



arendai

harmony

Pioneering the Future of Retail Automation with Robotics, AI & Edge Computing

Global Retail Leaders Gathering 2023
Ula Nairne

A dark, blue-tinted photograph of a large industrial warehouse interior. The structure is a complex steel truss system with numerous vertical columns and horizontal beams. The floor is dark, and there are stacks of materials or equipment in the background. The lighting is dim, creating a moody atmosphere.

Imagine a world where robots and humans work and move together in a perfect harmony

arendai PROVIDES AN EVOLUTIONARY TRANSFORMATION TO INDUSTRY 4.0



Easy integration with enterprise systems like ERP and WMS/WES

Edge computing to enable real-time, low latency orchestration of robotics fleet

AI to rapidly optimize intralogistics operations

Established in 2018, HQ in CA, US with teams across Europe and NA. It combines existing warehouse management systems and production with a fleet manager supported by AI that optimally managing robot fleets and intralogistics processes.

Future-Ready Solutions

- Flexibility to scale up or down as needed
- 24/7 operational capability with minimal investment
- Enhancing customer service and satisfaction
- Boosting productivity without overburdening teams



Partnering with intel

Technological & business partner



Cooperation with leading
robotics companies
offices in the USA and Europe.

Arendai taps into cutting-edge
technology.

Optimal performance and
security for Arendai solutions
making them more reliable.



Digital Twin - TwinsSync™ Intel® Smart Edge Open
Intel® Edge Insights for AMR Intel® OpenVINO™

Retail Industry's Challenge: Meeting Elevated Customer Expectations



Transition from conventional
warehousing to a dynamic solution

Coping with high demand
and customer volume

The path to replicability,
productivity, and scalability

Harmony is the foundation for accelerating seamless integration and automation using:



Twinsync

TM
Arendai's digital twin to simulate, plan, and manage autonomous logistics center or smart factory.



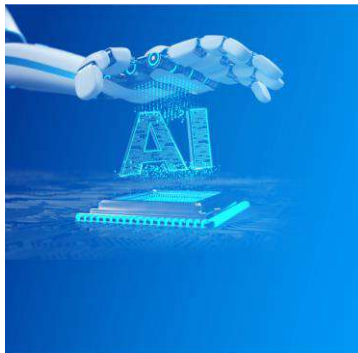
Edge computing

to enable real-time, low latency orchestration of robotics fleet.



AI

to rapidly optimize intralogistics operations.



Pre-integration

with partner AMRs and other robotics applications systems for rapid deployment of production-ready solutions.



Easy integration

with enterprise systems like ERP and WMS/WES.

Leveraging Intel hardware in Compute, CV, and AI spanning from embedded solutions to the Edge and Cloud.

Empowering with AI



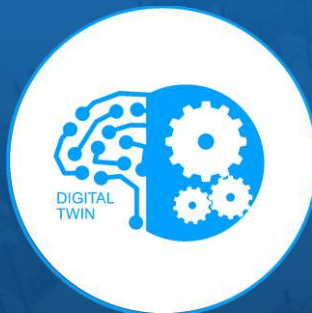
Our USP is ability to introduce expanded AI capabilities through edge computing infrastructure.

This includes vision and visual Simultaneous Localization and Mapping (vSLAM), ensuring a safe environment for robot- human collaboration within warehouse operations.

The Power of Digital Twins

TwinsSync™ plays a pivotal role in simulation, planning and management.

Facilitating optimization and predictive maintenance.



It helps retailers to create a dynamic environment that mirrors physical operations

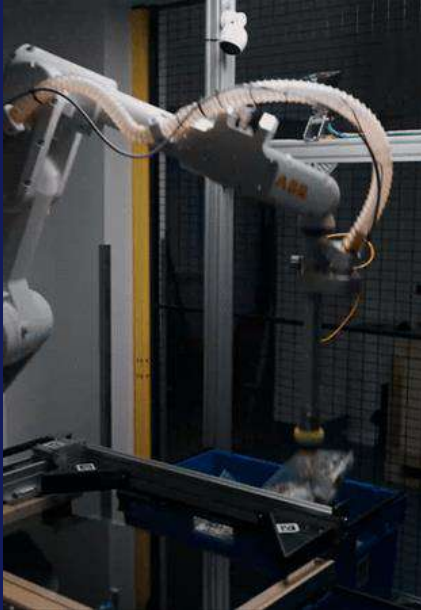
Allows to respond to changing customer behaviour and market dynamics.

A photograph of a warehouse interior with a robotic arm. The scene is dimly lit with a blue tint. A robotic arm is positioned over a table. In the background, there are metal shelving units and a yellow vertical bar. The overall atmosphere is industrial and futuristic.

Arendai is more than a technology provider, it's a partner for retailers on they journey to adapt, thrive and excel in the digital age.

The solution is for everyone from small retailer to large ecommerce or logistic center.

Arendai Harmony Sample Use Case - small



Process Optimization:

Implement robotic systems for efficient handling of fluctuating order volumes and fast delivery requirements. Simulate different workflow configurations to maximize productivity.

Task Scheduling:

Test various task allocation strategies, such as goods-to-person and combined picking + sorting, to streamline operations and reduce errors in small retail settings.

Inventory Management:

Utilize robots for accurate inventory tracking, including large SKU management, and optimize storage space efficiently with high-density storage solutions.

Supply Chain:

Explore the benefits of using robots in the supply chain, particularly for tracking shipments and optimizing restocking processes.

Arendai Harmony Sample Use Case - large

Workflow Standardization:

Standardize robotic workflows and configurations across multiple retail locations to ensure consistency in operations, especially in the face of fluctuating order volumes.

Task Coordination:

Coordinate tasks between robots and human workers effectively across numerous retail outlets to maintain seamless operations.

Inventory Management:

Monitor inventory levels in real time across the entire retail chain, optimizing restocking processes and large SKU management.

Supply Chain Optimization:

Streamline the usage of robots in the supply chain, from manufacturers to distribution centers, for large-scale retail operations.





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Arendai's Harmony solution is a critical component for logistics centers of the future and Industry 4.0. Harmony provides holistic optimization through a fully integrated solution, enabling scalable growth and true ROI.

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