## *ABSTRACT*

*VSAT (very small aperture terminal) antenna is a device for communicating with satellites. In satellite communication, the accuracy of pointing the antenna to the satellite is very important. If the direction of the antenna reflector is more precise to the destination satellite, then the connection between the two will be good and the error value will be small. The VSAT antenna has an azimuth and elevation control on the antenna head which serves to direct the antenna's reflector in the direction of the intended satellite.*

*To assist the VSAT antenna pointing process, in this final project research is designed a tool that can measure the angle of elevation and azimuth of the antenna according to its condition and can determine the angle of elevation and azimuth that must be adjusted so that the reflector antenna is correctly facing the intended satellite. By using the coordinates of the predetermined satellite position and the position of the earth station / antenna with latitude and longitude format obtained from the GY-GPS6MV2 module (GPS Sensor) or input manually, the elevation and azimuth values can be obtained which must be set on the antenna. Then the technician adjusts the azimuth and elevation angles that must be adjusted assisted by the GY-271 module (compass sensor) as an azimuth angle reader and the GY-521 module (accelerometer and gyroscope sensor) as an elevation angle reader on the antenna according to its condition. After reading the results of the two sensors according to the elevation angle and azimuth that must be adjusted, it can be said that the antenna is right at the destination satellite.*



***Keywords:*** *VSAT antenna, elevation, azimuth, GPS, microcontroller*