

ABSTRACT

Rocket is one of the containers that are used for aerospace launch loads up to the desired destination. The rocket itself has a strategic significance, can be used in peacekeeping missions and defense. It depends on the load carried by the rocket. If the weight in the form of the instruments of research, communication tools, and others - others are rocket peace. Meanwhile, the rocket will carry an explosive weapon (warhead) to destroy. Therefore, countries that control well rocketry technology independence, will be respected by other countries around the world. In the field of science and technology required continuous efforts to realize development of this rocket to manifest independence and welfare. Therefore, the authors have created an interface of payload rocket itself, which serves as the telemetry ground stations for monitoring the attitude and has a camera system to observe the earth was able to take pictures from the air.

The final project will be designed and realized in the form of interface that serves as ground stations on the rocket payload transmission media is Radio Frequency (RF). In the manufacture of the author interface using visual basic 6.0 software. The rocket payload can work well as equipped with sensors that support in order to perform telemetry perfectly. All sensors are connected by a microcontroller which has been programmed.

This project has the reliability of the system used in the user interface. Sensor compass, has a level of error is direction of north: 0.28%; east: 3,33%; south; 1.11%; and western: 0.74% so that can be concluded sensor compass worked quite accurate. In testing G-Shock, G-Force, and Vibration can receive data 100% so as feasible for be included in the competition.

Keywords: rocket, payload, General User Interface, Ground Stations, telemetry.