



Lean manufacturing

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PUDU Delivery Robot

Product Brochure



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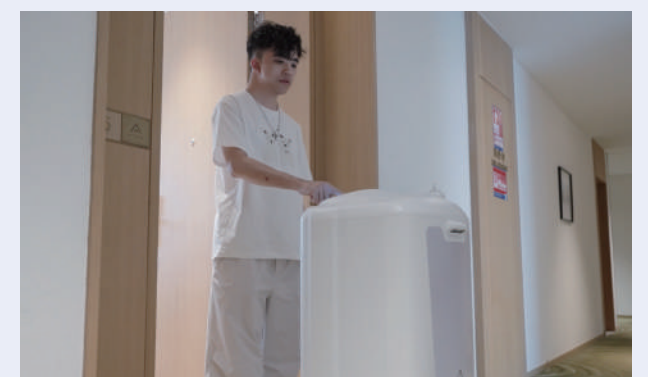
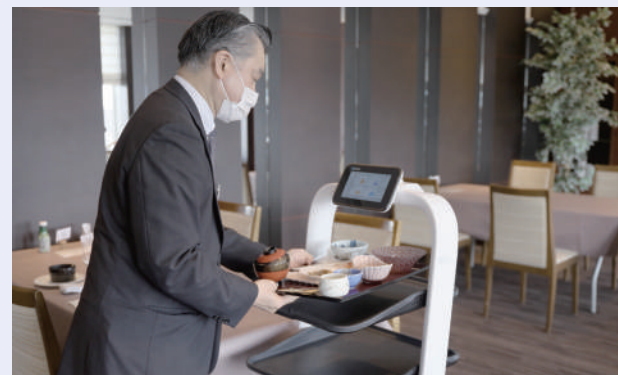
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Leading with Intelligence,
Anchored in Service



Applied to Multi-industry Service Delivery Globally



Revolutionizing Major Industries with Smart Robotic Solutions



Food & Beverage



Hospitality



Retail



Industrial



Warehousing & Logistics



Health Care



Real Estate & Property Services



Transportation and Related Service



Education



Entertainment & Sport



Public Service

Global Technology Leader in Service Delivery Robotics

Full-Scenario Product Portfolio

Pudu has built a comprehensive service delivery robot portfolio covering flat-floor delivery, marketing delivery, cross-building delivery, and semi-outdoor delivery scenarios. The lineup flexibly adapts to complex environments across restaurants, hotels, retail, commercial complexes, healthcare, and campuses.



PUDU Retail AI Full-Stack Solution

Integrating multimodal AI vision models with LLM-powered semantic interaction, PUDU builds a closed-loop intelligent retail solution. Powered by end-to-end multimodal perception and visual sensing, it enables out-of-stock detection and replenishment alerts beyond environmental limitations. Combined with a retail-focused LLM dialogue engine, it delivers seamless AI voice interaction—driving smarter operations and elevated in-store customer experiences.



VSLAM + LiDAR SLAM Fusion Navigation

By integrating visual perception with LiDAR technology, Pudu robots achieve high-precision positioning and stable navigation in complex environments. Even in dynamic, obstacle-rich scenarios, they maintain safe, continuous, and reliable delivery performance while improving operational efficiency.



Industry-Leading Software & Hardware Expertise

Pudu has built an industry-leading integrated hardware-software technology stack through large-scale global deployments and extensive real-world operational data. Powered by a continuous loop of deployment, data feedback, algorithm iteration, and product upgrades, Pudu continuously advances mobility, multi-sensor fusion, autonomous navigation, intelligent scheduling, and human-robot interaction technologies to improve efficiency and adaptability in complex commercial environments.



BellaBot Pro

Premium Delivery & Advertising Robot

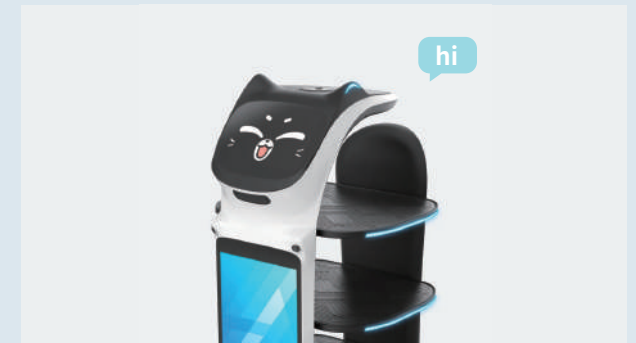


Features



Mobile Marketing Ambassador

Mobile advertising screens, sized at 18.5 inches, with customizable content, including images and videos, offer comprehensive coverage for effective promotion, reaching a broader audience.



AI Voice Interaction

Powered by advanced AI, BellaBot Pro has smarter voice communication capabilities: greeting guests, explain and compare products, and guiding customers effortlessly.



Omni-Sense Safety

Our innovative environmental perception solution, with 2 front-view cameras, 3 RGBD sensors, and 1 Lidar, ensures full front-end chassis detection. It halts automatically for obstacles and navigates forward seamlessly.



Upgraded Vslam+

The newly upgraded positioning technology VSLAM, paired with a powerful computational system, enables rapid and seamless mapping without the need for environmental modification.

Core Application Scenarios



Retail Scenarios



Restaurant Scenarios

KettyBot Pro

Flexible Multitasker



Features



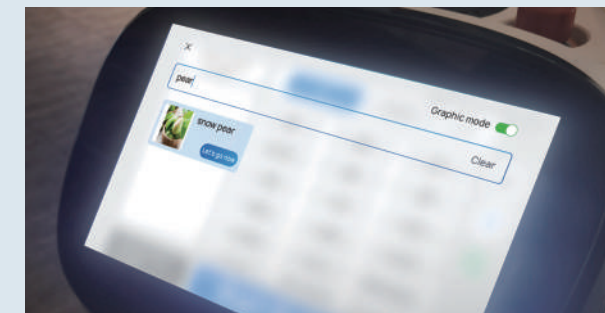
Customized Advertisement

The PUDU Business Management Platform allows for customized content on the 18.5" screen, including easy generation of an Ad playlist with personalized frequency and sequence.



Customers Attraction

KettyBot Pro detects the customer's location and actively follows them, creating a seamless and engaging experience and making every interaction memorable.



Search & Guide

Customers can search for items or locations by using keywords or clicking on pictures. KettyBot Pro will assist customers by guiding them to the designated pick-up locations.



Smart Trays Detection

With its advanced 360° fisheye lenses, the KettyBot Pro can autonomously detect the load status, optimizing delivery processes and boosting customer satisfaction.

Core Application Scenarios



Retail Scenarios



Restaurant Scenarios

FlashBot^{Max}

Building Delivery Expert

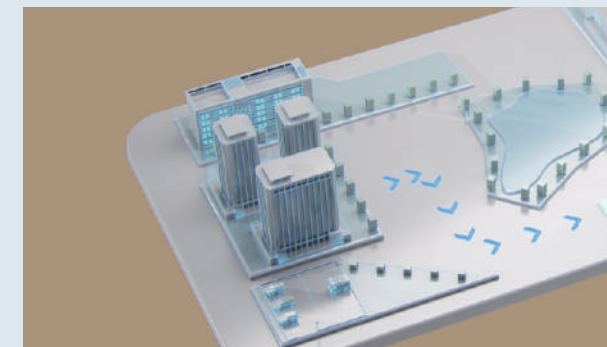


Features



VSLAM+ Semi-outdoor Delivery

PUDU VSLAM+ is designed for semi-outdoor hotels, enabling seamless delivery across indoor spaces and open areas such as gardens, gyms, and poolside.



Rapid Multi-floor Deployment

Supports rapid multi-floor map replication, enabling quick mapping and enhancing deployment efficiency and ease of operation.



Multiple Compartment Access Verifications

Supports password verification, phone number verification, and NFC sensing for compartment access



Autonomous Elevator Control

Dual Options for Elevator Control: Cloud and Hardware. Seamless elevator management experience enhances operational efficiency.

Core Application Scenarios



Hospitality Scenarios



Healthcare Scenarios

PuduBot 2



Multi-scenario Indoor Delivery Robot

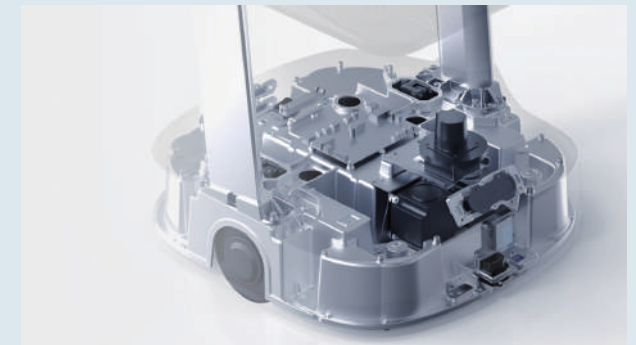


Features



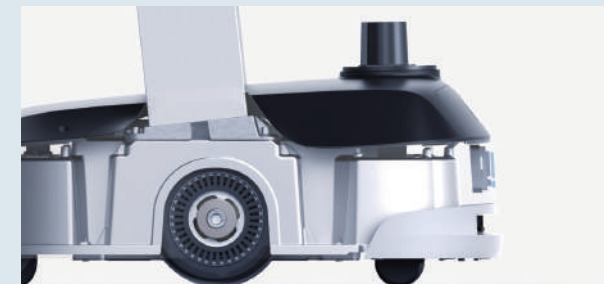
All-New PUDU VSLAM+

Marker-less technology reducing 75% deployment time
Capable of operating in high-ceiling environments up to 30m



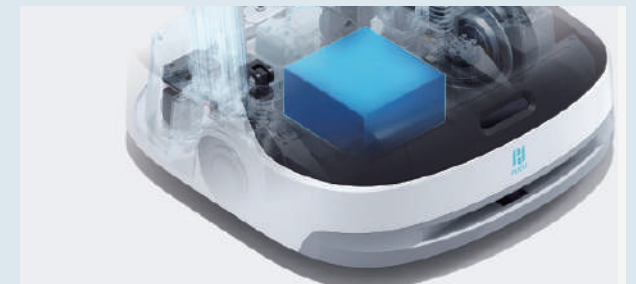
Flagship Chassis

Adapt to various road surfaces, 30% improvement in moving stability



In-House High-Torque Drive

33% increase in load capacity
16% improvement in energy utilization



Versatile Form Factors

Operates up to 24h on a 4h charge
Enhanced safety and reliability

Core Application Scenarios



Restaurant Scenarios



Industrial Scenarios



Shelf Monitoring Solution Overview

BellaBot Pro

In retail environments such as convenience stores and warehouse supermarkets, shelf monitoring and replenishment still rely heavily on manual work, leading to low efficiency and high labor costs. Pudu’s BellaBot Pro Shelf Monitoring & Replenishment Solution enables autonomous shelf inspection with AI-powered stockout detection and real-time reporting for faster replenishment response. Through an automated workflow of “robot inspection + AI recognition + intelligent reporting,” replenishment efficiency can increase by up to 70%, helping retailers achieve smarter, lower-cost operations.

Solution Highlights

- AI-Powered Visual Monitoring**
Powered by advanced AI models, BellaBot Pro autonomously detects out-of-stock items and empty shelf spaces for automated shelf monitoring. When a stockout is detected, the robot captures and syncs shelf data to the app and API systems in real time, enabling faster replenishment and a closed-loop workflow of monitoring, detection, reporting, and restocking.
- Automated Replenishment Coordination**
Stockout information is automatically synchronized to the app and backend systems, allowing managers to monitor shelf status and product locations in real time and respond quickly with replenishment actions. By integrating monitoring, notification, and replenishment workflows, the solution enhances operational coordination and improves inventory management efficiency.
- Cost Reduction & Efficiency Improvement**
By replacing manual patrols and reporting processes, BellaBot Pro significantly reduces repetitive operational workloads and dependence on human monitoring. Overall replenishment efficiency can be improved by approximately 70%, reducing long-term labor and management costs while enabling leaner and more intelligent store operations.

Intelligent Tray Detection & Automated Return Solution

KettyBot Pro

Against the backdrop of global aging populations and ongoing labor shortages in the food service industry, restaurants are increasingly demanding intelligent and automated solutions to improve efficiency, particularly in high-frequency tasks such as meal delivery and tableware collection. To address these challenges, Pudu KettyBot Pro introduces an automated dining ware collection solution. Equipped with an industry-leading visual tray detection camera, KettyBot Pro can identify the status of items on trays in real time and trigger corresponding workflows. When an empty or dirty tray is detected, the robot automatically proceeds to the dishwashing area for collection. After handover, it continues to the next return point, enabling fully autonomous operation without human intervention.

Solution Highlights

- Visual Tray Detection**
KettyBot Pro features an advanced tray recognition camera that dynamically identifies food, empty trays, and dirty trays. This enables precise task triggering and more intelligent workflow decisions.
- End-to-End Automated Return Workflow**
The robot autonomously collects and transfers empty or dirty trays, enabling a fully automated workflow that reduces labor and improves efficiency.
- Reduced Labor Pressure & Improved Efficiency**
Designed for high-frequency, repetitive tray return tasks in restaurants, KettyBot Pro effectively replaces manual handling, reducing labor dependency and operational burden. Its continuous and stable automation improves tray turnover efficiency and overall operational performance.



Hotel Solution Overview

PUDU CC1 & FlashBot

As hotels accelerate toward intelligent operations, service robots are becoming essential for improving efficiency and guest experience.

Pudu provides an integrated “delivery + cleaning” solution, with delivery robots handling food delivery, in-stay services, and nighttime replenishment through autonomous elevator use and cross-floor coordination.

Pudu cleaning robots operate across lobbies, corridors, and restaurants, supporting autonomous scrubbing, vacuuming, and dust mopping for efficient, standardized cleaning.

Smart Cabinet Solution

Pudu FlashBot integrates with smart cabinets to enable a fully automated workflow of “scan to order – automatic pickup – cross-floor delivery.” By connecting robots, smart cabinets, and hotel PMS systems, Pudu delivers an on-demand delivery model that creates new revenue opportunities while enhancing guest privacy and service efficiency.

Smart Cleaning Solution

Pudu's upgraded CC1 cleaning solution is designed for the refined needs of hotel environments. Built for high-traffic areas such as corridors, lobbies, restaurants, and elevators, it integrates scrubbing, vacuuming, and dust mopping into one platform for efficient, multi-task cleaning. With multi-function capability and broad scenario coverage, CC1 delivers a standardized, high-efficiency cleaning solution for hotel operations.

Airport Waste Collection Solution

PuduBot 2

In international airports, large-scale layouts, complex passenger flows, and dispersed functional zones often lead to uneven waste bin distribution in waiting areas and security checkpoints, making timely disposal difficult. In some cases, the lack of designated disposal points for restricted items further increases environmental management challenges.

To address these issues, Pudu has adapted the PUDUBot 2 into a scenario-specific airport patrol waste collection solution. By removing the traditional tray structure and integrating an intelligent sorting bin module, the robot can autonomously patrol high-traffic areas such as boarding zones and public corridors, enabling mobile waste collection and compensating for insufficient fixed waste infrastructure.

Solution Highlights

Mobile Patrol Waste Collection

PUDUBot 2 replaces traditional fixed waste bins by actively covering high-traffic areas, effectively solving uneven distribution of disposal points and improving the continuity and consistency of airport environmental management.

Autonomous Dynamic Patrol

Powered by autonomous navigation, PUDUBot 2 continuously patrols large areas such as boarding zones, enabling dynamic multi-point coverage and improving overall cleaning efficiency and operational management.

Intelligent Waste Sorting

Equipped with a sorting bin module, PUDUBot 2 supports preliminary classification of different waste types, helping airports achieve more standardized and efficient waste management processes.

Product Name	 BellaBot Pro		 KettyBot Pro
Machine Dimensions	570 x 550 x 1290 mm (22.4 × 21.6 × 50.7 in)		435x450x1120 mm (17.1 × 17.7 × 44.0 in)
Machine Weight	55 kg (121.25 lbs)		38 kg (83.78 lbs)
Carrying Capacity	40 kg (10 kg/tray) 88.18 lbs (22.05 lbs / tray)		30 kg (10 kg/tray) 66.14 lbs (22.05 lbs / tray)
Tray Dimensions	410 x 500 mm (16.14 × 19.69 in)		352 x340 mm (13.86 × 13.39 in)
Charging Time	4.5 h		4 h
Run-time	11 h (none load)		11 h (none load)
Cruise Speed	0.2–1.2 m/s (0.66–3.94 ft/s)		0.2–1.2 m/s (0.66–3.94 ft/s)
Path Clearance	65 cm (25.59 in)		52 cm (20.47 in)
Threshold Crossing Height	10 mm (0.39 in)		5 mm (0.20 in)
Screen	10.1-inch LCD screen and 18.5-inch LCD screen		10.1-inch LCD screen and 18.5-inch LCD screen
Trays Detection	Visual detection		Visual detection
Charging Methods	Wired Charging		Wired Charging & Auto Recharging
Navigation Methods	LiDAR SLAM + Marker		LiDAR SLAM + Marker

Product Name	 FlashBot Max	 PuduBot 2
Machine Dimensions	538 x534 x 1052 mm (21.18 × 21.02 × 41.42 in)	580 x535 x1290 mm (22.83 × 21.06 × 50.79 in)
Machine Weight	60 kg (132.28 lbs)	39 kg (85.98 lbs)
Carrying Capacity	20 kg (44.09 lbs)	40 kg (13 kg/tray) 88.18 lbs (28.66 lbs / tray)
Tray Dimensions	187 x 410 x 280 mm(Single) 7.3 × 16.1 × 11 in (Single) 380 x 410 x 280 mm(Double) 14.9 × 16.1 × 11 in (Double)	520 x435 mm (20.47 × 17.13 in)
Charging Time	4 h	4 h
Run-time	9 h (none load)	15 h (none load)
Cruise Speed	0.5–1.2 m/s (1.64–3.94 ft/s)	0.2–1.2 m/s (0.66–3.94 ft/s)
Path Clearance	60 cm (23.62 in)	80 cm (31.50 in)
Threshold Crossing Height	20 mm (0.79 in)	10 mm (0.39 in)
Charging Methods	Wired Charging & Auto Recharging	Wired Charging & Auto Recharging
Navigation Methods	VSLAM+Lidar SLAM	LiDAR SLAM + Marker + VSLAM
External Expansion Devices	Supported	Supported



PUDU ROBOTICS

Pudu Robotics, a **global leader in the commercial service robotics sector**, is dedicated to empowering easier work and better lives through AI and robotics, with a vision of building a global intelligent robotics infrastructure that serves 10 billion people worldwide.

Built on three core technologies—**mobility, manipulation, and AI**—Pudu Robotics has pioneered an industry-first **"One Brain, Multiple Embodiments"** architecture, establishing a comprehensive product portfolio that includes **specialized, semi-humanoid, and humanoid robots**.

Currently, Pudu offers four major product lines: **service delivery, commercial cleaning, industrial delivery and general embodied AI**. Its solutions are widely deployed across industries such as **retail, hospitality, manufacturing and industrial facilities, food and beverage, real estate and property services, healthcare, entertainment and sport, education, and public services**.

To date, Pudu Robotics has **shipped over 130,000 units** globally, with a presence in **more than 80 countries and regions**.

Global Leader in Commercial Service Robotics

TOP 1

Global Market Share *

130,000+

Shipped Globally

700+

Global Distributors

80+

Countries and Regions Covered

1000+

Cities Covered

40,000+

End Customers

* Source: Market Research on Global Commercial Service Robotics (2023) by Frost & Sullivan



- Headquarter
- R&D Center
- Factory
- Overseas Subsidiary
- Warehouse

Global Patents and Trademarks

Pudu Robotics holds **1,842 global patents**, including pending applications. Additionally, we have **1,353 global trademark** registrations spanning **over 50 countries and regions**.

Global Certifications



* Relevant statistics as of March 2026