

Introduction to Robotics

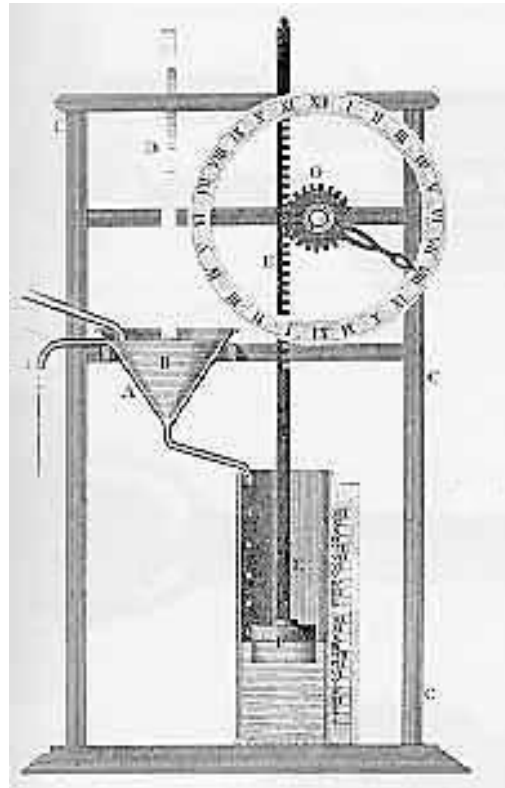
Lecture 2 : History of Robotics

History of Robots

Here are a number of highlights in the history of robotics.

~270BC

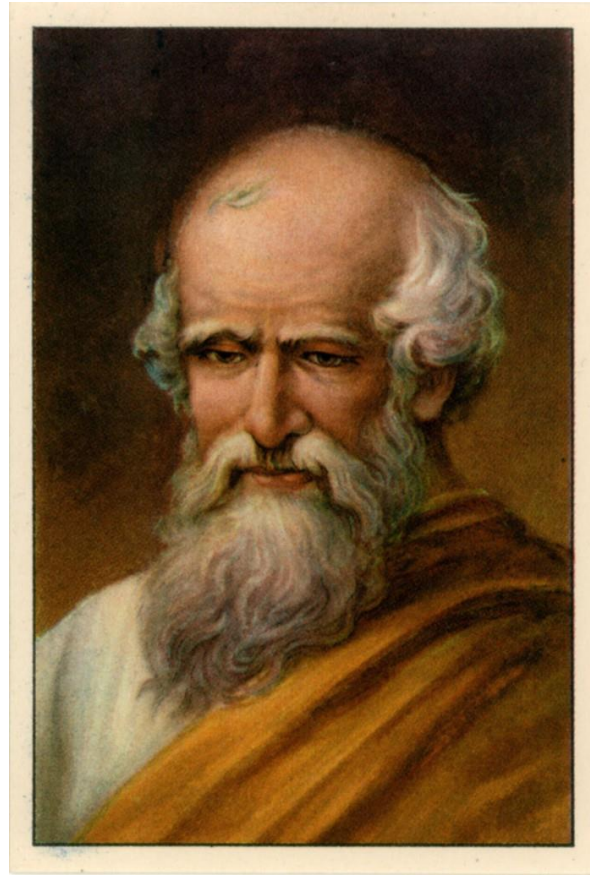
An ancient Greek engineer named Ctesibus made organs and water clocks with movable figures. The concept for his clock was fairly simple; a reservoir with a precise hole in the bottom would take 24 hours to empty its contents. The container was marked into 24 divisions.



History of Robots

287 – 212BC

Archimedes (287-212BC) did not invent robots, but he did invent many mechanical systems that are used in robotics today, as well as advancing the field of mathematics.



History of Robots

1495

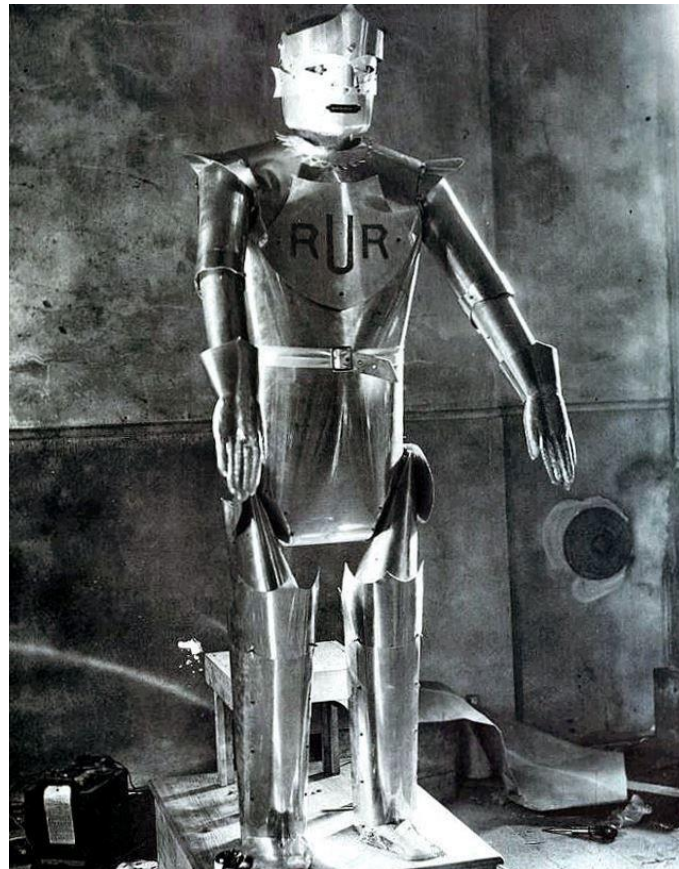
Leonardo da Vinci designed what may be the first humanoid robot though it cannot be confirmed if the design was actually ever produced. The robot was designed to sit up, wave its arms, and move its head via a flexible neck while opening and closing its jaw.



History of Robots

1921

The term "robot" was first used in a play called "R.U.R." or "Rossum's Universal Robots" by the Czech writer Karel Capek. The plot was simple: man creates a robot to replace him and then robot kills man!



History of Robots

1942

Isaac Asimov wrote the "Three Laws of Robotics"

1st Law: A robot may not injure a human or, through inaction, allow a human to come to harm.

2nd Law: A robot must obey orders given it by human beings, except where such orders would conflict with a higher order law.

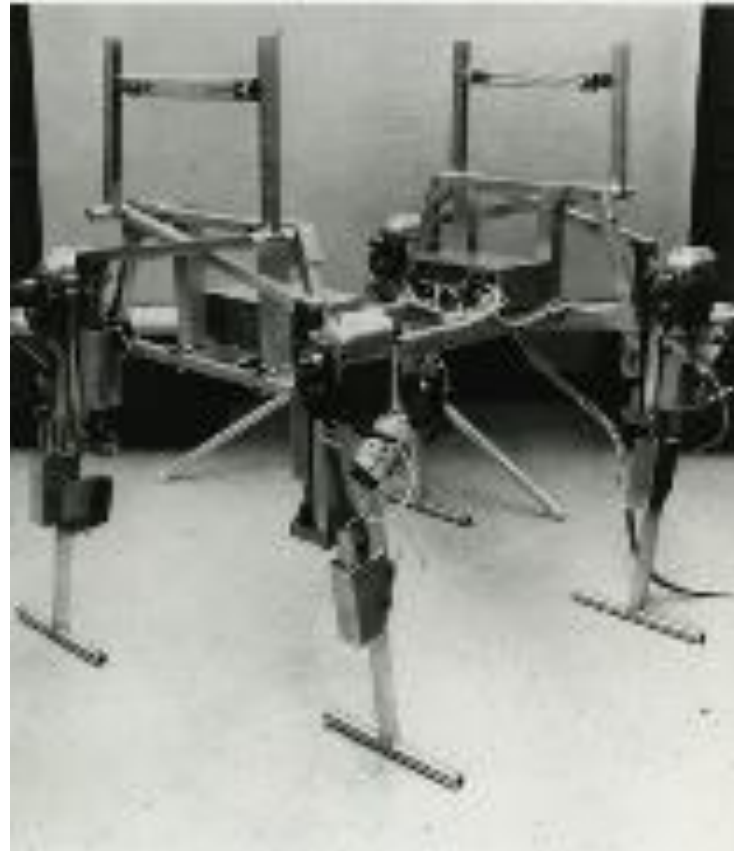
3rd Law: A robot must protect its own existence as long as such protection does not conflict with a higher order law



History of Robots

1968

The first computer controlled walking machine was created by McGeer and Frank at the University of South Carolina



History of Robots

1979

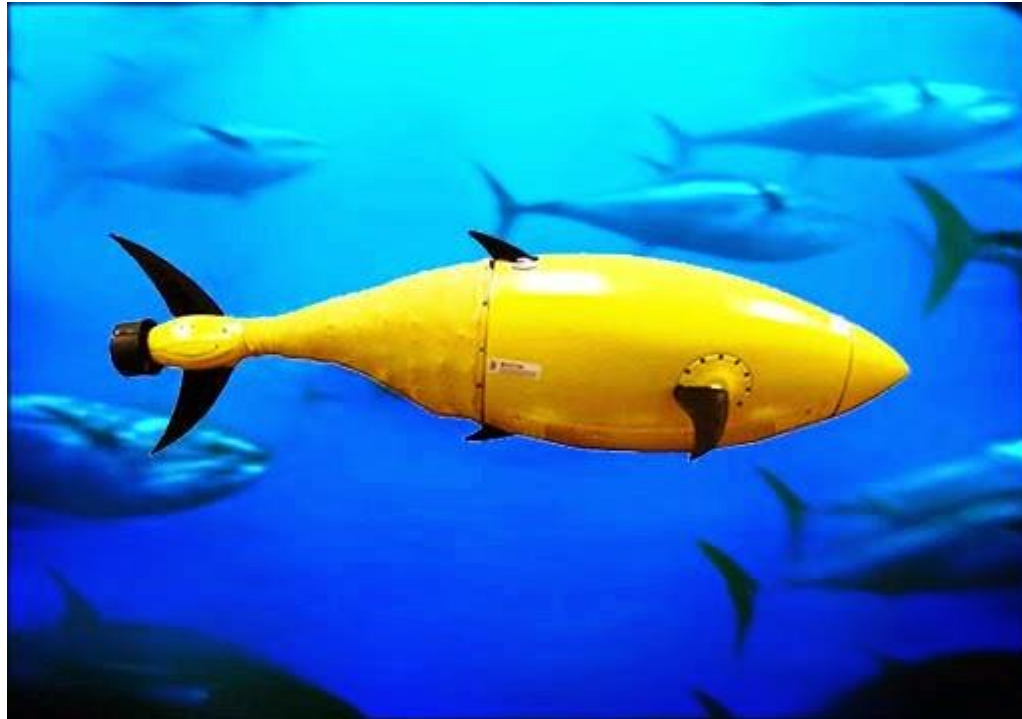
Hiroshi Makino of Yamanashi University designed the Selective Compliant Articulated Robot Arm (SCARA) for assembly jobs in factories.



History of Robots

1996

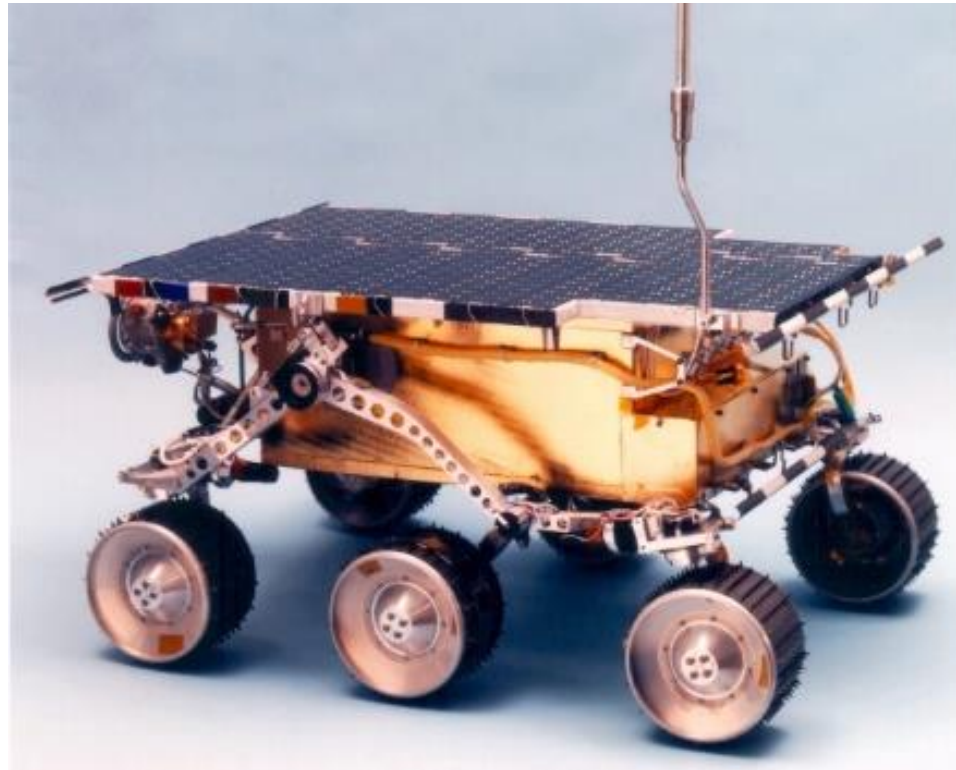
RoboTuna was created by David Barrett at MIT. The robot was used to study how fish swim.



History of Robots

1997

NASA's PathFinder landed on Mars. The wheeled robotic rover sent images and data about Mars back to Earth.



History of Robots

1998

LEGO released their MINDSTORMS robotic development product line, which is a system for inventing robots using a modular design and LEGO plastic bricks.



History of Robots

1999

Sony released the first Aibo robotic dog.



History of Robots

2000

Honda released ASIMO, the next generation in its series of humanoid robots.



2003

As part of their mission to explore Mars, NASA launched twin robotic rovers on June 10 and July 7, 2003 called Spirit and Sojourner.



2008

Robot Nao Released by Aldebaran Robotics, later which was acquired by SoftBank Robotics in 2015.



2016

Sophia is a social humanoid robot developed by Hong Kong-based company Hanson Robotics. Sophia was first turned on February 14, 2016.

