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Feedback control system based on discrete state equations (see Fig. 10.1).
The principle of the feedback control system is as follows:
The controller takes the measured variable and compares it with the set-point value. The error signal is fed back about the set-point value of a controlled variable.

11 Open-loop control systems

The open-loop control system is a system in which the output signal does not affect the input signal. This type of system is used in applications where the output signal must be controlled by a controller without being affected by other signals. An example of such a system is a robot arm, where the position of the end effector is controlled by a controller without being affected by external factors like gravity or friction.

The control theory also includes methods of analysis and design of open-loop control systems.

