

Radiant Robotics Autonomous Mobile Platform (AMP)

Powered by enMotion  WES+



Radiant Robotics' Autonomous Mobile Platform (AMP) is a magnetic-levitation material handling solution that brings warehouse workflows together within a single, intelligent platform. Powered by enVista's enMotion WES+, the system enables high-speed, omnidirectional movement without the constraints of fixed conveyors.

Radiant Robotics' AMP solution is a patented modular platform with magnetic control technology that levitates and propels carriers along programmable, arbitrary paths. The solution transports everything from parcels to pallets and supports a wide range of material handling workflows, with target applications including cross dock, goods to person and goods to robot applications.

In a goods to robot use case, a magnetic "smart floor" transports carriers holding single SKU donor pallets seamlessly across the operation while integrated robotic arms with 3D vision dynamically pick cases off the carriers and build mixed-SKU order pallets also sitting atop carriers. The result is a flexible, high-throughput approach to automated order fulfillment that adapts to changing operational demands.

Data-Driven Performance

The AMP is built on decades of robotics and supply chain expertise and is designed to operate as a fully data-driven system. enMotion WES+ continuously collects and analyzes real-time data to optimize task sequencing, routing and resource allocation across the platform.

This level of orchestration ensures that materials are always positioned where they are needed, reducing delays and improving flow. As demand and capacity shift, the system dynamically adjusts to maintain performance and balance workloads across the operation.

Proven Methodology

Radiant Robotics and enVista follow a structured approach to ensure successful deployment. Each implementation begins with a comprehensive risk assessment to validate safety and system performance requirements before go-live. The solution has been refined through multiple generations of development and real-world pilot testing, demonstrating reliability in live environments.

The AMP integrates with warehouse management systems while maintaining clear separation between orchestration, platform control and robotic execution. Built to Category 3 PLd safety standards, the system incorporates Dual Check Safety (DCS) and controlled access points to support safe and consistent operation.

Key Features

- **Maglev Smart Floor:** Conveyor-free transport with omnidirectional movement, handling full pallet loads of up to 3,000 lbs. on low-cost, battery-free carriers
- **Robotic Case Picking:** Integrated robotic arms with 3D vision for automated mixed-SKU pallet building
- **enMotion WES+ Integration:** Real-time orchestration of orders, inventory and workflows across the system
- **Safety-First Design:** Advanced safety controls, fencing options and precise motion control

- **Scalable Architecture:** Modular design that adapts to changing layouts, volumes and use cases

Benefits

- **Higher Throughput:** Accelerated material flow and continuous task execution maximize productivity
- **Labor Efficiency:** Reduces manual handling and travel, cutting labor needs by up to ~33%
- **Lower Costs:** Minimal infrastructure and low-cost carriers reduce capital and operating expenses
- **Flexibility & Scalability:** Easily reconfigurable to support new workflows and future growth
- **Improved Accuracy:** WES-driven orchestration and robotic precision reduce errors and product damage

About Radiant Robotics

The Radiant Robotics AMP combines magnetic levitation technology with intelligent orchestration to deliver a unified automated picking and transport solution. It provides a practical path to higher efficiency, lower operating costs and greater flexibility as supply chain demands continue to evolve. Radiant Robotics is an innovator and leader in magnetic levitation solutions, with a focus on warehousing and logistics applications. Radiant's mission is to unify all materials handling workflows for warehousing and manufacturing into a single, simple automation platform. Learn more at radiantrobotics.ai.

About enVista

enVista is the premier supply chain and enterprise technology solutions partner and systems integrator, enabling your vision and maximizing results with unmatched scale and expertise. With 25+ years of experience serving thousands of leading brands, enVista delivers a platform of services spanning supply chain strategy, automation & robotics, systems and technology that simplifies the complex and drives impactful outcomes through a shared vision. Our ability to consult, implement and operate as a single source of responsibility across supply chain, IT and enterprise technology enables companies to optimize operations inside the four walls and beyond, leveraging enVista as a trusted advisor across their enterprises.

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