ABSTRACT

Robotic technology is increasingly sophisticated, one of them on the field aeromodeling which begins to show the development, with the autopilot that can work automatically without direct human intervention. Expected by the autopilot, will facilitate the control system of an airline and also reduce the risk of accidents involving humans directly.

The robot is designed using Brushless motors as propulsion Propeller rotation, which is controlled by basic stamp microcontroller, where the data is processed data received from the control center that is sent via radio frequency. These data form of an order for the navigation of flying robots, which includes using a sensor type HM55B compass as navigational direction, and also the servo motor as the driving position behind the balancer and propeller that functions as a regulator of the direction of navigation.

From the results of research conducted, then testing using a compass with a compass sensor type can be said HM55B is already quite good, because it has an average error value between 5% -10%, and can be used as a compass to navigate a flying robot.

Key words: Basic stamp, Brushless, Servo, Compass, Propeller, autopilot.