



PUDU BG1 Series

AI-Native Large Scrubber-Dryer Robot





Product Appearance

Sensor
Audio-Visual
Warning System
Cleaning Mechanism



3D LiDAR

Warning Light

Front Projection Light

Manual Water Inlet

Front Fill Light

RGBD

AI Camera

Outline Light

DToF Array Modular

Clean Water Level Gauge

Docking station
(Automatic Water/Electric Supply)

RGB Camera

LiDAR

RGBD

LiDAR

Scrubbing Disc Brush

Side Brush

Dust Box

Sweeping Roller Brush



Product Appearance

Sensor

**Audio-Visual
Warning System**

Cleaning Mechanism

Others

Emergency Stop Button

Control Joystick

Storage Box

RGBD

Suction Pipe

AI Camera

Front Fill Light

LiDAR

Dual Cleaning Agent Boxes

Suction Pipe

Squeegee



3D VSLAM Camera

Power On/Off Button

Outline Light

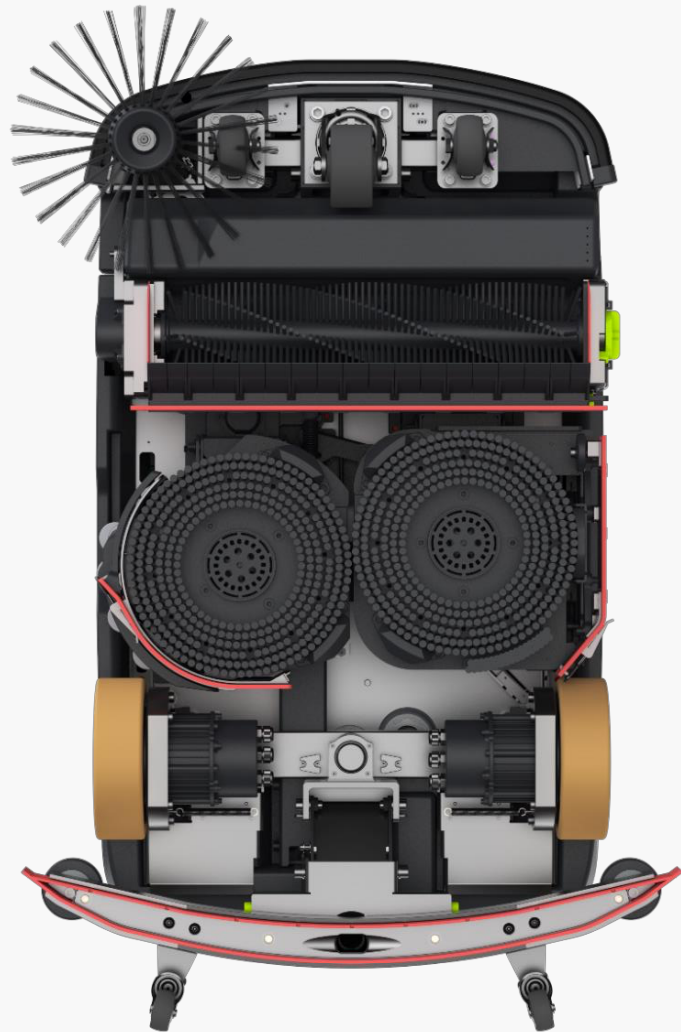
Semi-automatic Water Inlet
(Supports Auto-stop When Full)

RGB Camera

Extended Disc Brush



Core Functions



**One-Pass
Sweep & Scrub**



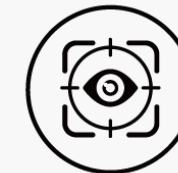
**Extendable
Edge Cleaning**



**Instant, User-friendly
Maintenance**



AI Magic Cleaning



**3D Perception
Enhancement**



**24/7
Continuous Operation**

- **Scrubbing, Polishing, Sweeping, Dust Mopping**
- **Dual Cleaning Agent Automatic Real-time Mixing**
- **Ultra-long Run-time, Ultra-high Cleaning Efficiency**

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Product Specifications

	PUDU BG1	PUDU BG1 Pro
Total Machine Weight	approx. 344 kg (approx. 758 lbs)	
Overall Dimensions	1195x760 x 1303 mm (with squeegee) 1120x660 x 1303 mm (without squeegee) 47.0x29.9 x 51.3 in (with squeegee) 44.1x25.9 x 51.3 in (without squeegee)	
Battery Capacity	90Ah (48V platform, equivalent to 24V platform 180Ah)	
Run-time	Front sweep, rear scrub, up to 7.5h , Standard mode 5.5h+	
Charging Time	High voltage area (AC≥180V): about 3h Low voltage area (AC≤180V): about 4.5h * Adapter auto voltage recognition	
Cleaning Capability	Sweeper-scrubber integration, dust mopping (optional), polishing (optional) Supports Extendable Edge Cleaning, Dual Cleaning Agent Real-time Mixing	
Navigation Method	LiDAR + 3D VSLAM Fusion Positioning	3D LiDAR + 3D VSLAM Fusion Positioning



Product Specifications

	PUDU BG1	PUDU BG1 Pro
Min. Path Clearance	85 cm(33.5 in)	
Cleaning Width	550 mm / 708 mm (with side brushes) 21.65 in / 27.87 in (with side brushes)	
Cleaning Efficiency (Scrubbing)	Covered Cleaning Mode: Max. 2000 m²/h Spot Cleaning Mode: Max. 6000m ² /h Covered Cleaning: Max. 21,528 ft²/h Spot Cleaning Mode: Max. 64,583.4 ft ² /h	
Dust Box Capacity	5L 1.32 Gal (US)	
Water Tank Capacity	Clean Water Tank: 75 L Waste Water Tank: 60 L Clean Water Tank: 19.81 Gal (US) Waste Water Tank: 15.85 Gal (US)	
Cleaning Agent Box	Dual Cleaning Agent Box , total capacity approx. 7L	
Unattended Operation	Supported (requires optional charging/docking station)	





AI-Native Cleaning Robot?

Hardware Design → ~~AI-Power~~ → AI-Native



AI-Native Cleaning Robot

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Precisely executed "Hardware Degrees of Freedom"

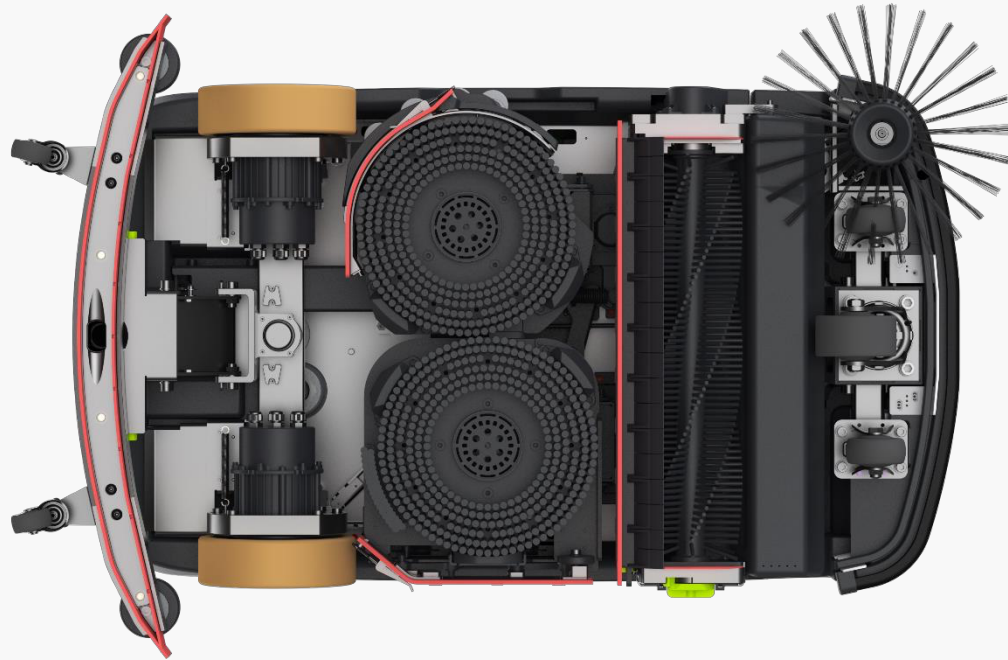
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Ever-evolving "AI Degrees of Freedom "



Front Sweep, Rear Scrub, Restructuring Cleaning Efficiency

One-Pass Sweep & Scrub

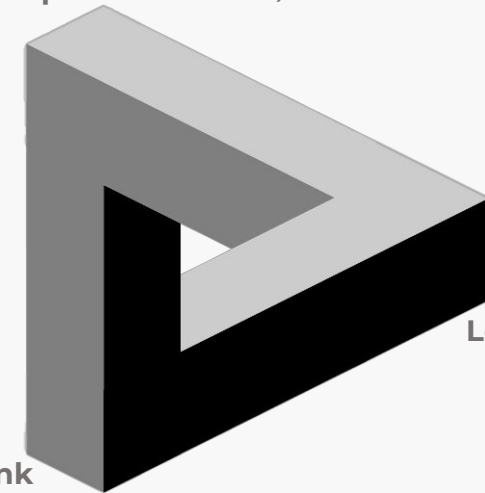


550mm scrubbing width, **708mm** sweeping width

75L/60L water capacity, **7L** cleaning agent capacity, **5L** dust box capacity

Advanced Architecture, Ultimate Efficiency

Compact Design
(for path Clearance)



Long Run-time

Huge Water Tank

48V electrical architecture, 90Ah equivalent to 24V platform **180Ah**

7.5h+ cleaning time (standard mode **5.5h+**), **2000m²/h** cleaning efficiency



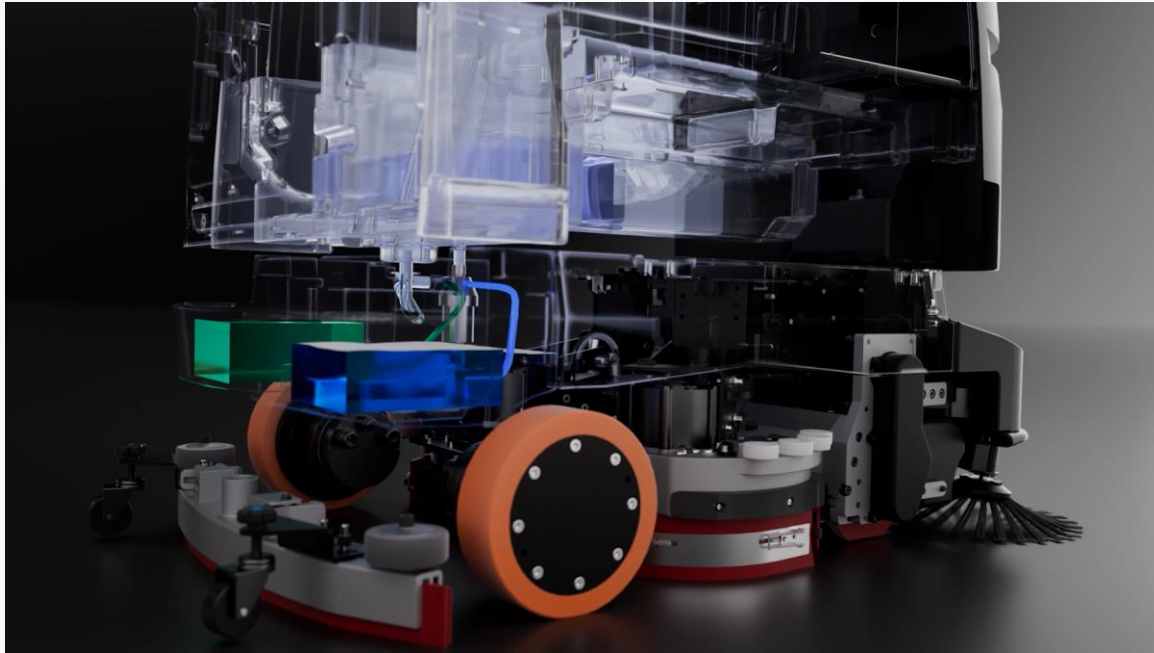
Extendable Edge Cleaning



The scrubbing brush can physically extend to reach walls and shelving edges, thoroughly removing dust and dirt along edges, improving coverage, and minimizing manual touch-ups.



Dual Cleaning Agent Real-time Mixing



Dual agent tanks(**7L total**) with **milliliter-level accuracy**.

Automatic dosing eliminates inaccuracies from manual mixing.

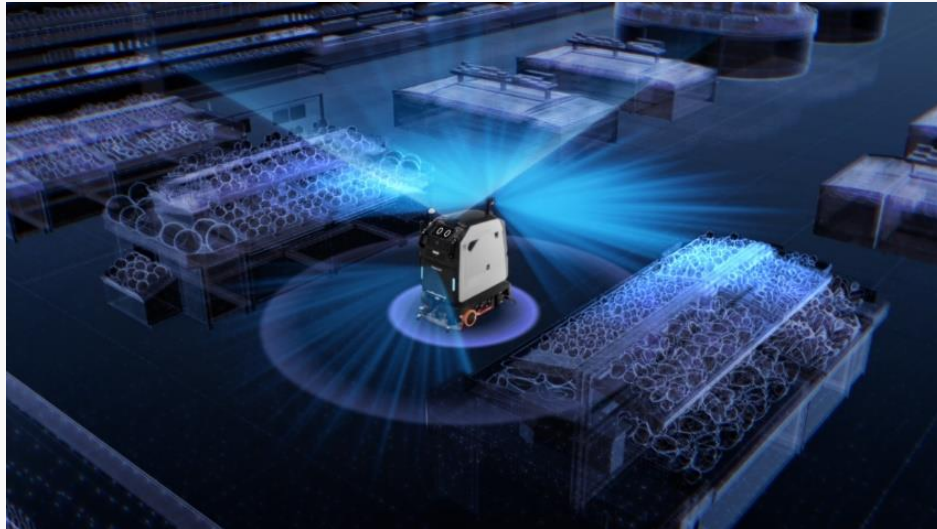
Potential Agent Combinations:

1. Acidic Cleaner + Alkaline Cleaner
2. Cleaner + Disinfectant
3. Cleaner + Defoamer
4. Cleaner + Deodorizer
5. Cleaner + Polishing Conditioner

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Visual 3D Fusion



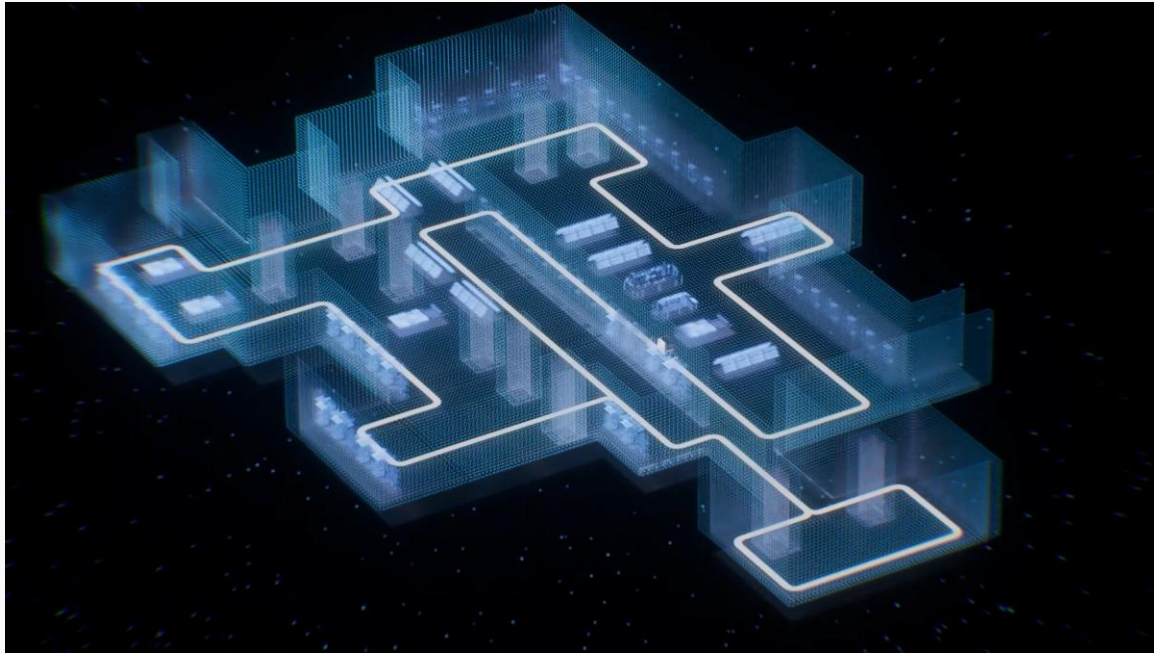
3D VSLAM + LiDAR + Multi-sensor Fusion



AI High Computing Power Platform
(Dual Chips + AI Enhanced Computing Unit)



Magic Cleaning – AI Spot Cleaning



Spot Cleaning Mode Cleaning Efficiency

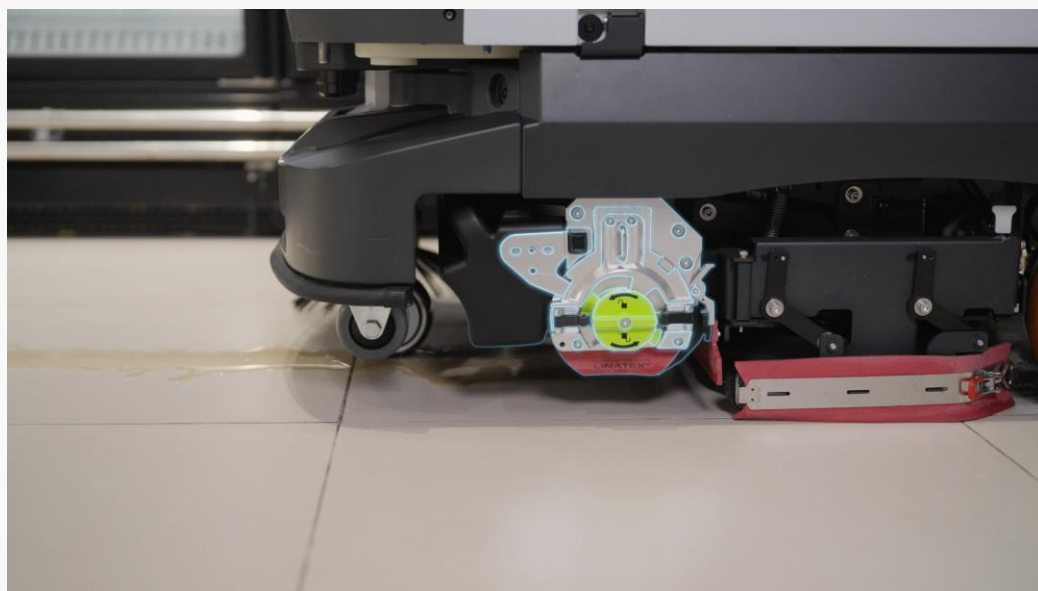
6000m²/h

Powered by an ultra-wide FOV and AI vision, the PUDU BG1 series detects and targets messes in real-time. This "See-and-Clean" approach transforms operations from passive to proactive, ensuring pristine floors in high-traffic zones with split-second response times.

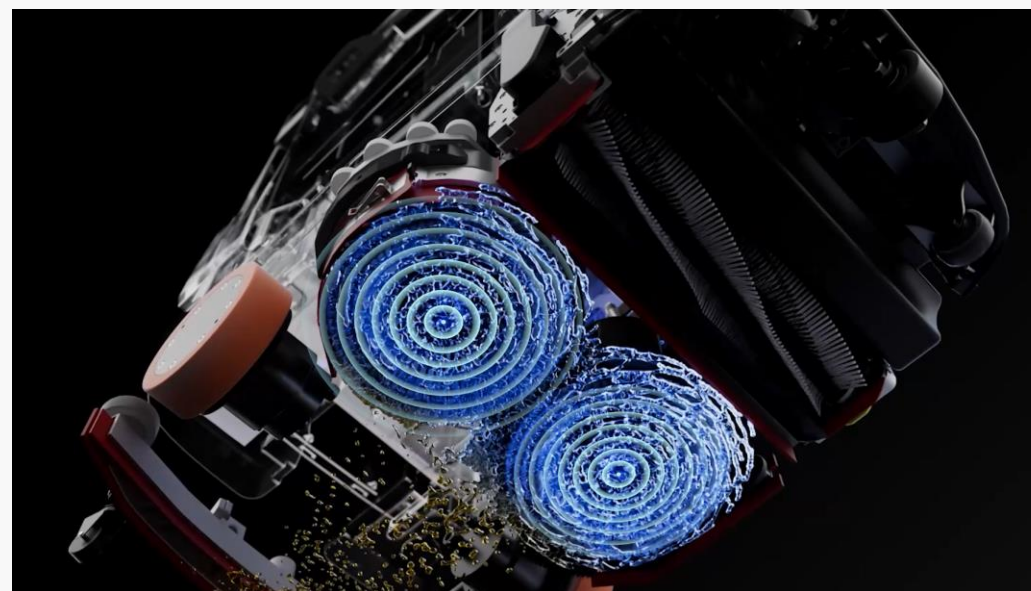


Magic Cleaning – AI Adaptation

Adaptive Cleaning Mechanism



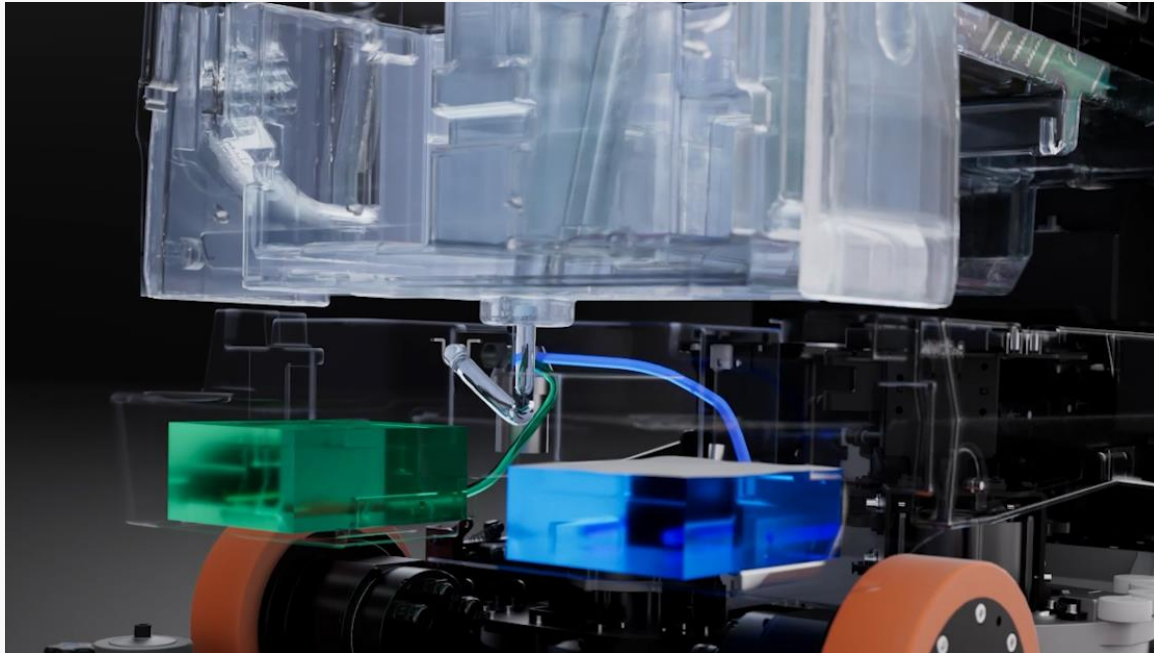
Upon detecting wet spills, it instantly retracts the sweeping modules (side brush, roller brush) to prevent secondary spreading.



For stubborn stains, it automatically boosts brush pressure & speed for a spotless, single-pass clean.



Magic Cleaning – AI Adaptation



Adaptive Cleaning Agents Mixing:

It automatically scales chemical intensity to match floor conditions, optimizing cleaning performance while reducing consumption.



Magic Cleaning – Summon Cleaning



Teamwork makes the clean work

- Smart Detection: Real-time stain recording.
- Seamless Handover: Automatic task dispatching between robots.
- Total Coverage: From sweeping large debris to scrubbing stains.



Magic Cleaning – Others

Stain Heat Map



Generate the heat map based on the accumulation of garbage detected in each cleaning task.

Ultra Spot Cleaning

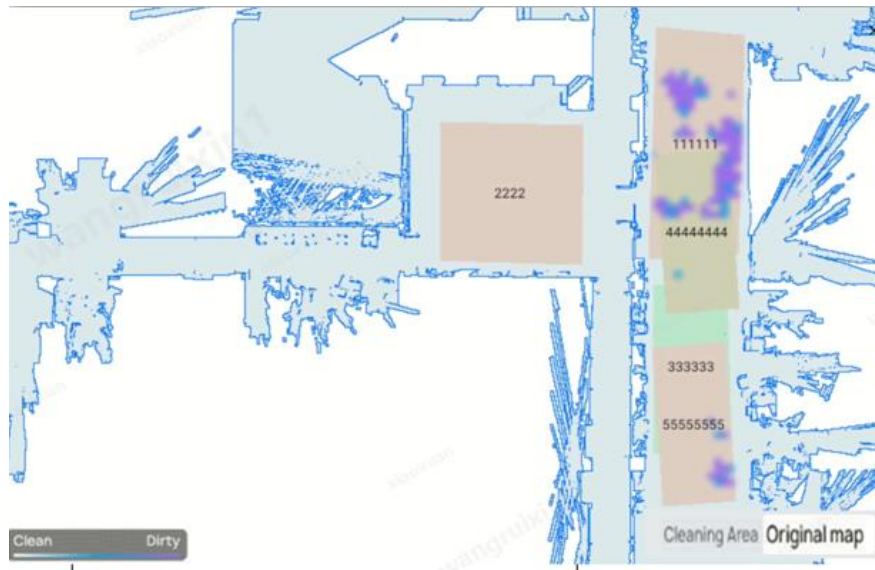


Quickly clean areas with a higher probability of staining based on the historical data of the stain heat map.



Magic Cleaning – Others

Cleaning Effect Map



Guided Cleaning



Record stubborn stains such as adhesive marks and chewing gum that cannot be completely cleaned in each cleaning task.



AI Smart Re-cleaning



How to understand AI-Native Cleaning Robot?



AI-Native Cleaning Skills = Precise Execution "**Hardware Freedom**" x Ever-evolving "**AI Versatility** "

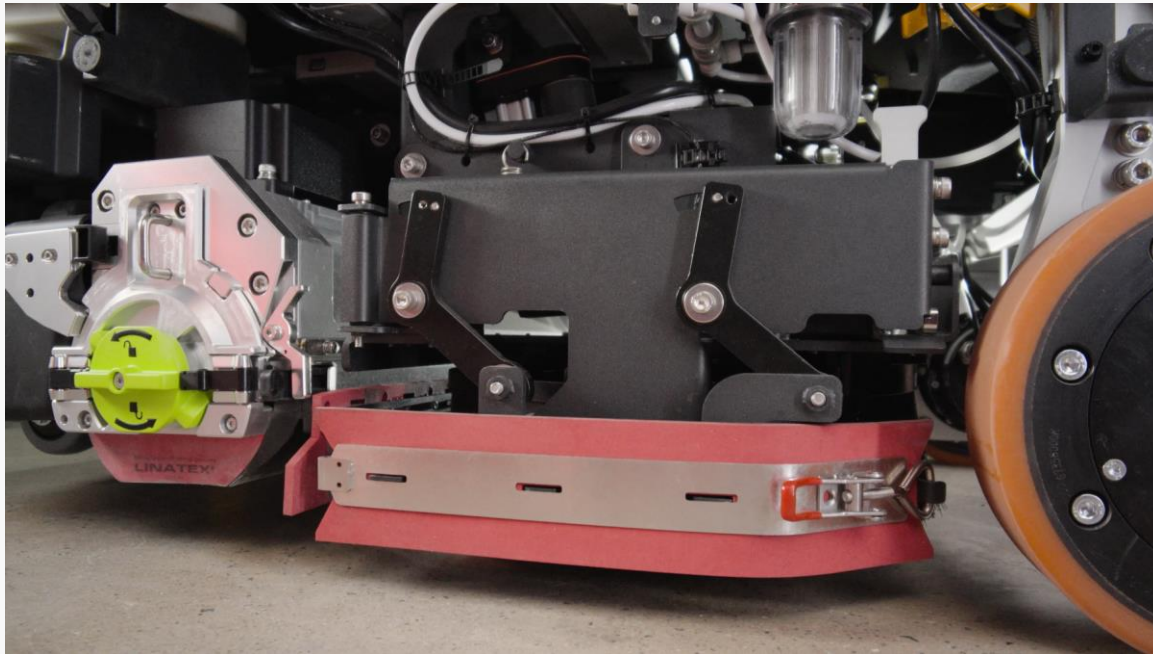
- AI Cleaning Mechanism Adaptive
- AI Adaptive Cleaning Agent Mixing
- AI Spot Cleaning
- Stain Heatmap
- Cleaning Effect Map
- Summon Cleaning
- Guided Cleaning
- Ultra Spot Cleaning
-

- Front (Strong) Sweep, Rear Scrub
- Disc Brush Independent Lifting & Control
- Roller Brush Independent Lifting & Control
- Disc Brush Extendable Edge Cleaning
- Dual Cleaning Agent Real-time Automatic Mixing
- Front and Rear AI Cameras & VSLAM Cameras

- Trash/Stain Recognition Capability
- Cleaning Effect Detection Capability
- 3D VSLAM
- Automatic Edge-Cleaning
- Vehicle Recognition and Perception
-



Quick and Convenient Maintenance



World's First

Cleaning robot with automatic disc brush installation, making it the world's first truly user-friendly cleaning robot for cleaning staff.



24H Fully Automatic Cleaning



The all-in-one station automates refilling, drainage, and charging, ensuring 24/7 mission-readiness. By closing the loop between task execution and maintenance, the system prevents residue buildup and odors, achieving a seamless, zero-intervention workflow.



Human-Machine Interaction



Audio-Visual Alarm System



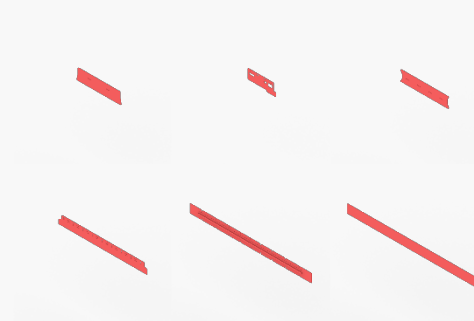
Ride-on Mode



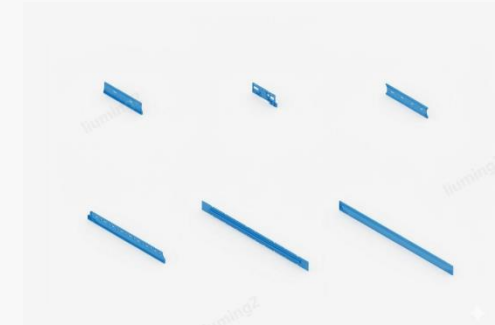
Core Consumables & Optional Accessories



Scrubbing Disc Brush



Rubber Blade



Rubber Blade
(Oil-resistant)



Scouring Pad

- Ride-on Kit
- Dust Mop Assembly
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IoT



Elevator Control



Automatic door/gate



Pudulink App



World's first AI-Native Large Scrubber-Dryer Robot



**One-Pass
Sweep & Scrub**



**Extendable
Edge Cleaning**



**Instant, User-friendly
Maintenance**



AI Magic Cleaning



**3D Perception
Enhancement**



**24/7
Continuous Operation**



Retail Examples

● L1: Retail

○ Department stores and supermarkets

● Warehouse supermarkets

○ DIY/home improvement supermarkets

○ Commercial complexes



● Scenario segmentation

Fresh food area

Shelf area

Aisle



BG1 Task High-frequency scrubbing + edge cleaning

★ BG1 Fits Core Value:

- **Anti-slip and instantly dry,**
wet and dry waste cleaned in one pass
- **Edge cleaning,** perfectly covers shelf edges

One-Pass Sweep & Scrub

Wet and dry waste cleaned in one go

55cm

Ultra-wide scrubbing width

External Edge Cleaning

Active external expansion

AI Adaptive Cleaning/Spot Cleaning

Cleaner, more efficient





Industrial Manufacturing Examples

● L1: Industry

○ Food manufacturing

● Chemical manufacturing

○ Beverage manufacturing

○ Chemical products manufacturing



● Scenario segmentation

Workshop area

Workshop aisle

Office area



BG1 Task Deep cleaning + edge and corner cleaning

★ BG1 Fits Core Value:

- **Oil stain cleaning:** dual disc brush powerful scrubbing, free detergent ratio, flexible switching
- **Floor protection:** One-Pass sweep & scrub, debris cleaning

One-Pass Sweep & Scrub

One pass, double clean

Dual Disc Brush

Ultimate stripping

Dual Cleaning Agent Tanks

High-precision real-time mixing

AI Adaptive Cleaning/Spot Cleaning

Cleaner, more efficient





Warehouse Logistics Examples

● L1: Logistics

Raw material warehousing

FMCG warehousing

3PL warehousing

Cold chain warehousing



● Scenario segmentation

Sorting area

Warehouse shelf area

Office area



BG1 Task Large-area cleaning operations

★ BG1 Fits Core Value:

- **24H cleaning:** non-stop cleaning
- **Efficient cleaning:** timed cleaning with ease
- **Floor protection:** One-Pass sweep & scrub, debris cleaning

90Ah

Equivalent 24V platform 180Ah

75L/60L

Large clean/dirty water tanks

7.5h

Maximum run-time

One-Pass Sweep & Scrub

One pass, double clean





Parking Garage Examples

- **L1: Real Estate & Property Services**
 - Property & Facilities Management
 - **Residential & office real estate**
 - Cleaning Service

- **Scenario segmentation**
 - Lobby area
 - **Basement area**
 - Office area

BG1 Pro Task Lane and parking space cleaning

★**BG1 Pro Fits Core Value:**

Clean and protection: dual disc brush, high pressure, powerful scrubbing

Safe, no collision: vehicle recognition

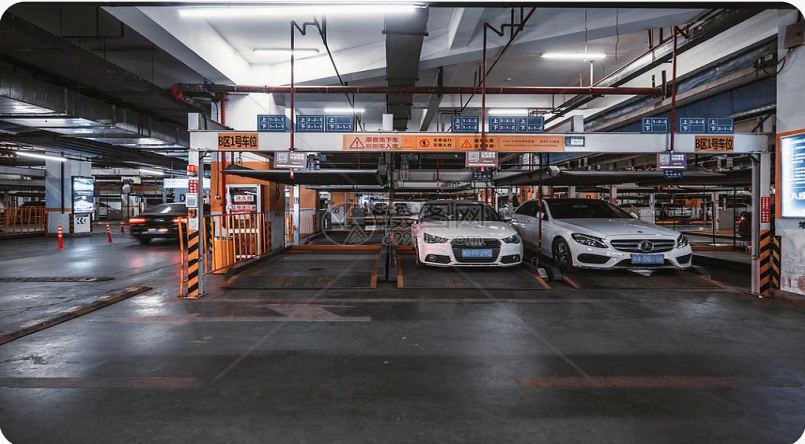
Large-area cleaning: large size, large capacity, and deep scrubbing

31Kg
Ultimate dirt stripping capability

One-Pass Sweep & Scrub
One pass, double clean

> 10000m²+
Maximum single operation area

Vehicle Avoidance
3D Lidar





BG1 Series Target Market

Retail Core consumption scenarios, high traffic, high standard cleanliness



Warehouse Supermarkets



DIY/Home Improvement Supermarkets



Floral & Gardening Markets



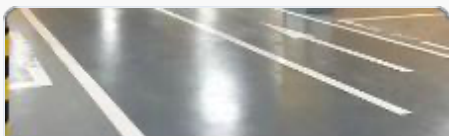
Department Stores & Supermarkets



Comprehensive Food Supermarkets



Shopping Centers



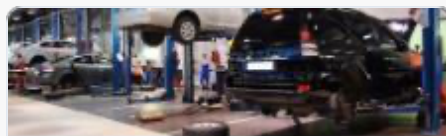
Underground Parking Garage



Electronics & Appliances Supermarkets



Stationery & Sports Goods Retail

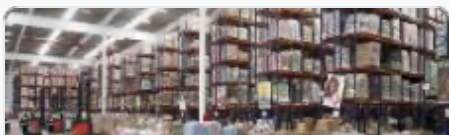


Auto Repair Shop

Logistics High-speed turnover scenarios, large area, fully automated operation



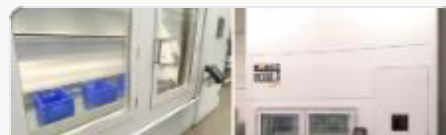
Raw Material Warehousing



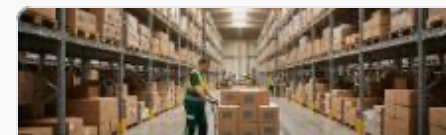
FMCG Warehousing



Cold Chain Warehousing



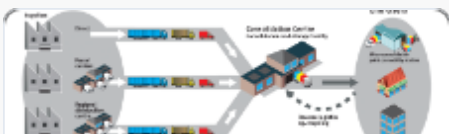
Electronics & Appliances Warehousing



3PL Warehousing



Constant Temperature & Humidity Warehousing



Consolidation Center



Distribution Center



Transit Center



BG1 Series Target Market:

Industry

Harsh working conditions and professional cleaning services



Food & Beverage Manufacturing



Computer & Electronics Manufacturing



Chemical Manufacturing



Plastic Product Manufacturing



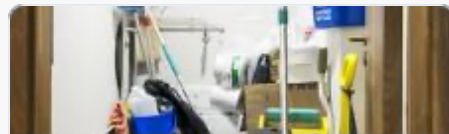
Basic Pharmaceutical Manufacturing

Real Estate & Property Services

professional cleaning services



FM Companies



Cleaning Service Companies



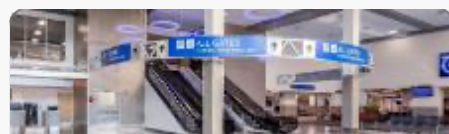
Municipal Building

Transportation, Residential, Hospital, Hotel, and Public Services, etc.

Extensive scenario coverage, full area cleaning



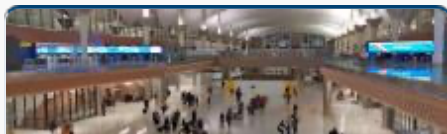
Parking Lot



Expressway Service Area



Subway Station



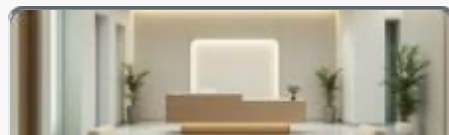
Airport



Stadium



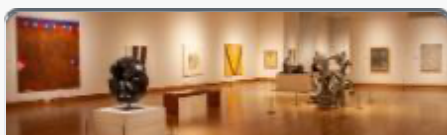
Aquarium



General Hospital



Resort



Museum

more industries...



Select the most suitable cleaning robot

Scrubbing



BG1 Pro: World's first AI-native Large Scrubber-Dryer Robot Pro
Best for: Parking lots and other large-area deep cleaning



BG1: World's first AI-native Large Scrubber-Dryer Robot
Best for: 2500~10000+m² cleaning area, stubborn stain removal



CC1 Pro: World's first AI-native medium-sized floor Scrubbing robot
Best for: 500-2500m² cleaning area, stubborn stain removal



CC1: World's first 4-in-1 medium-sized cleaning robot
Best for: 500-1500m² cleaning area, light to moderate stain removal



SH1: Multifunctional compact floor scrubber with powerful cleaning capability
Best for: Small scenarios such as restaurants and restrooms

Sweeping



MTI: World's first AI-native sweeping robot
Best for: Suitable for 500-20000m² ultra-large indoor areas, easily sweeps all types of large debris.



MTI Max: World's first AI-native complex scenario sweeping robot
Best for: 500-20000m² parking lots, outdoor and other complex scenarios, easily sweeps all types of large debris.

Carpet Vacuuming



CC1: World's first 4-in-1 medium-sized cleaning robot
Best for: 500-2000m² carpeted areas, easy daily carpet vacuuming



MTI Vac: World's first AI-native large-area dry cleaning robot
Best for: 500-15000m² large carpeted areas, efficient and thorough vacuuming.

Hard Floor Dust mopping/ Vacuuming



MTI Vac: World's first AI-native large-area dry cleaning robot
Best for: 500-15000m² indoor hard floors, easy dust mopping and vacuuming.