



ALPHAROBOTICS SOLUTIONS
SMART TECH. HUMAN TOUCH

AlphaRobotics Beetle

Heavy-Duty Autonomous Sweeper — Performance Edition

For Indoor & Outdoor Use — Let's 'Beetle' Your Cleaning Challenges

SWEEP

VACUUM



Industrial

Warehouse

Logistics

Parking
Areas

Outdoor
Spaces

Heavy-duty autonomous sweeping for indoor and outdoor use — from fine dust and sand to bottles and wood chips.



Operational Overview & Applications

The AlphaRobotics Beetle is a heavy-duty autonomous sweeper for indoor and outdoor use, mapping and localizing with 3D LiDAR for robust, reliable operation in challenging environments — in low-light conditions, high-dynamic areas, or open spaces. With a 750 mm cleaning width and up to 3,240 m²/h in regular sweeping mode, it delivers unrivaled productivity shift after shift.



34,875 ft²/h

Max. theoretical
efficiency — regular
mode (3,240 m²/h)

3 h / 5 h

Runtime — Standard /
Pro

<2.5 h

Charging time

Ideal Environments

Industrial

Warehouse

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Core Operating Value

Unrivaled productivity

Achieves up to 3,240 m²/h in regular sweeping mode with a 750 mm cleaning width.

Spot Cleaning — 4X efficiency

RGB-D camera and AI algorithms proactively detect and clean waste, covering over 40,000 m² in one night.

24/7 autonomous charging

Supports continuous operation with an optional charging dock, a 45 L trash bin and a durable LFP battery.



Key Technology Features

Advanced navigation, ultimate cleaning power and agile maneuverability in one heavy-duty platform.

3D LiDAR Navigation

Mapping and localization using a 3D LiDAR, ensuring robust, reliable operation in challenging environments.

Dynamic Obstacle Avoidance

Multi-sensor fusion to intelligently identify and precisely avoid forklifts, AGVs and other moving equipment.

Spot Cleaning Mode

Proactively detects and cleans waste using an RGB-D camera and AI algorithms — 4X efficiency improvement.

High-Power Suction Motor

Efficiently handles a wide range of debris, from fine dust and sand to paper scraps, bottles and even wood chips.

Effective Dust Control

Captures fine dust securely in the trash bin through strong airflow and efficient HEPA filtration, with automatic HEPA cleaning after each task.

Zero-Distance Edge Cleaning

Delivers zero-distance cleaning along edges — no gaps are left behind — with 750 mm path clearance for narrow aisles.





Safety Systems & Maintenance

Multi-sensor safety intelligence with autonomous endurance for 24/7 operation.

3D LiDAR + Sensor Fusion

3D LiDAR mapping with RGB and RGB-D cameras identifies forklifts, AGVs and other moving equipment and avoids them precisely.

Auto HEPA Cleaning

Automatic HEPA cleaning after each task prevents airborne particles and keeps filtration performance consistent.

High-Capacity Bin & Battery

A 45 L large trash bin and durable 60 Ah LFP battery support long shifts; optional dock enables 24/7 continuous operation.

Agile Maneuverability

750 mm path clearance for narrow aisles and zero-distance edge cleaning for smooth operation in tight spaces.





Complete Specification Matrix

Manufacturer specifications preserved in dual units — imperial and metric.

PARAMETER	TECHNICAL VALUE
BASIC INFORMATION	
Dimension (L×W×H)	37.8 × 25.6 × 26.8 in 960 × 650 × 680 mm (w/o side brushes; w/o visibility flag)
Net Weight	Standard: 225 lb 102 kg Pro: 247 lb 112 kg
CLEANING	
Cleaning Width	29.5 in 750 mm (with side brush)
Max. Cleaning Efficiency (Theoretical)	Regular mode: 34,875 ft ² /h 3,240 m ² /h
Max. Air Flow Volume	1,320 m ³ /h
Trash Bin Capacity	11.9 gal 45 L
Edge Cleaning Capability	0 in 0 mm
MOVEMENT	
Gradeability	8° (14%)
Min. U-turn Width	49.2 in 1,250 mm
Max. Cleaning Speed	3.9 ft/s 1.2 m/s
POWER	
Battery Capacity	Standard: 40 Ah Pro: 60 Ah
Runtime	Standard: 3 h Pro: 5 h
Charging Time	< 2.5 h
SENSING	
Sensor System	3D LiDAR, RGB Camera, RGB-D Camera

Note: The specifications are derived from manufacturer lab test results; actual performance data may vary in specific applications.



AlphaRobotics Beetle

The Reliable, Hassle-free Robots You Can Trust



Leading the New Era of Cleaning Robotics

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Smart Tech. Human Touch.