**History of Industrial Robots**

* + **1954:** The first programmable robot is designed by George Devol. He coins the term Universal Automation.
  + **1956:** Devol and engineer Joseph Engelberger form the world's first robot company, Unimation.
  + **1960:** Unimation is purchased by Condec Corporation and development of Unimate Robot Systems begins. American Machine and Foundry, later known as AMF Corporation, markets a robot, called the Versatran, designed by Harry Johnson and Veljko Milenkovic.
  + **1962:** The first industrial robot was online in a General Motors automobile factory in New Jersey. It was Devol and Engelberger's UNIMATE. It performed spot welding and extracted die castings.
  + **1969:** Nachi starts its robotic business.
  + **1973:** German robotics company, KUKA, creates the first industrial robot with six electromechanically-driven axes. It is called the Famulus.
  + **1974:** A robotic arm (the Silver Arm) that performed small-parts assembly using feedback from touch and pressure sensors was designed. Professor Scheinman, the developer of the Stanford Arm, forms Vicarm Inc. to market a version of the arm for industrial applications. The new arm is controlled by a minicomputer.
  + **1974:** Industrial robots were developed and installed in Fanuc factory. Dr. Inaba, President of FANUC was rewarded with "the 6th Annual Memorial Award of Joseph Marie Jacquard" by the American NC Society. The production and sale of DC servo motors were started under GETTYS MANUFACTURING CO., INC license.
  + **1977:** The Motoman L10 was introduced. It featured five axes and a maximum workload of 10 kg, which included the gripper. It weighed 470kg. The Motoman L10 was the first robot that Yaskawa introduced on the market.
  + **1977:** ASEA, a European robot company, offers two sizes of electric powered industrial robots. Both robots use a microcomputer controller for programming and operation. Unimation purchases Vicarm Inc. during this year.
  + **1978:** Vicarm, Unimation creates the PUMA (Programmable Universal Machine for Assembly) robot with support from General Motors. Many research labs still use this assembly robot.
  + **1979:** Nachi developed the first motor-driven robots for spot welding.
  + **1979:** OTC DAIHEN was known as OTC America. OTC was an acronym for the Osaka Transformer Company. Located in Charlotte, NC, OTC was originally a supplier of welding equipment for other transplant companies. They expanded to become a provider to the Japanese auto market of GMAW supplies. In these early years, OTC Japan introduced its first generation of dedicated arc welding robots.
  + **1980:** The industrial robot industry starts its rapid growth, with a new robot or company entering the market every month.
  + **1981:** Takeo Kanade builds the direct drive arm. It is the first to have motors installed directly into the joints of the arm. This change makes it faster and much more accurate than previous robotic arms.
  + **1985:** OTC DAIHEN became the official OEM supplier of robots to the Miller Electric Company. Miller chose to assign different model numbers to the robots sold in the North American market. The prefixed the letters in the model with "MR," for Miller Robot. Miller no longer supports the robots that were manufactured in this era. The Japanese models featured their own number and name.
  + **1987:** ASEA of Vasteras, Sweden (founded 1883) and BBC Brown Boveri Ltd of Baden, Switzerland, (founded 1891) announce plans to form ABB Asea Brown Boveri Ltd., headquartered in Zurich, Switzerland. Each parent will hold 50 percent of the new company.
  + **1988:** The Motoman ERC control system was introduced with the ability to control up to 12 axes, more than any other controller at the time.
  + **1989:** Nachi Technology Inc., U.S.A. is established.
  + **1992:** FANUC Robot School was established. GM Fanuc Robotics Corporation was restructured to FANUC's wholly owned share holding company, FANUC Robotics Corporation, together with its subsidiaries, FANUC Robotics North America, Inc. and FANUC Robotics Europe GmbH. A Prototype of the intelligent robot was built.
  + **1994:** The Motoman MRC control system was introduced with the ability to control up to 21 axes. It could also synchronize the motions of two robots.
  + **1995:** Miller departed from the robotic business. OTC launched the Dynamic Robotic Division and moved the headquarters to Ohio to focus on selling robots to new users.
  + **1996:** Nachi expands robotics business, cutting tool, and bearing product ranges.
  + **1998:** The introduction of the XRC controller allowed the control of up to 27 axes and the synchronized control of three to four robots. The Motoman UP series introduced a simpler robot arm that was more readily accessible for maintenance and repair. Honda was instrumental in driving the development of both the UP series of arms and the XRC arm control.
  + **2003:** OTC DAIHEN introduced the Almega AX series, a line of arc welding and handling robots. The AX series robots integrate seamlessly with the OTC D series welding power supplies for advanced control capabilities.