

ABSTRACT

Intense competition in the industry makes many companies competing to innovate to improve the productivity of the factory. One of them in terms of machine mobility, the operation of cranes. Sway is a problem that often arises during the operation of the crane. Sway of the load generated when the motor crane accelerates or decelerates. The safety of controlled operation crane is something the company wants.

Anti Sway Overhead Crane is an innovation needed by companies with heavy equipment background in crane operation. Anti Sway Overhead Crane is a prototype that uses anti *sway* system in overcoming sway that occurs on loads transported by crane at the time of operation. The anti sway system works by manipulating the movement of the crane motor. The anti sway system can reduce the level of workplace accidents and reduce the risk of property damage. The prototype is built using a microcontroller as its controller. To improve the performance of prototypes in moving at a constant speed, the method used is the Proportional Derivative control system.

The anti sway system will work to reduce the oscillations that occur in the load. The anti sway system will also accelerate the stability of the overhead crane prototype.

Keywords : Overhead Crane, Arduino Uno, PD Controller.