

Interfacing GPS with APM

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1 Tutorial Name

Interfacing GPS with APM

2 Prerequisites

Before reading this tutorial read about APM and read DATASHEET of your GPS module.

3 Hardware Requirement

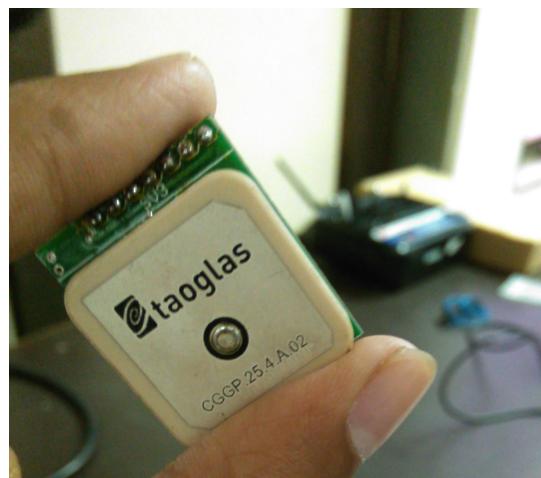


Figure 1: GPS

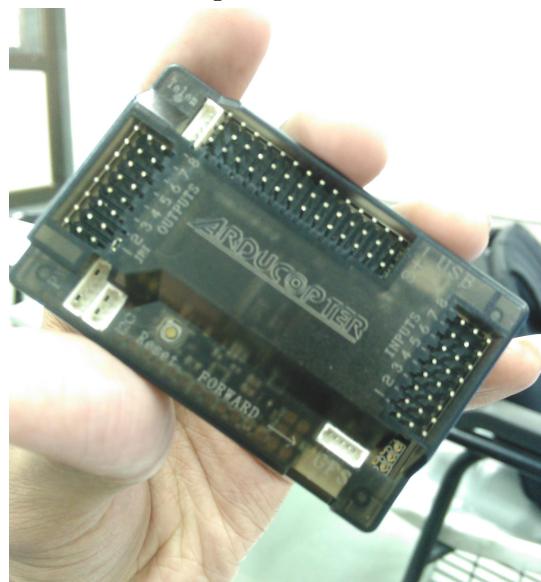


Figure 2: APM 2.6 FLIGHT CONTROLLER

4 Software Requirement

MISSION PLANNER SOFTWARE 1.3.30

5 Theory and Description

connect the GPS to APM via GPS port which is given in APM. follow this image for connections.

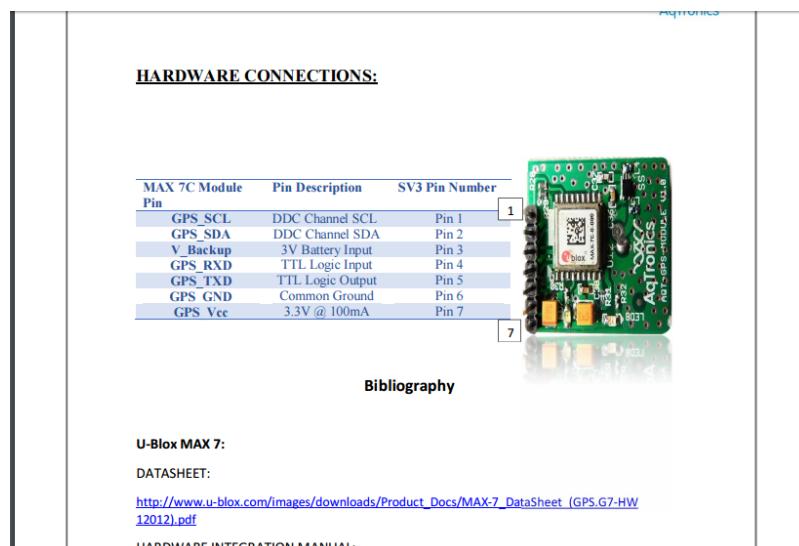


Figure 3: GPS module pin Diagram

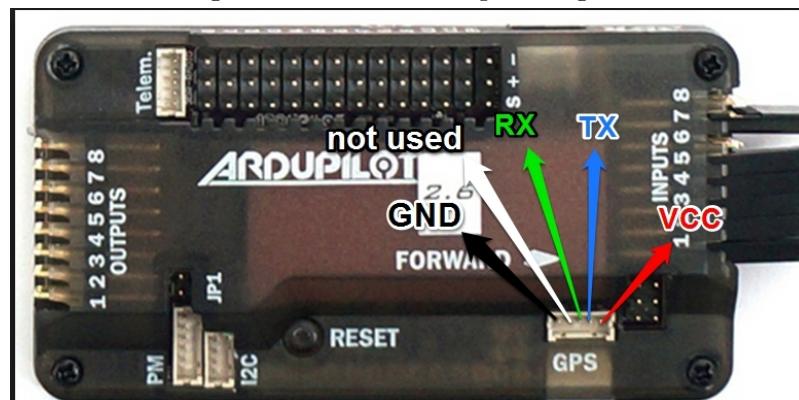


Figure 4: GPS Pin on APM

connect the module as shown in figure. connect APM with Mission planner and go to under open sky. for perfect gps location you GPS module should be under open sky. after 2 or 3 minutes GPS satellites will be connected to module. and you will find your Location on map in MISSION PLANNER software. you can also see no. of satellites connected to your gps module.

you will also get value of longitude,latitude,altitude on terminal of mission planner software.

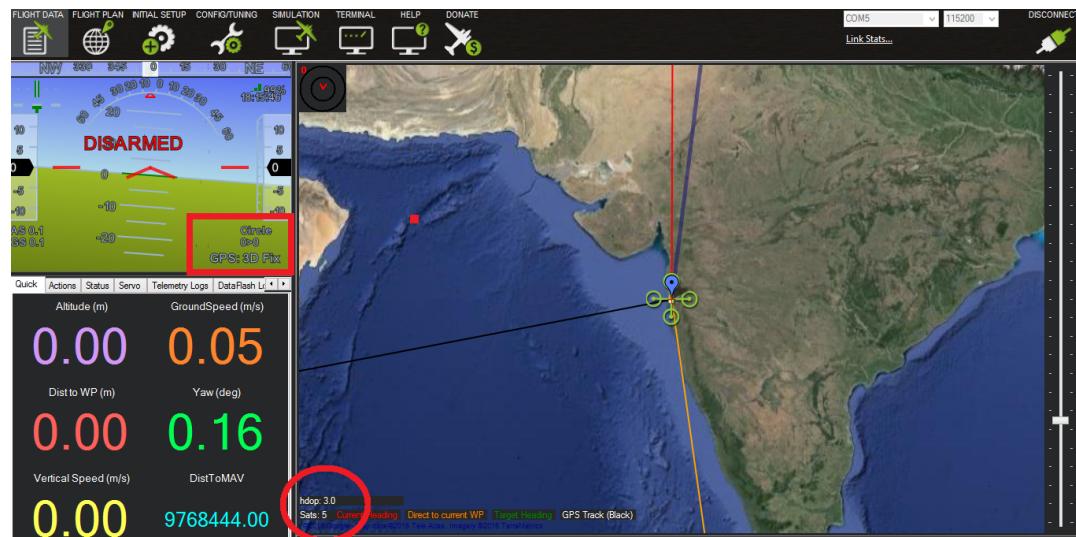


Figure 5: current location

as you can see in the figure. mission planner shows 3D fix and no. of satellites are 5.

as you move from one place to another you will be tracked as you can see in image.

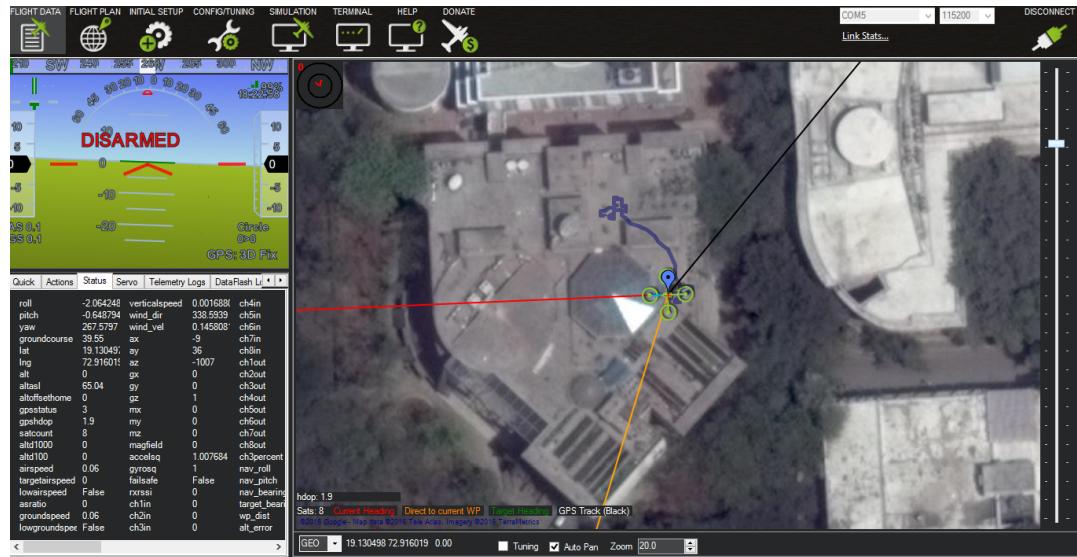


Figure 6: closer look to location

you can see LAT , LON ,ALT and SATS on terminal.

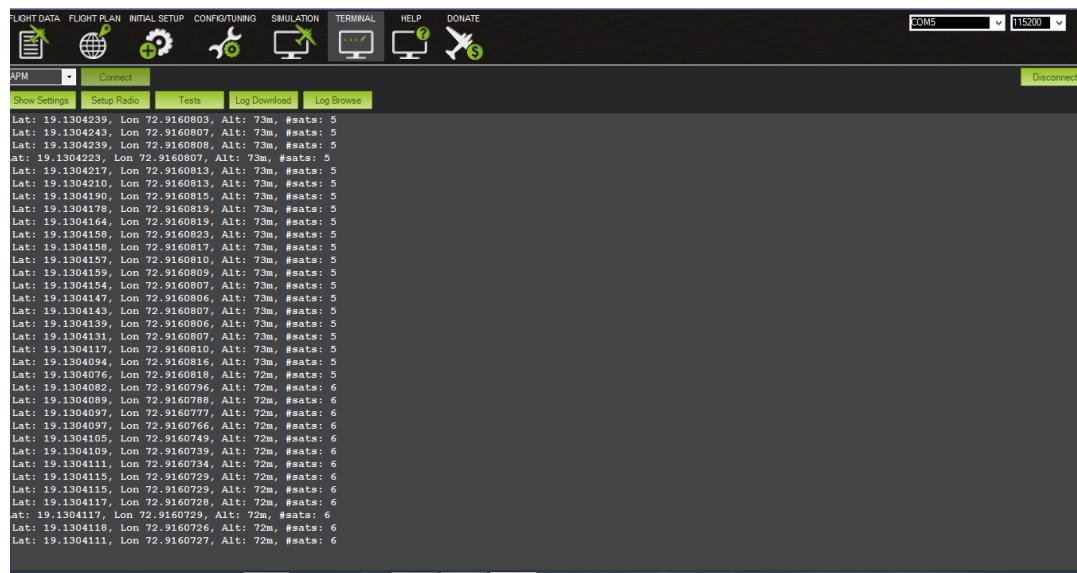


Figure 7: DATA from terminal

6 References

<http://ardupilot.org/copter/docs/common-installing-3dr-ublox-gps-compass-module.html>

Our GPS datasheet.