

FORTNA

Thought Leadership Series

Optimize Order Fulfillment thru Automated Robotic Solutions



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In a world where e-Commerce continues to reshape supply chain dynamics, the need for efficient and adaptable order fulfillment solutions has never been more critical. FORTNA, a leading automation and software company for the full logistics value chain, and Geek+, a pioneer in innovative mobile robotics for logistics, have formed a strategic partnership that marks a significant milestone in the industry. This insight explores the importance of implementing automated robotic solutions in order fulfillment and highlights the key benefits of such implementation.

The FORTNA and Geek+ partnership is set to transform the order fulfillment landscape by combining the deep domain knowledge of FORTNA with Geek+'s state-of-the-art robotics technology. This collaboration aims to create highly efficient and adaptable automated solutions that empower businesses to streamline operations, reduce costs and enhance overall efficiency in order fulfillment.



The State of Order Fulfillment: A Growing Challenge

The e-Commerce revolution has brought unprecedented opportunities for businesses to reach global markets and serve customers at an unprecedented scale. However, this revolution has also given rise to significant challenges, particularly in regards to order fulfillment.

The modern consumer expects faster, more accurate and convenient delivery services, putting immense pressure on businesses to meet these expectations. Traditional order fulfillment processes, often reliant on manual labor, have struggled to keep up with the increasing demand. The result is higher operational costs, slower delivery times and the risk of errors that can erode customer trust.

In response to these challenges, businesses are turning to automated solutions to improve their order fulfillment processes. The FORTNA and Geek+ partnership is at the forefront of this revolution, offering innovative warehouse robotics technology that promises to address these issues comprehensively.

Key Benefits of Implementing Automated Robotic Solutions

1. Enhanced Efficiency

One of the most significant advantages of implementing automated robotic solutions is the substantial improvement in efficiency. Mobile robotic systems have demonstrated more than double the average order picking and sorting throughput compared to traditional manual processes. This increased speed and precision result in faster order fulfillment and improved productivity, enabling companies to meet the growing demands of the e-Commerce market.

Traditional manual order picking and sorting processes are not only slow but also prone to errors. Human workers can tire, leading to reduced productivity and an increased likelihood of order inaccuracies. Automation, on the other hand, operates tirelessly, ensuring consistent performance and accuracy. This transformation in efficiency translates into cost savings and competitive advantages.

The implementation of automated robotic solutions is not to replace the human labor that is already in place. Rather, these solutions should complement the manual workforce, creating a synergistic flow between human and machine that ultimately optimizes fulfillment processes.

2. Scalability

As the marketplace continues to evolve, the ability to scale operations efficiently is crucial for remaining competitive. The integration of innovative robotics ensures that companies can expand their order fulfillment capabilities without overhauling their existing systems.

Traditional order fulfillment systems, especially those that rely heavily on manual labor, often struggle with scalability. Expanding operations typically means hiring more employees, which can lead to increased overhead costs and training challenges. In contrast, automated robotic solutions can seamlessly scale up or down as needed, reducing the risk of overstaffing or understaffing. This flexibility allows businesses to adapt quickly to market changes, whether it's a seasonal demand spike or long-term growth.

3. Optimized Warehouse Operations

By integrating advanced robotics into warehouse operations, customers can significantly optimize their processes. Order accuracy is improved and storage utilization is maximized, reducing labor costs. For example, Geek+'s robotics solutions, integrated into FORTNA's Warehouse Execution System (WES™), offer real-time order priority adjustments. This dynamic approach allows businesses to adapt quickly to operational changes, assign tasks to the most suitable automation and further improve throughput while reducing picking costs.

Traditional warehouse operations can be inefficient, with human workers navigating large spaces to retrieve items, leading to longer processing times and a higher risk of errors. With the implementation of robotics, these inefficiencies are minimized. Automated robots can navigate warehouses swiftly and accurately, ensuring that the right items are picked and sorted in the optimal sequence.

Real-time order priority adjustments are a game-changer in the industry. As customer orders fluctuate in terms of urgency, the automated system can respond immediately, ensuring that high-priority orders are processed first. This level of adaptability not only enhances customer satisfaction but also minimizes the risk of costly delays.

4. Increased Customer Satisfaction

Faster and more accurate order fulfillment leads to improved consumer satisfaction, loyalty and retention. With the combined expertise of human labor, native technology and automated solutions, businesses can consistently deliver orders on time and with greater precision, ensuring a positive customer experience. The ability to meet and exceed customer expectations is crucial in the competitive e-Commerce landscape.

Customer satisfaction is the cornerstone of e-Commerce success. As businesses expand their digital footprint and cater to a global customer base, the expectations for seamless and error-free order fulfillment are higher than ever. Any delay or error in the order fulfillment process can lead to dissatisfied customers, damaged brand reputation and even lost sales.

Automated robotic solutions offer a way to not only meet but exceed these expectations. The speed and accuracy of these systems are unparalleled, ensuring that orders are processed swiftly and accurately. In an era where customers expect same-day or next-day delivery, automation is a necessity and businesses that invest in these technologies are well-positioned to provide a superior customer experience.

5. A Better Workplace

Automated robotic solutions not only benefit businesses but also their employees. Mobile robotics systems allow warehouse workers to focus on less strenuous and repetitive tasks in a safer work environment. This supports businesses' Environmental, Social and Governance (ESG) commitments and fosters a better workplace culture.

The workplace environment in traditional order fulfillment centers can be physically demanding, involving repetitive tasks, heavy lifting and long hours of standing or walking. This can lead to employee fatigue, injuries and job dissatisfaction. As businesses strive to adhere to ESG principles and prioritize the well-being of their workforce, the integration of robotics technology is a significant step forward.

Robotic systems take on the most physically demanding and repetitive tasks, allowing human workers to engage in more fulfilling and less strenuous roles. This not only enhances the quality of the work environment but also contributes to greater employee satisfaction and retention. Employees can focus on tasks that require creativity, problem-solving and decision-making, fostering a more engaging and motivating workplace.



Innovation and Sustainability

Both FORTNA and Geek+ are committed to innovation, sustainability and delivering solutions that align with the latest industry trends and regulations. The FORTNA and Geek+ partnership signifies a significant milestone in the robotics shake-up of order fulfillment automation. The combination of domain knowledge and cutting-edge robotics technology allows businesses to stay ahead of industry trends and regulations, ensuring they meet the evolving demands of their customers and the marketplace.

The pace of technological innovation is relentless and the FORTNA and Geek+ partnership places businesses at the forefront of this innovation wave. Robotics technology is advancing rapidly, with continuous improvements in speed, accuracy and adaptability. Companies that integrate these innovations into their order fulfillment processes gain a significant competitive edge.

Innovative technologies like artificial intelligence (AI) and machine learning are increasingly being integrated into robotics systems, enabling them to adapt to changing environments and optimize operations in real time. The ability to adapt quickly to evolving market demands, supply chain disruptions and changing consumer preferences are critical aspects of staying competitive in the modern business landscape.

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FORTNA CAN HELP

FORTNA partners with the world's leading brands to transform omnichannel and parcel distribution operations. Known world-wide for enabling companies to keep pace with digital disruption and growth objectives, we design and deliver solutions, powered by intelligent software, to optimize fast, accurate and cost-effective order fulfillment and last mile delivery. Our people, innovative approach and proprietary algorithms and tools ensure optimal operations design and material and information flow.

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