

BellaBot - Premium Delivery Robot.

Introduction

The latest delivery robot designed by Pudu, BellaBot inherits the outstanding characteristics of the previous generation, while being endowed with superior human-Robot interaction capabilities. Featuring an innovative bionic design language, cute modelling, AI voice functionality, multi-modal interaction and many other new functions, BellaBot provides users with an unprecedented food delivery robot experience.

Dual Solution

BellaBot provides two SLAM navigation solutions according to the user's particular scenarios, both of which are accurate and easy to use. Both positioning solutions which BellaBot offers provides the same excellent user experience. While the positioning solutions differ, BellaBot's customer-centered service never changes.

Design Aesthetics

BellaBot adopts an innovative bionic design. The bionic design is just perfect from the height of the machine body to the screen tilt, and to the shape curve.

Omnidirectional Obstacle Avoidance

In pursuit of higher safety, BellaBot is equipped with 3D sensors and a new modular chassis. It can stop at any angle and move away as soon as it encounters obstacles. Minimum height of object detection is 2cm. Obstacle detection frequency up to 5400 times per minute. Front detection angle up to 192.64°. Front obstacle detection range exceeds 10m.

Multimodal Interaction

- Voice
- Light
- Touch
- Draw

AI Voice

The newly added AI voice module supports hundreds of exclusive contextual dialog content, making BellaBot more interesting.

Light Interaction

Different task status trigger corresponding light effect interactions, making the status indication clearer.

Touch For Feedback

The new touch interaction makes the feedback of BellaBot more comprehensive, and the Human-Robot experience is unprecedented.

Smart Expressions

There are dozens of exclusive original expressions, which make the emotional expression of BellaBot more diverse, and make you feel more real "Cat".

Infrared Induction Tray

Modular structure for quick disassembly and intelligent infrared induction. A smarter tray for more efficient delivery.

Power Exchange Technology

Charging and usage scenarios are categorised for faster battery replacement. 24/7 operations: a piece of cake for BellaBot.

RGBD

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 0.5 seconds.

Auto-Level Suspension

Auto-level adaptive variable suspension. Damping can be altered according to different floor conditions and driving requirements. The resonance frequency is maintained at an optimal state.

Pudu Scheduler

Pudu scheduler has adopted a decentralised, flexible ad hoc network communication scheme and algorithm architecture. Each robot can directly communicate with any robot in the same network, and quickly calculate and make decisions. Such design reduces the requirements for the network, reduces a central computing node that requires high computing power, and is closer to the interaction mechanism among people.

Pudu Cloud

Pudu Cloud platform provides a powerful cloud intelligent service support for Pudu robots, enabling smart catering, with specific functions such as: business management platform, automated operation and maintenance platform, scenario data collection platform, and cloud intelligent service platform.

Technical Specifications

- **Machine dimension:** 565*537*1290mm
- **Robot weight:** 57kg
- **Machine material:** ABS/Aviation-grade aluminum alloy
- **Charging time:** 4.5H
- **Battery life:** 12-24H (Replaceable Battery)
- **Safety:Speed:** 0.5-1.2m/s (Adjustable) | Climbing angle: $\leq 5^\circ$
- **Load capacity:** Max 40kg, 10kg/tray
- **Positioning method:** Standard: a height of 5 meters, and a code sticker is required Advanced: no specific requirement for the height, but a standardized environment is required