

## SUMMARY

**Handriawan Junianto**, Department of Electrical Engineering, Faculty of Engineering, University of Brawijaya, in April 2016, Servo Motor Speed Rotation Control System To Process Starting And Breaking In Sliding Door Miniature, Supervisor: Bambang Siswojo and Purwanto.

The shortcoming of the automatic sliding door system at the moment is the velocity to open the door was kept constant with the distance between the door and the object which will pass through the door. Then it invented a solution to enhance the sliding door system which already exists, by using servo motors which the rotation speed can changeable according to the length which can be read by the ultrasonic sensor. The length which received by the ultrasonic sensor will be processed by arduino uno. After the length received, it will be processed to determine the rotational speed of servo motors. Hereafter, the servo motor will move the door by on velocity that has been adjusted into the length.

The goal in making a study to be made is to make the sync tool automatically uses the sliding door motor speed servo motors and optimize the performance of the sliding door when opening and closing the door.

Tools designed has been running as expected, where the servo motor can move the door at a speed that is based on the input of distance given to HC-SR04 ultrasonic sensor.

*Keyword: Automatic sliding door system, Ultrasonic sensor, Arduino uno, Servo motor*