

## Application of Rotary Sensor in Servomotor as feedback control

A servo motor is an electrical device which can push or rotate an object with great precision. If you want to rotate an object at some specific angles or distance, then servo motor is used. The servomotor is the motor that is used in the servomechanism.

### Working Principle:

The servomechanism is the mechanism that keeps the speed of continuous rotational motion or linear motion constant, or precisely controls the rotation angle and travel distance of one movement. The servo motor consists of a brushless DC or AC motor, an encoder, and a servo amplifier (also called a driver). To keep the rotation speed of a brushless DC motor or AC motor constant, Rotary encoder detects the rotation speed. The servo amplifier controls to rotate the motor faster if the detected speed is slower than the set rotation speed, or to slower if it is faster. In order to accurately control the rotation angle of the motor, a Rotary encoder detects the rotation angle. The servo amplifier controls the rotation angle of the motor by checking whether it has moved to the target rotation angle.

This method of control by using **Rotary encoder** to detect the motor rotation speed and rotation angle is called feedback control.

