ABSTRACT

In the era of ICT (Information and Communications Technology), as now, the development of the telecommunications system is able to be felt. Many people who take advantage of these conditions. Evidenced by the emergence of creative ideas from these developments. One effect of these conditions is much research to learn and develop the science of telecommunications.

At the end of this project, will taken advantage of these technological developments. Designed a system that is going on aerorobotik balance, which will balance the system greatly affect the performance of aerorobotik to conduct surveillance and monitoring. This will determined the balance system is so stable aerorobotik attitude or constant in position. So aerorobotik can perform surveillance and monitoring tasks. Balance system that will be made using the system microcontroller. Microcontroller system will be integrated with the mechanical system that is four motor drivers. Additionally, it will be added also other systems that will balanced the gyro aerorobotik System. Microcontroller will adjust the mechanical system and gyro systems to determine the speed of the motor driver to rotate the propeller so that it can be aired aerorobotik and stable position. In practice, if aerorobotik are experiencing problems such as shocks or shocks due to something, it will automatically aerorobotik will return to its original position and stabilized although at different positions.

System to be created is to be able to balance the aerorobotik with attitude changes $\pm$ 6° of earth zero condition which is time variation start from 3 until 8 second depend the value of attitude changes so aerorobotik be stable and balanced in position to be able to carry out surveillance and monitoring tasks.

Key words: balance, Aerorobotik, Microcontroller, Mechanics, Motor Driver, Gyro System.