**ROBOTICS**

Robotics is an [interdisciplinary](https://en.m.wikipedia.org/wiki/Interdisciplinarity) branch of [engineering](https://en.m.wikipedia.org/wiki/List_of_engineering_branches) and [science](https://en.m.wikipedia.org/wiki/Branch_of_science) that includes [mechanical engineering](https://en.m.wikipedia.org/wiki/Mechanical_engineering), [electronic engineering](https://en.m.wikipedia.org/wiki/Electronic_engineering), [information engineering](https://en.m.wikipedia.org/wiki/Information_engineering_%28field%29), [computer science](https://en.m.wikipedia.org/wiki/Computer_science), and others. Robotics deals with the design, construction, operation, and use of [robots](https://en.m.wikipedia.org/wiki/Robot), as well as [computer systems](https://en.m.wikipedia.org/wiki/Computer_system) for their control, [sensory feedback](https://en.m.wikipedia.org/wiki/Sensory_feedback), and [information processing](https://en.m.wikipedia.org/wiki/Information_processing).

These technologies are used to develop machines that can substitute for humans and replicate human actions. Robots can be used in many situations and for lots of purposes, but today many are used in dangerous environments (including [bomb detection](https://en.m.wikipedia.org/wiki/Bomb_detection) and [deactivation](https://en.m.wikipedia.org/wiki/Bomb_disposal)), manufacturing processes, or where humans cannot survive (e.g. in space). Robots can take on any form but some are made to resemble humans in appearance. This is said to help in the acceptance of a robot in certain replicative behaviors usually performed by people. Such robots attempt to replicate walking, lifting, speech, cognition, and basically anything a human can do. Many of today's robots are inspired by nature, contributing to the field of [bio-inspired robotics](https://en.m.wikipedia.org/wiki/Bio-inspired_robotics).

The concept of creating machines that can operate [autonomously](https://en.m.wikipedia.org/wiki/Autonomous_robot) dates back to [classical times](https://en.m.wikipedia.org/wiki/Classical_times), but research into the functionality and potential uses of robots did not grow substantially until the 20th century. Throughout history, it has been frequently assumed by various scholars, inventors, engineers, and technicians that robots will one day be able to mimic human behavior and manage tasks in a human-like fashion. Today, robotics is a rapidly growing field, as technological advances continue; researching, designing, and building new robots serve various practical purposes, whether [domestically](https://en.m.wikipedia.org/wiki/Domestic_robot), [commercially](https://en.m.wikipedia.org/wiki/Industrial_robot), or [militarily](https://en.m.wikipedia.org/wiki/Military_robot). Many robots are built to do jobs that are hazardous to people such as defusing bombs, finding survivors in unstable ruins, and exploring mines and shipwrecks. Robotics is also used in [STEM](https://en.m.wikipedia.org/wiki/Science%2C_technology%2C_engineering%2C_and_mathematics) (science, [technology](https://en.m.wikipedia.org/wiki/Technology), engineering, and mathematics) as a teaching aid.[[1]](https://en.m.wikipedia.org/wiki/Robotics#cite_note-1) The advent of nanorobots, microscopic robots that can be injected into the human body, could revolutionize medicine and human health.