

How Robots Are Revolutionizing Warehouse Maintenance



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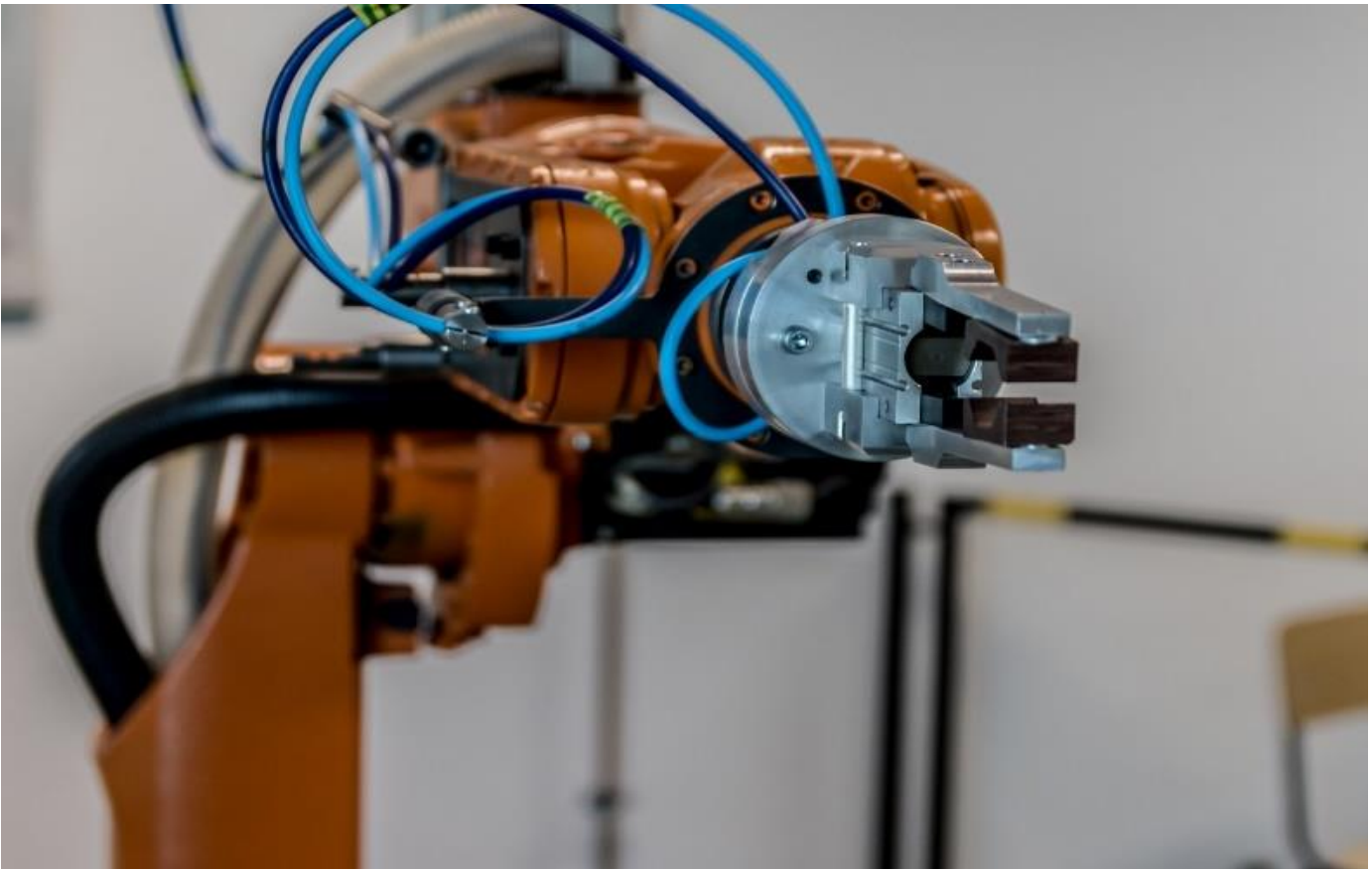


Introduction

Ever since artificial intelligence and automation have been introduced into the supply chain, it has sped up the whole process from packaging to delivery. Moreover, robots are being used to optimize the warehouse maintenance process, which in turn speeds up the entire chain of processes that lead to the delivery of a package to the destination.

Robots assist warehouse managers and other personnel in the day-to-day operations of the warehouse, taking care of essential tasks like scheduling, cleaning, and other routine maintenance tasks. This brings about a lot of benefits to the business.

This paper discusses how robots are being used to revolutionize warehouse maintenance, and the benefits of this change.



Source: [Pixabay](#)

What is Preventive Maintenance?

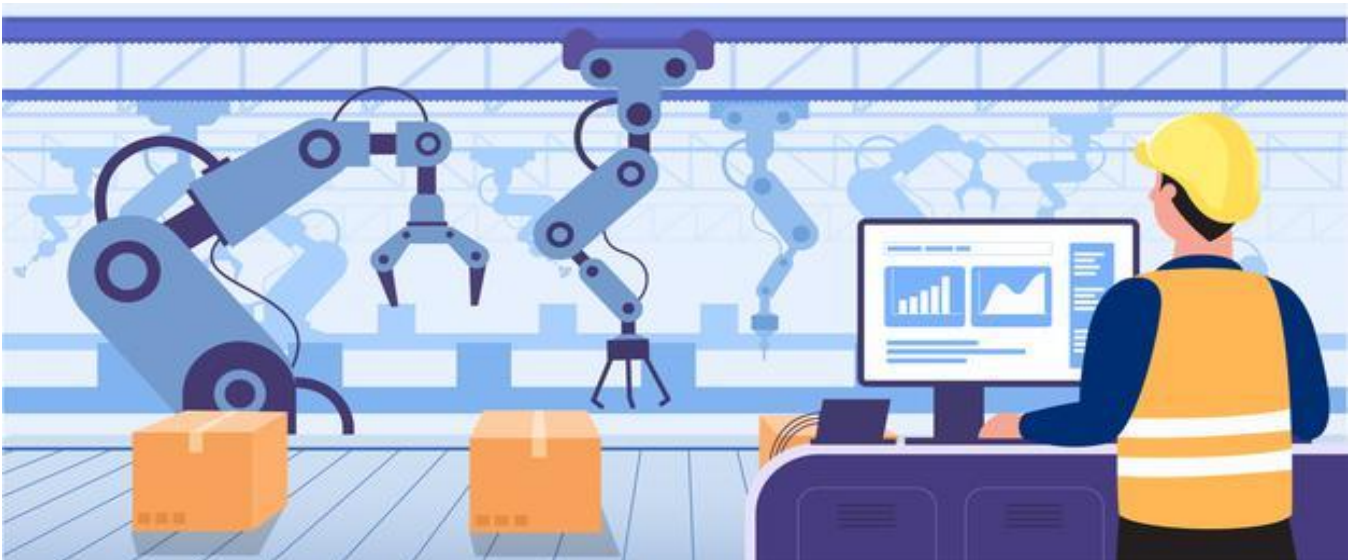
Robotic machinery has greatly enhanced the warehouse maintenance process, but it also needs a bit of routine maintenance itself, which is known as preventive maintenance. This refers to prolonging the life of automated equipment and ensuring its normal function through a number of steps that are taken proactively, rather than waiting for a problem to arise in its circuitry or body.

Some of the preventive maintenance steps include lubrication, cleaning, tweaking, painting, tightening, or replacing small parts. Preventive maintenance is also accompanied by frequent testing and routine maintenance sessions, so that any equipment breakdown can be prevented or minimized, and work can resume smoothly.

Preventive maintenance becomes increasingly important when you are automating most of the processes inside your factory and warehouse, such as replacing hand-operated machinery and employees with robots. Therefore, it is very important to monitor the machinery regularly and also strictly follow the maintenance schedule that has been designed.

Advantages of Robotic Maintenance

Slowly and gradually, robots are being introduced into many different industries and production facilities, which further increases the need for periodic robotic maintenance to prevent any breakdown or delay in the production processes. Similarly, robots are also being used for warehouse maintenance, and this helps in boosting productivity.



Source: [Freepik](#)

Here are some of the advantages that warehouses can experience by conducting timely robotic maintenance sessions.

Improved Productivity

As mentioned above, by having a periodic maintenance schedule that you adhere to completely, you will be able to keep your robotic equipment in top shape and, as a result, there will be fewer delays in the warehouse maintenance process. Eventually, this would help in maintaining the productivity inside the warehouse, as well as the smoothness of the operations.

Less Risk

By conducting preventive maintenance from time to time, you will be able to prolong the life of your robotic equipment, which can be tasked with difficult tasks that require a lot of manpower or risk. This way, you can protect your employees from getting injured and this would keep the accidents to a minimum inside your warehouse. Moreover, it would also become easier for warehouse operatives to handle precious consignments or hazardous substances, and they could easily move or store them without putting any human life at risk.

Smooth Operations

If even one of your robotic equipment or machinery stops working suddenly, you can experience huge losses, depending on how big or small your business is. Plus, it can take a lot of time to fix the machinery, and you may not even have a backup for it at hand. As a consequence, the losses will keep multiplying. However, you can prevent all of this through periodic robotic maintenance.



Source: [Pexels](#)

Real-World Examples of Robotic Maintenance

Many eCommerce giants and delivery companies, who manage their own warehouses, have made use of robotic maintenance to keep their warehousing and delivery operations running smoothly. There is no better example for this than Amazon, one of the world's largest companies. Alongside its human workers, Amazon has also installed robotic machinery to assist them in day-to-day operations.

[26 out of 175](#) Amazon fulfillment centers all over the world have installed robots for carrying out various types of jobs, and through this, Amazon has managed to carry out their deliveries and warehousing services at faster speeds than before. This has worked particularly well for the Amazon Prime service, which promises delivery in mere hours instead of days.



Robots don't replace humans or take their jobs at Amazon, as is often misconstrued. On the contrary, these robots make their work easier by helping in sorting products, choosing the right ones, packing them, and also sending them out for delivery. Some robots are tasked with picking out packages from the conveyor belts and placing them on pallets, from where they are sent for shipping or stocking.

Another robot is installed to move entire pallets of inventory to drive units, from where they are sent to different destinations inside the warehouses. Through this process, Amazon can store up to 40% more inventory and can also deliver their orders much faster. Moreover, the robots make life easier for the workers by doing all the heavy lifting, and at the end of the day, the customer experience is greatly improved as well.

This Amazon endeavor began in 2012 with their acquisition of Kiva Systems, a Boston-based robotics company. Since it has one of the largest fleets of robots, preventive maintenance would be of the highest priority for the eCommerce giant. Not only does robotic maintenance help Amazon keep its efficiency high, but this also means enhanced safety, less risk, and better working conditions for the employees as well.

Simplify Your Preventive Maintenance with Proteus CMMS

As robots are being used for optimizing and revolutionizing warehousing operations, there is also a burden on technicians to carry out preventive maintenance as well. For this, they might also have to learn many new skills and concepts, and become familiar with PLCs, robotic controls, and robotic information systems.

Having access to a commercial maintenance management system (CMMS) can help them design suitable maintenance plans for robotic equipment. Moreover, integrating with robotic information systems and controls, additional data (from vision systems, PLCs, and fault detection) can be acquired for preventive and predictive actions to increase the productivity and life of robots.

Our [Proteus CMMS](#) is a robust maintenance management system that provides you with valuable insights on how to plan your preventive maintenance schedule, so that your robots never go out of order. It is a cloud-based platform that lets you manage all your maintenance scheduling and work orders in one place. Moreover, it also provides mobile asset tracking and management, as well as the opportunity to tailor the KPIs according to your operations.

You can register for a [free demo](#) of Proteus CMMS and experience the ease of maintenance scheduling and asset management right away. For more information, visit our website www.eaglecmms.com, call 262-241-3845, or e-mail sales@eaglecmms.com.

Resources and Further Reading

Follow the links below for further information about Eagle Technology and Proteus MMX.

1. Eagle Technology Website: <https://www.eaglecmms.com/>
 2. Eagle Technology Products: <https://www.eaglecmms.com/products/>
 3. Eagle Technology Case Studies: <https://www.eaglecmms.com/case-studies/>
 4. Eagle Technology Industries: <https://www.eaglecmms.com/industries/>
 5. Eagle Technology White Papers: <https://www.eaglecmms.com/whitepapers/>
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 10. Eagle Technology Free Demo: <https://www.eaglecmms.com/free-demo/>
- For any additional information, trial, or podcast requests: <https://www.eaglecmms.com/contact-us/>

About Eagle Technology, Inc.

Named Top Performer in the “Winter 2020 Maintenance Management Software” category, Eagle Technology, Inc. has nearly three decades of experience working in several industries across the US.



Over the years, we have worked with a wide range of businesses – from Fortune 500 manufacturing facilities to small mom-and-pop shops. As a leader in the development and sale of CMMS and EAM solutions, we partner with the best resources to provide our customers with outstanding functionality. Our CMMS “Proteus MMX” offers the ability to boost productivity, control cost, and maintain compliance all from the web and mobile-enabled software.



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