ABSTRACT

In the currently of rocket technology, development is very fast. The rocket compartment contains an object, that is called the payload. A payload can be said to be modern and well if the payload can be controlled automatically or manually. The control it will not be achieved without a reference value. To get the reference value in the payload, must be completed with the sensors, it is necessary a method control system of payload with remotely, equipped with location detection coordinates.

In making this final task, we have performed a variety of tests, it has successfully created an autonomous payload GPS based. The device is capable of knowing coordinates of a place and be able to know the direction of the destination with help of a digital compass. These devices can be controlled automatically or manually of remotely, the control center from the ground segment. The ground segment are designed using the Visual Basic 6.0 software.

The results had been achieved from this design is has been successfully designed a GPS based autonomous payload which can be know the direction of the destination location and reading the coordinates of a place by the GPS has been successfully performed with accuracy 10m. Such information can be sent to ground segment with properly, with reference to the rule Korindo 2010 a payload can be used for homing mode.

Keywords: payload rocket, automatic control, GPS