

F R O S T & S U L L I V A N

2024 ENABLING TECHNOLOGY LEADER

*IN THE GLOBAL
AUTONOMOUS
ROBOTS INDUSTRY*

F R O S T & S U L L I V A N

BEST
2024 PRACTICES
AWARD



**ROBOTIC
ASSISTANCE
DEVICES**

Best Practices Criteria for World-Class Performance

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each award category before determining the final award recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated company. Robotic Assistance Devices excels in many of the criteria in the autonomous robots space.

AWARD CRITERIA	
<i>Technology Leverage</i>	<i>Customer Impact</i>
Commitment to Innovation	Price/Performance Value
Commitment to Creativity	Customer Purchase Experience
Stage Gate Efficiency	Customer Ownership Experience
Commercialization Success	Customer Service Experience
Application Diversity	Brand Equity

RAD: A Security Disruptor

Founded in 2016 and headquartered in Ferndale, Michigan, the United States (US), Robotic Assistance Devices (RAD) develops artificial intelligence (AI)-based solutions. RAD specializes in software that enables organizations to enhance their workflows through automation, improve security measures, and offer additional concierge services. RAD, an Artificial Intelligence Technology Solutions Inc. subsidiary, revolutionizes operational efficiency with its leading autonomous robot technology. The company simplifies and economizes patrol and guard services to meet clients’ cost-reduction needs. Therefore, RAD enables personnel to focus on strategic tasks, enhancing return on investment and strengthening business operations. Furthermore, RAD designs its solutions to be cost-effective, offering significant savings compared to traditional security systems.

Backed by world-class experts, RAD developed autonomous remote services and devices. The company refined its holistic approach to autonomous robots, continuously building its product portfolio. With a focus on innovation, RAD leverages AI, machine learning, and computer vision technologies to enable its robots to perform complex tasks such as facial recognition, license plate recognition, and anomaly detection with high accuracy. A key distinction of RAD is its sophisticated human-machine collaboration approach. Integrating human oversight with autonomous operations allows seamless communication between robots and human security personnel, enhancing overall effectiveness and reducing response times.

RAD assembled a comprehensive product portfolio that was purpose-built to bridge industry gaps. Its suite portfolio includes several robots and systems, including the Security Control and Observation Tower, Wally, and ROAMEO™. These robots provide scalable solutions for indoor and outdoor environments, catering to diverse security needs. RAD acknowledges that traditional methods, such as security guards

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- Pranav Sahai
Industry Analyst

and fixed cameras, often lack effectiveness and can be resource-intensive. Security and safety tasks performed by human labor, such as surveillance drives through parking lots and perimeter areas, are expensive and often suffer from accuracy issues and risk-related challenges.

The company’s flagship product, ROAMEO™, features a weatherproof design for outdoor environments. Highlights of this robot include autonomous patrols, advanced sensors for threat detection, AI-powered responses via RAD’s Autonomous Intelligent Response (AIR™) system, real-time activity monitoring, and two-way communication with vivid lighting, speakers, and microphones for deterrence and interaction. By deploying ROAMEO™ robots, clients enhance security through continuous

patrols and real-time surveillance, improve efficiency by automating patrols and reducing labor costs, increase situational awareness with advanced sensors and AI, and achieve significant cost savings of up to 80% by reducing reliance on human security guards.¹

Frost & Sullivan’s research identifies RAD as a leading partner that leverages cutting-edge methodologies to advance the autonomous robot market.

Continuous Innovation

RAD continuously upgrades its solution portfolio to maintain its competitive edge. In May 2024, the company announced its AIR™ system, designed to provide intelligent, human-like responses for every applicable surveillance camera and RAD device.

AIR’s autonomy enables security devices to monitor environments, detect anomalies, and respond to threats without constant human oversight, boosting efficiency, cutting costs, and ensuring continuous protection. AIR-enabled systems can also trigger alarms, alert authorities, and lock doors in real-time, delivering faster and more accurate responses than traditional security systems and effectively mitigating risks to prevent incidents from escalating.²

Furthermore, RAD’s technology scales to fit specific organizational needs. It offers flexibility, agility, and configurability to support fluid, timely decision-making, delivering the necessary tools and technology infrastructure for customers to succeed. While primarily targeting the fast-growing security market, RAD has various ongoing projects across initiatives and industries. Customers include facility management,

¹ Frost & Sullivan Interview with RAD (May 2024).

² <https://radsecurity.com/parent-company-aitx-announces-its-breakthrough-air-autonomous-intelligent-response-technology/>. Accessed May 2024.

banking, education, logistics companies, airports, industrial complexes, healthcare centers, government, military installations, and data centers.

The introduction of AIR underscores RAD's commitment to innovation and high-performance value, keeping the company a step ahead of the competition.

Building Trust through a Customer-centric Approach

RAD's approach goes beyond its extensive expertise and best-in-class capabilities, with customer value as a strategic imperative. Over the years, the company has earned a sterling reputation for supporting clients' efforts to reduce costs while improving their security operations.

RAD initially connects with clients to understand the problem, ensuring its solution aligns with their needs. Once the fit is confirmed, the company addresses their concerns and delivers additional benefits. Its commitment includes unlimited 24-hour support, premium experiences, and attentive responsiveness to client needs, shaping its roadmap accordingly. RAD's user-friendly approach minimizes the learning curve for clients transitioning to its solution. It maintains regular communication with clients through scheduled calls, aiming to address their evolving needs and grow alongside them, maximizing the value provided.

For instance, RAD helped Scotland Memorial Hospital maintain an environment where hospital staff, patients, and visitors feel safe. The company leverages RAD Light My Way, which comprises three key components: ROSA™, AI-driven surveillance, and communication devices the size of small microwave ovens; RADSoC™, a cloud-based monitoring platform managed by the hospital's contracted guarding company; and a mobile application used by hospital staff on their smartphones.

"When I speak with friends and colleagues at other hospitals about our experience with the RAD Light My Way system, I have only good news to share. I expect our success story will carry weight in helping other campuses decide whether to invest in this technology."

**- David Pope
Chief Operating Officer, Scotland**

Similarly, in partnership with Hudson Services, RAD enhanced the security of a regional retail property management company. The client chose to deploy RAD RIO™ 360 units and standalone RAD ROSA™ devices across several of their properties. Notably, the client reports that car break-ins at one

location have dropped 75% since implementing the RAD units.³

³ <https://radsecurity.com/case-studies/rad-case-study-rio-rosa-at-retail-centers-0624.pdf>. Accessed June 2024.

“The success of this deployment has opened new opportunities for us, and we look forward to leveraging RAD’s technology to further expand our client base and enhance our service offerings in the future. Additionally, the entire RAD team has been exceptional to work with, from the sales process to deployment specialists, making the integration seamless and highly efficient.”

- Nate Zoellner
Executive Vice President, Security Solutions at American Security and

manufacturing, and retail industries, serving end-users that include Fortune 500 companies. The company’s solutions stand out for its AI-driven autonomous response that seamlessly integrates with human operators when needed, custom-built hardware designed for specific functionalities, and proprietary software and cloud services that allow enterprise clients to focus on core competencies rather

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- Valentina Barcia
Best Practices Research Analyst

the company’s first-mover status strengthens its position on emerging opportunities.

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Strategic Practices to Propel Future Growth

RAD has a proven track record with deployments in logistics, commercial real estate, healthcare, amusement, manufacturing, and retail industries, serving end-users that include Fortune 500 companies. The company’s solutions stand out for its AI-driven autonomous response that seamlessly integrates with human operators when needed, custom-built hardware designed for specific functionalities, and proprietary software and cloud services that allow enterprise clients to focus on core competencies rather than maintaining complex security systems.

RAD attends major security industry events like ISC West, GSX, and numerous regional conferences to increase brand awareness, showcase its solutions, and generate sales leads. Moreover, 69 authorized dealers across the US, Canada, and the European Union represent RAD, including significant names nationwide and regional security service providers.⁴

In February 2024, RAD announced a total annual revenue of \$2,227,559, a 67% increase compared to the \$1,331,956 revenue for the year ended February 2023.⁵ Frost & Sullivan anticipates rapid, widespread technology adoption. The

⁴ <https://radsecurity.com/>. Accessed May 2024.

⁵ <https://www.otcmartets.com/stock/AITX/overview>. Accessed May 2024.

Conclusion

Technology integration is a critical success factor for the autonomous robots industry. Market stakeholders must leverage the most appropriate technology-based solutions to optimize their market impact. With its comprehensive suite portfolio, Robotic Assistance Devices (RAD) delivers artificial intelligence-driven solutions capable of performing complex tasks, including facial recognition, license plate recognition, and anomaly detection, with high accuracy. With a human-machine approach, the company focuses on integrating robots with human oversight, enhancing effectiveness.

RAD stands out from competitors based on its commitment to innovation, creativity, and ability to launch new solutions with far-reaching impact and application. The company helps clients in various industries (e.g., logistics, commercial real estate, healthcare, amusement, manufacturing, and retail) enhance their security while reducing costs. RAD pairs its technology focus with customer-centric values, thus earning a solid reputation in the autonomous robot market.

Robotic Assistance Devices earns Frost & Sullivan's 2024 Global Enabling Technology Leadership Award for its strong overall performance in the autonomous robots industry.

What You Need to Know about the Enabling Technology Leadership Recognition

Frost & Sullivan's Enabling Technology Leadership Award recognizes the company that applies its technology in new ways to improve existing products and services and elevate the customer experience.

Best Practices Award Analysis

For the Enabling Technology Leadership Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

Technology Leverage

Commitment to Innovation: Continuous emerging technology adoption and creation enables new product development and enhances product performance

Commitment to Creativity: Company leverages technology advancements to push the limits of form and function in the pursuit of white space innovation

Stage Gate Efficiency: Technology adoption enhances the stage gate process for launching new products and solutions

Commercialization Success: Company displays a proven track record of taking new technologies to market with a high success rate

Application Diversity: Company develops and/or integrates technology that serves multiple applications and multiple environments

Customer Impact

Price/Performance Value: Products or services provide the best value for the price compared to similar market offerings

Customer Purchase Experience: Quality of the purchase experience assures customers that they are buying the optimal solution for addressing their unique needs and constraints

Customer Ownership Experience: Customers proudly own the company's product or service and have a positive experience throughout the life of the product or service

Customer Service Experience: Customer service is accessible, fast, stress-free, and high quality

Brand Equity: Customers perceive the brand positively and exhibit high brand loyalty

About Frost & Sullivan

Frost & Sullivan is the Growth Pipeline Company™. We power our clients to a future shaped by growth. Our Growth Pipeline as a Service™ provides the CEO and the CEO's growth team with a continuous and rigorous platform of growth opportunities, ensuring long-term success. To achieve positive outcomes, our team leverages over 60 years of experience, coaching organizations of all types and sizes across 6 continents with our proven best practices. To power your Growth Pipeline future, visit Frost & Sullivan at <http://www.frost.com>.

The Growth Pipeline Engine™

Frost & Sullivan’s proprietary model to systematically create ongoing growth opportunities and strategies for our clients is fuelled by the Innovation Generator™.

[Learn more.](#)

Key Impacts:

- **Growth Pipeline:** Continuous Flow of Growth Opportunities
- **Growth Strategies:** Proven Best Practices
- **Innovation Culture:** Optimized Customer Experience
- **ROI & Margin:** Implementation Excellence
- **Transformational Growth:** Industry Leadership



The Innovation Generator™

Our 6 analytical perspectives are crucial in capturing the broadest range of innovative growth opportunities, most of which occur at the points of these perspectives.

Analytical Perspectives:

- **Mega Trend (MT)**
- **Business Model (BM)**
- **Technology (TE)**
- **Industries (IN)**
- **Customer (CU)**
- **Geographies (GE)**

