ABSTRACT

The development of technology and science, especially in the field of aerial robotics has grown very rapidly. One of the aerial robot technology development is a quadcopter. At this time, quadcopter is widely used as a tool for capturing images / video that would be needed in the needs of government, research, military, industry, and others. A quadcopter in general can only fly in 10-15 minutes with a standard power supply 12 Volt battery. The flying time duration of quadcopter becomes one of the laxity of quadcopter.

In this final project, a power supply of quadcopter will be modified by providing additional circuit which is a regulator circuit. The function of circuit is to lower the voltage so that the quadcopter can dole the battery with greater voltage. The regulator circuits will be designed into 5 different circuits, the purpose is to compare the performance of all 5 circuits. The regulator will be given a new battery, which is 15 volt, with the output adjusted to the need of normal quadcopter ration, which is 12 Volt.

By comparing the 5 regulator circuits, then can be obtained the best circuit. The design of the best regulator will dole the battery with voltage greater than 15 Volt battery.

Keywords : quadcopter, regulators, and battery.