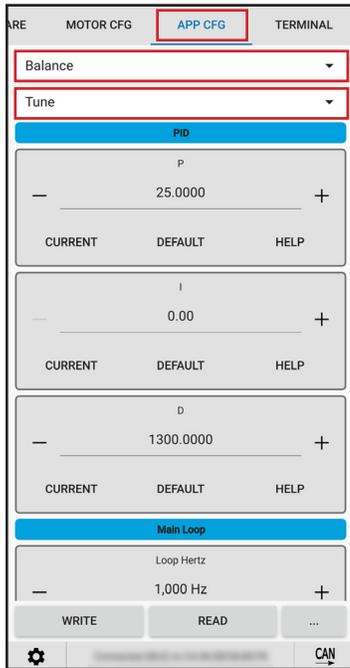




Manual VESC Tool App Settings

If you did not perform an initial backup or have saved your own settings but want to revert to the settings when your FOCer was shipped. Begin by swiping the top menu and select **APP CFG**. Then follow the steps below to manually enter the settings.

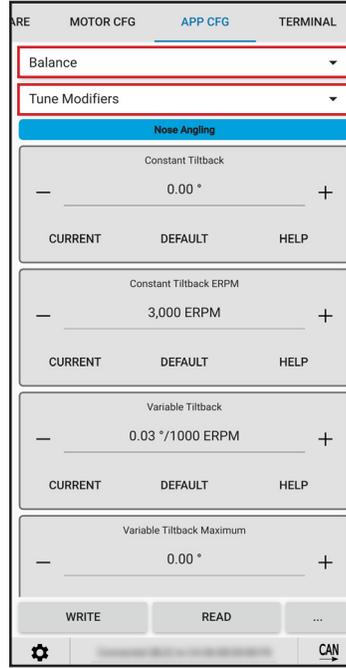
NOTE: DO NOT write settings while riding. Doing so may result in serious injury. Settings are based on 15s battery setup. If a different battery is used, adjust settings accordingly. The screenshots below are for menu reference only and may not reflect the correct settings. Use settings in the charts next to the screenshots.



1st Drop-down: **Balance**

2nd Drop-down: **Tune**

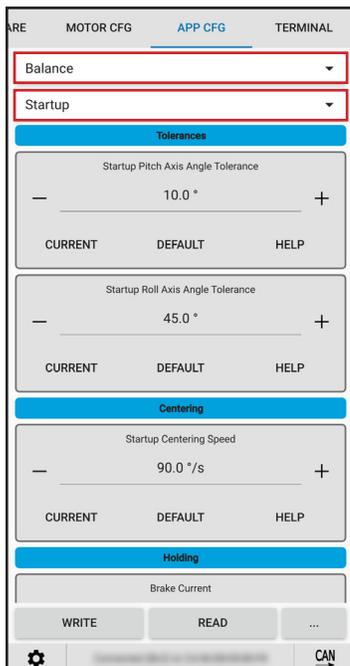
PID	
P	25.0000
I	0.0500
D	0.0000
Main Loop	
Loop Hz	800 Hz
Correction	3 Hz
Filters	
PT1 Low	1 Hz
PT1 High	0 Hz
Biquad	0 Hz
Biquad	0 Hz
Experimental	
Deadzone	2°



1st Drop-down: **Balance**

2nd Drop-down: **Tune Modifiers**

Nose Angling	
Constant Tiltback	0°
Tiltback ERPM	500 ERPM
Variable Tiltback	0°/1000 ERPM
Variable Tiltback MAX	0°
Nose Angling Speed	5°/s
Booster	
Start Angle	0°
Ramp Up	2°
Current Boost	0 A
Torque Tiltback	
Strength	0°/A
Start Current	15 A
Tiltback Angle Limit	8°
MAX Tiltback Speed	3°/s
MAX Tiltback Release Speed	3°/s
Current Filter	10 Hz
Turn/Roll Tiltback	
Strength	6
Tiltback Angle Limit	3°
Roll Angle Threshold	2°
ERPM Threshold	1000 ERPM
MAX Tiltback Speed	5°/s
Speed Boost	0%
Speed Boost MAX ERPM	10,000 ERPM



1st Drop-down: **Balance**

2nd Drop-down: **Startup**

Tolerances	
Pitch Axis Angle	5°
Roll Axis Angle	45°
Centering	
Startup Centering Speed	90°/s
Holding	
Brake Current	2 A
Brake Timeout	1 s



Manual VESC Tool App Settings Continued

1st Drop-down: **Balance**
2nd Drop-down: **Tiltback**

General Config	
Return to Level Speed	1°/s
Duty Cycle Tiltback	
Duty Cycle	0.75
Angle	5°
Speed	10°/s
High Voltage Tiltback	
High Voltage	64 V
Angle	10°
Speed	1°/s
Low Voltage Tiltback	
Low Voltage	44 V
Angle	10°
Speed	1°/s

1st Drop-down: **Balance**
2nd Drop-down: **Fault**

Angle Faults	
Pitch Axis Cutoff	90°
Pitch Fault Delay	1000 ms
Roll Axis Cutoff	90°
Roll Fault Delay	1000 ms
Speed Fault	
Duty Cycle Cutoff	1.00
Duty Fault Delay	300 ms
Switches (Sensor)	
ADC1 Switch	3 V
ADC2 Switch	3 V
Half Switch Delay	250 ms
Full Switch Delay	500 ms
ADC Half State ERPM	300 ERPM

1st Drop-down: **Balance**
2nd Drop-down: **Multi ESC**

Multi ESC	
Multiple VESCs Over CAN	Off
Stabilization PID	
Yaw P	0.40
Yaw I	0.00
Yaw D	0.00
Steering	
Roll Steer KP	0.00
Roll Steer ERPM KP	500.00
Yaw Current Clamp	2.00 A

Drop-down: **IMU**

Multi ESC	
IMU Type	IMU_TYPE_INTERNAL
Sample Rate	800 Hz
Filters	
IMU AHRS Mode	AHRS_MODE_MAHONY
Accelerometer Confidence Decay	0.001
Mahony KP	2.00
Mahony KI	0.00

IMPORTANT: After entering these settings, go back to the main menu and select **BACKUP** to create a new backup with all these settings. This will be used to restore if you made any changes to tweak your settings/riding experience.

At this point you are done with the setup of your new Makers PEV Fully Assembled Flowglider Box and are ready to test ride. I hope this document has been helpful in the setup and happy riding! - Neel