

Small Robots Big Results

Small Robots, Big Results

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In this article the author is trying to emphasize how small robots are playing a big role in manufacturing today. He is also explaining why you should buy these handy dandy small things and how they help in tremendous ways. These robots are small and portable most weighing in at under 100lbs which is highly portable by today's standards.

These small robots do big jobs for example mass producing ipods, phones and TV's. The work they do is electrical circuitry. What these robots can bring to your workplace is efficiencies and high quality products. These small robots are much easier to program and move around if needed. They also take up less space and maximize the space provided in a workplace. Before using your ceiling to put a robot arm was something that was kind of crazy to think about. The more you think about it using your ceiling is using more space more efficiently to maximize space provided. Some companies don't have massive areas where they can have huge machines. These small machines make it possible since most of them do what the big machines do just on a smaller scale. Robotics is moving towards smaller and sleeker to maximize space to increase efficiencies many companies are buying into this new approach. Small robots also lean towards LEAN manufacturing using your space wisely doing smaller batches or one thing at a time. These robots also perform just as well as other robots but at a much more energy saving way. This leads to leaner-greener manufacturing. Harmonic Drive Systems unveiled its CSF-3 which boasts a diameter of just 13 millimeters. As nanotechnologies continue to improve we can expect to see smaller and smaller mechanical development and true autonomous controls that are embedded and wireless.

This article touches base with how I was working with the purple robot with small automated systems. When I was using purple robot the goal was to organize blocks based upon if they had a hole in the bottom or not. Now my process is much simpler then what the robots in this article are performing. I haven't seen a small robot in use yet in a manufacturing plant other than in MTA. So I can not fully comment upon what I have seen them do. But from what I know they work with electrical boards injection molding TV components and many different things. I read that the programming for smaller robots is much simpler than that of a larger machine. Which is blows my mind because in my experience in working with purple robot this was not the easiest task. So the people who are running the larger machines or doing program must be pretty smart. In my opinion this article was extremely well done. The article explained all the good things that using smaller robots can have in business, in a manufacturing plant. The article was definitely geared towards business owners who were thinking about making the switch to lean in utilizing space more efficiently or people who don't have a lot of space to begin with. There was information for the robot enthusiast also explaining how small robots are getting what they can accomplish. The only thing I think he could have mentioned was how much these cost for people to get a bigger picture of what they were dealing with. In the article he mentions how buying these will soon pay for it's self quickly. But I am unsure how they measure quickness in months or years? Overall a very good article but I feel he could have added interesting facts about how quickly how many times the robot can do so many cycles.

This article would defiantly help someone who was looking to go lean or who had some money to spend and knew they could turn it around into profit later if they added these machines. These machines have in a way ushered in a new era of utilizing space to it's maximum potential. If I were a business man I would be switching LEAN as soon as possible. Due to the economy and how it is. Having a pull system like lean would help make money and having these robots would further enhance my chances at achieving my goals for my company. The other big thing is these small robots if need to be replaced are much more inexpensive then huge big robots and you wouldn't take as big of a hit if one were to break. All in all the future is geared towards smaller faster more precision ant the smaller robots bring that all to you in one small package. A very good saying is "good things come in small packages". I believe in this instance this is totally true.

Terms

Deadspace- space being non utilized due to robot not being able to maneuver or access that area.

Footprint- amount of space taken up by an object. In this case a small robot

Envelope- the amount of space the robot can cover.

Cycle rate- how many cycles a robot can finish in a full workday.

Nanotechnologies- Extremely small technology being worked on today.