**Current Features**

**Model Types:-**

* ArduCopter
* ArduPlane (currently being added).

**Parameter Checking *(only when “Parameter Warnings” is checked):-***

* Warning where ACRO\_TRAINER is not set to self-level.
* Checks the THR\_MIN and MOT\_SPIN\_ARMED settings.
* Warning if the Battery Capacity is not set correctly according to the models profile.
  + Currently only the default mode profile is available, more models to come soon!
* Warning if the APM is not set to complete the pre-arm checks.
* Warning if the APM is set to RTL at an altitude of less than 15 meters.
* Warning if the APM is set to land after a successful RTL.
* Warning if the APM is set to hover below 5 meters after a successful RTL.
* Warning if the Compass Offsets are not in line with expected results.
* Hyperlinks to relevant discussion topics where available.

**Basic Event Flows Reported:-**

* Armed, Disarmed, Auto Armed, Take Off and Land Complete.

**Advanced Event Flows Reported *(only when “Non-Critical Events” is checked)*:-**

* Mavlink Float, Mavlink Int32, Mavlink Int16, Mavlink Int8, AP State, Initialise Simple Bearing.
* Lost GPS, Set Home, Not Landed.
* Flip Start / End.
* Simple Mode On / Off, Super Simple On/Off.
* Auto Tune Initialised / Off / Restart / Success / Failed / Reach Limit / Pilot Testing / Saved Gains.
* Save Trim, Save Way Point, Clear Mission.
* Geo Fence Enabled / Disabled.
* Acro Mode Trainer Disabled / Levelling / Limited.
* EPM On / Off / Neutral.
* Parachute Disabled / Enabled / Released.
* Detection of New Event that is Not Recognised (will eventually report back to developer to update code).

**Errors Reported *(only when “Errors” is checked):-***

* MAIN ERROR: Critical Error, contact firmware developers and DO NOT FLY!
* RADIO ERROR: Late Frames & Resolutions.
* COMPASS ERROR: Read Failures & Resolutions.
* OPTICAL FLOW ERROR: Initialisation issues.
* THROTTLE ERROR: Loss of Contact and Restored.
* Includes extra details about distance from launch and direction of travel.
* ERROR: Battery Fail Safe.
* GPS ERROR: Lost Lock, Restored, Glitch, Glitch Cleared.
* GCS ERROR: Lost Updates, Restored.
* FENCE ERROR: Circular / Altitude breach, Back With in Fences.
* FLIGHT MODE ERROR: Reports on all modes not successfully entering.
* CRASH ERROR: Crash Detected by APM.

**Vibration Checks:-**

* Analysis performed on IMU data to determine if the levels of vibration are within the designer’s specified limits.

**Power Checks:-**

* VCC Voltage within specified ranges of the model profile.
* VCC Fluctuation is within specified range of the model profile.
* Main Battery was correct against the model profile.

**Calculations:-**

* GPS date and Time of flight and time in each mode along with the time of the overall flight.
* Calculates the distance flown in each mode selected and for the overall flight.
* Calculates the minimum and maximum distance from home in each mode selected and the maximum for the overall flight.
* Calculates the minimum and maximum speed in each mode selected and the minimum and maximum for the overall flight.
* Calculates the flying efficiency of each mode selected and the overall flight (i.e. current used in each situation).
* Calculates Altitude based on GPS signals if Barometer Altitude is not available.

**Log Contents:-**

* Details Version Numbers, Type of Vehicle and Data Recorded.

\*All reported reliant on having the appropriate logging enabled.