



ECOBOT Scrubber 50 Pro

Your Reliable Choice for Highly Dynamic Indoor Environments

ECOBOT PRODUCT RANGE



About **GAUSSIAN**

Gaussian Robotics develops and manufactures cleaning robots to co-work with people. The ECOBOT series is a comprehensive range of floor cleaning robots, which includes: Vacuum 40, Scrubber 50, 50 Sprayer, Crystallizer 60, Scrubber 75, Sweeper 111 and more in the pipeline. They have been deployed in thousands of commercial, institutional and industrial facilities around the globe to deliver professional and consistent cleaning services.

Founded in 2013 out of a passion for autonomous driving, Gaussian Robotics built its class-leading autonomous navigation based on advanced SLAM technology and integrated it into cleaning machines. It has since grown into a global leader and is now setting the benchmark for the cleaning robot industry. Today, it has rapidly expanded into a team of over 1000 employees with its headquarter in Shanghai and overseas offices in Singapore, Hong Kong and the Netherlands.

APPLICABLE SCENARIOS

ECOBOT Scrubber 50 Pro is ideal for cleaning highly dynamic indoor environments, including Shopping malls, SME supermarkets, Manufacturing plants, Logistics warehouses, etc.



Shopping malls



SME supermarkets



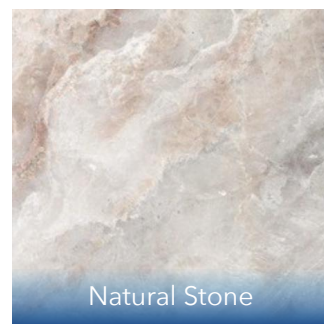
Manufacturing plants



Logistics warehouses

FLOORING TYPES

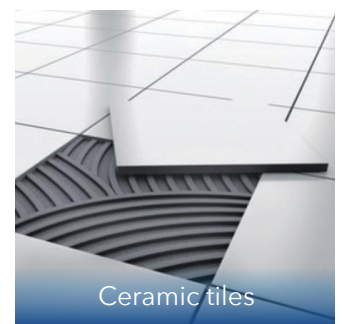
The ECOBOT 50 series are designed for different types of hard, water resistant flooring, including Natural Stone, PVC & Vinyl flooring, Ceramic tiles, Epoxy, Concrete, etc.



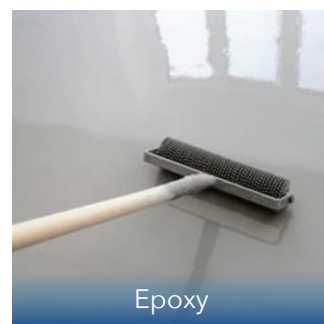
Natural Stone



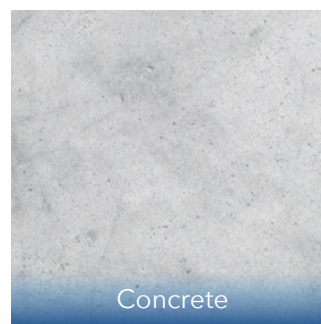
PVC & Vinyl Flooring



Ceramic tiles



Epoxy



Concrete

CORE STRENGTHS

SIMPLICITY – Minimal Human Intervention Operation (M.H.I.O)



Easy Deployment

- User-friendly display with intuitive menu, accelerating setup and adoption
- Flexible operation methods, controlling the machine through touch screen, mobile APP or cloud platform
- Mapping, map editing and task creating can be done by the operator on the display without external assistance



Minimal Maintenance

- Optional work station for automatic charging, water filling & draining, realizing 7/24 uninterrupted operation
- Only 2 hours required per month for general maintenance



Dual Operation: Autonomous + Manual

- Switches between autonomous and manual mode with a simple command

INTELLIGENCE – Boldly go where no other cleaning robot has gone before



Auto Spot Cleaning driven by Deep Learning

- Scans the cleanliness of the near by floor and automatically performs spot cleaning where waste or stains are detected
- Identifies the type of garbage and bypasses those beyond its cleaning capacity



Advanced AI navigation system empowered by semantic SLAM

- Real-time Auto-cover: Dynamically maps and plans cleaning paths to maximize cleaning coverages in a changing environment
- Incredibly fast mapping: 30 mins to map a 2,000 sqm site(*)
- Flexible map editing: Mark virtual walls and highlight areas to avoid collision and damage



Remote task scheduling, activation and maintenance

- Real-time data transmission and monitoring, getting real-time information of the operational status and cleaning progress
- Sends detailed cleaning task reports via email or SMS, letting your data demonstrate your commitment to a quality clean



Flexible task combination, customizing cleaning plans in complex scenarios

- Teach & Follow (Auto repeat)
- Auto-cover (Auto fill-in)
- Real-time Auto-cover (Returning to occupied spaces)
- Sketch (Point to point)



Recovery

- Resumes previous unfinished task after interruption

PRODUCTIVITY – Exponentially improves cleaning efficiency



Advanced Cleaning Efficiency - Up to 1,800 sqm/h (*)

- 3 in 1 - Integrates scrubbing & drying, sweeping, mopping
- No-hassle squeegee system - removes liquid without collision or scratch



Near to wall cleaning

- 5-10cm edge-to-edge cleaning

MANEUVERABILITY – Access restricted area while cleaning



Agile and compact design

- 110cm passage width + 120cm turning diameter - Able to clean narrow corridors

SAFETY – Cutting-edge Obstacle Detection & Avoidance



Multi-sensor fusion

- Reacts to the changes correspondingly and automatically while cleaning, detecting and avoiding static and dynamic obstacles from all directions and in real time
- Equipped with E-stop button, anti-slip wheels, anti-collision touch bumpers, integrated signaling lights, safety audio message playback etc., providing all-round safety
- Left/Right depth cameras (50 Pro-exclusive) - customized for highly dynamic, complex environments

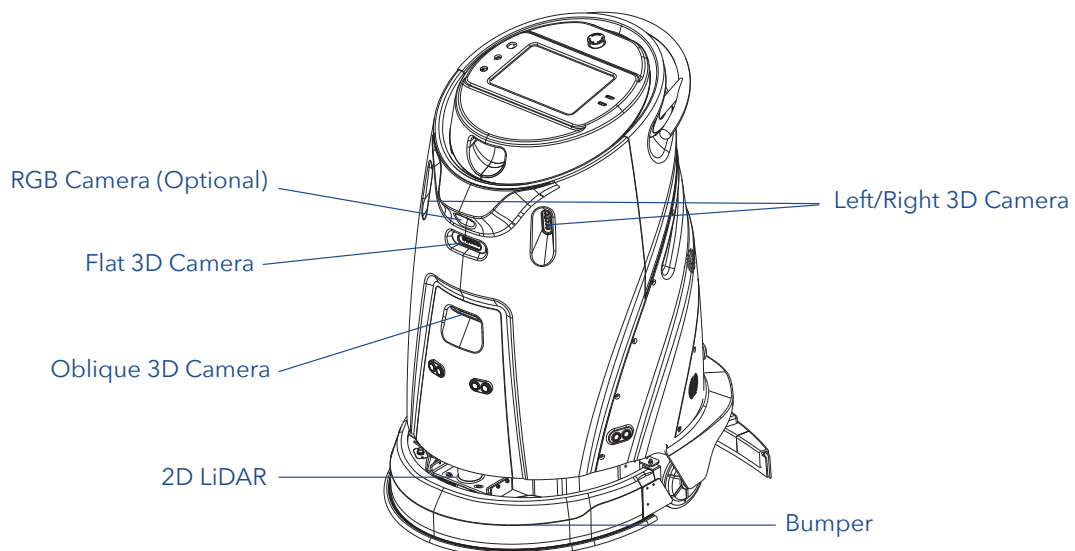


Figure 1: ECOBOT 50 Pro Sensors

(*Under ideal conditions)

KEY BENEFITS

SUSTAINABILITY – Create long-term value by taking an eco-friendly approach



Energy Saving

- Calculates the most efficient path to reduce energy consumptions



Water Saving

- Unique 5-stage water recycling filtration system
- Saves up to 70% fresh water

COST-EFFICIENCY – Invest in ECOBOT's quality and technology that significantly drive down cleaning cost



Low total cost of ownership

- The large capacity, Lithium batteries, elevator integration and optional work station, all ensure a high ROI and low maintenance costs



Cut down labor cost

- Functions of task scheduling and real-time reporting simplify your cleaning management and lower labor costs

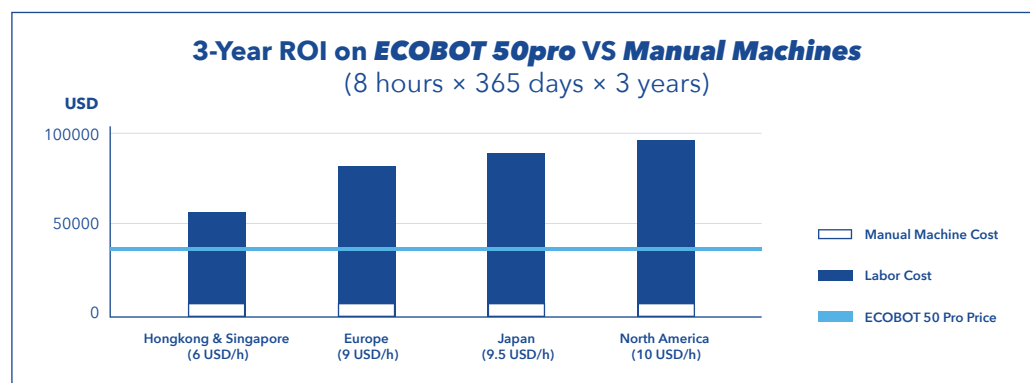


Figure 2: 3-Year ROI on ECOBOT 50 Pro by Regions of Income Level

BETTER IMAGE – Enhance Facility Image by embracing a consistent, sustainability oriented clean



Marketing value

- The visual appearance of the ECOBOT shows visitors your taking their health and safety seriously, demonstrating your company as a clean and trendsetting organization
- The adoption of ECOBOT's water-saving and energy-efficient cleaning solutions manifests your company's commitment to CSR initiatives

WHAT OUR CUSTOMERS SAY

“

The ECOBOT takes a lot of time off our work in the area, which we can put into more elaborate handicrafts. We have tested it intensively here and are sure that it will soon support us permanently in our day-to-day business.

”

(translated from German)

— Georgios Sarantos

Dussmann Service (Germany)

“

The cleaning service partners operating the ECOBOT at the airport generally find it safe, easy and efficient to use it. The ECOBOT's adoption and awareness of its capabilities by the cleaning team and leveraging on its technology for its daily cleaning operations is increasingly improving.

”

— Jerome Francis

Changi Airport Operations Management (Singapore)

“

Our robots (ECOBOT series) work 24 hours a day without compromising the efficiency. So, we provide a cleaner service with a unique quality and comfort level for our customers.

”

(translated from Polish)

Seris Konsalnet (Poland)

“

Our train presentation and station cleaning teams have been working tirelessly throughout the pandemic and the new Eco Bot will help free up a lot of time, so colleagues can focus on additional sanitisation.

”

— Simone Bailey

Greater Anglia (UK)

“

With this technological robot, it renews itself day by day. It has systems that can take the elevator. ECOBOT 50, a small one of which can take the elevator, charge itself, fill and empty its own water...If it sees a living thing, it changes its path. You can manage it via the panel, web or mobile. You have the cleaning done over and over again by using the remote panel without being there.

”

(translated from Turkish)

— Nazlı Uzunlar

UFS Facility Services (Turkey)

“

Continuing to implement our innovative cleaning solutions with these robotic floor scrubbers and driers... There's a reason we're one of the UK's leading cleaning service providers.

”

Mitie Cleaning Services (UK)

SPECIFICATION

ITEM / VERSION	DISC BRUSH	ROLLER BRUSH
DIMENSION (MM)	L860*W700*H1,030	
UNLADEN WEIGHT (KG)	150	140
SCRUBBING WIDTH (MM)	500	460
SQUEEGEE WIDTH (MM)	720	
MAX. THEORETICAL PRODUCTIVITY (M ² /H)	1,800	1,656
BRUSH PRESSURE (KG)	22	18.3
CLEAN / RECOVERED WATER TANK (L)	24 / 18	
TRASH TRAY (L)	/	2*0.6
GRADEABILITY (°)	4.6	
MAX. MOVING SPEED (M/S)	0.9	
MIN. DISTANCE FROM WALL (MM)	50-100	
MIN. PASSABLE WIDTH (MM)	900 (MANUAL) / 1,100 (AUTONOMOUS)	
MIN. TURN-AROUND WIDTH (MM)	1,100 (MANUAL) / 1,200 (AUTONOMOUS)	
BATTERY TYPE	LITHIUM IRON PHOSPHATE	
BATTERY CAPACITY (AH)	40/60	
CHARGING TIME (H)	≈1.5 (40AH) / 2.0 (60 AH)	
UPTIME (H)	≈2-6 (40 AH) / 3-8 (60 AH)	≈2-4 (40 AH) / 3-6 (60 AH)
SENSOR SYSTEM	2D LIDAR, 3D CAMERA*5 AIR PRESSURE BUMPER, ANTI-DROP SENSOR OPTIONAL: TOP CAMERA, RFID SENSOR, RGB CAMERA	

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