ABSTRACT

POSITION CONTROL OF TWO COORDINATE YAW, AND PITCH ON DC MOTOR

An increasingly developed control system can improve system performance, production quality and reduce production costs. For example, a control system that can be applied in everyday life is position control, especially the control position of 2 coordinate angles (yaw and pitch). The application of coordinate 2 angle position control can be applied to the control of the Radar position.

In this final project, the author design and implement a control system for 2 yaw and pitch coordinate angles on the radar prototype. The control system is done by measuring the angle using the MPU-6050 sensor, processing data using the PID control to control the PWM voltage, direct monitoring through the computer and the use of actuators namely DC motors to run the desired 2 coordinate angle positions.

After Complete PID is implemented on the system, To reach the setpoint, each setpoint angle has an increase in time of 2 seconds. Whereas during the agreed angle setpoint has the highest error of 4.68 °.

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