

## Automation of Warehouse Packaging

Robotics has taken the world by storm. Technology has been put in more workplaces to help with small tasks, and it has gotten more advanced. You can use technology to communicate with people, learn new things, and program with it. Programming is where robotics comes in. Robotics engineers can help solve so many problems in workplaces with technology.

Warehouses can contain thousands of pieces of merchandise. Employees have to package everything by hand, which can cause you to receive the wrong item, which happens often. We can use automation and robotics to package this merchandise; this saves time and money on packaging costs. Packaging the incorrect item can cause a complaint about that company, so if robots were to package things and never mess up, it would cause that company to have a bad review, which would cause more people to go to that company instead of another that keeps messing up. Automation has many impacts, including cost-effectiveness, efficiency, and optimizing productivity within the warehouse.

A challenging aspect would be bringing robots to the warehousing industry. This challenge would cause companies to retrain employees who previously performed those jobs to oversee the robots that do those tasks, or they would move these employees to another field of work, like setting up the merchandise neatly for the robots to pack. For example, if Amazon were to trade from their old system of hand packaging to automated packaging, they would have to train the employees that do hand packaging to manage then the robots that will package the merchandise; likewise, they could move packing employees to merchandising employees.

Employees of these companies must have specific abilities to perform in these jobs. They must be adaptable and able to fix a problem fast. An important task would include programming a robot, making a quick flow for the programming, and understanding safety concepts in case the robot has something go wrong.

Training these employees will include finding the closest training facility for Educational Robotics Training - Core. This training works with Universal Robots, and you can also use these robots for the packaging process if programmed correctly. Educational Robotics Training - Core is the best training for the abilities required. The company will provide these training programs for already-hired employees. The program will give the knowledge for every skill needed; correspondingly, it offers skills like programming, safety concepts, optimizing a pick and place flow, etcetera.

Employees will primarily work in machine tending. This keeps the machines running and the packaging scrap rate down; if your machine is running 24/7 and has no time to be cleaned or aligned, eventually, this could cause damage to the boxes being packed and even the items inside. With no machine tending, you would start to lose money instead of making it.

Organizations will look for people trained in similar places as their employees. Some schools or programs that train people for Educational Robotics Training - Core are Shaltz Automatic Inc., Brecksville, OH; Olympus Controls, Kent, WA; NEFF Automation, Mequon, WI; and Universal Robots USA, inc., Irvine, CA, these are only a few places in the USA that are open for training, and companies can find new employees by looking at people who come out of these programs.

Getting new employees can include having a social media page about what your company does, so if you sold clothes and had these robots working, you could show the packing process. Other ways to find new employees are billboards, job fairs, hosting

## Automation of Warehouse Packaging

educational events, and having tours of your facilities. The most important thing is to be creative and show how fun it is working in that environment. You can also give small raises to employees who have stayed at your company and let new employees know about these raises so they will want to stay at your company.

The company will start making more money when they switch to this new packaging program. Universal Robots have boosted profitability by 60% in some cases, and BWIndustries has increased revenues by 70% since 2011, when they started using Universal Robots. If companies focused on the crucial problems and fixed them, like packaging the wrong thing, they could focus on the minor details that make their company grow and earn more money. When you change to robotic packaging, you can also downsize your employee count because you don't need as many people to work. When a machine does the work of many employees, you have to have one person working on numerous machines because they are easy to manage.

Using robotics to help in warehouses can help so many companies. Automation in packaging reduces mistakes, which makes satisfied customers. Companies do need to train old employees to use the new machines and take care of them, but in the end, you make more money even if the machines cost a lot because you gain more money from the new customers you will get. Embracing automation of Warehouse Packaging gives companies a step towards a successful future.

Automation of Warehouse Packaging

Automation of Warehouse Packaging

Melissa Zakrzewicz

Cooper Pennington

Rishi Patel

David Dodson

Grace Keller

76892E

Sayre, Oklahoma, USA