Industrial Robots: Market Shares, Strategies, and Forecasts, Worldwide, 2015 to 2021

Description: Worldwide Industrial Robot markets are poised to achieve significant growth as the automotive early adopter base provides a way for other industries to leverage economies of scale. Industrial Robot infrastructure in one industry makes it easier to extend product sets so that they are more available across all industries, remaking all manufacturing everywhere.

Controllers permit leveraging industrial robot technology to improve automated process via iteration of work cells. Using controllers to leverage efficiencies is an evolving art, extending the current state of the art. Robots can perform tasks at less cost, and do work in a manner that cannot be replicated with human manufacturing workers. Information technology is used to implement the services provided by controllers.

Growth prospects for the industrial robotics industry depend on market opportunity metrics relative to the different industries. Automotive investment levels globally have remained at historical highs. Increasing usage of robotic automation by non-automotive companies is driving the usage of industrial robot automation to a new level.

Increased adoption of industrial robots coupled with a huge push from the industry for collaborative robots, opens opportunities for robotic solutions. In the immediate future industrial robots strengthen the position of every industry, promising more manufacturing efficiency at every level.

The industrial robots have not yet achieved economies of scale, illustrating the market opportunity that will come quickly after economies of scale are achieved. New technology and improved controllers open the path to economies of scale for industrial robots. As this occurs a new industrial revolution will occur. There are massive numbers of products offered by each major industrial robot vendor. Product consolidation is occurring in the market. Customization of a few products to increase product volume hold the promise of changing the market so it functions at a level that means devices that basically have eluded economies of scale in the past, will now be able to be mass produced.

A few leading vendors profiled in the report lead the market. ABB provides a comprehensive range of robots to help manufacturers improve productivity, product quality and worker safety. Regardless of application ABB has a robot to meet needs of the customer in any industry. ABB has installed 250,000 robots worldwide.

ABB's small IRB 120 multipurpose industrial robot weighs 25kg and can handle a payload of 3kg (4kg for vertical wrist) with a reach of 580mm. It is a cost-effective and reliable choice for generating high production outputs in return for low investment. A white finish Clean Room ISO 5 (Class 100) version, certified by IPA, is available.

With a global install base of nearly 300,000 industrial robots, Yaskawa Motoman has over 150 robot arm models currently in production. Well defined criteria help users find a robotic arm that suits industrial applications. Required payload, reach and repeatability specifications are market aspects. Each robotic arm model is paired with a robot controller that enables workers to program and control tasks of a single robot or coordinate multiple robot arms.

Yaskawa. Motoman offers 40 fully integrated, pre-engineered work cell solutions. These work cells include robots, process equipment, and safety equipment. Cost-effective world solutions are available to meet requirements for safety and easy of use. Customers look for industrial robots that are easy to set up and operate. Industrial robots automate manufacturing, starting with automotive factories providing automated process stat is cheaper, more reliable, and proven. Industrial robots are changing the economics of manufacturing and materials handling in all industries. Industrial robots are poised to change every aspect of modern business.

Robots bring a new industrial revolution. Adoption of industrial robots in non-automotive applications is occurring in the electronics, chemicals, pharmaceutical, and food & beverages industries. Industrial robots have opened up new market opportunities. High installation costs have been largely overcome, making industries in developing markets available to vendors. The adoption of robots in underdeveloped countries...
occurs because of the unavailability of skilled labor.

industrial robots are set to bring a new industrial revolution more important than anything seen before. Industrial robots perform repetitive tasks efficiently, they do not eat, they do not make mistakes, they do not get tired, they do what they are told.

Manufacturing plants are frequently long aisles of nothing but robots, no human in sight. Beyond industrial robots that repeat actions, more intelligent robots loaded with sensors, cameras, and intelligent software are able to automate process using controllers to manage action. Use of microprocessors provides a measure of intelligent control over the activity of the robot based on input from the sensors and the cameras.

Think about the current industrial revolution. Before the invention of the automobile, buggy whip manufacturing was a thriving business. No longer. In the same vein, industrial robots hold the promise of eliminating many of the existing jobs in manufacturing. Innovation, centers of excellence. New enterprises promise to replace many of the existing jobs. People need to be flexible, to develop new industries.

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The issue becomes creating jobs and building economies worldwide so people can afford to support a family and a lifestyle and buy the goods that are manufactured so efficiently. This new job creation market thrust will come from industry and government investment in innovation and centers of excellence.

Industrial robots promise to replace 70 to 90% of existing manufacturing jobs. People will learn new ways to achieve an economy, to achieve economic development. An economy needs to adjust, to be flexible if you gave pink slips to more than half the labor force.

According to Susan Eustis, principal author of the market research study, “Industrial robot vendors have discovered that with intelligent use of new technology, they can dominate an aspect of some manufacturing automated process for a particular sector. As the early adopters in the auto industry have proven, robots do the work cheaper and better than humans once a repetitive process has been evolved. Industrial robots make the difference between winning competitive advantage or losing it. Solutions offered by vendors are creating market growth opportunities.”

Industrial robots can perform tasks faster and more accurately than humans. Increases in productivity are provided by industrial robots. Robots help reduce overall manufacturing costs in developing and developed countries. Markets are expected to rise 11.5% annually through 2021. Industrial robot markets at $22 billion in 2014 are anticipated to reach $48.9 billion by 2021.
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5.64.2 Yaskawa Business
5.64.3 YASKAWA Electric Motion Control
5.64.4 YASKAWA Electric Robotics
5.64.5 YASKAWA Electric System Engineering
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