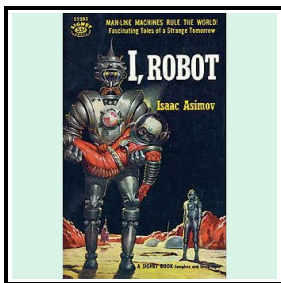
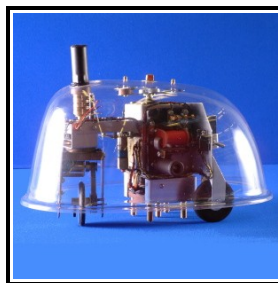


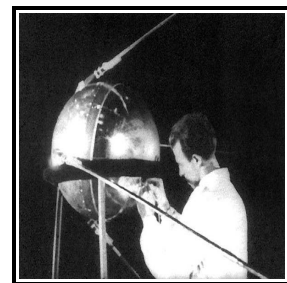
- ≈250 B.C. - Ctesibius, an ancient Greek engineer and mathematician, invented a water clock which was the most accurate for nearly 2000 years.
- ≈60 A.D. - Hero of Alexandria designs the first automated programmable machine. These 'Automata' were made from a container of gradually releasing sand connected to a spindle via a string. By using different configurations of these pulleys, it was possible to repeatably move a statue on a pre-defined path.
- 1898 - The first radio-controlled submersible boat was invented by Nikola Tesla.
- 1921 - The term 'Robot' was coined by Karel Capek in the play 'Rossum's Universal Robots'.
- 1941 - Isaac Asimov introduced the word 'Robotics' in the science fiction short story 'Liar!'
- 1948 - William Grey Walter builds Elmer and Elsie, two of the earliest autonomous robots with the appearance of turtles. The robots used simple rules to produce complex behaviours.
- 1954 - The first silicon transistor was produced by Texas Instruments.
- 1956 - George Devol applied for a patent for the first programmable robot, later named 'Unimate'.
- 1957 - Launch of the first artificial satellite, Sputnik 1.



I, Robot



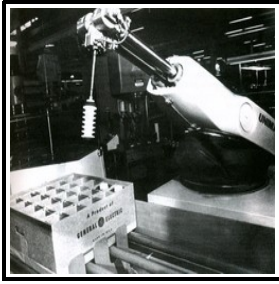
Turtle robot



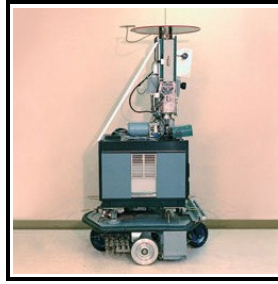
Sputnik 1

- 1961 - First Unimate robot installed at General Motors. Used for welding and die casting.
- 1965 - Gordon E. Moore introduces the concept 'Moore's law', which predicts the number of components on a single chip would double every two years.
- 1966 - Work began on the 'Shakey' robot at Stanford Research Institute. 'Shakey' was capable of planning, route-finding and moving objects.
- 1969 - The Apollo 11 mission, puts the first man on the moon. Landing was made inside the Lunar Module 'Eagle'.

Razor Robotics Fact Sheet: History of Robotics



Unimate 1



Shakey



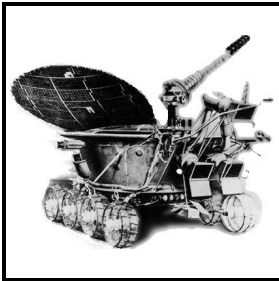
Moon Walk

1970 - Luna 17 lands on the moon, carrying the roving remote-controlled robot, Lunokhod 1.

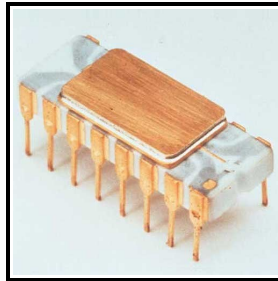
1971 - Intel introduce the first commercially available microprocessor, the 4004.

1975 - The space probes Viking 1 and 2 were launched each with an articulated robot arm.

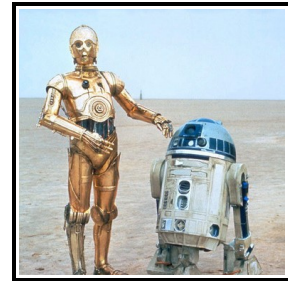
1976 - The film Star Wars is released introducing R2-D2 and C-3PO.



Lunokhod 1



Intel 4004



R2-D2 and C-3PO

1984 - The film Terminator is released, with Arnold Schwarzenegger as a cybernetic organism or cyborg.

1986 - Honda starts work on its first humanoid, robot named 'E0' (later to become ASIMO).

1988 - SCAMP designed as the first robot pet with emotions.

1989 - Mark Tilden introduces BEAM robotics, beam being an acronym for Biology, Electronics, Aesthetics, and Mechanics.

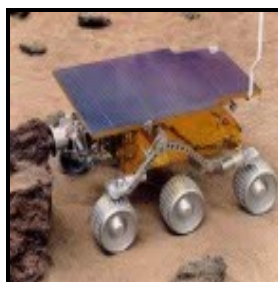
1991 - First HelpMate mobile autonomous robot used in hospitals.

1997 - Sojourner becomes the first rover to land on Mars as part of the Mars Pathfinder mission.

1998 - Lego enters the robotics market with its first version of Lego Mindstorms.



Asimo



Sojourner



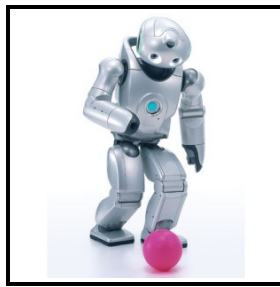
Lego Mindstorms

Razor Robotics Fact Sheet: History of Robotics

- 1999** - Sony introduces AIBO, an autonomous robotic dog capable of seeing, walking and interacting with its environment. This was followed a year later by the SDR-3X humanoid robot later known as QRIO (both discontinued in 2006).
- 2000** - Honda unveils ASIMO, the first non-prototype release of its humanoid robot.
- 2001** - US Air force test the first armed unmanned aerial vehicle (UAV) fitted with two Hellfire missiles, designated MQ-1
- 2002** - iRobot introduces Roomba, a personal robotic vacuum cleaner.



Sony AIBO

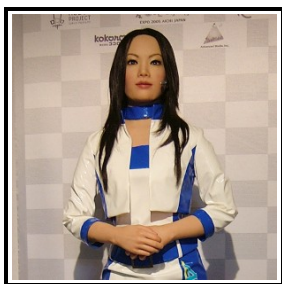


Sony QRIO

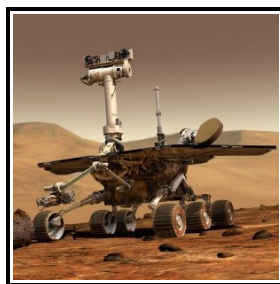


iRobot Roomba

- 2003** - Osaka University unveils their first 'Actroid', the term given for a humanoid robot with strong visual human characteristics.
- 2004** - The first DARPA Grand challenge is held. Sponsored by the US department of defence, the challenge is designed to create autonomous vehicles for warfare.
- 2004** - The Mars rovers Spirit and Opportunity land on Mars. As of November 25th 2009 The rover Spirit has completed 2150 days of its 92 day (90 sol) mission.
- 2010** - NASA and General Motors join forces to develop Robonaut-2, the new version of NASA's humanoid robot astronaut.



Actroid



Mars Rover



Robonaut-2