ABSTRACT

The development of UAV technology (Unmanned Aerial Vehicle) provides many benefits in its use. One of the uses of UAVs is to monitor large areas. The function of the UAV as a monitoring tool can be used in the agricultural sector. A farm that has a large area of land will be brutal to monitor the grounds as a whole. Therefore, this task can be done more easily by utilizing a UAV. The UAV used must have the ability to fly in a stable state and the ability to fly following a predetermined trajectory.

, Therefore, in this final project, we will design and realize a UAV with a quadcopter type that can fly automatically according to the objectives set in the Mission Planner application. The additional capabilities of the quadcopter which can perform take-off and land automatically will also be more helpful in carrying out the work of monitoring their land. Therefore, this final project will also design a quadcopter that can take off and land automatically.

Keywords: UAV, *Quadcopter*, *Mission Planner*, *Take off*, *Landing*