ABSTRACT

A satellite requires a system to control that is used to reach a set point or balance that is required to get information, so it can be implemented into the satellite prototype. The purpose of this satellite prototype design is control system in changing the target area, balance and speed inside a building and outside.

To move and reach the setpoint, it uses a brushless motor with a Electronic Speed Control as its controllers of the electricity voltage and currents, a compass censor to make its destination, and an accelerometer censor as its balancer in the satellite prototype. As the control center, this satellite uses a basic stamp microcontroller, that is programmed using the basic language. Receiving data is done by air (wireless) and received by a computer.

The shape of this satellite prototype is like a tube with wings that can be spread in order to get ready for controlling the satellite. To get a setpoint, the satellite is hanged so it can fly. Receiving the data can be checked in the computer screen, that includes changing the value of the setpoint that is sent to this satellite prototype.

Keywords: Basic Stamp 2p40, Compass Censor HM55B, Accelerometer Sensor MMA3201, brush-less motor*, radio frequency YS1020UB*