Product Overview · BellaBot
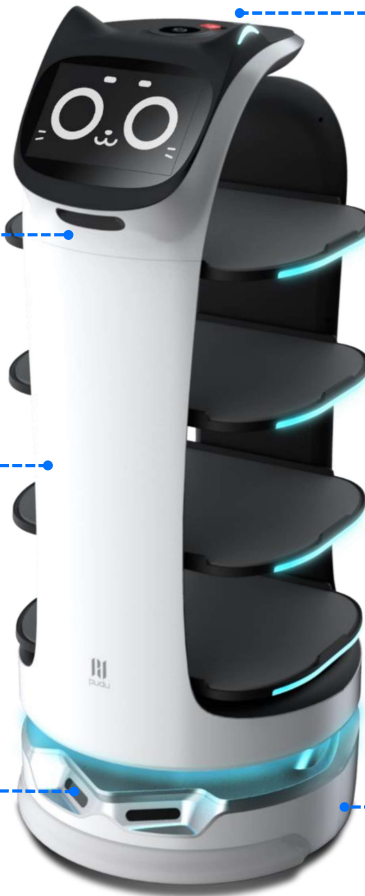
3D Obstacle Avoidance Sensor

The RGBD on BellaBot's neck and two sets of cameras on its chassis provide BellaBot with 3D perception.

ABS Industrial Plastic & Aviation Grade Al-Alloy

Structurally stable, oxidation-resistant, and corrosion-resistant.

Latest Lidar

Customized lidar with more accurate detection.

Visual Camera

The infrared camera on top of BellaBot provides real-time V-SLAM positioning and navigation.

Infrared Induction Tray

4* induction trays which intelligently perceives the tray's load, and ensures higher efficiency of distribution.

Independent Suspension

Auto-level independent linkage suspension system with high-efficiency on bump avoidance.

Product Overview · BellaBot

Category	Specifications	Description	
Exterior and Performance	Machine dimension	• 565*537*1290 mm	
	Tray size	• Tray size 410mm*500mm	• Loading dimension: 385mm*480mm
	Num. of trays	• 4-layer tray, with a height of 230/200/200/180mm from top to bottom	
	Robot weight	• 59kg	
	Load capacity	• Max 40kg, 10kg/layer	
Power Adapter and Battery	Battery capacity	• 25.2V/25.6Ah	
	Quick-release battery	• Power exchange technology allows for easy removal and replacement of the battery to ensure BellaBot's continuous operation	
	Battery Life	• 12-24H (Replaceable Battery)	
	Charging time	• 4.5H	
Movement Functions	Location positioning	• Support both Marker Positioning and Laser Positioning	
	Perception	• Minimum size of object for obstacle avoidance: 35mm*50mm*100mm	• Minimum clearance: 0.7m
	Dispatching	• A maximum of 20 robots of the same version can be dispatched at the same time	
	Safety	• Speed: 0.5-1.2m/s (Adjustable)	• Climbing angle: ≤ 5°

Intelligent Multifunctional Delivery

NEW

Greeting Mode

BellaBot features a greeting mode in which it takes over reception and escorts guests to their table.

Delivery Mode

BellaBot delivers food to multiple tables at once.

Cruise Mode

BellaBot circulates along a predetermined path with self-service drinks and desserts and recommends them to customers by voice.

Birthday Mode

BellaBot delivers birthday cake or gifts to customers, accompanied by customized background music.

Dish-return Mode

BellaBot collects dishes to be cleaned and delivers them to the dish-return spot or the dish-washing room.

Direct Mode

The robot performs one-way delivery.

Product Features · Unique Capabilities

Why BellaBot is premium delivery robot?

| Intelligent Induction Tray | Multimodal Interaction | Power Exchange Technology | Intelligent Lattice Screen |

- Perceive the tray's load to ensure more efficient delivery.
- Modular structure for quick disassembly and easier cleanup.

- Light interaction, touch feedback, and smart expression allow for unprecedented human-robot interaction.

- Industry's first power exchange technology
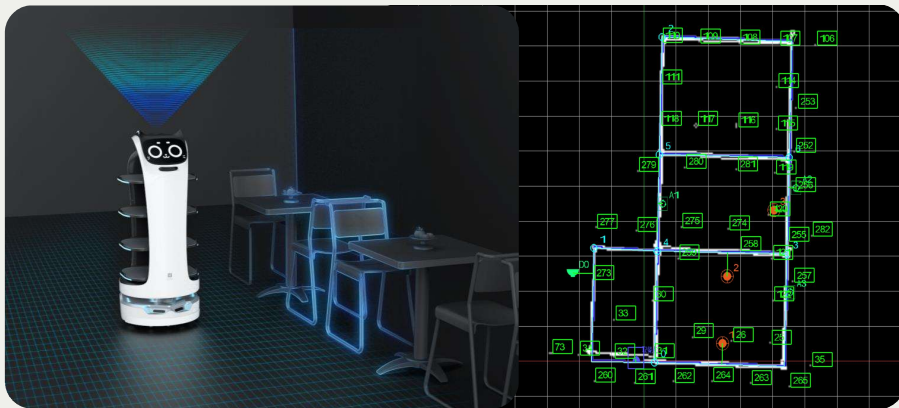- Enable to quickly replaced to keep the robot running around the clock.

- A lattice screen on BellaBot's back
- Allowing to customize the table numbers, instructions, blessings, and other texts to customer needs.
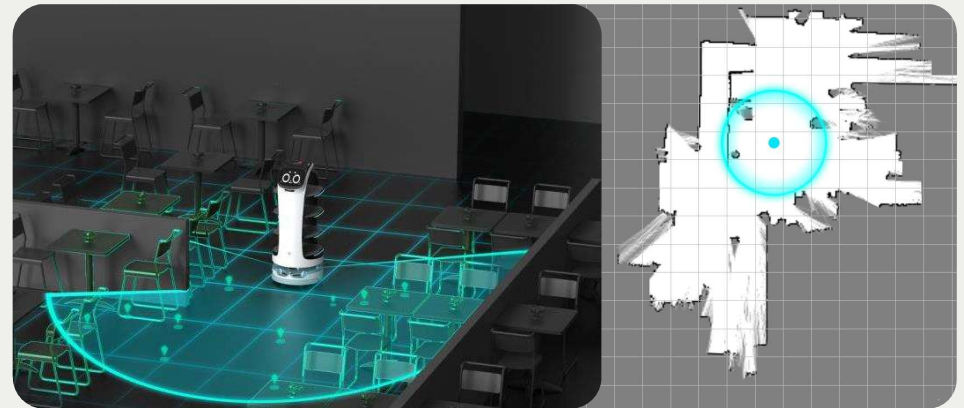
Laser SLAM and Visual SLAM
Dual Solution for Full Coverage in Any Scenario

- BellaBot supports two SLAM navigation solutions simultaneously in order to adapt to more scenarios, both of which are accurate and easy to use.
- Both positioning solutions which BellaBot provides the same excellent user experience. While the positioning solutions differ, BellaBot's customer-centered service never changes.
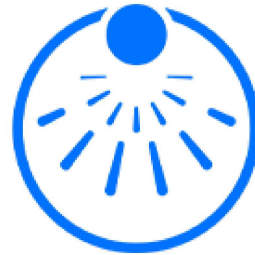

Visual SLAM

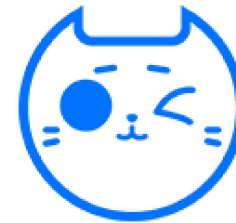Laser SLAM

Attentive Service with Multimodal Interaction

Touch Interaction

Unique touch interaction design, allowing special guests interaction with BellaBot by touching her ears and forehead.

Light Interaction

Different tasks trigger corresponding light interactions; BellaBot's ears and tail are able to display its running status in real time.

Expression Interaction

Dozens of original expressions are specially designed for BellaBot to add warmth to her expressions.

Product Features · High-sense & Obstacle Avoidance

3D obstacle avoidance technology to ensure safety

RGBD depth camera

3* RGBD depth camera
provide BellaBot with the strongest three-dimensional perception to date.
It can accurately detect and stop when encountering obstacles with a response
time as short as 0.5s.

- Front detection angle up to 192.64°
- Front obstacle detection range exceeding 10m.
- Mini height for object detection is 2cm.
- Obstacle scanning frequency as rapid as 5400 times/min.

70cm minimum clearance
navigate easily in the compact environments

70CM

Premier sensor featuring Pudu's SLAM algorithm,
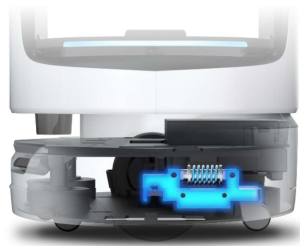BellaBot has a minimum clearance of 70cm.

Meets 99% of scenarios involving required space in passageways
Flexible and Efficient

Product Features · Safe & Efficient

Auto-level independent linkage suspension for stable

Auto-level adaptive variable suspension.

Damping can be altered based on vary driving conditions.

Maintained at an optimal state

- Height over the obstacle:1cm.
- Driving stability has been improved by 50%.

Power Exchange Technology

Charging and usage scenarios are categorized for faster battery replacement.

24/7 operations!