Configuration Software User Instruction

V1.0

Index

Configuration Software

1、Install Driver

Please install the the drive program to your computer if you donot have it already.

（1）Please choose the compatible driver for your computer, link http://www.silabs.com/products/mcu/pages/usbtouartbridgevcpdrivers.aspx

(2) Install the drive program on your computer.

（3）Please switch the ESC switch to ON

（4）Connect flight controller to computer with Micro USB cable

（5）Follow steps to install the driver.

2、Install Configuration Software

（1）Please install Google chrome web browser.

（2）Open Google Chrome web browser, go to "Chrome Web Store" and search BaseFlight - Configurator.

（3）Add " BaseFlight - Configurator" App.

Note: Installing Cleanflight Configurator is similar to Baseflight Configurator, we will not discuss it in this manual

How to use Baseflight Configurator

Only Baseflight Configurator will be discuss below. If customer use Cleanflight components, please download cleanflight configurator to configure you Cleanflight controller.

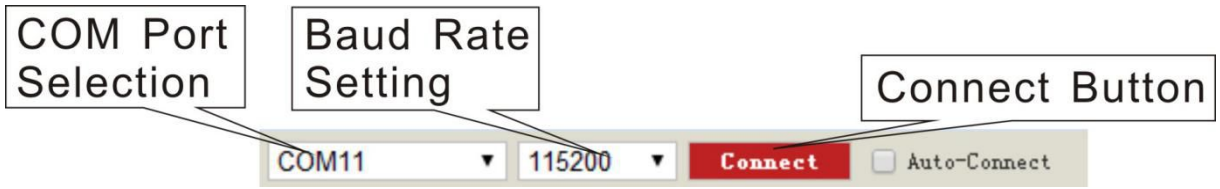
Note: RTF version only need to follow the accelerometer and magnetometer calibration and ESC calibration. ARF will need to follow the accelerometer and magnetometer calibration, ESC calibration, Mode selection and transmitter calibration.

Flight Controller and Configurator

（1）Connect flight controller to computer with Micro USB cable

（2）In Baseflight Configurator App, select COM port and Baud Rate

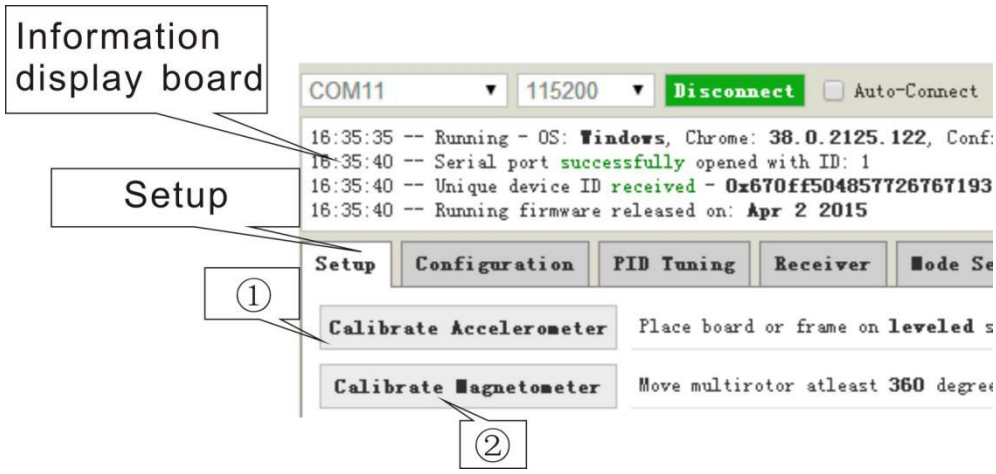
（3）Click "Connect", flight controller and configurator and connected when the button change to green.



Flight Controller Setting (Basic)

Accelerometer and Magnetometer Calibration

Please select "SETUP"



①Calibrate Accelerometer

②Calibrate Magnetometer

（1）Calibrate Accelerometer: Place board or frame on leveled surface, then select "Calibrate Accelerometer", once the accelerometer calibration is complete, date will be save automatically. Note: Starting or ending accelerometer calibration will be show in the message display. (Make sure not to move the board or frame during calibration)

（2）Calibrate Magnetometer: Select "Calibrate Magnetometer", make sure to rotate the board or frame 360 degree in all axis within 30sec (rotate axis included: Roll axis, pitch axis and yaw axis). Note: Starting or ending magnetometer calibration will be show in the message display.

ESC Calibration

Please make sure to REMOVE PROPELLERS before perform ESC Calibration !

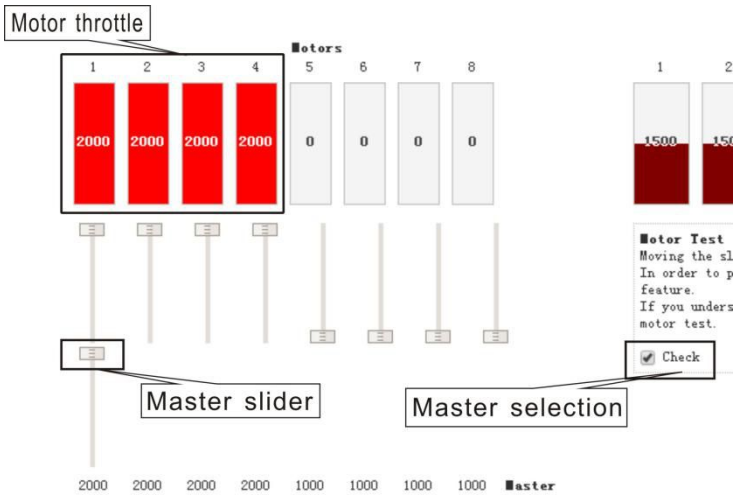
（1）Please select "Configuration", change Maximum Throttle to 2000 and save

（2）Please select "Motor Testing"

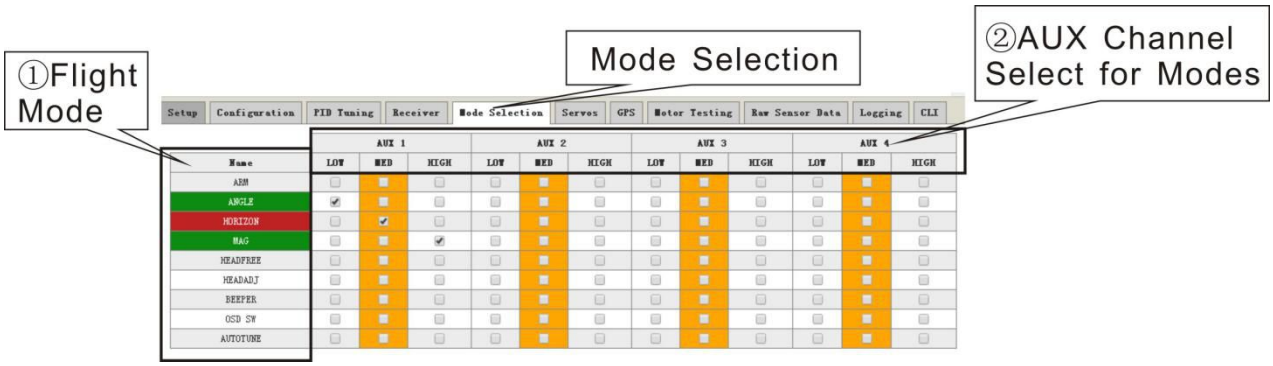
①Please check the box for Motor Test

②Move the master slider to MAXIMUM

（3）Power the unit, after the MAXIMUM throttle confirmation sound (BEEP- BEEP-) move the slider to minimum and wait for the MINIMUM throttle confirmation sound (long BEEP----), then you will hear the confirmation of battery cell (if you using 3 cell battery it will (BEEP-, BEEP-,BEEP), once the unit is ready confirmation sound（"♪１２３"）. ESC calibration is completed.



Mode Selections



（1）Please select "Mode Selection"

①Modes: ARM, ANGLE, HORIZON, MAG, HEADFREE, HEADADJ, BEEPER, OSD SW, etc... Some modes will not appear unless sensor is connected. Ex: If barometer is not connected to the flight controller, the altitude mode will not display in the list.

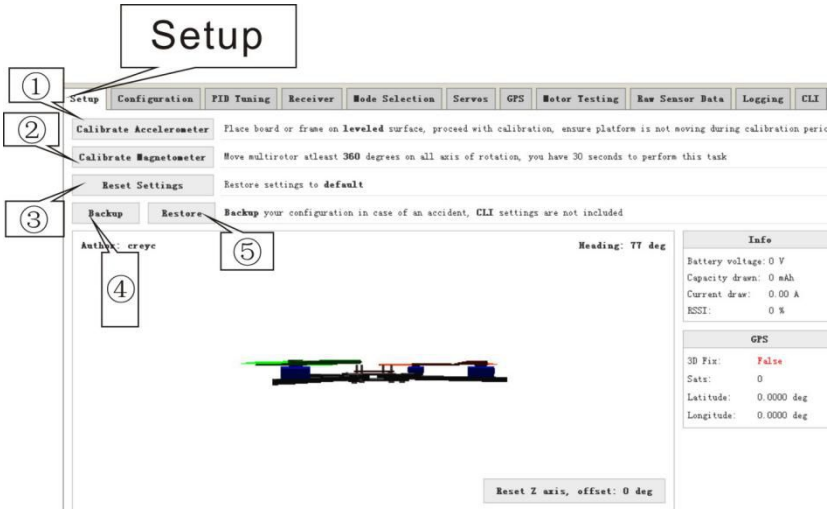
②AUX Channel Select for Modes.

（2）AUX Channel for Modes: Select desired AUX channel for mode, then check the box and save the setting by click the "SAVE" at right bottom corner. When mode is selected by switch the AUX channel, selected mode name will highlighted green, other will highlighted red on the screen.

Red LED (Mode indictor) will lit. Some mode need to be select at the same time to function correctly.

Flight Controller Setting (Advance)

Setup



Setup: Calibrate Accelerometer, Calibrate Magnetometer, Reset Setting, Backup and Restore.

①Calibrate Accelerometer: Please see Flight Controller Setting (Basic) Accelerometer and Magnetometer Calibration

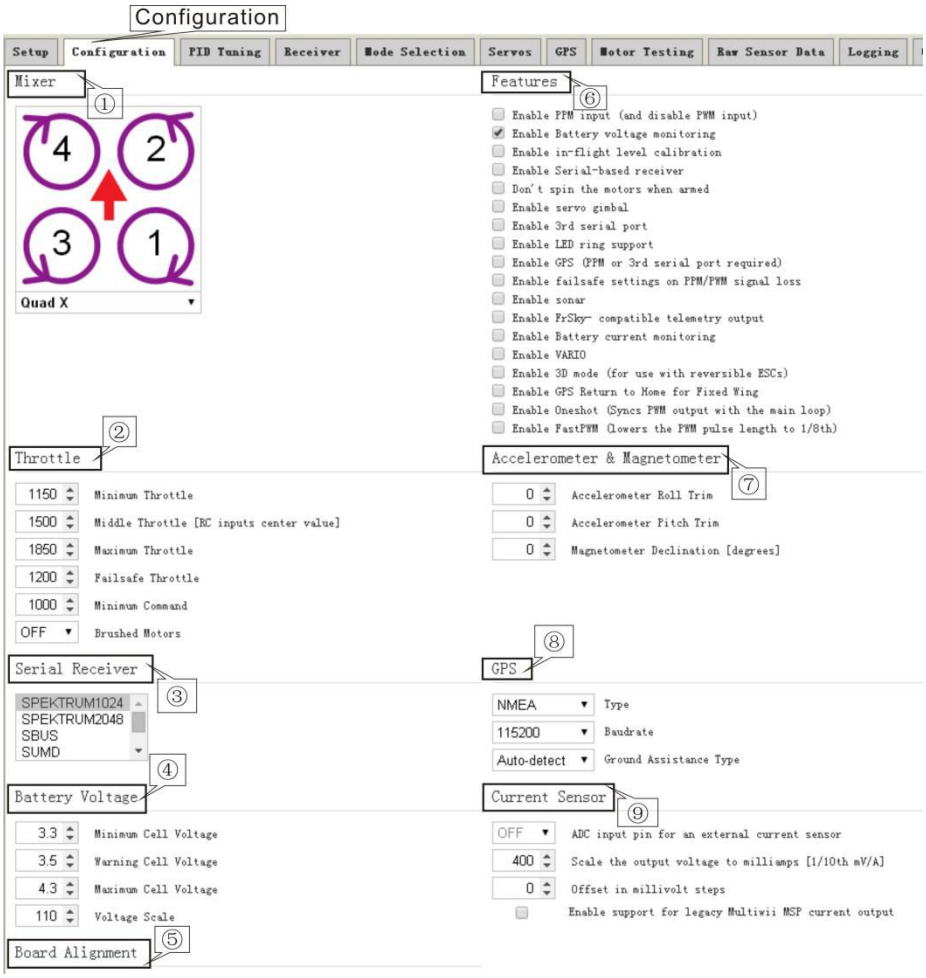
②Calibrate Magnetometer: Please see Flight Controller Setting (Basic) Accelerometer and Magnetometer Calibration

③Reset Setting: Reset all setting to default.

④Backup: Backup all configuration in case of an accident.

⑤Restore: Restore all configuration using backup settings

Configuration



Configuration: Mixer, Throttle, Serial Receiver, Battery Voltage, Board Alignment, Features, Accelerometer & Magnetometer, GPS and Current Sensor

① Mixer.Motor wires connecting order and motor rotation direction.

② Throttle: Setting for Minimum Throttle, Middle Throttle, Maximum Throttle, Fail Safe Throttle and Minimum Command.

③Serial Receiver: Receiver Types

④Battery Voltage: Minimum Cell Voltage, Maximum Cell Voltage and Voltage Scale.

⑤ Board Alignment: Adjustment to the misalignment of the flight controller heading and the actual heading (unit in degree) Adjustment in Roll axis, Pitch axis and Yaw axis.

⑥ Features: Check box for the feature selection of flight controller features desired. (Features also can be select in "CLI")

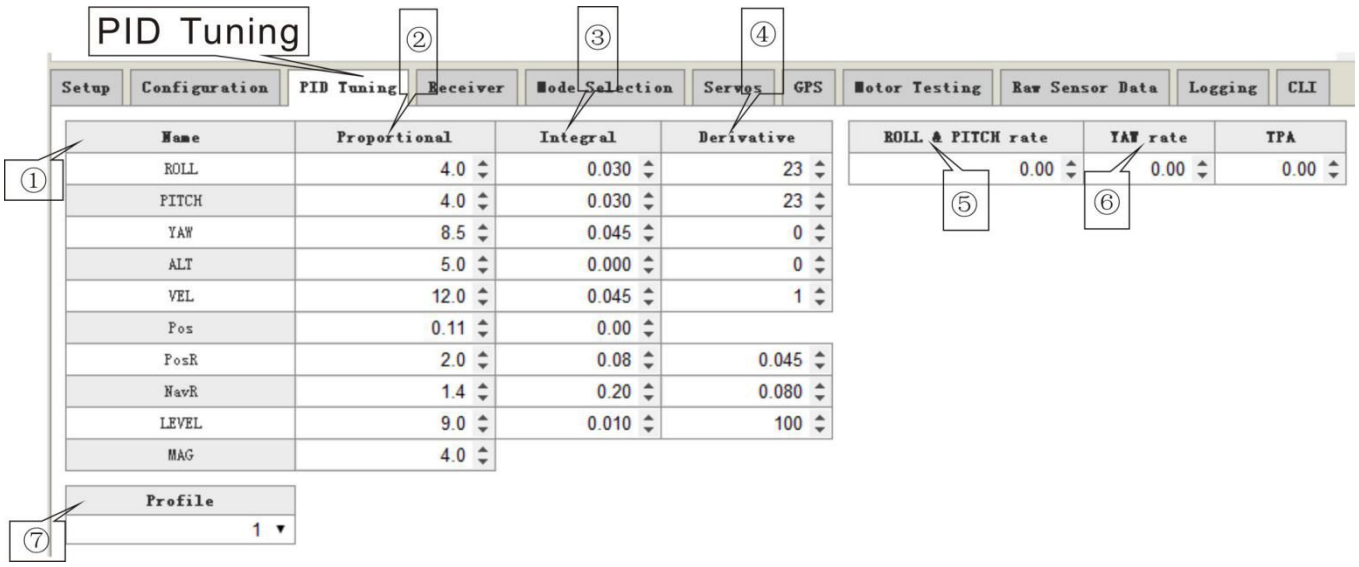
⑦ Accelerometer & Magnetometer: After accelerometer and magnetometer calibration in SETUP. Adjustment to accelerometer and magnetometer can be adjust to achieve better flight experience.

⑧GPS: GPS setting (ONLY when GPS is installed)

⑨Current Sensor: Current setting.

Please make sure to click "SAVE" to save all the settings.

PID Tuning



①Name.

②Proportional

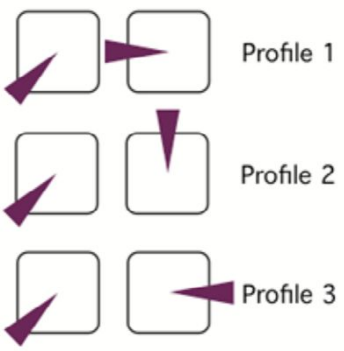
③Integral

④Derivative

⑤Roll & Pitch rate: Roll and Pitch faster when the value closer to 1.00.

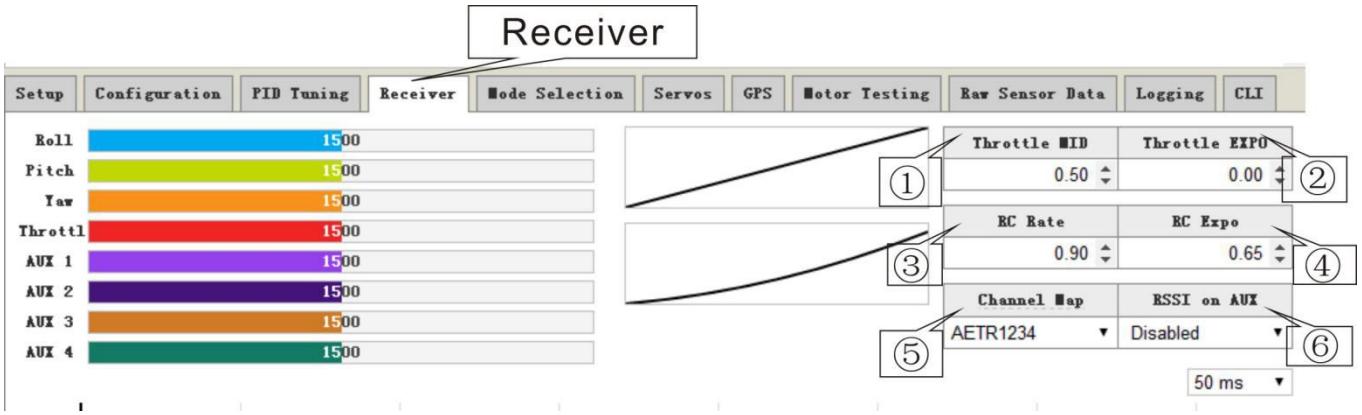
⑥Yaw rate: Yaw faster when the value larger

⑦Profile: 3 profiles can be select. Preset 3 profiles of PID can be select during flight. Use transmitter to select different profile.



Please make sure to click "SAVE" to save all the settings

Receiver



Receiver

①Throttle MID: Usually 50% throttle to hold copter position. If you want to hold copter position at 30%, set value to 0.8 or 0.9.

②Throttle Expo: Set value to 0.35 are recommended

③RC Rate: Value will change the stick sensitivity

④RC Expo: Default set value to 0.00. RC expo is same as transmitter expo setting.

⑤Channel Map: JR set to RAER1234. Please select value correspond to your transmitter type (Please remember to save the setting)

⑥RSSI on AUX: AUX Channel will be show in INFO screen in SETUP

Please make sure to click "SAVE" to save all the settings

Mode Selection

Please refer to Mode Selection in Flight Controller Setting (Basic)

Motor Testing

Please refer to Motor Testing in Flight Controller Setting (Basic)

CLI

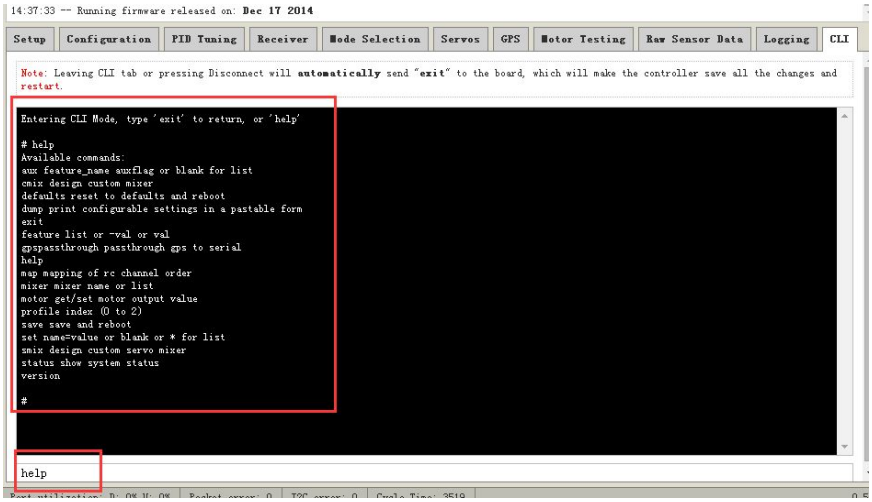
In CLI, view firmware version, check, enable and disable features

（1）Set Flight Controller setting values. ex: 9x with Dragonlink

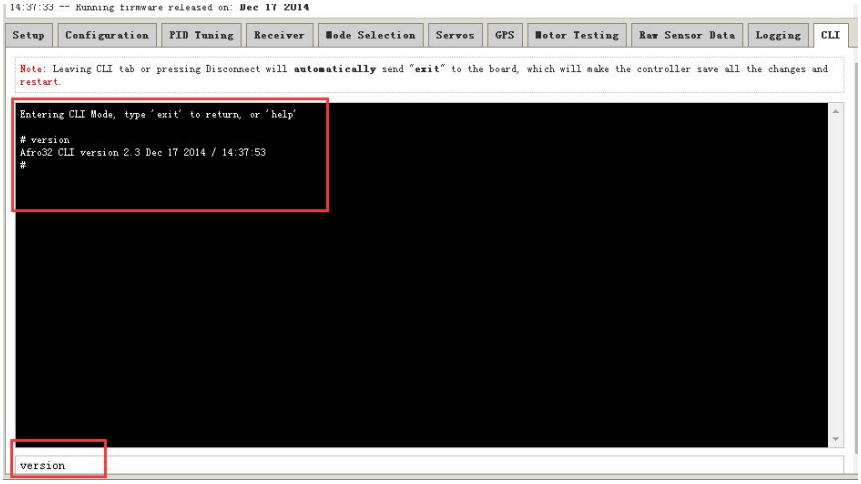
Copy and paste value below to CLI (Note: If you're using Futaba, set midrc = 1520)

```
set midrc = 1520
set minthrottle = 1150
set maxthrottle = 2000
```

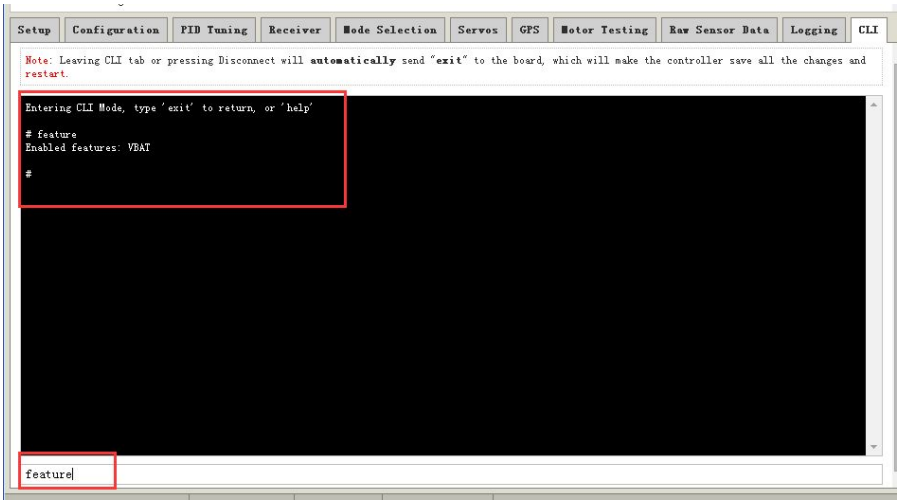
（2）Enter "help" to see available commands



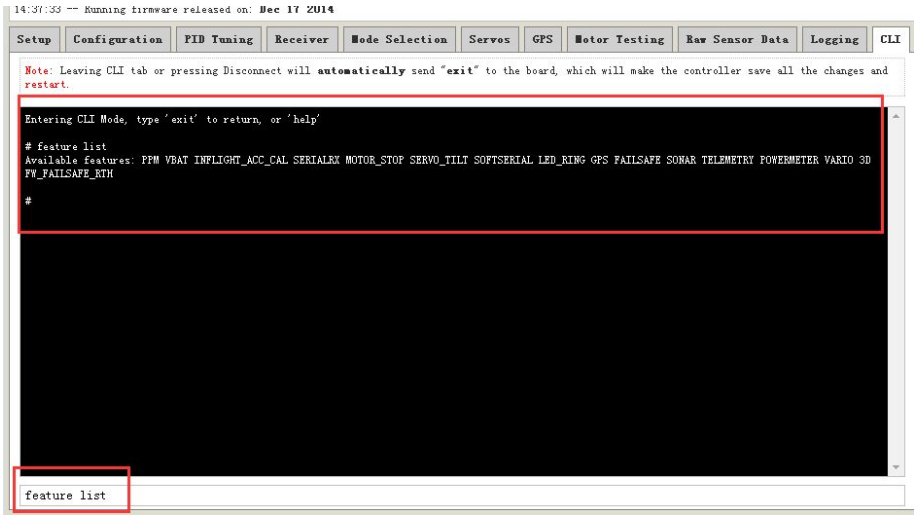
1. Enter "version" to check firmware version



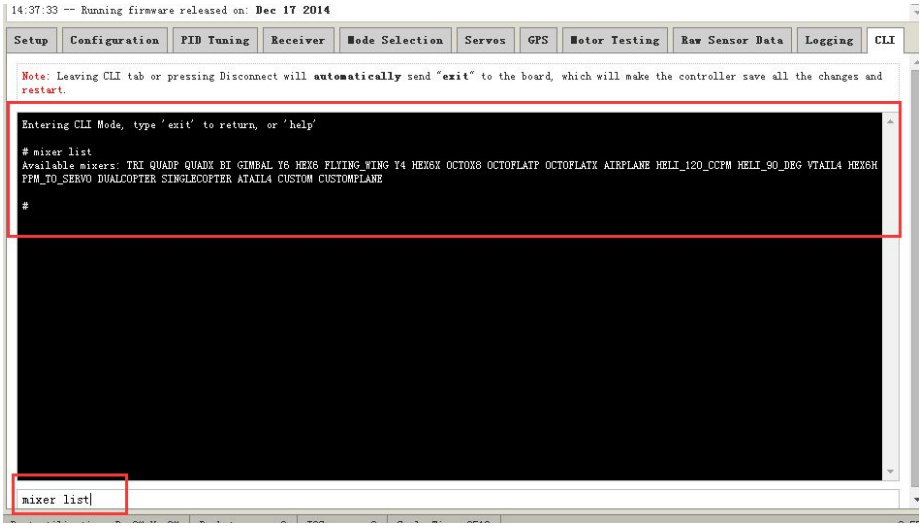
2. Enter "feature" to check enabled features



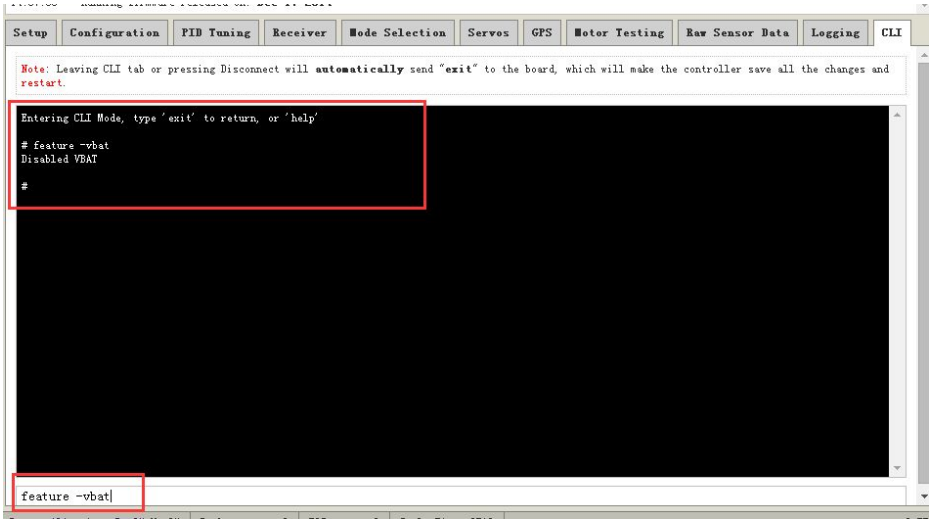
3. Enter "feature list" to check available features



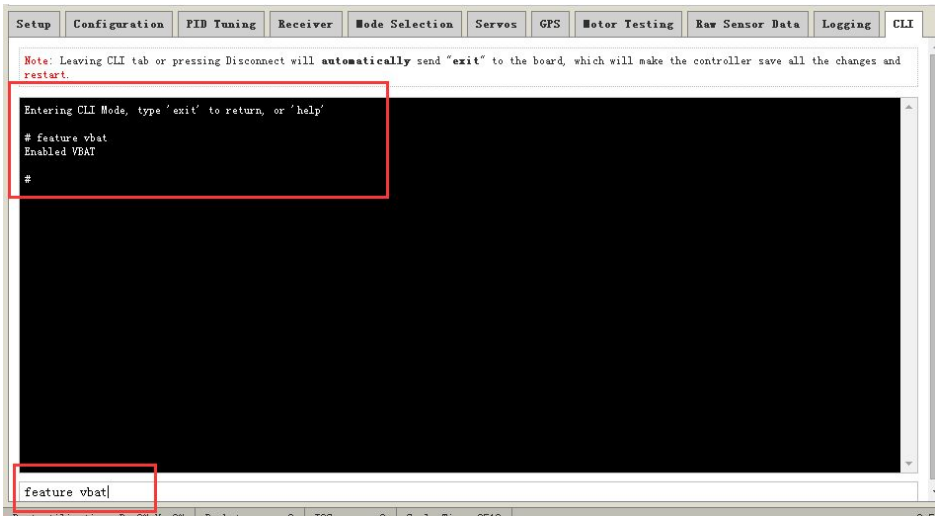
4. Enter "mixer list" to check available mixers



5. Enter "feature -feature name" to disabled feature. Ex: Enter "feature -vbat" then enter "save", to disabled VBAT



6. Enter "feature feature name" to enabled feature. Ex: Enter "feature vbat" then enter "save", to enabled VBAT



7. Enter "set" or "dump" to view all features setting.

Transmitter Joystick Command (Mode 2 transmitter as example below)