

AutoANT

Factory intralogistics made greener, safer and more efficient

ANTMACHINES

CHALLENGES

In intralogistics, electric yard robots need precise, infrastructure-light localization before they can move safely and autonomously around people and equipment. Our ANT platform lacked robust indoor positioning and validated autonomy, which limited safety, throughput and scalability. **EARASHI set out to integrate Flanders Make's SLAM building block** and validate it on within the AutoANT project as the first step toward automated guidance and accident reduction in real-world sites.

THE SOLUTION

We integrated the **FM-SLAM autonomy toolbox on the ANT Yard Robot**, installed and powered a full sensor suite, and prepared the onboard PC for **real-time mapping**. The setup intentionally allowed A/B testing of key components (Ouster vs. SICK LiDAR; Asterix vs. Mosaic GNSS antennas). We then ran controlled indoor courses to generate and evaluate maps and localization in real time. In parallel, we integrated the vehicle control and autonomy algorithms needed for motion along pre-mapped routes with checkpoints.



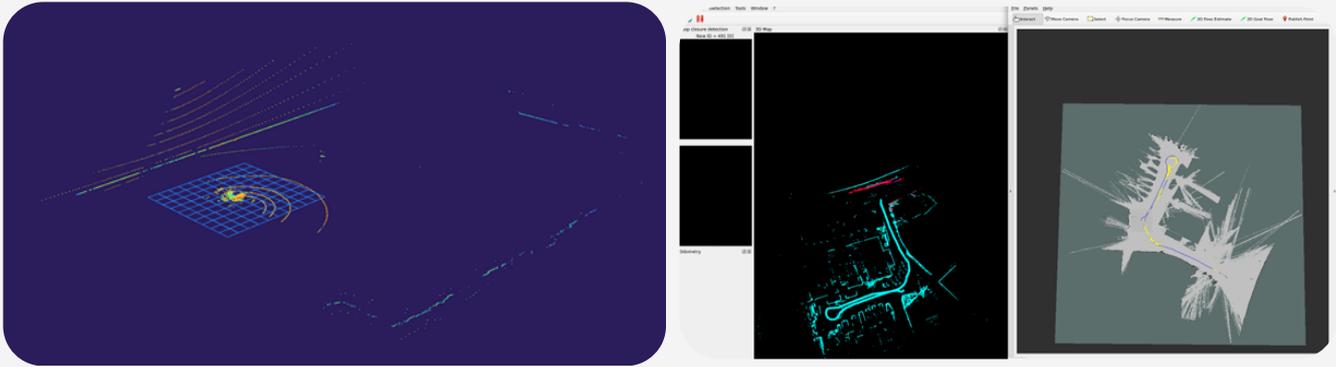
Photo of AutoANT with the integrated sensor array and control PC



RESULTS

- **Stable real-time maps and accurate localization** from FM-SLAM on AutoANT.
- **High-fidelity point clouds**; calibration confirmed sensor alignment.
- **Reliable operation** across multiple sensor configurations (LiDARs, antennas).
- **System readiness confirmed** for proving-ground and pilot testing.
 - **Beyond scope**: after successful SLAM validation we integrated and tested autonomous driving algorithms in our facility on the prepared control stack.





Screenshots of SLAM map from the lab course

IMPACT

Participating in EARASHI accelerated our roadmap: we de-risked autonomy on real hardware, proved compatibility between **FM-SLAM and ANT control**, and cleared the gate to proving-ground and pilot deployments. The structured work plan aligned technical validation with safety and operational KPIs, while business coaching supported our go-to-market. Overall, we strengthened our partnership with Flanders Make and increased customer confidence in AutoANT's autonomous capabilities.



Autonomous drive in the facility

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EARASHI

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