PUDU

PUDU BG1 Series

AI-Native Large Scrubber-Dryer Robot

The World’s First AI-Native Large Scrubber-Dryer Robot

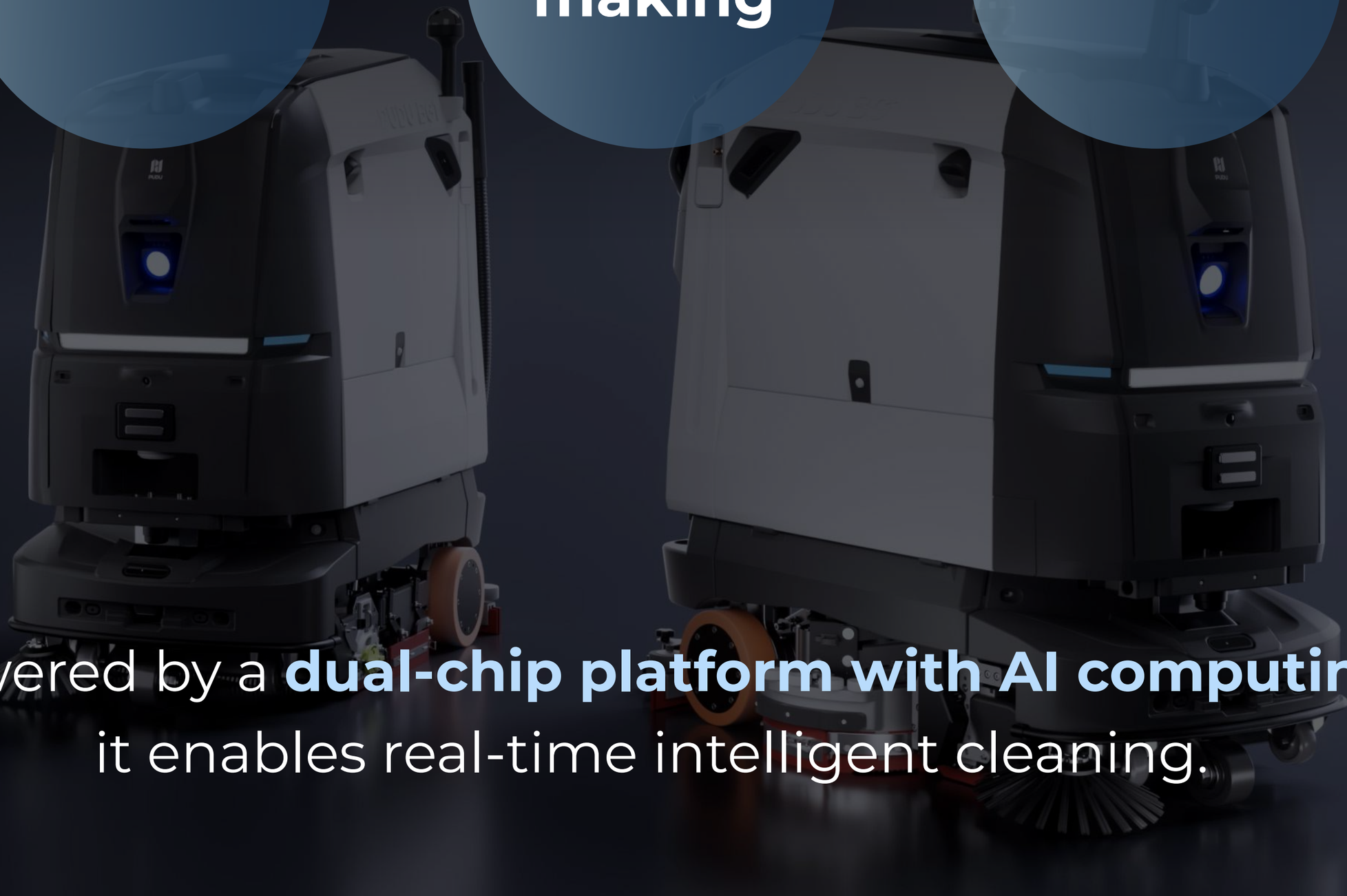
PUDU

✦ BEYOND AUTOMATION

THE AI-NATIVE ERA BEGINS

From "Passive Execution" to Proactive Intelligence:
Traditional robots simply follow pre-set commands.
The BG1 integrates AI into every stage:

Perception → **Decision-making** → **Execution**

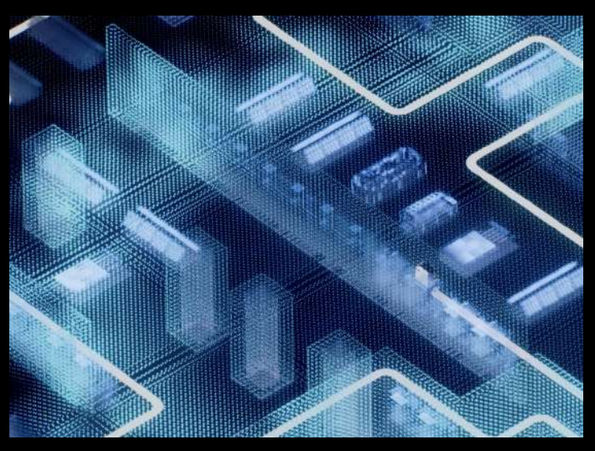


Powered by a **dual-chip platform with AI computing**,
it enables real-time intelligent cleaning.

AI MAGIC CLEANING ✦

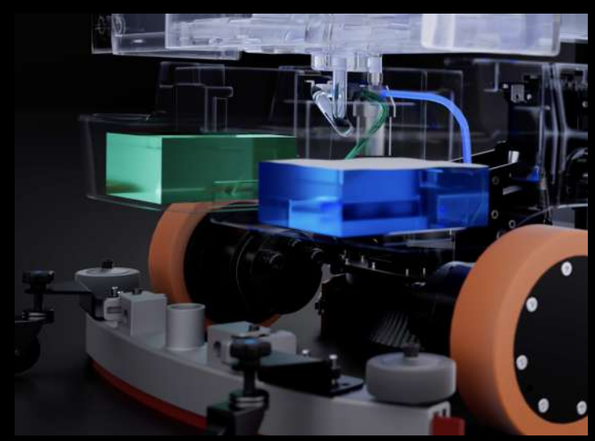
THE INTELLIGENT BRAIN

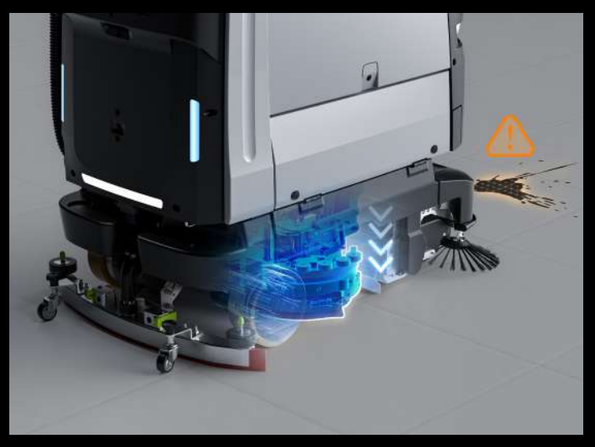
AI Magic Cleaning drives proactive operations across the entire workflow.



AI-Driven Spot Cleaning:
Ultra-wide FOV and AI vision detect messes in real time and clean immediately, keeping high-traffic areas pristine.

AI-Driven Auto-dosing System:
Dual 7L agent tanks and milliliter dosing adjust chemical ratios by dirt type and severity, reducing manual errors and consumable costs.





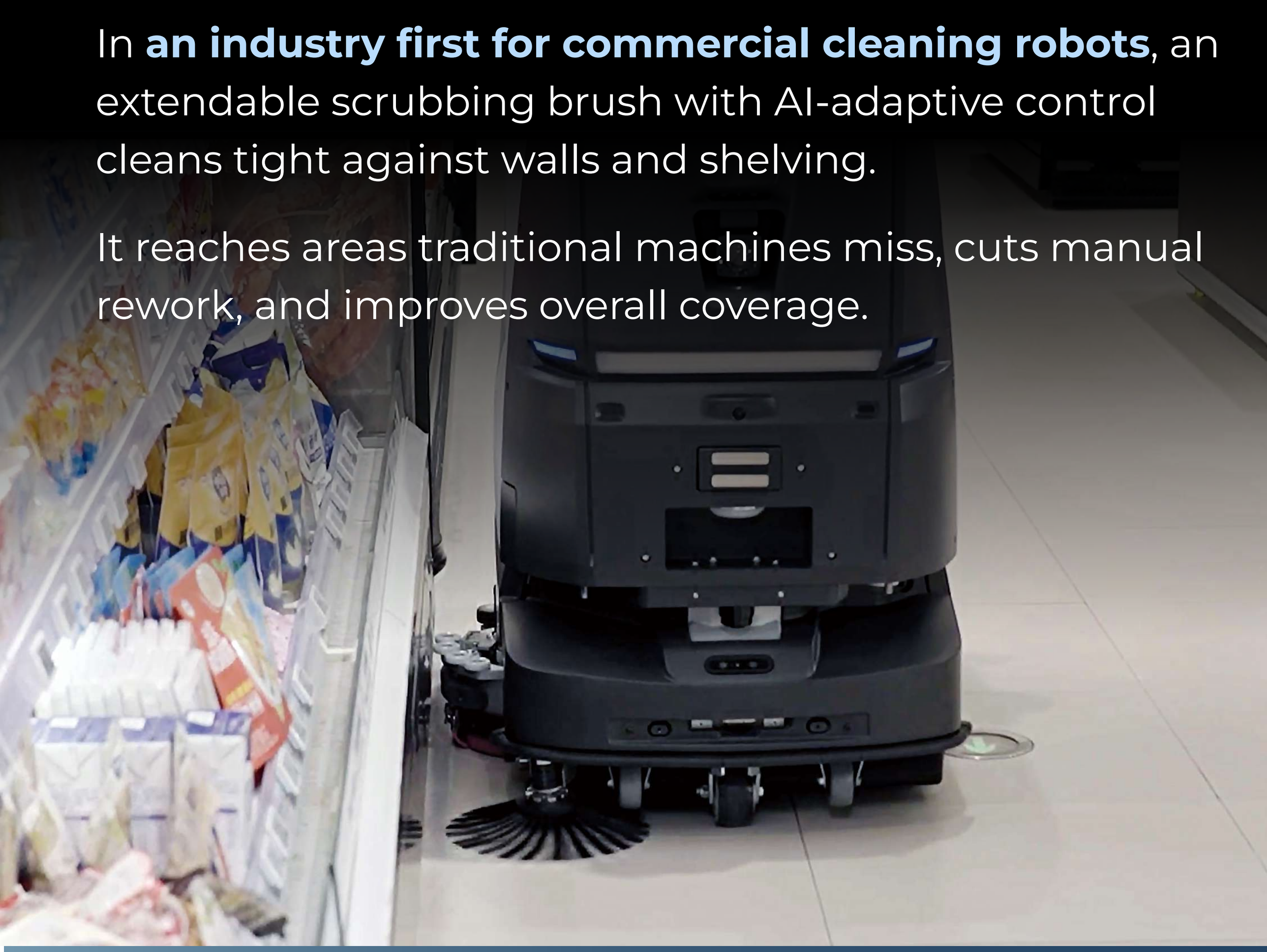
AI-Driven Adaptive Mechanism:
Detects dry and wet messes, retracts sweeping modules to avoid spreading spills, and boosts brush pressure for stubborn stains for a spotless, single-pass clean.

PUDU

INDUSTRY-FIRST:
EXTENDABLE EDGE CLEANING ✦

In **an industry first for commercial cleaning robots**, an extendable scrubbing brush with AI-adaptive control cleans tight against walls and shelving.

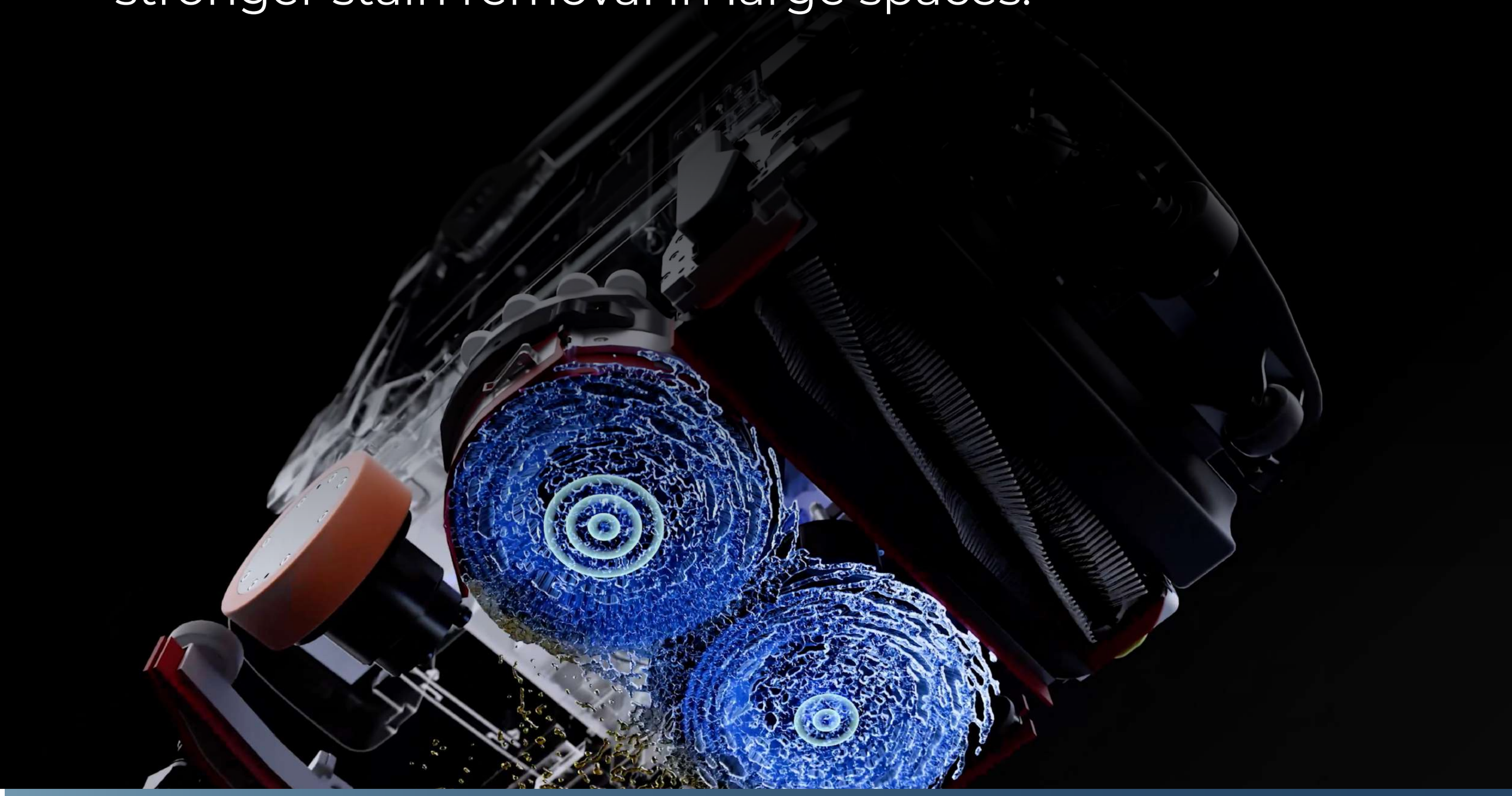
It reaches areas traditional machines miss, cuts manual rework, and improves overall coverage.



SWEEP AND SCRUB IN ONE PASS ✦

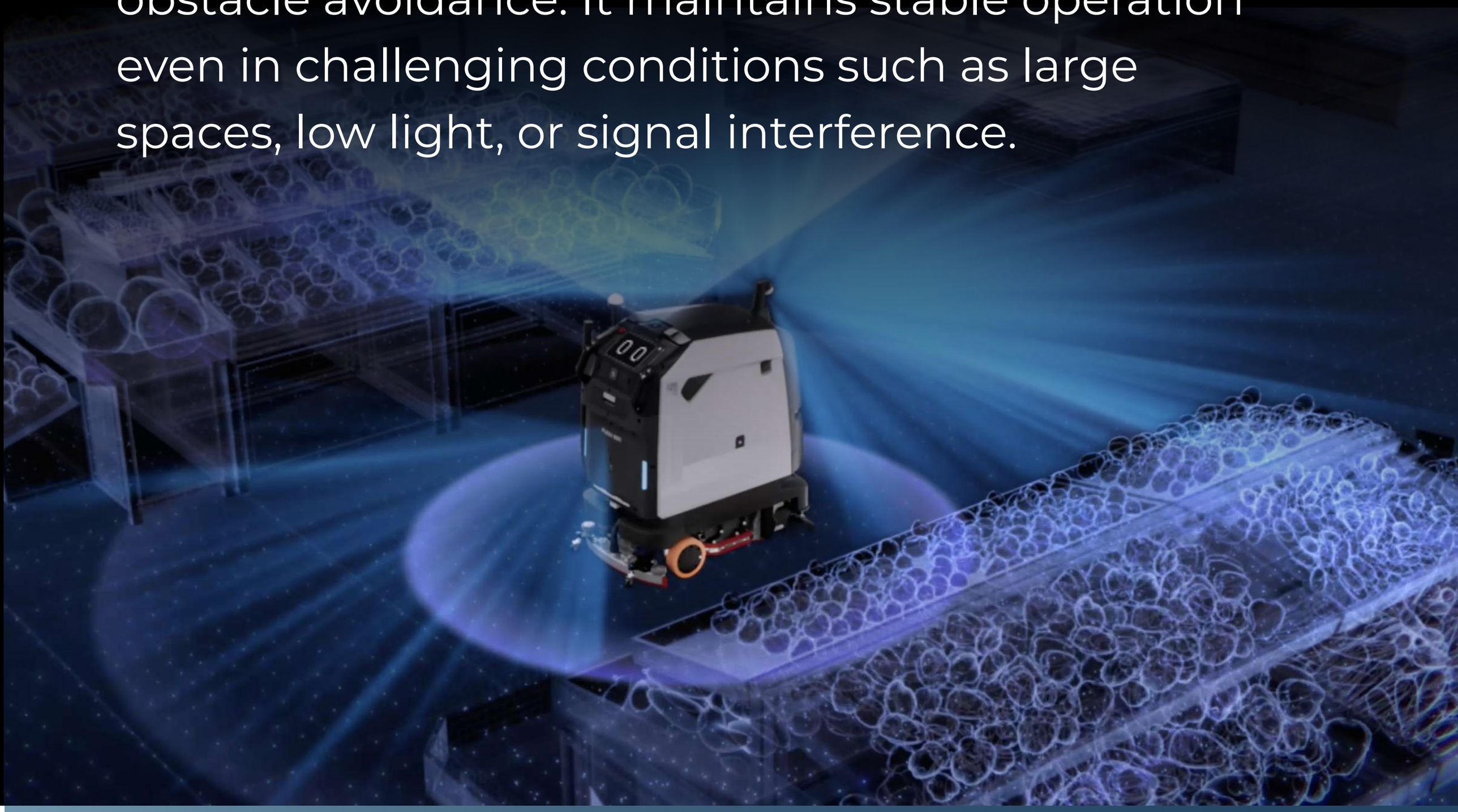
By sweeping first and scrubbing immediately after, BG1 series handles dry and wet debris in a single pass — reducing time while increasing results.

With up to 6,000 ㎡/h efficiency and 7.5 hours of runtime, it shortens cleaning cycles and delivers stronger stain removal in large spaces.



3D FUSION PERCEPTION FOR COMPLEX ENVIRONMENTS

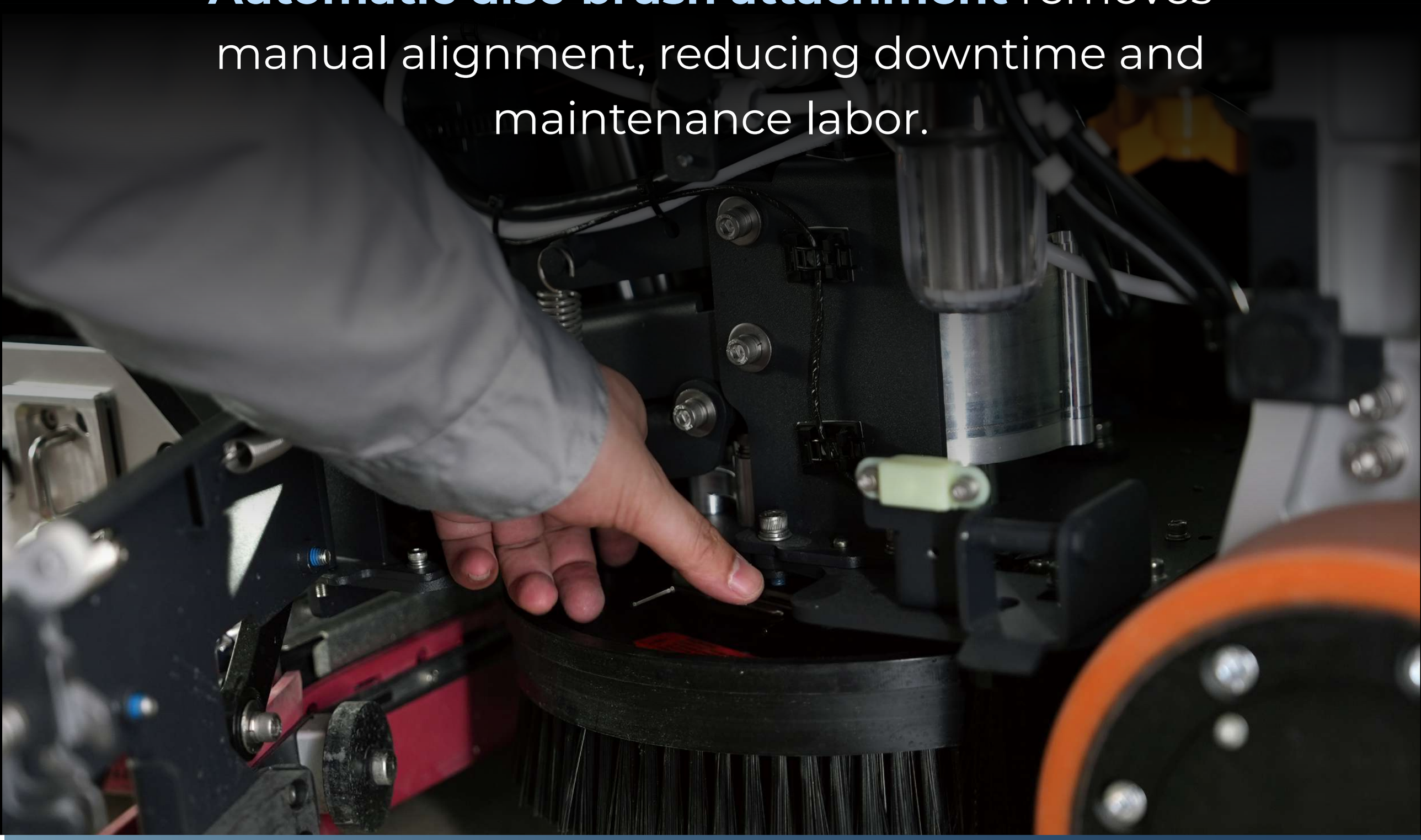
Equipped with a fused 3D perception system combining VSLAM, LiDAR, and multiple sensors, BG1 series achieves precise mapping and dynamic obstacle avoidance. It maintains stable operation even in challenging conditions such as large spaces, low light, or signal interference.



1-MINUTE TOOL-FREE MAINTENANCE ✦

Key consumables use a quick, tool-free design, so brushes and squeegees can be replaced in under one minute.

Automatic disc-brush attachment removes manual alignment, reducing downtime and maintenance labor.



PUDU

ENHANCED HUMAN-MACHINE INTERACTION

A stowable **ride-on mode** allows operators to quickly switch to manual driving for fast relocation, mapping, or emergency handling.

An integrated **audio-visual alert system** communicates movement and intent in real time, ensuring safe and smooth collaboration in public spaces.

PUDU

UNMANNED 24/7 OPERATIONAL LOOP

With **its all-in-one workstation**, BG1 series completes automatic charging, water refill and drainage, and self-cleaning without manual intervention. This closed-loop system keeps the robot ready at all times, enabling true 24/7 autonomous operation.



PUDU

✦ BUILT FOR LARGE DEMANDING SPACES

From retail and logistics to industrial facilities and transportation hubs, BG1 series delivers efficient, intelligent cleaning at scale.

Ready to upgrade to AI-native cleaning?

Contact us to book a live demo!

