



PUDU MT1 Vac

AI-powered Robotic Sweeper & Vacuum





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PUDU MT1 Vac

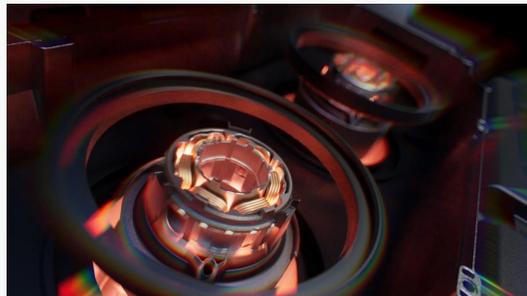
AI-powered Robotic Sweeper & Vacuum

Through years of market experience with the CCI series and MTI, we've identified a strong demand among customers for automated cleaning robots with large capacity and high-efficiency vacuuming. Yet this segment remains noticeably underserved in the current market. The MT1 Vac was created to fill this gap — purpose-built for vacuuming scenarios, it delivers upgraded suction performance to meet more advanced dry cleaning needs.





Key Features



Powerful Suction



High Efficiency



Extended Run-time



AI-driven Adaptive Cleaning



Quick-Release Dust Mop Module



Hand-vacuum Extension



Product Introduction





Product Specifications

Robot Dimensions(L×W×H)	840mm × 600mm × 490mm (33.1 in*23.6 in*19.3 in)
Robot Weight	75 kg (165.35 lbs)
Cleaning Performance	Max. 1400 m ² /h (15,069.47 ft ² /h)
Cleaning Capabilities	Sweeping, Vacuuming, Dust Mopping
Charging Time	< 3.5 h
Run-time	3-6.5 h Standard sweep & vacuum mode for hard floors: 4h
Cruise Speed	0.2 m/s ~ 1.2 m/s (0.66 ft/s~3.94 ft/s) (adjustable)
Air Filtration Level	H11 (optional H13)
Max. Vacuuming Width	55 cm (21.7 in)
Max. Cleaning Width	70 cm (27.6 in) (with side brush)
Navigation	VSLAM + Marker + LiDAR SLAM
Path Clearance	Minimum width: 75 cm (29.53 in), Minimum height: 52 cm(20.47 in)
Dust Bag Capacity	14 L (7 L*2) [0.494 ft ³ (0.247 ft ³ *2)]
Trashbin Capacity	6 L (0.21 ft ³)





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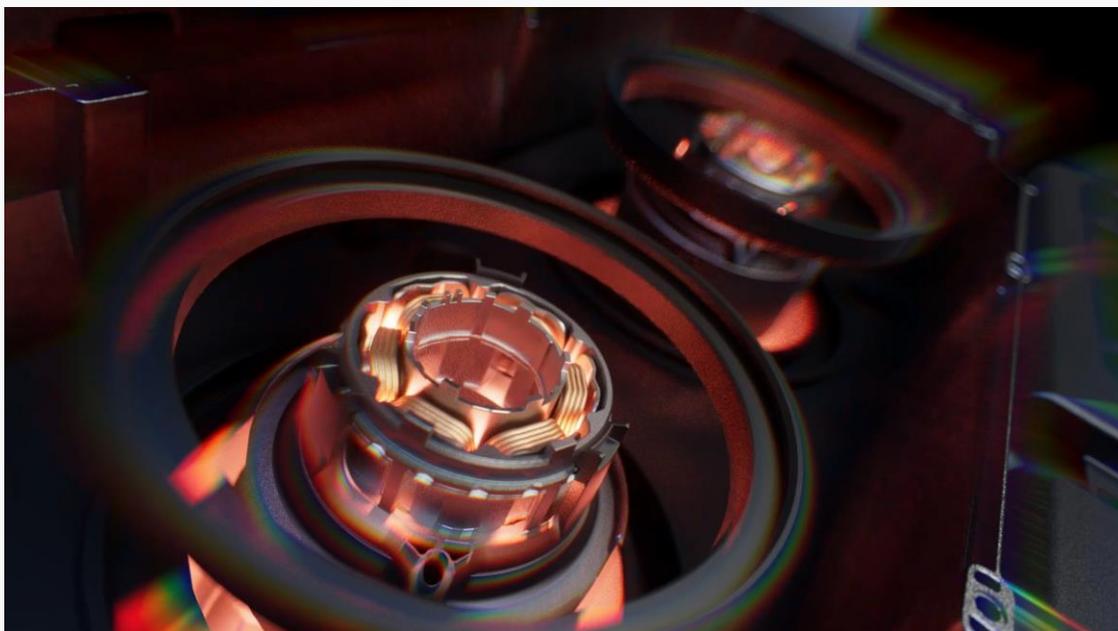
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Powerful Vacuum Performance



Double Efficiency, Dust-Free Cleaning

Dual-fan deep vacuuming: Equipped with a new dual independent air duct system, **boosting suction efficiency by 200%**. Strong suction suppresses dust from spreading, allowing for effective handling of various complex floor conditions.

Powerful Suction for Deep Cleaning

Strong vacuum power easily removes embedded dirt and stubborn debris.



Powerful Vacuum Performance

Wide Cleaning Coverage

55 cm extra-wide suction path:

Compared with most traditional commercial vacuum cleaners, each pass covers twice the area, greatly reducing cleaning time and improving efficiency.





Powerful Vacuum Performance



Dust and Waste Separation, Long-Lasting Cleaning

6L trash bin + 14L dust bags:

- The large-capacity system handles large-area cleaning in a single run, significantly reducing the need for frequent emptying.
- In a typical 1,000 m² hotel carpet scenario, it can run for up to 10 days without needing to be emptied.



Powerful Vacuum Performance

Ultra-fine Air Filtration

The HEPA-grade filtration system captures over 98% of particles as small as 0.3 μm , helping maintain clean air throughout the cleaning process. For higher filtration needs, an optional HEPA 13 filter is available, offering up to 99.97% efficiency.





Hand-vacuum Extension



Multi-Surface Cleaning, Full Coverage

- Hand-vacuum extension allows cleaning of sofa sides, walls, and glass surfaces.
- Flexible reach for edges, high surfaces, and soft furnishings—areas that regular robots struggle to access—for full-space cleaning.



Sweeping, Vacuuming, and Dust Mopping

3-in-1 Cleaning

Combines vacuuming, sweeping, and dust mopping in one device.

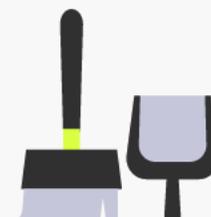
The mopping module can be easily detached, allowing flexible use based on different cleaning needs—making operations simpler and more efficient.

Supported cleaning modes:

- Standard sweep & vacuum
- Low-noise sweep & vacuum
- Standard vacuum
- Low-noise vacuum
- Quiet dust mopping
- Vertical Cleaning
- Manual Cleaning



Vacuuming



Sweeping



Dust Mopping



AI-driven Adaptive Cleaning

For Both Carpet and Hard Floors

AI-powered floors recognition identifies carpet and hard floors in real time, adjusting suction and brush speed automatically. It protects delicate surfaces while delivering efficient, powerful cleaning.





AI Visual Trash Recognition



Smart Spot Cleaning

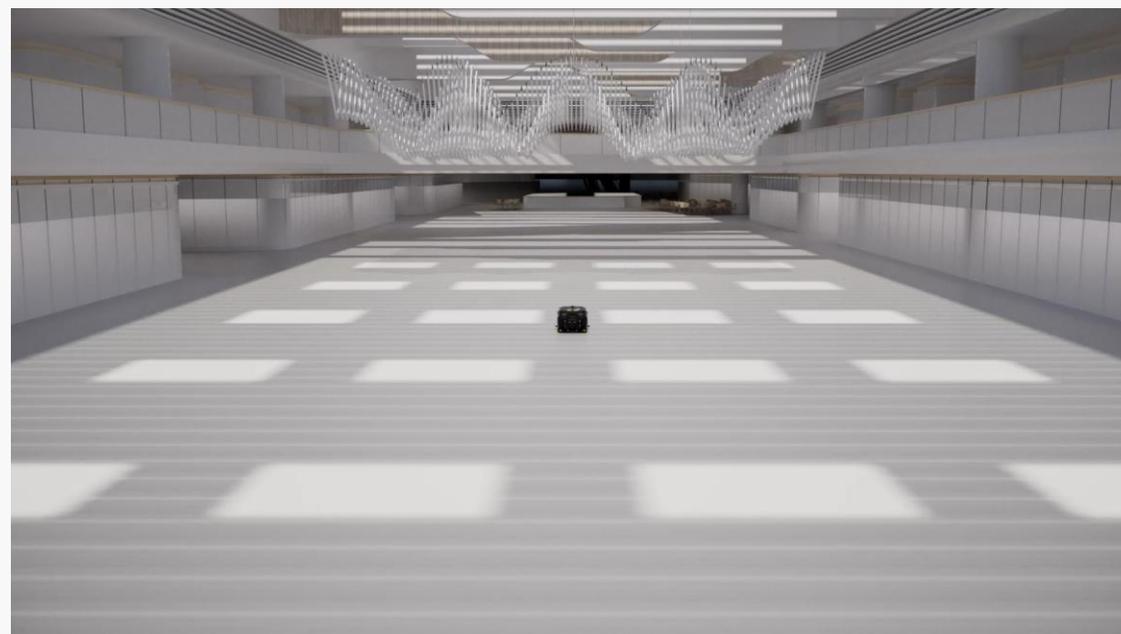
AI vision-based detection and smart path planning: With a wide field of view, the MT1 Vac can scan large areas, detect trash during inspection, and clean it on the spot—making cleaning smarter and more convenient.



Adapts Quickly to Dynamic Environments

With integrated LiDAR SLAM and VSLAM positioning, the system offers strong environmental perception and path planning.

The MT1 Vac adapts to frequent foot traffic and shifting obstacles while maintaining accurate mapping and stable navigation. It ensures uninterrupted, efficient cleaning—delivering truly autonomous performance in dynamic settings.





Superior Mobility



Low-clearance Operation (52 cm)

Easily slides under racks and sofas to clean hard-to-reach spots and corners.



Edge-to-Edge Cleaning

Powered by high-precision sensors and dynamic algorithms, it maintains close alignment with walls and pillars to ensure thorough, edge-to-edge cleaning with no missed spots.



75 cm Path Clearance & Smart Obstacle Avoidance

Easily navigates narrow aisles. Combines real-time obstacle recognition with smart rerouting to handle complex layouts safely.



User-friendly Design

Easy Maintenance, Tool-Free Swaps

Modular components are designed for fast replacement. Dust mop, dustbin, trash bin, roller brush, and side brushes can be swapped in seconds without tools—cutting maintenance time and cost.

The mopping module can be easily detached, allowing flexible use based on different cleaning needs—making operations simpler and more efficient.





User-friendly Design



Manual Operation Supported

The retractable handle allows staff to manually move the robot between cleaning areas as needed.



24/7 Continuous Operation

Extended Run-time, Always-on Performance

With a large battery, fast-charging system, and automatic charging station, the MT1 Vac supports 24/7 operation—ready anytime for high-frequency cleaning needs.





IOT Capabilities

IoT Integration

Connects with IoT infrastructure like elevators and access gates for multi-floor operation.

Supports remote monitoring via phone or PC, offers real-time updates, cleaning reports, and overflow alerts for efficient management.



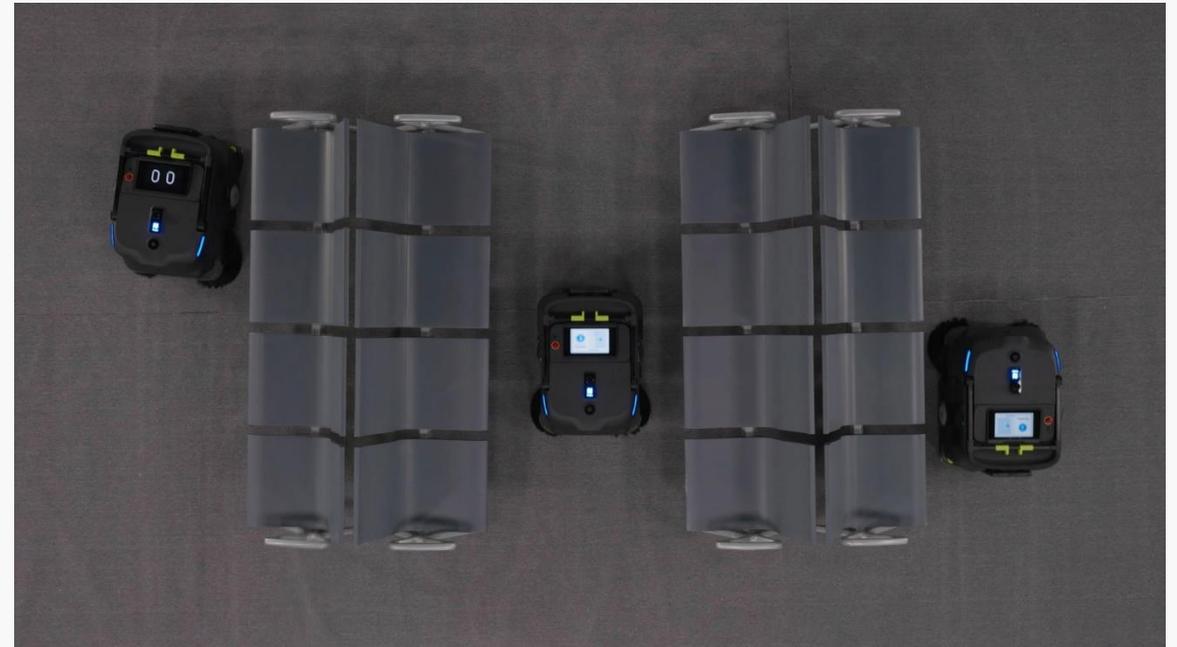
PUDU Link (App)



Elevator Control Module



E-gate Control Module



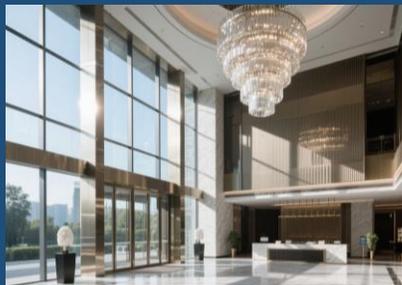


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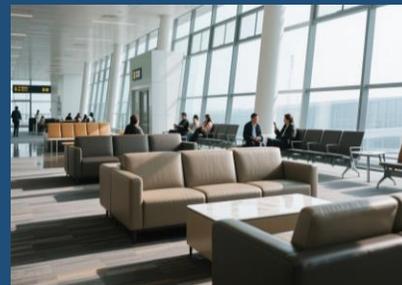
Product Value



Hotel



Shopping Mall



Airport



Metro Station



Dust-free Workshop



Casino



Office Building



Cinema



Hospital



Exhibition Center



Nursing Home



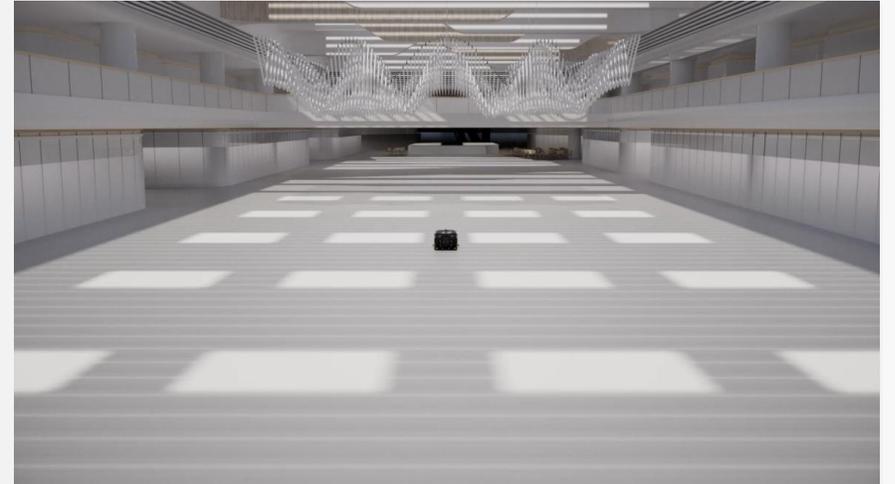
School



Product Value

A Systematic Cleaning Solution for Large Spaces

MTI Vac's powerful suction and large-capacity design support long, low-interruption cleaning cycles. It redefines traditional cleaning for large areas and helps build scalable, standardized cleaning operations.



Measurable and Repeatable Cleaning Efficiency

With a 55 cm cleaning width, dual-fan suction, and smart path planning, MTI Vac significantly boosts efficiency, reduces reliance on labor, and shortens cleaning cycles—directly lowering cleaning cost per square meter and improving operational structure.



Product Value

Reliable Operation in Complex Environments

With laser + VSLAM navigation and all-around perception, MTI Vac adapts to dynamic environments. Even in crowded or fast-changing areas, it maintains steady performance, supporting fully unattended cleaning operations.



Free Up Labor for Higher-Value Tasks

Its 24-hour runtime and low-maintenance design allow the robot to handle routine tasks independently, letting cleaning staff focus on more valuable work and improving overall team effectiveness.



Product Value



From “Clean Enough” to “Consistently Clean”

With AI-powered visual detection and automatic spot cleaning, the robot not only detects dirt but actively handles it, enabling full-cycle management of cleaning quality—something hard to achieve with manual methods.

One Machine, Many Scenarios

With its ability to adapt to different floor types, trash types, and layouts, MT1 Vac fits a wide range of environments—from shopping malls to hospitals, exhibition halls to transit hubs—helping businesses reduce the need for multiple machines and simplifying both management and procurement.





Thank you!

