## HISTORY AND EVOLUTION OF INDUSTRIAL ROBOTS

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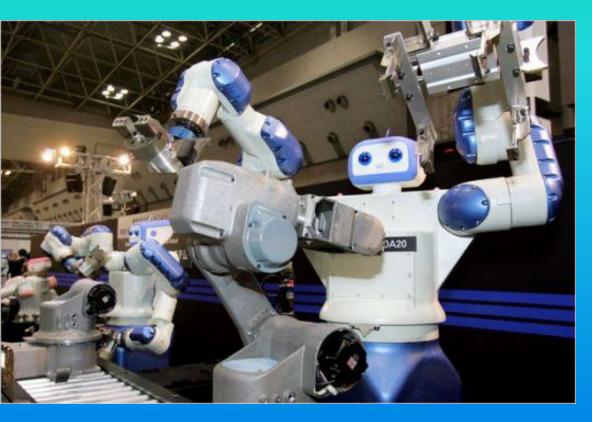
**Faculty: Technological Engineering and Industrial Management** 

**Specialization: Manufacturing Technology of Industrial Machine-Tools** 

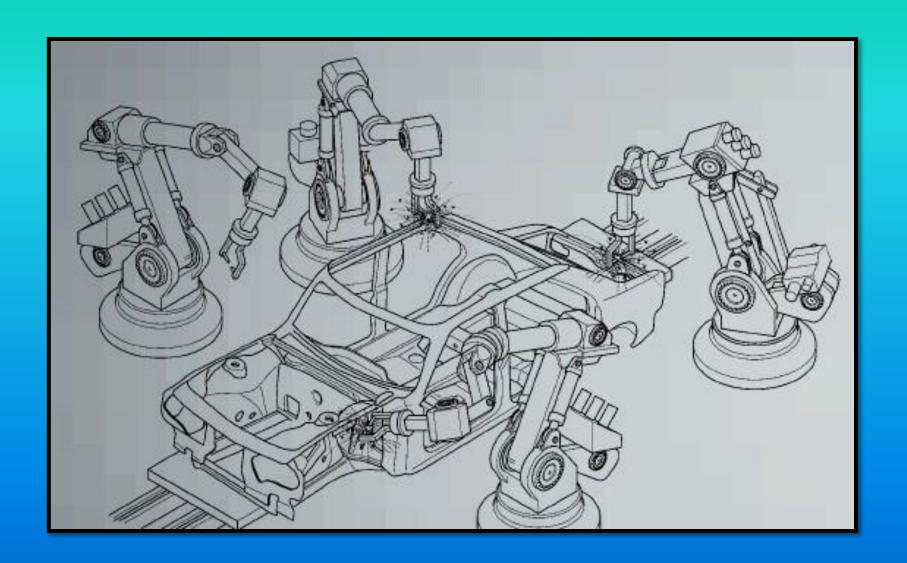
"It has long been a dream of humanity to develop a machine that acts as man does."

Prof. Dr. C. W. Burckhardt

### What are industrial robots?

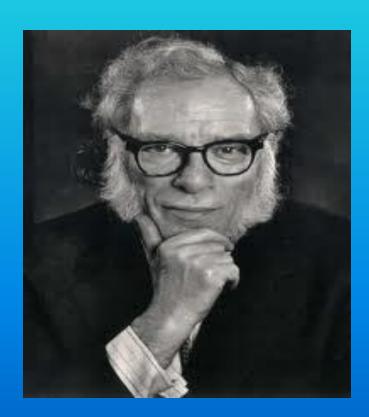


Industrial robots are mechanical devices which, to a certain degree, replicate human motions.

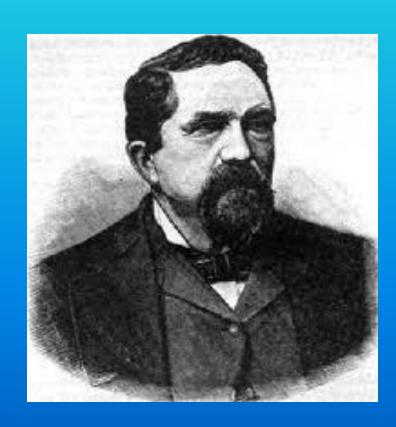


#### **HISTORY**

 "If every tool, when ordered, or even of its own accord, could do the work that befits it... then there would be no need either of apprentices for the master workers or of slaves for the lords." Aristotel  1941-Science fiction writer Isaac Asimov first used the word "robotics", to describe the technology of robots and predicted the rise of a powerful robot industry.



 1954- George Devol designs the first programmable robot and coins the term Universal Automation, planting the seed for the name of his future company - Unimation.



George Devol(1829-1903)

 1962 -General Motors purchases the first industrial robot from Unimation and installs it on a production line



Unimate robot

## THE PARTS OF THE ROBOT



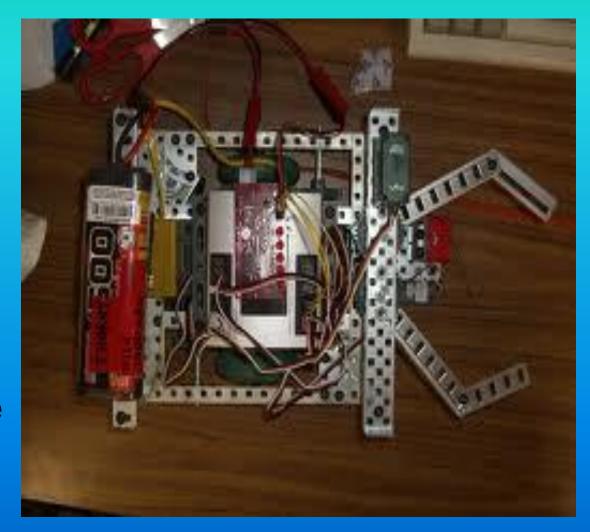
The controller

The arm





The end effector



The drive

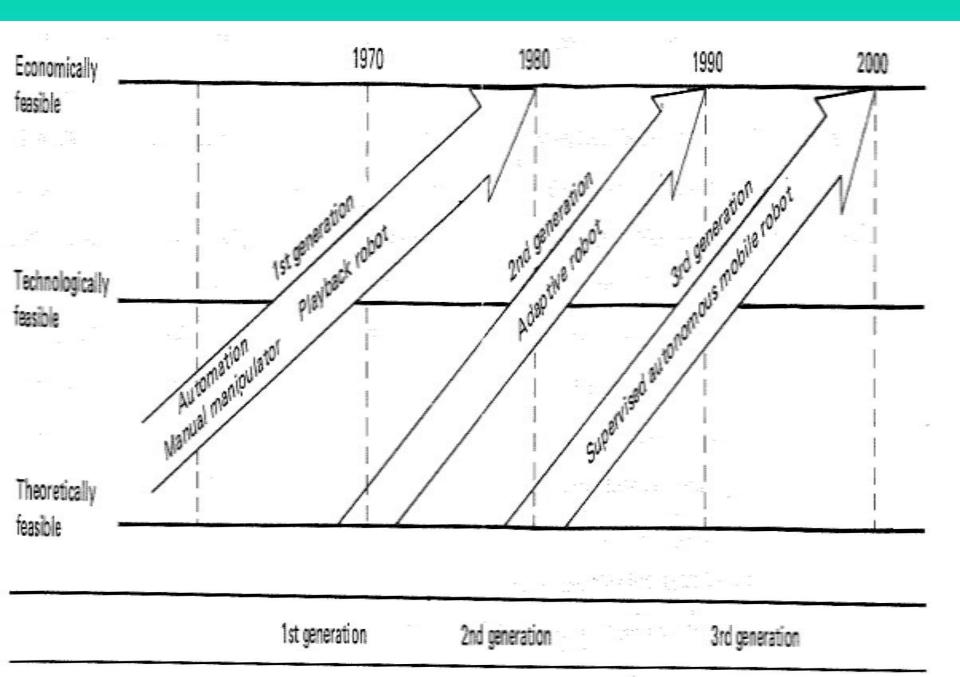
#### The sensors



# TOWARDSTHE THIRD GENERATION ROBOT



#### **GENERATIONS' DIAGRAM**



#### First generation



Versatran and Unimate were first robots made commercially available in 1962 and were introduced to Japan in 1967

#### Second generation



The second generation robot is approaching the stage of practical use. This has a direct relationship on the development of sensors and microcomputers in recent years

#### Third generation



The relationship between robot and man in the third generation can be more easily understood when it is compared with the relationship between a superior and subordinates

#### **CONCLUSION**



Robots, like computers, are powerful tools that open horizons to their human creators.

They do not tire, and can stand up to environmental conditions that we cannot endure.

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