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2018 Will Be the Year of Robot ROI!

In the coming year, the robotics industry is expecting growth due to quick ROI.

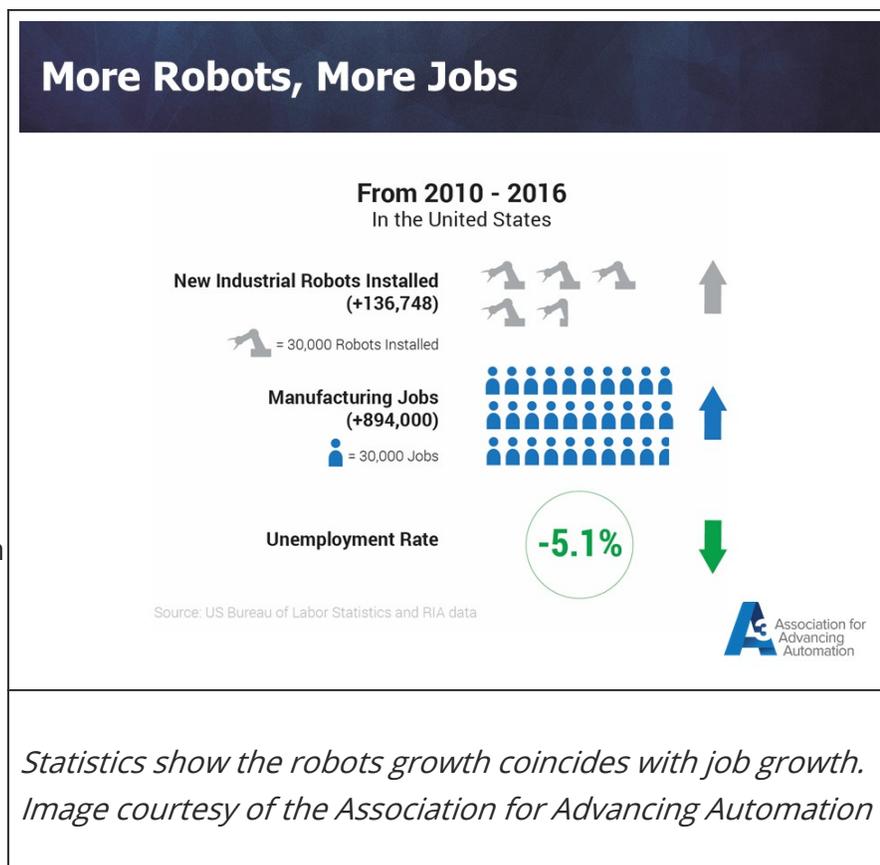
by: Rob Spiegel in Automation & Motion Control, Industrial Machinery on December 19, 2017

The robotics industry is well into a multi-year expansion in in both unit sales and overall robot capabilities. Consequently, the return on investment (ROI) is easier to reach. Add to that the trend in robots becoming less expensive and we're set to see continued robot growth through 2018 and beyond.

The employment environment is also favoring robots. In many areas of North America, we're at virtually full employment. During labor scarcity, robots can help with low-skill manufacturing or logistics tasks. Also, as robots become easier to configure, companies can deploy robotics without having to hire highly skilled control programmers.

Cost is a huge factor in convincing

manufacturers and warehouse managers to try robots. In 2018, investment will be less expensive, and the return will come more quickly.



“Companies using robots are realizing better and faster return on investments, and I think that’s why the robotics is growing rapidly. We will break records this year as we have every year since the end of the great recession,” Bob Doyle, director of communications at [Association for Advancing Automation](#), told *Design News*. “Robots are less expensive. Companies are using smaller robots that are cheaper. That includes collaborative robots well as other small robots that are not as collaborative.”

Calculating Robot ROI

There are systematic ways companies can calculate their ROI before investing in robots, but Doyle warned that the actual cost of a robot is only part of the expense. “When you look at a robotic system, the cost of the robot is about a third of the cost when it includes a system that needs to be integrated, the conveyance, and the safety,” said Doyle. “We have a [ROI Calculator](#) on our website. Users can enter their costs and variables, and it gives them an idea of the type or ROI and savings they can realize.”

In logistics, robots can pay for themselves in a matter of months. “Our customers typically see an ROI in three-to-nine months. That depends on how many shifts are being run and what they’re targeting in calculating that return,” Melonee Wise, CEO of [Fetch Robotics](#) told *Design News*. “Some users are optimizing on metrics, lines per hour, how materials flow, flexibility and the ability to configure workflows on a month-to-month basis. They look for an increase in lines completed per hour.”

Robots Entering New Industries

Automotive was the heart of the robotics industry for the past few decades, but that has changed in recent years as robots became more affordable for non-automotive companies. “Auto companies and their suppliers are still a large part of the robotics industry, but now we’re seeing more in food and consumer goods, aerospace, and metals.

Robot sales for the first nine months of 2017 increased 32 % over last year, while automotive stayed about the same, said Doyle. “Because of faster ROI, those in nontraditional robot industries see that they can get their investment back. Plus, gripper advances are making robots more available to other industries,” he said.

With lower purchase prices and easier-to-configure robots, small- and mid-size companies can now realistically deploy robots and gain a return. “Larger companies have been automating for a long time, but now the small- and mid-size companies are using automation,” said Doyle. “Investments in robotics is changing a lot of these businesses, allowing them to compete, and hire more employees with better jobs. Those companies are just getting started. There are still a lot of small- and mid-size companies that haven’t started yet.”



Robots are becoming more common in logistics. Image courtesy of Fetch Robotics.

Logistics and warehousing is another area where robots are taking a larger and larger role. This is partly due to greater capabilities of robots that can find their way around a building. “When you look at it, the robots in logistics are as sophisticated as those in manufacturing. We’re putting our effort into making them easy to use,” said Wise. “We have a simple programming interface to allow people to configure the workflows without having to do programming.”

Robots and the Skills Gap

Given low unemployment, not many of those in the labor market are complaining about robots stealing human jobs. “You sometimes see job displacement, but there’s such a large workforce shortage it doesn’t matter,” said Wise. “The logistics industry is having a hard time with staffing. They actually can’t get enough pickers. There are 600,000 open jobs in the logistic industry.”

In manufacturing, robots are taking over some repetitive jobs, but the deployment of robots is also prompting the hire of higher-skilled workers. “We’re not seeing a reduction in shop floor staff. When you look at the overall industrial robots installed, jobs do transform. They have been doing that since the dawn of the industrial revolution,” said Doyle. “A challenge we have now is finding qualified personnel to do the automation. We’re looking at two-year programs or apprenticeship programs to fill the jobs.”