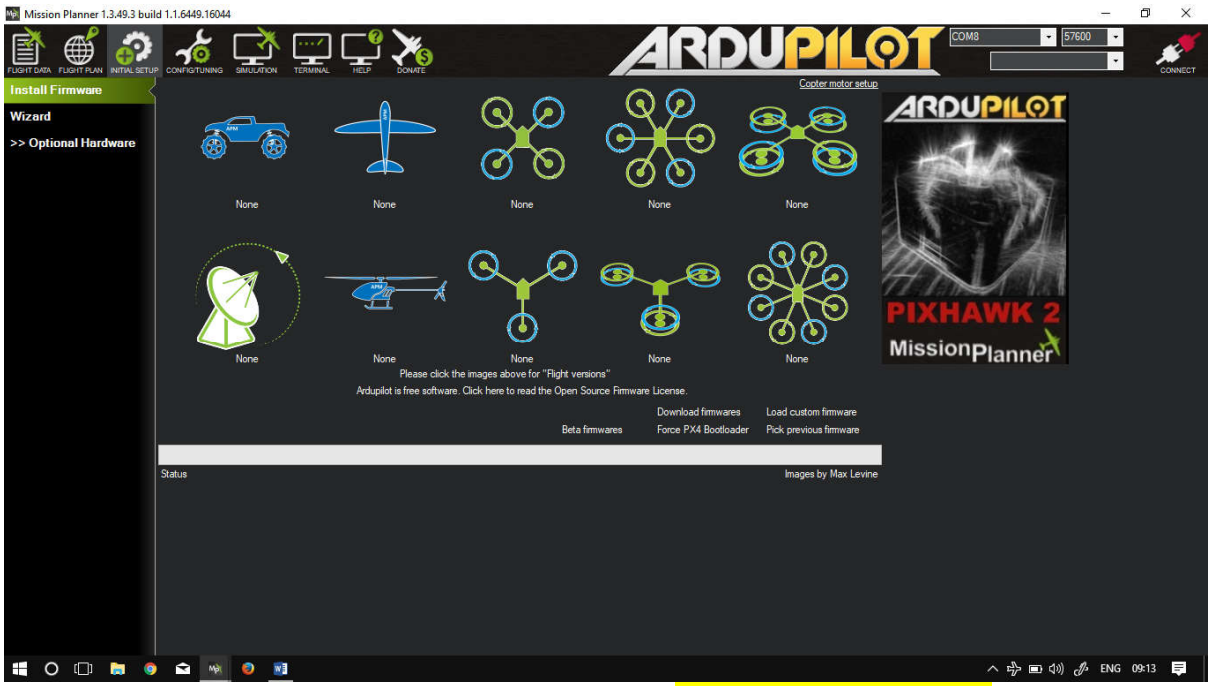
Mission Planner Calibration Guide for Pixhawk

1. Open Mission planner
2. Connect Pixhawk through USB with Desktop/Laptop
3. Find COM port assigned to connected Pixhawk
4. Click on INITIAL SETUP tab

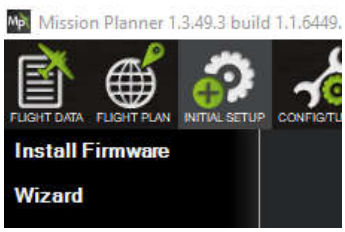


5. Select assigned COM Port , with baud rate as 57600 and DO NOT click on CONNECT
6. Now, Click on frame type to install firmware and follow the steps displayed on screen. (Make sure your Internet connection is active for this step)
7. Once, firmware is installed, and buzzer stops; Restart your autopilot (Pixhawk).
8. Now, again connect Pixhawk through USB and connect it with Mission Planner by clicking on top right corner of the screen.
9. Now, there are two methods to calibrate Pixhawk:
    a. Through WIZARD
    b. Through Mandatory hardware

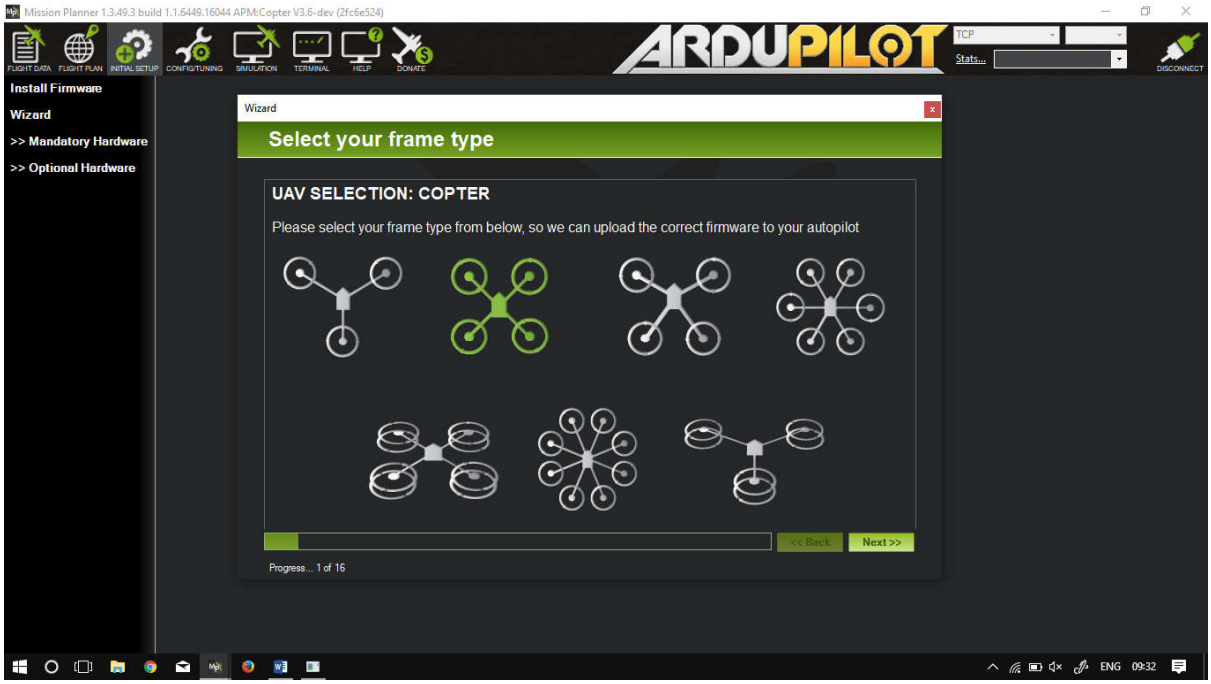
You are free to choose either method. My suggestion is to go through Wizard and if any step fails, then you can recalibrate it through Mandatory Hardware.

Through WIZARD

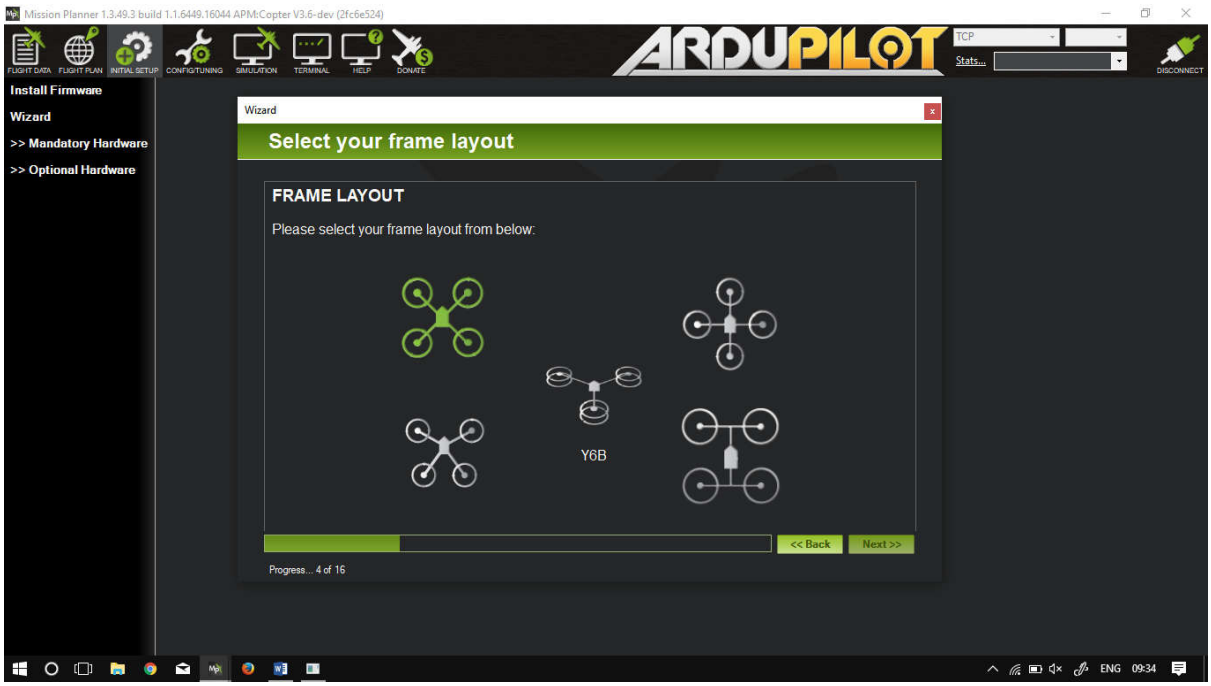
1. Under Initial Setup tab, Click on WIZARD from Left Menu.



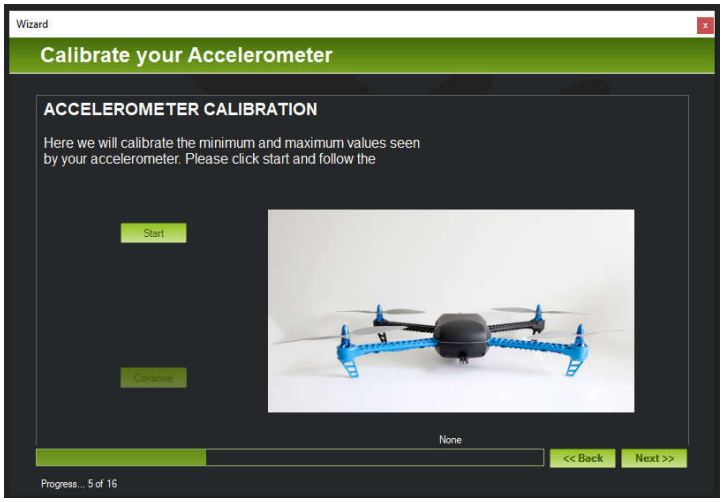
2. Select your frame type and click NEXT



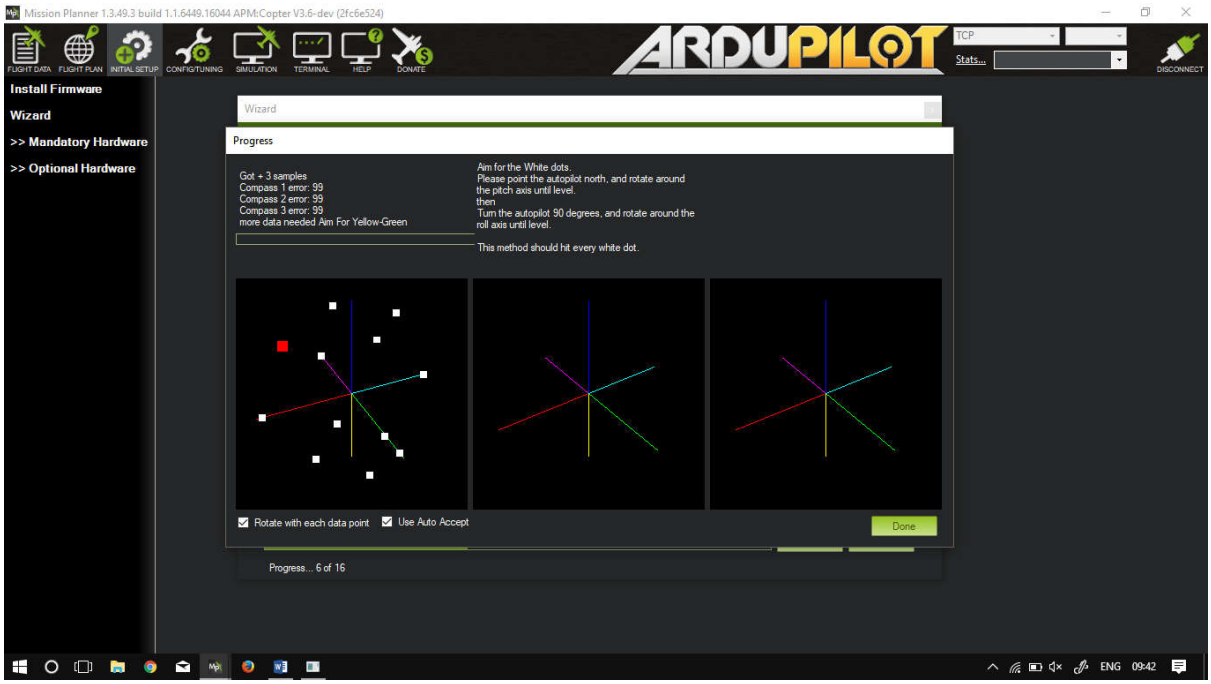
3. Select layout of your frame(carefully) and click NEXT.



4. Now do Accelerometer Calibration, place your vehicle on a levelled surface and click START. (Do not click on NEXT or CONTINUE in any case)

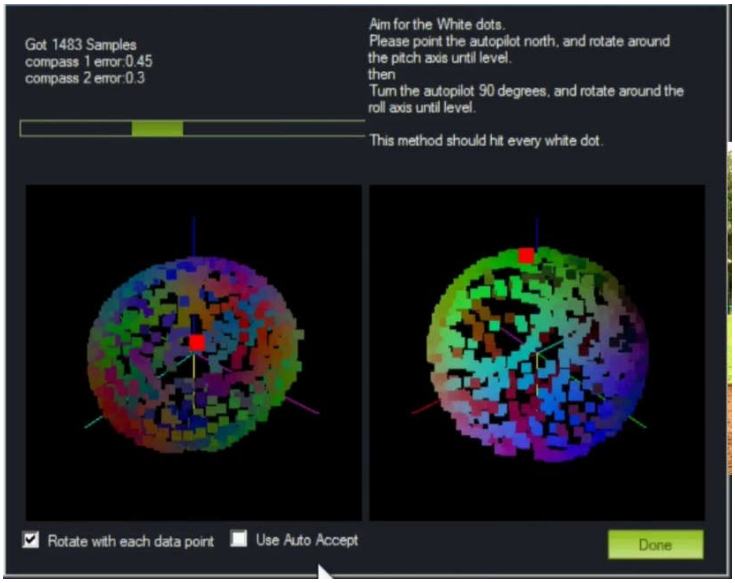


5. Follow the steps displayed on screen while calibration. It will ask you to turn your vehicle in all 6 faces, one by one. Press any key from Keyboard once you hold it stable after turning its face in each step.
6. Once it is completed, Click on NEXT and start live calibration of compass

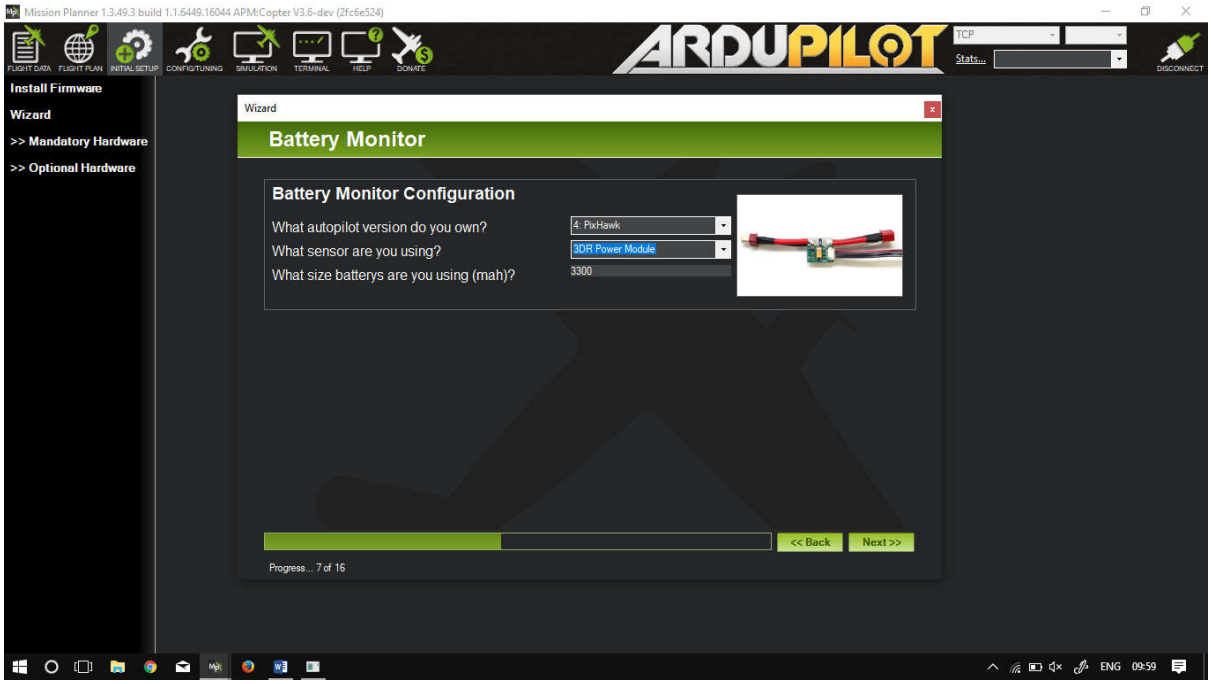


7. Before starting to rotate, UNCHECK Use Auto Accept for better results

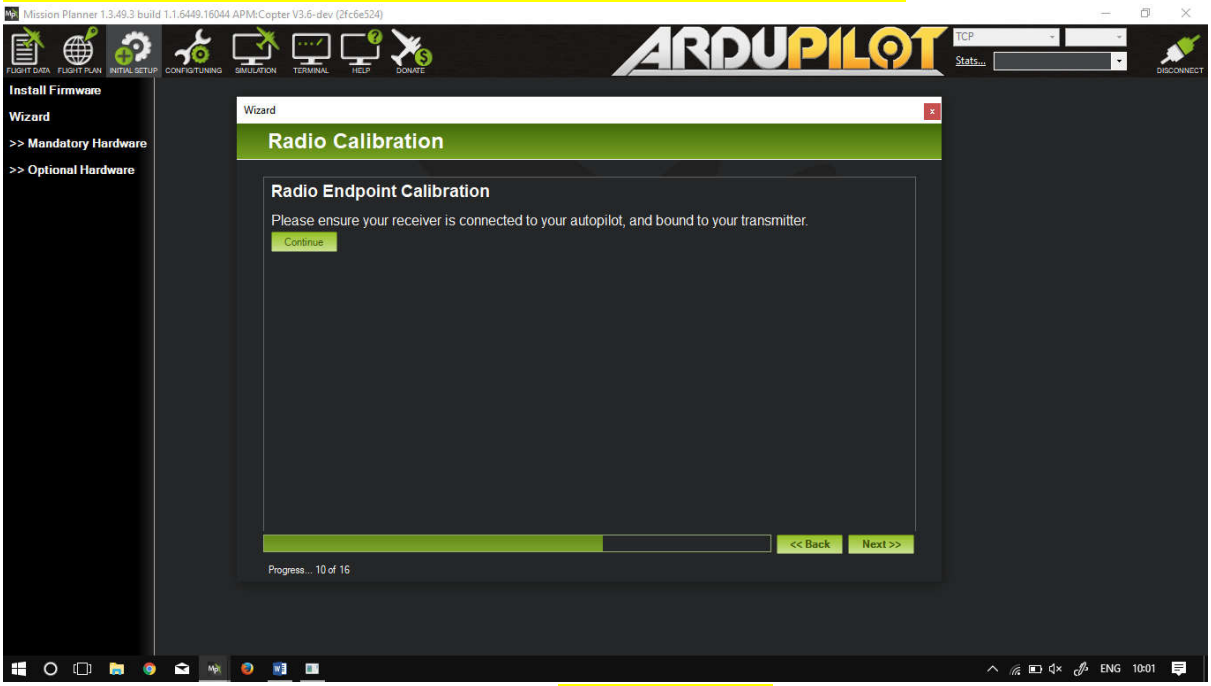
8. Now rotate the pixhawk/vehicle in 360 circular motion to cover all the white dots and make a perfect sphere of motion lines



9. Keep rotating until all white dots are gone, and minimum samples are above 2000 and compass error is 0 or nearly 0.
10. Select Autopilot version as Pixhawk and sensor as 3DR power Module and specify battery size in mAH



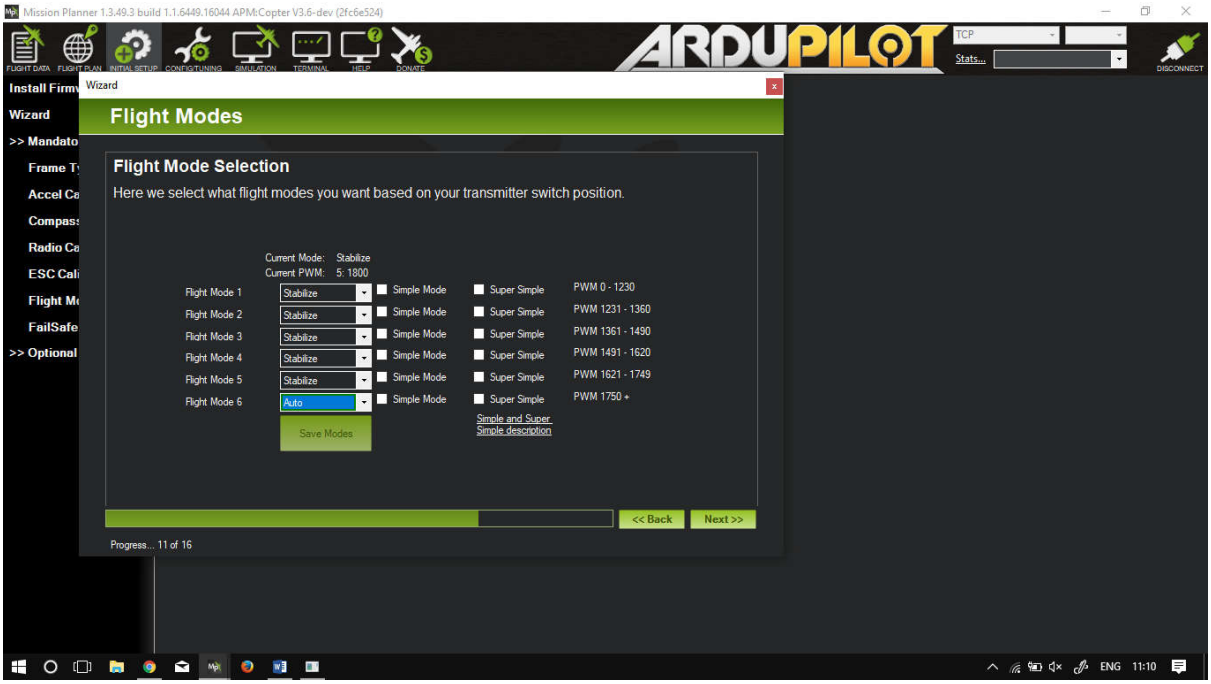
11. Click on NEXT and jump to RADIO CALIBRATION and click Continue. Make sure your transmitter and receiver are both powered on before clicking on CONTINUE



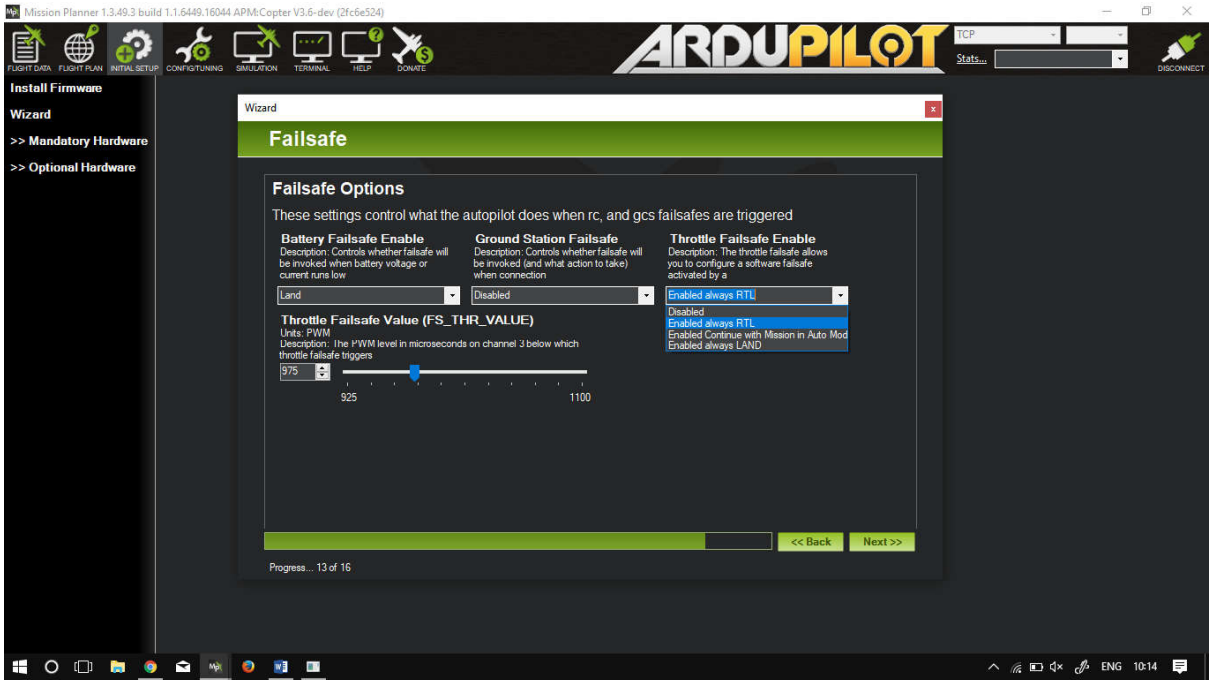
12. Make sure your Tx and Rx are binded. Click on CALIBRATE RADIO and move all sticks, switches and knobs to their minimum and maximum position.

13. Click on Click when done when red bars on each channel hits max and min value. Then COMPLETED will be displayed (Do not click on COMPLETED)

14. Click on NEXT and jump to Flight modes and set all flight modes to STABILIZE except last one. Select last one as AUTO. Then SAVE AND click on NEXT
    Click on NEXT and jump to FAILSAFE and select Batter failsafe to LAND and Throttle failsafe to Enable always RTL.



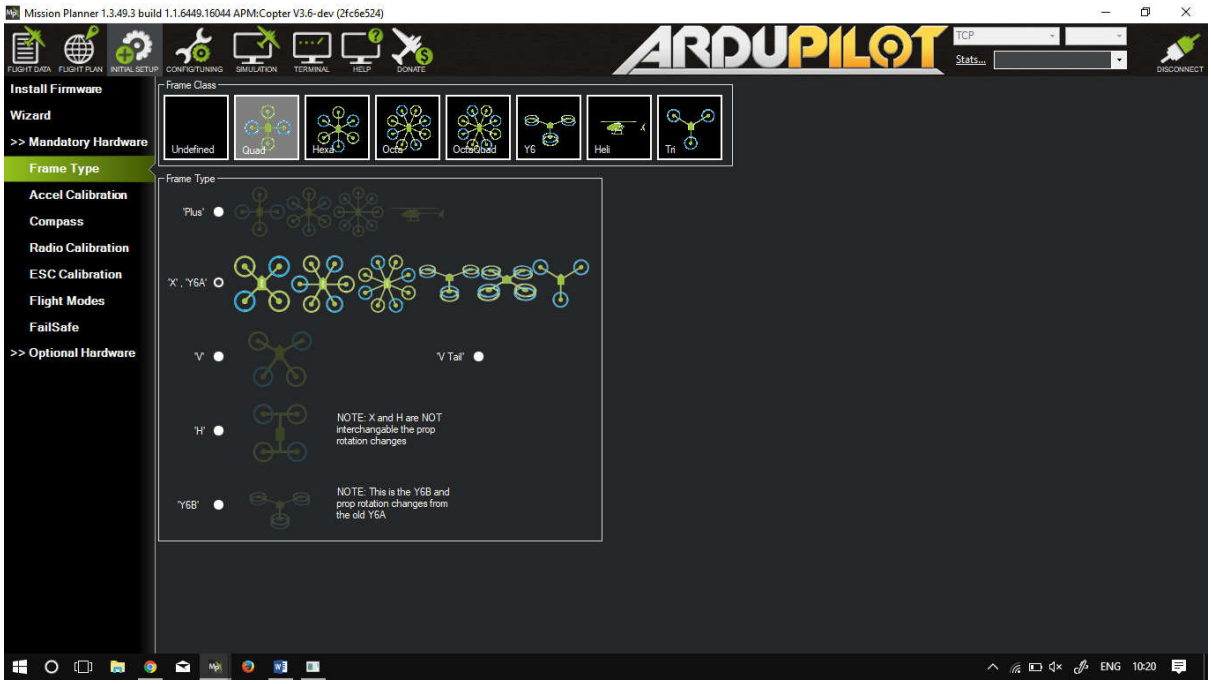
15. Click Next , Next and NEXT till last and FINISH



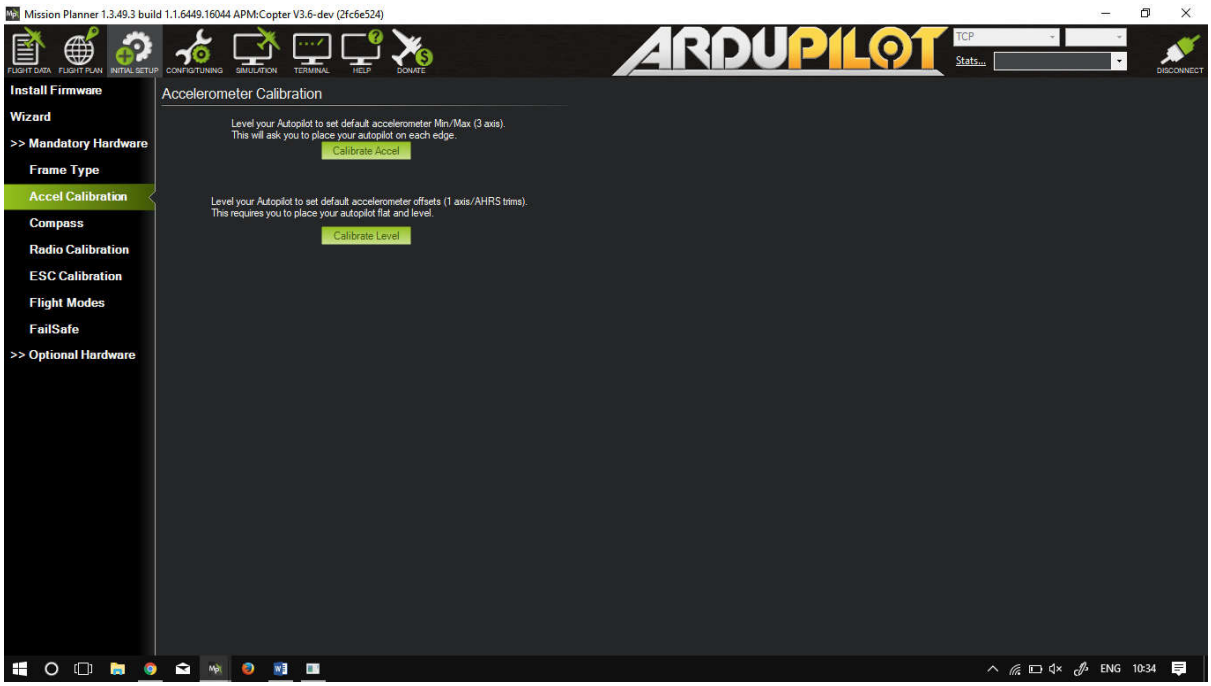
Through Mandatory hardware

All steps are same as in WIZARD. If any of the steps fails in WIZARD you can directly calibrate it from here.

1. Select frame type on Mandatory hardware under INITIAL SETUP and select FRAME CLASS and then frame type.



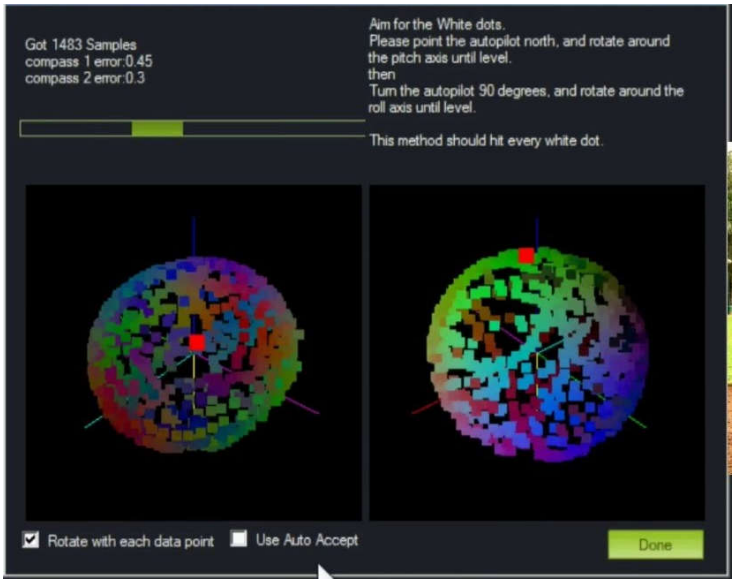
2. Then select Accel calibration and then click Calibrate Accel and perform accelerometer calibration with same procedure as mentioned in WIZARD



3. Once accelerometer calibration is completed, place your vehicle on levelled surface and click on Calibrate Level. Wait for few seconds and then COMPLETED will be displayed. (Do not click on COMPLETED)
4. Then Select COMPASS CALIBRATION and click on LIVE CALIBRATION with following settings. NOTE: If you are using Mission Planner 1.3.49.3 then there are chances that you may not find Live Calibration Icon. In that case do calibration through Wizard or try reinstalling Mission Planner of previous versions.

5. Before starting to rotate, UNCHECK Use Auto Accept for better results

6. Now rotate the pixhawk/vehicle in 360 circular motion to cover all the white dots and make a perfect sphere of motion lines



7. Keep rotating until all white dots are gone, and minimum samples are above 2000 and compass error is 0 or nearly 0.
8. Now select Radio Calibration and click on Calibrate Radio. Make sure your transmitter and receiver are both powered on before clicking on Calibrate Radio.
9. Click on Click when done when red bars on each channel hits max and min value. Then COMPLETED will be displayed (Do not click on COMPLETED)

10. Select FLIGHT MODES and set all flight modes to STABILIZE except last one. Select last one as AUTO. And SAVE it

11. Select FAILSAFE from left column and Set battery and radio failsafe as following: