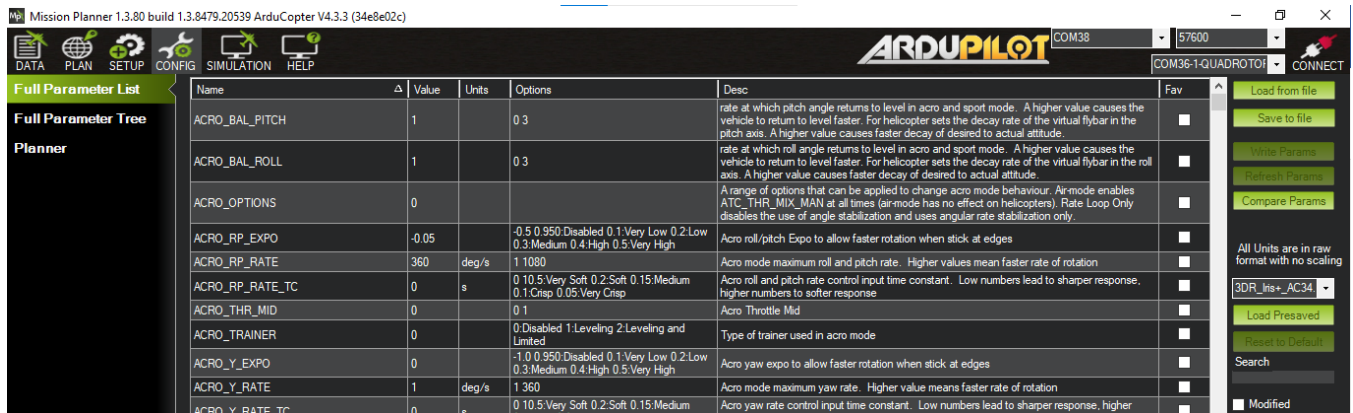


## UxV/35™ Flight Controller Parameters and Calibration

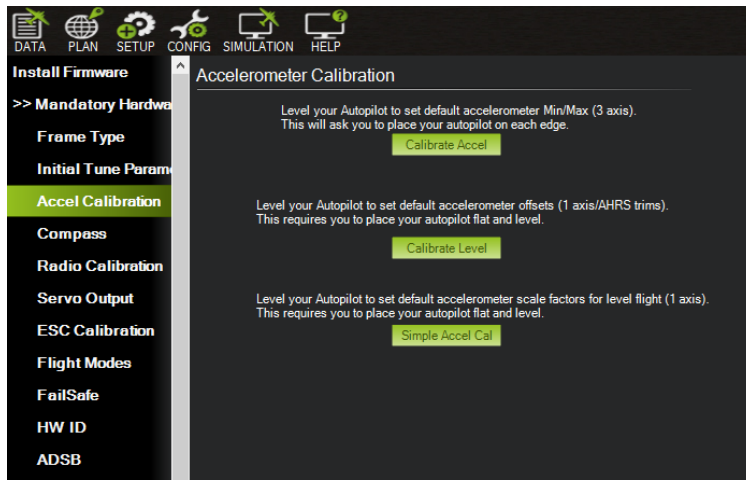
### Introduction

This document is instructions on how to load parameters and then calibrate a flight controller in order to prepare the unit for UAV use.

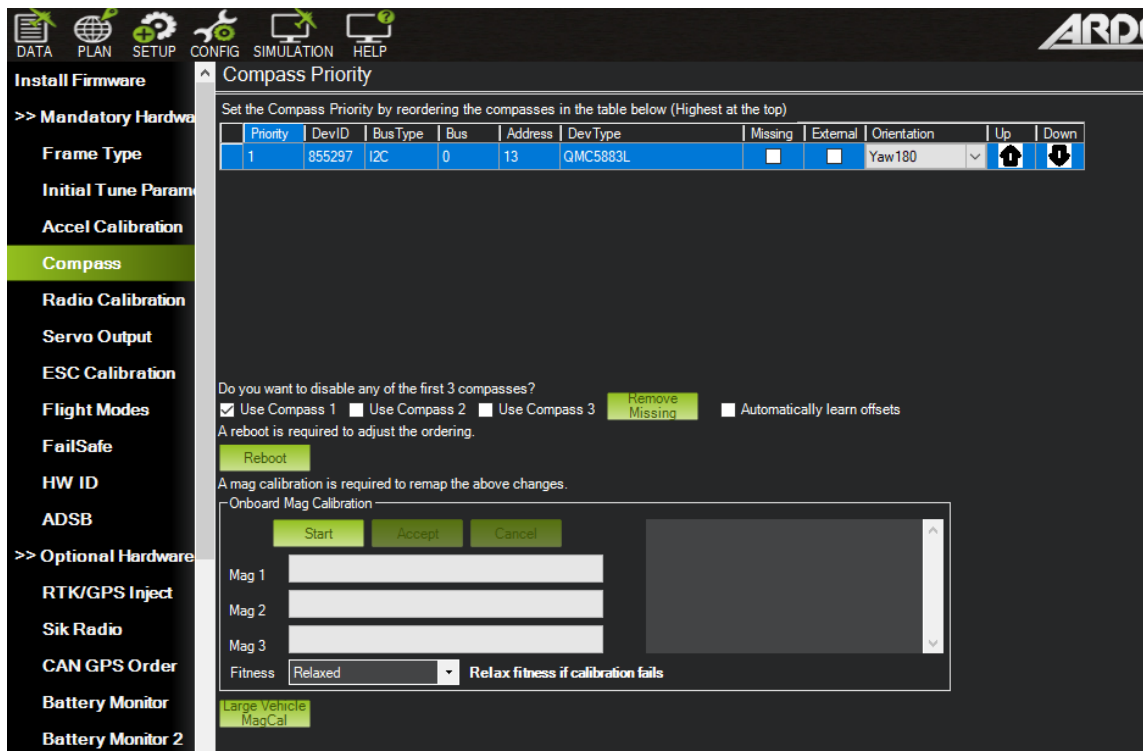
1. Connect a GPS module on top of the flight controller (FC).
2. Power the stack with either the USB connector on the FC or use a power base board
3. Connect the flight controller to the computer through the **USB mini-B** connector.
4. Connect to the Flight controller through Mission Planner (top right drop down, select the COMxxx-Ardupilot options, then select “connect”).
5. Once you have connected to mission planner, at the top of the window select **Config**. On the left menu that appears select **Full parameter list**. Then on the right of the window there will be an option to “**Load from file**”. Click on the button and a directory window will appear. Next choose the current parameter file for the intended drone which can be found at [Kairos82nd.com/downloads](http://Kairos82nd.com/downloads)



6. Click write params button.
7. Power cycle the Flight Stack.
8. Parameters are now updated and flight controller can now be calibrated.
9. Before calibration make sure 3D, GPS fix is acquired.
10. In mission planner at the top, select **setup** then **Mandatory Hardware**. Select **Accelerometer Calibration**.
11. Set the Flight Stack to the level position and follow the steps for both **level calibration** and **Accelerometer calibration**.



- On the left menu select **compass calibration**. Hit start and rotate the Flight Stack until test is complete and the prompt stating to restart the flight controller pops up.



- Once the prompt shows up be sure to restart the Flight Controller.
- Re-connect the Flight controller to the computer and select data at the top left of the window. Ensure the flight controller shows correct telemetry data when rolled in the respective direction.
- The Flight Stack is ready for use.

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