ABSTRACT

The development of the world of robots is growing rapidly from year to year. There are more and more techniques in moving robots in dynamic environments, one of which is the inverted pendulum. In this final project, the author will presented the inverted pendulum technique to balance a robot with two wheels so that it can stand upright.

The purpose of this final project is to compare the performance results of robot analysis with robot experiments.

The balancer robot uses Arduino pro mini by utilizing MPU-6050. The balancer robot uses the Euler Lagrange equation.

Keywords : *Robot balancer, Arduino pro mini, Euler Lagrnage, and MPU-6050.*