A **computer** is a [digital electronic](https://en.wikipedia.org/wiki/Digital_electronics) [machine](https://en.wikipedia.org/wiki/Machine) that can be programmed to [carry out](https://en.wikipedia.org/wiki/Execution_(computing)) [sequences](https://en.wikipedia.org/wiki/Sequence) of [arithmetic](https://en.wikipedia.org/wiki/Arithmetic) or [logical operations](https://en.wikipedia.org/wiki/Logical_operations) ([computation](https://en.wikipedia.org/wiki/Computation)) automatically. Modern computers can perform generic sets of operations known as [programs](https://en.wikipedia.org/wiki/Computer_program). These programs enable computers to perform a wide range of tasks. A **computer system** is a "complete" computer that includes the [hardware](https://en.wikipedia.org/wiki/Computer_hardware), [operating system](https://en.wikipedia.org/wiki/Operating_system) (main [software](https://en.wikipedia.org/wiki/Software)), and [peripheral](https://en.wikipedia.org/wiki/Peripheral) equipment needed and used for "full" operation. This term may also refer to a group of computers that are linked and function together, such as a [computer network](https://en.wikipedia.org/wiki/Computer_network) or [computer cluster](https://en.wikipedia.org/wiki/Computer_cluster).

A broad range of [industrial](https://en.wikipedia.org/wiki/Programmable_logic_controller) and [consumer products](https://en.wikipedia.org/wiki/Consumer_electronics) use computers as [control systems](https://en.wikipedia.org/wiki/Control_system). Simple special-purpose devices like [microwave ovens](https://en.wikipedia.org/wiki/Microwave_oven) and [remote controls](https://en.wikipedia.org/wiki/Remote_control) are included, as are factory devices like [industrial robots](https://en.wikipedia.org/wiki/Industrial_robot) and [computer-aided design](https://en.wikipedia.org/wiki/Computer-aided_design), as well as general-purpose devices like [personal computers](https://en.wikipedia.org/wiki/Personal_computer) and [mobile devices](https://en.wikipedia.org/wiki/Mobile_device) like [smartphones](https://en.wikipedia.org/wiki/Smartphone). Computers power the [Internet](https://en.wikipedia.org/wiki/Internet), which links billions of other computers and users.

Early computers were meant to be used only for calculations. Simple manual instruments like the [abacus](https://en.wikipedia.org/wiki/Abacus) have aided people in doing calculations since ancient times. Early in the [Industrial Revolution](https://en.wikipedia.org/wiki/Industrial_Revolution), some mechanical devices were built to automate long tedious tasks, such as guiding patterns for [looms](https://en.wikipedia.org/wiki/Loom). More sophisticated electrical [machines](https://en.wikipedia.org/wiki/Machine) did specialized [analog](https://en.wikipedia.org/wiki/Analogue_electronics) calculations in the early 20th century. The first [digital](https://en.wikipedia.org/wiki/Digital_data) electronic calculating machines were developed during [World War II](https://en.wikipedia.org/wiki/World_War_II). The first [semiconductor](https://en.wikipedia.org/wiki/Semiconductor) [transistors](https://en.wikipedia.org/wiki/Transistor) in the late 1940s were followed by the [silicon](https://en.wikipedia.org/wiki/Silicon)-based [MOSFET](https://en.wikipedia.org/wiki/MOSFET) (MOS transistor) and [monolithic integrated circuit](https://en.wikipedia.org/wiki/Monolithic_integrated_circuit) (IC) chip technologies in the late 1950s, leading to the [microprocessor](https://en.wikipedia.org/wiki/Microprocessor) and the [microcomputer revolution](https://en.wikipedia.org/wiki/Microcomputer_revolution) in the 1970s. The speed, power and versatility of computers have been increasing dramatically ever since then, with [transistor counts](https://en.wikipedia.org/wiki/Transistor_count) increasing at a rapid pace (as predicted by [Moore's law](https://en.wikipedia.org/wiki/Moore%27s_law)), leading to the [Digital Revolution](https://en.wikipedia.org/wiki/Digital_Revolution) during the late 20th to early 21st centuries.