

**DESIGN OF SPEED CONTROL SYSTEM ON PROTOTYPE
CLASS SIGMA BATTLESHIP AUTOPILOT BASED
ARDUINO**

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Abstract

Speed control system is a system used to control the speed to match the desired set point. Ship speed is often controlled by controlling the rotation speed of the motor. In this research, design control through manipulation of motor rotation speed. The object ship used was a prototype sigma-class battleship. The sensor used is optocoupler sensor and encoder. Rpm measured on the optocoupler is influenced by the input voltage DC motor, is equal to 1,304 volts. In the datasheet DC motor capable of spinning 1600 rpm with a voltage of 1 V. Then do the validation using a stroboscope. From the readings stroboscope known value of reading 2466 rpm and 2424 rpm optocoupler obtained value. Then from GPS alone showed 0.8 to 1 m / s while for the validation measurements are performed manually, and obtained a value of 1 m / s.

Keywords: *Ship, Speed, Optocoupler, Stroboscope.*