PUDU

PUDU INDUSTRIAL

LEANPRODUCTS®

Lean manufacturing www.LeanProducts.eu

PUDU Industrial Delivery Robot

Product Brochure

PUDU ROBOTICS

LinkedIn YouTube Facebook TikTok Instagram X

Pudu Robotics

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Mobility that Bears,
Intelligence that Leads

reddot winner 2025

ISO 3691-4

PUDU T150

Light-Payload Industrial Delivery Robot

≤150 kg

PUDU T300 Series

Medium-Payload Industrial Delivery Robot

≤300 kg

PUDU T300 Towing

PUDU T300 Standard

PUDU T300 Lifting

PUDU T300 Conveyor

PUDU T600 Series

Heavy-Payload Industrial Delivery Robot

≤600 kg

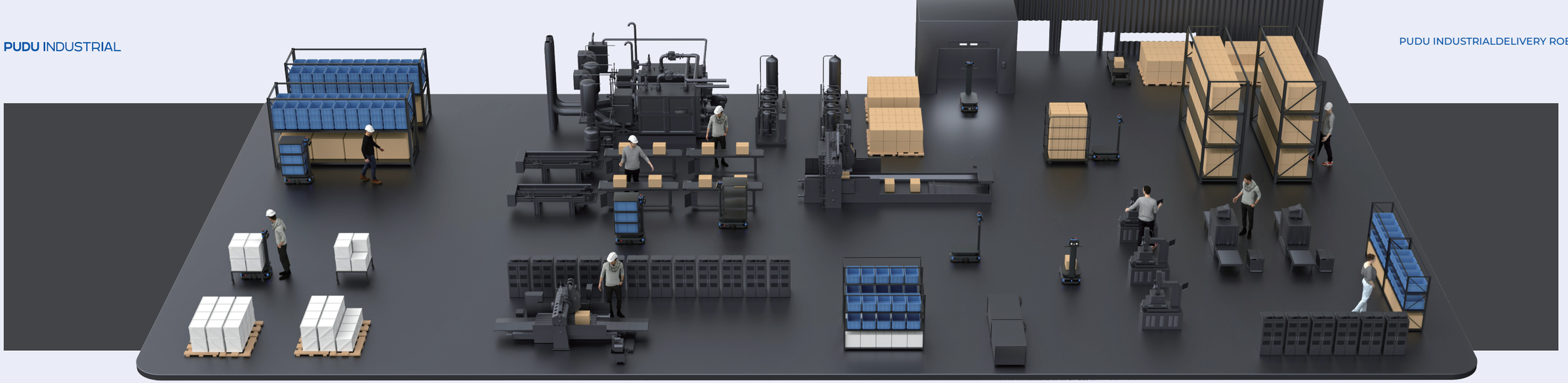
PUDU T600 Lifting

PUDU T600 Underride

PUDU INDUSTRIAL

Pudu industrial delivery robots are designed to build flexible intralogistics systems for manufacturing and warehousing environments.

Powered by fusion-based navigation, intelligent scheduling, and an open ecosystem, they enable rapid deployment, flexible scalability, and continuous cost reduction with efficiency gains—supporting enterprises in their automation upgrades.



Core Value

0 Modification

1H Deployment

< 1Year Payback

50% Efficiency

Target Industry Applications

Manufacturing Scenarios

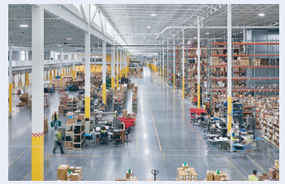
Designed for intralogistics automation within manufacturing environments, the robots can be deployed across multiple key production stages, including raw material feeding, inter-line material transfer, quality inspection and process delivery, as well as finished goods offloading and warehousing.

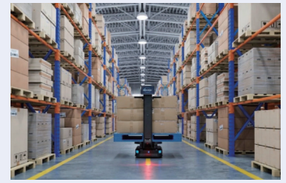
By enabling automated production logistics, they support manufacturers in transitioning toward more flexible and intelligent production systems.

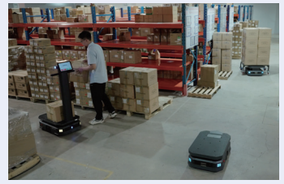
Warehousing Scenarios

Tailored for picking and material handling needs in warehouses and distribution centers, the robots deliver value across various operations, including picking assistance and intra-warehouse material transport.

Through human-robot collaboration, they enhance operational efficiency and improve order fulfillment reliability.







Global Leader in Industrial Delivery Technology

VSLAM + LiDAR SLAM Fusion Navigation

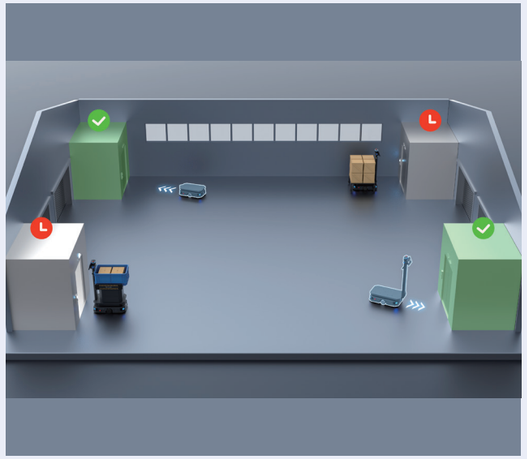
Ensures stable localization and safe obstacle avoidance for continuous operation in complex environments

By fusing visual perception with LiDAR data, the robots achieve high-precision localization and reliable navigation in complex industrial settings, maintaining safe and uninterrupted operation in dynamic, mixed traffic environments.

- Industry-Leading Ceiling Feature Localization Optimized for large-scale warehouses and manufacturing facilities
- Backed by 10+ years of mobile robotics algorithm expertise, continuously enhancing localization stability
- Advanced obstacle recognition and dynamic avoidance, trained on extensive real-world industrial data

IoT-Ready Integration

Seamless workflow automation



Robots integrate with a wide range of industrial systems and equipment, enabling a closed-loop automation from task triggering to logistics execution—seamlessly embedding into existing manufacturing and warehousing processes.

- Unified task management across multiple terminals
- PLC-enabled automatic task triggering
- Elevator & access control integration
- Fire system linkage for enhanced safety

Open Software & Hardware Platform

Supports deep customization and secondary development

The platform offers open APIs and a scalable hardware architecture, enabling system integrators and customers to extend functionality and build tailored automation solutions based on specific operational needs.

- Open APIs for both robot units and central scheduling platform
- Integration ready with WMS / MES / ERP systems
- Modular design with reserved hardware expansion interfaces
- Supports diverse payload modules and functional extensions

Scalable from Single Unit to Fleet

Grows seamlessly with your operations

The system scales flexibly from a single robot to large fleets, enabling a smooth transition from pilot deployment to fully automated intralogistics at scale.

- Standalone deployment: plug-and-play operation without a server
- Distributed coordination: supports multi-robot traffic and complex path interactions
- Central orchestration: unified task management across robots
- Fleet scalability: enables large-scale multi-robot collaboration

PUDU T150

Light-Payload Industrial Delivery Robot

Fast Setup. Ready for Industry.

Features

Rapid deployment
fast mapping and task setup

Easy to use
intuitive operation with industrial-grade safety

Stable navigation
VSLAM+ LiDAR SLAM fusion adapts to dynamic layouts

High maneuverability
optimized for space-constrained environments

Core Use Cases

Plastics Manufacturing Facility

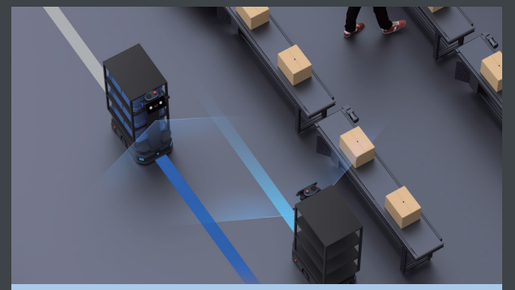
Footwear and Apparel Manufacturing Facility

PUDU T300 Series

Medium-Payload Industrial Delivery Robot

Extensive Modular Ecosystem for Versatile Transport Scenarios

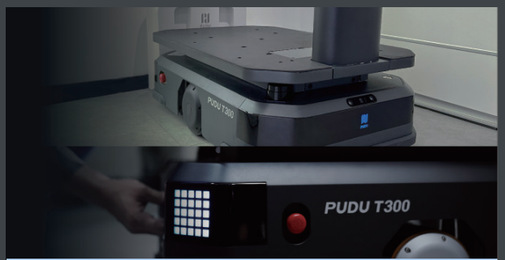
Features



Intelligent obstacle avoidance
VSLAM+ LiDAR SLAM fusion for safe collaboration

Multiple modules
Conveyor, towing, lift, and multi-layer pallets

Fleet management
distributed and centralized scheduling



24/7 operation
flexible charging and fast battery swap

Core Use Cases

Electronics Manufacturing Facility

PCBA Manufacturing Facility

PUDU T600 Series

Heavy-Payload Industrial Delivery Robot

High-Load Transport for Pallet-Based Logistics

Features

600 kg payload capacity
suitable for heavy material handling

Stable structural design
optimized center of gravity for transport stability

Powered assist
speed-controlled electric assistance for manual

Pallet-ready
compatible with standard pallet logistics scenarios

Core Use Cases

Automotive Components Manufacturing Facility

Metal Fabrication Facility

Factory Automated Delivery Solution

Across manufacturing sectors such as electronics, apparel, food, pharmaceuticals, new energy, automotive and auto parts, as well as warehousing and logistics, traditional manual material handling faces challenges including high costs, delayed delivery, space constraints, and safety risks.
To address these issues, Pudu offers an automated factory delivery solution. Powered by Pudu industrial delivery robots and systemized scheduling, it enables efficient, flexible, safe, and sustainable material transportation—helping enterprises reduce costs and improve efficiency while ensuring workforce safety and continuous production.

Solution

Flexible Material Handling

PUDU AMR with intelligent scheduling enable real-time, JIT material delivery. Robots autonomously pick and deliver materials, reducing manual intervention and errors while improving flow efficiency, flexibility, and line responsiveness.

Loop Operations

Robots run continuous, route-based delivery with on-demand dispatch and dynamic task adjustment. This ensures timely, uninterrupted transport, optimized routing, and higher efficiency—ideal for high-density, multi-station environments.

Warehouse Assisted Picking Solution

In modern warehousing and logistics—particularly in e-commerce, retail, FMCG, and manufacturing distribution centers—traditional manual picking faces challenges such as low efficiency, high error rates, rising labor and training costs, and space constraints.
To address these pain points, Pudu provides an assisted warehouse picking solution. By integrating Pudu industrial delivery robots with system-based picking assistance, it enables efficient, accurate, and safe operations—improving order fulfillment speed, reducing errors and labor burden, optimizing space utilization, and ensuring stable, continuous warehouse operations.

What is Order-to-Person?

"Order-to-Person" is an intelligent picking model centered on system orchestration.
Its core logic shifts from people searching for goods to robots delivering tasks and materials. In this model, the warehouse system uses Pudu industrial delivery robots to automatically transport racks or bins to designated picking stations, enabling operators to complete picking without moving through the warehouse.

Key Benefits

Stable fulfillment

reliable performance during peak demand

Dynamic scheduling

AI-driven forecasting and resource allocation

High accuracy

up to 99.9% picking accuracy

Higher productivity

reduced travel and idle time, increased order throughput

PUDU T150 Case Studies ▸▸

Smart Material Handling Benchmark Project for a Leading Injection Molding Manufacturer

Overview

As a smart factory transformation leader in the injection molding industry, this project addresses high SKU complexity, frequent deliveries, and intensive manual handling by deploying Pudu industrial delivery robots for flexible in-shop material transport.
In harsh, narrow, and human-robot mixed environments, traditional AGV systems suffer from positioning loss and frequent failures, disrupting production flow.

Pudu industrial delivery robots ensure stable and safe operation in constrained spaces, while digital workflow management enables end-to-end visibility and scheduling of material flow. The solution reduces labor intensity, improves delivery efficiency, and accelerates the shift toward automated, intelligent, and flexible production—setting a benchmark for smart manufacturing.

Benefits

Cost & efficiency

replaces frequent manual transport; each trip covers 4–8 stations, improving material flow efficiency

Safety & flexibility

360° perception with dynamic obstacle avoidance ensures safe operation in human-robot mixed environments

Environmental adaptability

robust, stable navigation ensures continuous operation without localization loss or downtime

PUDU T150 Case Studies ▸▸

Smart Material Handling Benchmark Project for a Leading Apparel Manufacturer

Overview

As a leading footwear and apparel manufacturer, this project addresses complex SKUs, product variations, small-batch orders, and frequent line changes by deploying Pudu industrial delivery robots for flexible in-shop material handling.
In dense workshops with narrow aisles, manual picking is inefficient and error-prone, while traditional AGV systems face long deployment cycles and high reconfiguration costs, limiting responsiveness to demand changes.

Pudu industrial delivery robots enable safe and efficient material flow across processes, improving delivery efficiency, reducing labor intensity, and supporting flexible operations.
The solution accelerates automation and digitalization, setting a benchmark for smart manufacturing.

Benefits

Flexible deployment

rapid setup without facility modification; adapts to high-mix orders and frequent line changes

Safe navigation

60 cm maneuverability with 360° perception for reliable operation in narrow, human-robot mixed environments

Operational stability

24/7 operation mitigates labor fluctuations and reduces training costs during peak demand

Efficient throughput

multi-point routing across cutting, sewing, and finishing ensures timely, high-frequency material transfer and on-time delivery

PUDU T300 Case Studies

Smart Material Handling Benchmark Project for a Leading 3C Electronics Manufacturer

Overview

As a leading 3C electronics manufacturer, this project addresses frequent line changes, project-based delivery, and multi-process coordination by deploying Pudu industrial delivery robots for efficient, flexible, and safe material handling.
Across SMT processes such as printing, placement, reflow, and AOI, manual handling causes delays and inefficiency, while traditional AGVs require fixed infrastructure and high deployment costs, limiting adaptability.

Pudu industrial delivery robots ensure stable production rhythm and material safety, improving delivery efficiency, reducing labor costs, and supporting 24/7 operations and peak demand. The solution enhances logistics efficiency and resource utilization, driving intelligent and flexible manufacturing in the 3C industry.

Benefits

Smart flexibility

VSLAM-based deployment adapts to dynamic layouts with rapid mapping and 1-hour deployment

Higher efficiency

40%–60% improvement in material handling efficiency, reducing WIP accumulation and process delays

Scalable validation

a proven large-scale deployment with high replicability, serving as a benchmark for industry-wide adoption

PUDU T300 Case Studies

Smart Warehousing & Material Handling Benchmark Project for a Leading 3PL Provider

Overview

For 3PL warehousing operators facing high turnover, long training cycles, and onboarding challenges, this project deploys Pudu industrial delivery robots to enable automated assisted picking, including goods-to-person and bin-to-person workflows.
Traditional picking relies on operator experience, leading to excessive walking, low efficiency, and high labor costs, with limited productivity under shift-based operations and higher error rates increasing returns and complaints.
Pudu industrial delivery robots optimize picking paths and material flow, reducing fatigue, labor dependency, and operational costs. With low deployment barriers and strong ROI, the solution improves efficiency and accuracy, driving warehouse operations toward automation and intelligence.

Benefits

Simplified labor management

reduces training and turnover impact; operators focus on picking, robots handle transport

Higher productivity

increases effective picking time from 30% to over 80%, minimizing walking and improving efficiency

Continuous operation

supports fast battery swap and auto-charging; up to 12-hour runtime for 24/7 operation

Reduced error rate

map-based localization and intelligent routing significantly lower picking errors and reverse logistics costs

Low-barrier deployment

no facility modification required; minimal setup enables fast ROI for mid-to-small 3PLs

PUDU T600 Case Studies ▸▸

Smart Material Handling Benchmark Project for a Leading Metal Manufacturer

Overview

As a leading metal processing manufacturer, this project addresses heavy-load handling, multi-process coordination, and diverse tooling needs by deploying Pudu industrial delivery robots for efficient, safe, and flexible material handling.
Across casting, machining, heat treatment, and inspection, manual handling is inefficient and poses safety risks, while varied fixtures require high precision and adaptability.

Pudu industrial delivery robots enable safe heavy-material transport, reduce labor and management costs, improve logistics efficiency and production rhythm, and drive the shift toward automated, intelligent, and lean manufacturing—setting a benchmark for smart intralogistics.

Benefits

Heavy-load handling

up to 600 kg with safe, stable transport

Efficient flow

intelligent scheduling enables seamless multi-process transitions

High-precision compatibility

accurate docking with various fixtures, pallets, and racks

Cost reduction

24/7 operation alleviates labor shortages and improves productivity

Flexible & stable

VSLAM fusion localization adapts to dynamic layouts without position loss, ensuring continuous operations

PUDU T600 Case Studies ▸▸

Smart Material Handling Benchmark Project for a Leading Wire Harness Manufacturer

Overview

As a leading wire harness manufacturer, this project addresses heavy automotive harnesses, high SKU complexity, and frequent deliveries by deploying Pudu industrial delivery robots for efficient, safe, and flexible material handling.
In multi-vehicle production, manual handling is labor-intensive and poses safety risks, while high-frequency deliveries increase operational pressure.

Pudu industrial delivery robots ensure safe transport of heavy harnesses and stable material flow, reducing labor and management costs, improving logistics efficiency and production continuity, and driving the shift toward automated and intelligent manufacturing—setting a benchmark for smart intralogistics.

Benefits

Heavy-load safety

handles hundreds of kilograms per load, reducing labor intensity and injury risk

High-frequency delivery

supports multi-SKU, high-frequency supply for multi-model production

Flexible adaptation

VSLAM ensures stable operation in changing layouts without localization loss or errors

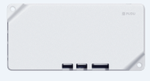
Cost efficiency

24/7 operation reduces shift labor costs and improves overall efficiency

Flexible dispatching

supports multiple robot calling methods to meet complex production scheduling needs

Product Name	 PUDU T150	 PUDU T300	 PUDU T600	 PUDU T600 Underride
Basic specifications				
Net Weight	81 kg（178.57 pounds）	81 kg（178.57 pounds）	112kg（246.92 pounds）	94kg（207.23 pounds）
External dimensions	835× 500× 1350 mm 32.87×19.69×53.15 inches	835 × 500 × 1350 mm 32.87×19.69×53.15 inches	960 × 500 × 1350 mm 37.80×19.69×53.15 inches	845 × 500 × 255 mm 33.27×19.69×10.04 inches
Height above floor	30mm（1.18 inches）	30mm（1.18 inches）	30mm（1.18 inches）	30mm（1.18 inches）
Chassis height	241mm(9.49 inches)	241mm(9.49 inches)	255mm (10.04 inches)	255mm (10.04 inches)
Lifting height	60mm（2.36 inches）	60mm（2.36 inches）	60mm（2.36 inches）	60mm（2.36 inches）
Navigation method	Laser SLAM + VSLAM Navigation	Laser SLAM + VSLAM Navigation	Laser SLAM + VSLAM Navigation	Laser SLAM
Display screen	10.1 inch	10.1 inch	10.1 inch	/
Load				
Max. load surface	1200 × 1000 × 1100 mm 47.24×39.37×43.31 inches	1200 × 1000 × 1100 mm 47.24×39.37×43.31 inches	1200 × 1000 × 1100 mm 47.24×39.37×43.31 inches	1200 × 1200 × 1600 mm 47.24×47.24×62.99 inches
Max. load weight	150kg（330.69 pounds）	300kg(661.39 pounds)	600kg(1322.77 pounds)	600kg(1322.77 pounds)
Performance parameters				
Drive method	Dual-wheel differential drive	Dual-wheel differential drive	Dual-wheel differential drive	Dual-wheel differential drive
Navigation position accuracy	±10mm（±0.39 inch）	±10mm（±0.39 inch）	±10mm（±0.39 inch）	±10mm（±0.39 inch）
Navigation angle accuracy	±1°	±1°	±1°	±1°
Maximum speed	≤1.2 m/s(3.94 ft/s)	≤1.2 m/s(3.94 ft/s)	≤1.2 m/s(3.94 ft/s)	≤1.2 m/s(3.94 ft/s)
Maximum Climb Angle	5°	5°	5°	5°
Max. surmountable height	20mm（0.79 inch）	20mm（0.79 inch）	10mm（0.39 inch）	10mm（0.39 inch）
Max. gap	35mm（1.38 inches）	35mm（1.38 inches）	35mm（1.38 inches）	35mm（1.38 inches）
Min. path clearance	600mm（23.62 inches）	600mm（23.62 inches）	700mm（27.56 inches）	650mm（25.59 inches）
Battery Parameters				
Battery type	Lithium iron phosphate, DC29.2 V, 30 Ah, Cycle life<1000, SOH 70%	Lithium iron phosphate, DC29.2 V, 30 Ah, Cycle life<1000, SOH 70%	Lithium iron phosphate, DC29.2 V, 30 Ah, Cycle life<1000, SOH:70%	Lithium iron phosphate, DC29.2 V, 30 Ah, Cycle life<1000, SOH:70%
Operation Time	6h(full load),12h(empty load)	6h(full load),12h(empty load)	6h(full load),12h(empty load)	6h(full load),12h(empty load)
Charging Time	2 h（0 %->90 %）	2 h（0 %->90 %）	2 h（0 %->90 %）	2 h（0 %->90 %）
Charging Method	Automatic/Manual Charging/ Fast swap battery	Automatic/Manual Charging/ Fast swap battery	Automatic/Manual Charging/ Fast swap battery	Automatic/Manual Charging/ Fast swap battery
Sensors				
Collision bumper	√	√	√	√
2D LIDAR	√ (front+rear)	√ (front+rear)	√ (front+rear)	√ (front+rear)
RGBD	√ （upward+ downward RGBD)	√ （upward+ downward RGBD)	√ （upward RGBD+ downward RGBD)	√ （2 downward RGBD)
RGB	/	√	√	/
Status Indicators	√	√	√	√
Emergency Stop Switch	√ (3 emergency stop switch)	√ (3 emergency stop switch)	√ (3 emergency stop switch)	√ (2 emergency stop switch)
Build-in loudspeakers	10w x2 Stereo audio	10w x2 Stereo audio	10w x2 Stereo audio	10w x2 Stereo audio

Accessories		 PUDU T150	 PUDU T300	 PUDU T600	 PUDU T600 Underride
	Pallet Module	√	√	—	—
	Lifting Rack	√	√	√	√
	Towing Module	—	√	—	—
	Reflector Post Module	√	√	√	√
	PUDU Conveyor Module	—	√	—	—
	Call Control Box	√	√	√	√
	Access Gate & Automatic Door Module	√	√	√	√
	Call with Pager	√	√	√	√

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 120,000 units** globally, with a presence in **more than 80 countries and regions.**

Global Leader in Commercial Service Robotics

TOP 1
Global Market Share *

120,000+
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

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

After-Sales Service

Pudu Robotics provides a comprehensive after-sales service system, offering global reach and expert assistance for quick and dependable support.

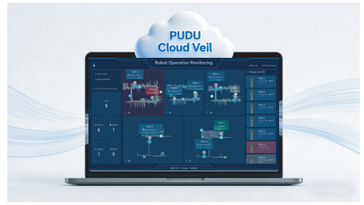
9+ Overseas Warehouses
Localized spare parts for prompt service

600+ Global Service Centers
Ensuring swift and dependable support

Service System

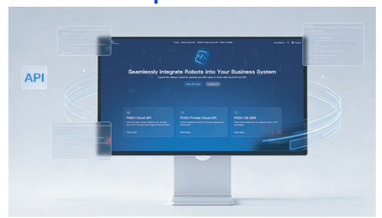
Streamline your business with Pudu Robotics' advanced service system, featuring robust management tools, intelligent interaction capabilities, comprehensive IoT solutions, and personalized customization options.

Private Service



For customers requiring a closed-loop data environment, PUDU CLOUD VEIL ensures data runs locally or on the customer's private cloud without passing through Pudu cloud servers, preventing data leakage at the source and meeting stringent requirements for security, confidentiality, and compliance while ensuring full data sovereignty and control.

Pudu Cloud Open API



Pudu Cloud Open API connects developers to the Pudu robotics ecosystem, providing standardized access to robot capabilities. It enables rapid integration of mapping, task scheduling, device control, and data monitoring to build intelligent solutions across F&B, healthcare, logistics, retail, and warehousing without low-level development.

IOT Solutions


PUDU Pager


Bluetooth Speaker


Elevator Control


Auto-door