

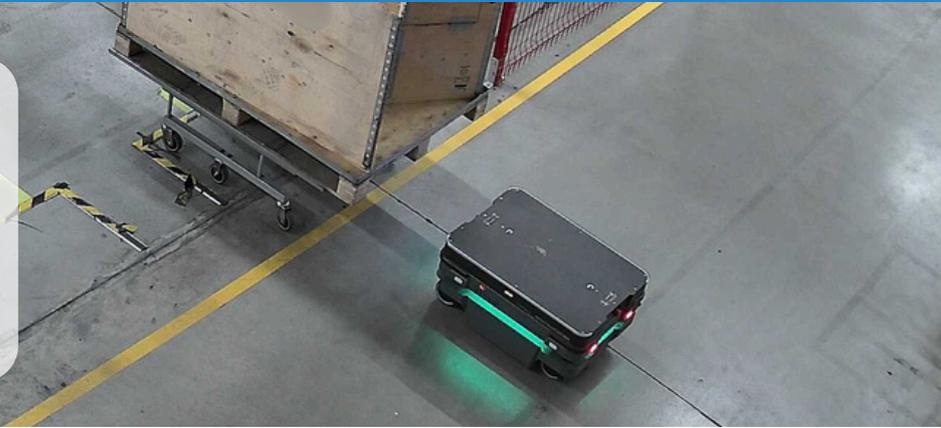
FROM MANUAL AMR TRIGGERS TO VISION-AI DRIVEN AUTONOMOUS FLOW



Replacing manual AMR calls with real-time, Vision-triggered intralogistics — freeing operators to focus on core tasks.

CASE STUDY

At a Kroshu manufacturing facility, Locixx GmbH implemented a Vision AI-based AMR Orchestration layer over an existing AMR deployment. By automating AMR mission triggering through camera-based intelligence, the solution removes manual intervention and improves intralogistics efficiency.



CHALLENGE

Multiple pickup zones required **AMR missions based on different conditions** - packed boxes ready for dispatch, raw material shortages at production lines, or special carts needing refills.

Additionally, missions could only be triggered when **payloads are correctly positioned and oriented** to ensure reliable AMR pickup.

SOLUTION

Kroshu implemented a Vision AI-powered AMR Orchestration solution that adds intelligence on top of the existing AMR fleet. Pickup and drop-off locations were configured with rule-based logic tailored to each station. The vision system detects events such as ready-to-ship items placed in the correct configuration, visibility and orientation of empty pallet carts after packaging material consumption, or trolleys requesting specific items via visual symbols. Based on these events, the system automatically triggers the appropriate AMR missions by interacting directly with the fleet manager.

This removes manual intervention, improves intralogistics efficiency, and reduces delays across production stations. In addition, the solution provides operational visibility, including mission readiness, trigger timestamps, and analytics on mission volumes with daily, monthly, and yearly breakdowns.

Business Impact & Value

Vision AI-driven AMR orchestration eliminated manual intervention and optimized material flow at Kroshu, delivering efficiency gains and a rapid return on investment.



< 6 MONTHS

Return on Investment



> 500

Automated missions per week



= 0

Manual intervention

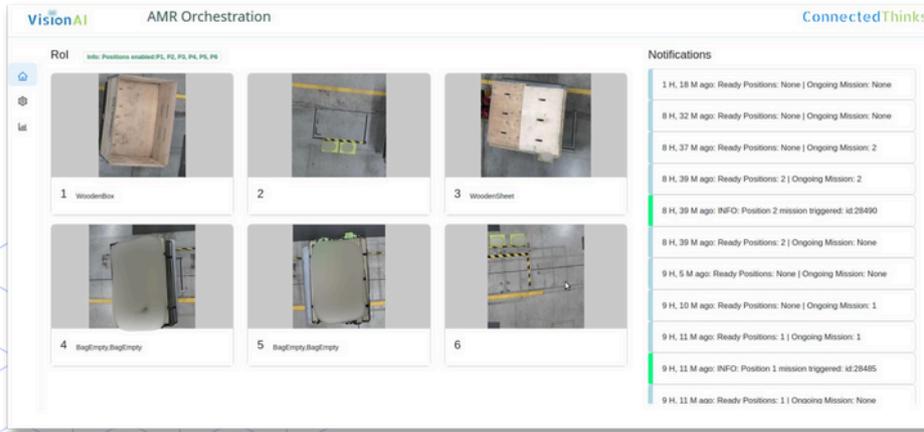
BENEFITS

1 Increased AMR Utilization & Throughput

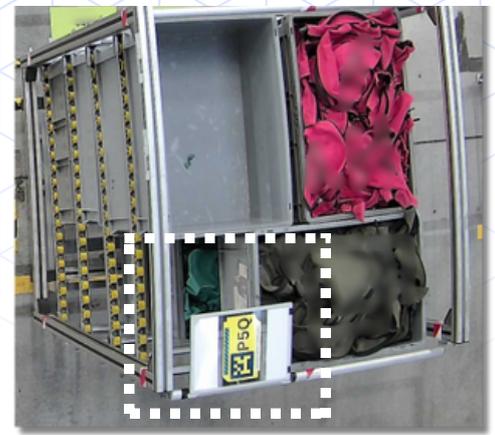
- Real-time visibility of pallet, box, and cart status enables immediate and accurate mission triggering.
- Reduced AMR idle time results in higher material flow and improved throughput across production areas.

2 Optimized & Automated Mission Generation

- Vision-derived payload details allow intelligent AMR selection and shortest-path mission planning.
- Automated mission triggering eliminates manual scans, button presses, and operator involvement.



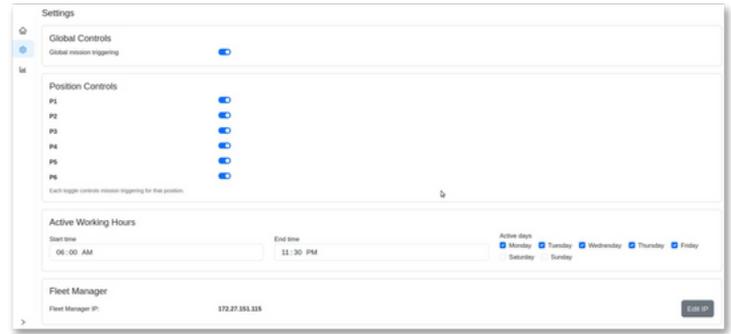
Operation Portal



Symbol Detection



Mission Trigger Analytics



Mission Schedule Settings

3

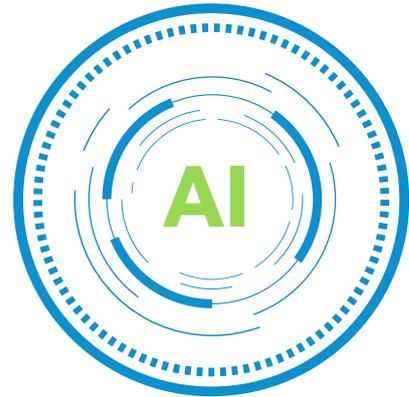
Flexible and dynamic process adaptation

- Vision-driven logic adapts quickly to layout changes, stacking variations, or temporary obstructions.
- No hard-coded logic or physical infrastructure changes are required for process updates.

4

Scalable Automation Using Existing Assets

- Static camera-based sensing is more cost-effective and easier to maintain than AMR-mounted vision systems.
- Scaling to additional AMRs or zones requires only new cameras and software licenses, extending the ROI of the current fleet.



SUMMARY

By deploying the ConnectedThinks® Vision AI-based AMR Orchestration solution on top of its existing AMR fleet, Kroshu has automated intralogistics mission triggering for its manufacturing and assembly operations. The solution eliminates manual AMR calls, improves material flow, and enables operators to focus on core production tasks, resulting in higher efficiency and reduced delays at critical stations. This deployment demonstrates how Vision AI can incrementally transform existing AMR installations into fully autonomous, self-triggering systems—setting a strong example for automotive manufacturing and intralogistics environments. For more information, visit [ConnectedThinks Vision AI](https://www.connectedthinks.com).



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