

Identifying current installed version

CLI command: # version

Version	Identifier
TriFlight 0.3 (Naze)	TriFlight 0.3/NAZE 1.10.0 Nov 3 2015 / 19:27:21 (e4bdd9d)
TriFlight 0.3 RC2 (Naze)	TriFlight 0.2/NAZE 1.10.0 Oct 10 2015 / 10:36:23 (2625557)
Cleanflight 1.10 (Naze)	Cleanflight/NAZE 1.10.0 Oct 2 2015 / 14:57:31 (9f95334)

CLI Variable Reference (Tricopter specific)

Variable	Description/Units	Min	Max	Default	Type	Data
servo_pwm_rate	Output frequency (in Hz) servo pins. When using BMS-210DMH set value to 250	50	498	50	Master	UINT16
servo_lowpass_enable	Enable on Tricopter (1)	0	1	0	Master	INT8

CLI Variable Reference (TriFlight specific)

Variable	Description/Units	Min	Max	Default	Type	Data
tri_tail_motor_thrustfactor	The tail motor thrust to torque factor.	?	?	138	?	?
yaw_jump_prevention_limit				200		
tri_tail_servo_speed	The degrees the tail servo travels in one second. Ideally measured under real life conditions load			300 ¹		

CLI Variables omitted in Triflight

Variable	Description/Units	Min	Max	Default	Type	Data
Looptime	Looptime is omitted from Triflight as it is automatically calculated ² and aims at a value of 1000	-	-	1000	?	?

¹ How does this value match the recent measurements in appendix A?

² How does this influence ESC performance?

Appendix A

Servo values under load

(RCExplorer tilt mechanism and DYS-BE2208-10 1800Kv 44g brushless motor)

Manufacturer	Model	Voltage	Value
Blue Bird	BMS-210DMH	5.0v	349
Blue Bird	BMS-210DMH	6.0v	400
Blue Bird	BMS-22HV	6.0v	840
Blue Bird	BMS-22HV	7.4v	960
Blue Bird	BMS-22HV	8.0v	1010
Blue Bird	BMS-22HV	8.4v	1067

Calculating servo speed from manufacturers specifications

Most manufacturers will state the servos speed as the time it takes the servo to travel 60 degrees in seconds at a given voltage ***under no load***. These values can be converted to tri_tail_servo_speed in the following way: Degrees/Seconds = tri_tail_servo_speed. The calculated value will be higher than the value under load.

Manufacturer	Model	Specifications	tri_tail_servo_speed
Blue Bird	BMS-210DMH	4.8v: 0.15 sec / 60	400
Blue Bird	BMS-210DMH	6.0v: 0.13 sec / 60	462
Blue Bird	BMS-22HV	6.0v: 0.07 sec / 60	857
Blue Bird	BMS-22HV	7.4v: 0.05 sec / 60	1200