioning, while preserving the aesthetic of the restaurant décor.



#### SMART SELF-PICKUP AND DELIVERY

Efficiency is maximized thanks to the 3 trays all utilizing radar sensors which detect when an item has been placed and removed. Reminders to take the correct dishes are made using lighting, voice prompts, and on-screen displays. T9 Pro can also perform consecutive tasks, for complete "grab and go" convenience.





#### **3D VISION IMPROVES SAFETY**

A soft rubber bumper and 3D vision actively avoids steps, feet, and other tiny obstacles which may prevent smooth, safe passing.

PRODUCT DIMENSION	527 x 500 x 1266 mm	
NET WEIGHT	45.2 kg	
LAYER SIZE	486 x384 mm	
LOAD CAPACITY	40 kg (10 kg per layer)	
MAXIMUM SPEED	0.8m/s	
CLIMBING ANGLE	≤5°	
BATTERY CAPACITY	DC 48V 12Ah	
BATTERY LIFE	12-15 h	





#### HD TOUCH SCREEN

Equipped with 11.6 inch large-size HD touch screen.

#### ENCLOSED DELIVERY

Enclosed and waterproof cabins to ensure delivery privacy and food safety.

#### MULTI-ROBOT COLLABORATION

Self-developed communication system allows multiple robots to smoothly communicate and complete distributed tasks together.

#### LARGE CAPACITY

Large capacity and it can deliver up to 4 rooms in one go.

#### INTELLIGENT NAVIGATION

Autonomous navigation and core technology to plan the best route and it can even take an elevator on its own.

#### **SMART CHARGING**

Autonomous timed or quantitative charging.

#### **FLEXIBILITY**

The loading capacity ensures users can easily adjust the cabin capacity according to their needs and different delivery scenarios. The cabin consists of 2 levels. Each level has 1 main storage area that can also be divided into 2.





PRODUCT DIMENSION	459 x 549 x 1081 mm	
NET WEIGHT	48 kg	
CABIN SIZE	390 x 385 x 300 mm	
	The 2 cabins on each level can be combined into 1;	
	Autonomous door opening and closing	
LOAD CAPACITY	20 kg (10 kg per layer)	
COLOR	Premium Silver / Noble Gold	
MAXIMUM SPEED	0.8 m/s	
CLIMBING ANGLE	≤5°	
BATTERY CAPACITY	DC 48V 12Ah	
BATTERY LIFE	9-12 h	
	<u>.</u>	

may eventually need to be replaced. Battery life and charge cycles vary by use and settings.





#### 99.9999% STERILIZING RATE

The atomization speed can reach 1.5L/h with ultra-dry mist particles below  $10\mu m$ , fine mist, well-distributed disinfection and no dead angle; The effect of disinfection spray meets the Technical Specification for Disinfection, and the sterilizing rate of bacteria in air can reach 99.9999%.

#### 200µW/cm2 IRRADIATION INTENSITY

The irradiance of ultraviolet lamp meets the requirements of GB19258 and the Technical Specification for Disinfection, and the UV coverage  $200\mu W/cm^2 +$  (measured at 1m away).

#### LARGE CAPACITY AND LONG BATTERY LIFE

10L super-large disinfectant capacity, with long battery life, effectively solving the trouble of frequently adding liquid in the use process.

#### INTELLIGENT DUTY

The robot has the functions of low liquid level alarm, low power automatic recharging and unmanned intelligent disinfection.

#### MULTITASK MODE

Four disinfection methods and three task modes can meet the requirements of disinfection tasks in different scenes, and provide accurate disinfection solutions.

### LASER VISION & DEPTH VISION FUSION POSITIONING AND NAVIGATION

The new positioning and navigation technology and sensing system can adapt to the complex indoor environments and effectively avoid obstacles.

#### ACCURATE DISINFECTION SOLUTION

The robot can intelligently analyze the space area and provide accurate disinfection suggestions, and offer intelligent disinfection solutions to non-professionals so as to avoid the problem of over-disinfection or incomplete disinfection.



#### REGIONAL PEDESTRIAN MONITORING

When the robot is working, it will intelligently analyze the surrounding environment. When there are people walking around the robot, it will temporarily turn off the ultraviolet mode to reduce the harm of ultraviolet rays on humans.





#### CIRCULATING DISINFECTION

The mobile disinfection operation will be carried out according to the routes, and the key disinfection areas or targets can be disinfected  $360^{\circ}$  thoroughly, which accelerates disinfection efficiency and quickly disinfects the environment.

PRODUCT DIMENSION	500 x 500 x 1350 mm
NET WEIGHT	60 kg
UV RADIATION INTENSITY	>200 µW/cm² (Measure at 1m)
SPRAY PARAMETERS	The amount of mist is 0.5-1.5 L/h
	The spray particle size is less than 10 µm
DISINFECTANT VOLUME	>10 L
NUMBER OF ULTRAVIOLET LAMPS	4 sets of UV germicidal lamp
	with 360° surround radiation
MAXIMUM SPEED	0.8 m/s
STANDBY TIME	≥ 12 h

#### KEENON ON-care

KEENON ON-care is an upgraded after-sales service program for our global customers, where our product experts provide you with one-stop repair and maintenance services.

- Major countries and regions around the world are equipped with localization teams to support local languages and on-site services.
- $\cdot\,$  A two-year warranty is provided since the robot activation.
- · Robot power-on self-check with real-time report available in the cloud system.
- The team can quickly locate problems and provide solutions in a timely manner.

For more information on ON-care please contact us at globalservice@keenon.com



#### Business Operation Center - Country/Region

U.S. Germany
Canada France
U.K.
Mainland China Italy

Hong Kong Spain
Macao Ireland
Taiwan Austria
Japan Slovenia
South Korea Romania

Singapore

Malaysia Saudi Arabia

Indonesia United Arab Emirates

Philippines Egypt
Thailand Qatar

Cambodia

Vietnam Australia
Laos New Zealand

Myanmar India

Nigeria Ghana South Africa Kenya