

MS Schippers

MS Smart Cleaning Robot

The world's first vision-guided, self-learning washing robot that fully integrates foam soaking, water cleaning, and disinfection into a single automated system.



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The Status Quo: Incomplete and Blind Cleaning System

Conventional washing robots are limited solely to high-pressure water cleaning and require extremely time-consuming pre-programming.

The Unresolved Core Problem: Incomplete & Blind system

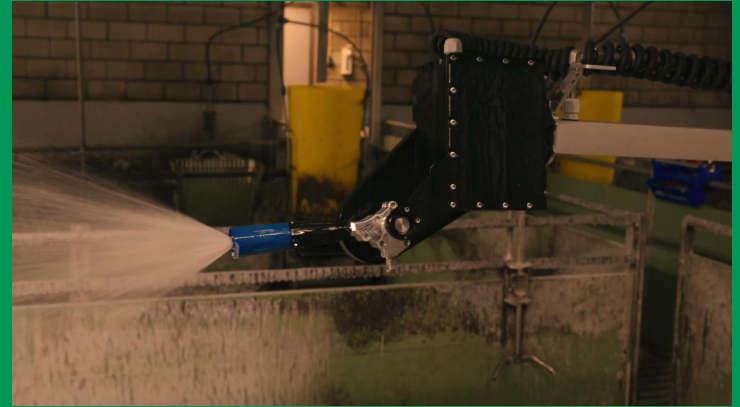
- **Manual Overhead:** Chemical soaking and disinfection still have to be done entirely manually.
- **Health Risk:** People remain exposed to harsh chemicals and physical strain in the barn.
- **Limited Sensing Capabilities:** Conventional systems measure only fixed distances. Obstacles can lead to collisions or missed areas.

The Solution: True 3-in-1 Autonomy

The Complete Hygiene Cycle

The MS Smart Cleaning Robot completely shatters the limits of incomplete cleaning systems.

- **Three phases, one device:** Combines high-pressure washing, chemical foam soaking, and disinfection in a single autonomous pass.
- **Maximum occupational safety:** Completely relieves farmers from hazardous fumes and heavy physical labor.

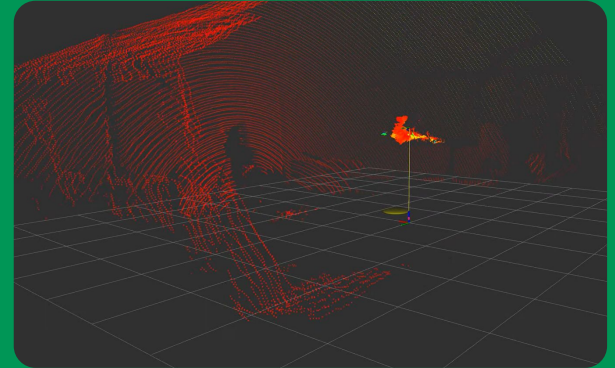


Technology: Navigation via 3D LiDAR Scanners

True spatial awareness without programming

The system does not merely measure distances; it captures its entire environment in real time.

- **Object recognition:** The intelligent software independently distinguishes between aisles, pens and obstacles.
- **Logical wash patterns:** The robot cleans fully automatically using optimized paths (e.g., systematically from the walls down the floor).
- **Zero Set-up time:** Eliminates the need for time-consuming manual programming of different barn layouts.



Precision: Adaptive wash arm and nozzle logic



No more blind spots

Physical reach combined with smart pressure adjustment solves two critical livestock housing challenges:

- **7–8m Total Reach:** The 5.5m telescopic arm eliminates blind spots in deep, modern welfare pens.
- **Smart Pressure Adjustment:** Automatically adjusts nozzle pressure near ceilings for damage-free, through cleaning.

Research & Development: The Prototype

Validation under real-world conditions

The development of the MS Smart Cleaning Robot is based on intensive testing cycles conducted directly on commercial fattening and breeding farms.



IP69K & Acid Resistance

Full housing and LiDAR sensors thoroughly tested for dust tightness and chemical resistance.

Assault Course Stress Test

Trained for months to instantly detect blocked pens, feeding troughs or layout changes. Achieving 100% collision avoidance and path correction.

Wash Pattern Optimization

Refined over hundreds of cycles to minimize water and chemical use.

Usability & Farmer Feedback

Smartphone control and digital photo feedback co developed directly with farm managers.

Die Vorteile auf einen Blick

Radical Time Savings

The world's first 3-in-1 machine combines washing, foam soaking and disinfection in one autonomous pass. Eliminating manual labor across the entire hygiene cycle.

Maximum Hygiene

A seamless 3-phase process drastically reduces infection pressure (e.g. Salmonella) for incoming livestock.

Maximum Reach

A 5.5m extendable arm (7-8m total reach) cleans deep pens without missed spots. Automatic pressure control ensures safe, damage-free ceiling cleaning.

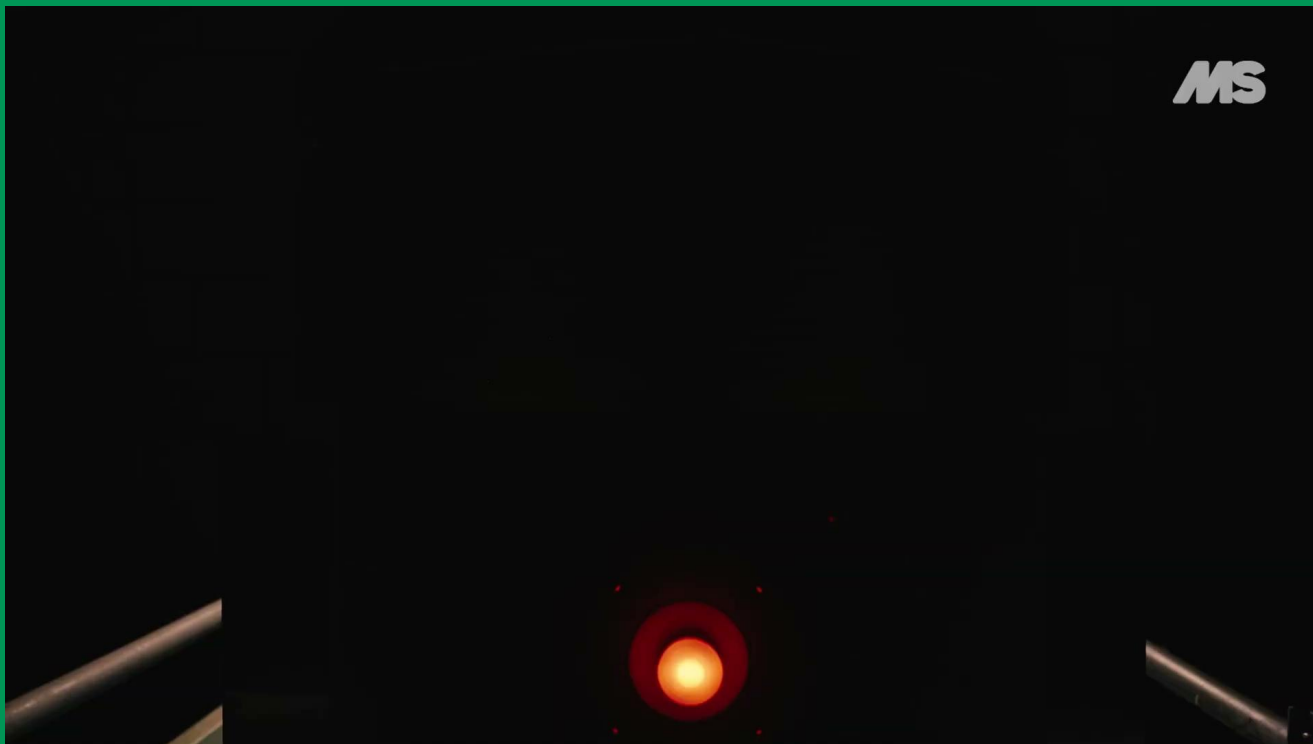
Intuitive & Future Ready

Easy remote control (smartphone integration coming soon). Future AI updates will use photo feedback to autonomously detect and re-clean remaining dirt spots.

Health & Safety

Completely eliminates heavy physical labor and protects workers from hazardous chemical aerosols.

Have a look:



Questions about the innovation?

Contact us directly:

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