

## Topic Page: [Electronics](#)

Definition: **electronics** from *The Penguin Dictionary of Physics*

The study, design, and use of devices based on the conduction of electricity in a vacuum, a gas, or a semiconductor. Modern electronics is principally concerned with semiconductor devices; vacuum and gas-filled devices are rapidly becoming obsolete, apart from a few specialized uses. See Appendix, Table 10 for symbols used in electronics.

Summary Article: **electronics**

From *The Columbia Encyclopedia*

science and technology based on and concerned with the controlled flow of electrons or other carriers of electric charge, especially in semiconductor devices. It is one of the principal branches of electrical engineering. The invention of the transistor, announced in 1948, and the subsequent development of integrated circuits have brought about revolutionary changes in electronics, which was previously based on the technology of the electron tube. The miniaturization and savings in power brought about by these developments have allowed electronic circuits to be packaged more densely, making possible compact computers, advanced radar and navigation systems, and other devices that use very large numbers of components (see microelectronics). It has also brought to the consumer such items as smaller and more reliable radio and television receivers, advanced sound- and video-recording and reproducing systems, microwave ovens, cellular telephones, and powerful yet inexpensive personal computers. The consumer electronics industry—which began in 1920 when radio broadcasting started in the United States—accounts for annual sales of close to \$50 billion in the United States alone. Because of advances in electronics manufacturing technology, the cost of electronic products often decreases even as quality and reliability increase. Power requirements are continually reduced, allowing greater portability.

**APA**

Chicago

Harvard

MLA

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## Harvard

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## MLA

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