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.