

# ***A glossary of computing terms***

Eighth edition

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**Sampler**

*also known as: digital sampler*

is an electronic circuit which takes samples of an electronic signal at intervals and stores them for future processing. In particular, they are used to take frequent measurements of analog signals for converting an analog signal into a digital signal, when it is known as a digital sampler.

**Sensor**

*including: analog sensor, digital sensor, active device, passive device*

is a *transducer* (see above) which responds to some physical property such as pressure, rate of flow, humidity, the proximity of ferrous metal. The sensor produces an electrical output which is either *analog* or *digital*. Some sensors, called *passive devices*, require no external electrical source. Those which require an external voltage are called *active devices*.

**Servo mechanism**

*also known as: servo*

is a mechanical mechanism for remote control of machines. A simple form is the motors which operate the control surfaces of a radio-controlled model aircraft, where the person flying the model plays an active part continuously adjusting the position of the control levers. Servos can be controlled electronically through computer circuits which may incorporate feedback to achieve automatic control; in these situations human participation may be very limited.

**Actuator**

is any device which can be operated by signals from a computer or control system causing physical movement. For example, devices for opening windows in a compute-controlled ventilation system.

**Stepper motor**

*sometimes : stepping motor*

is an electric motor which moves in small rotational steps. Suitably controlled and geared, a stepper motor can provide very small discrete movements, for example, the movement of the paper rollers and the print head in a printer. The control circuits may well involve the use of *feedback* (see page 39).