Forward 45A 4in1 MINI ESC

Manual

FORWARD
EXPERIENCE VIOLENT FLIGHT
TX
VIN
1
2
3
4
+
HGLRC
−

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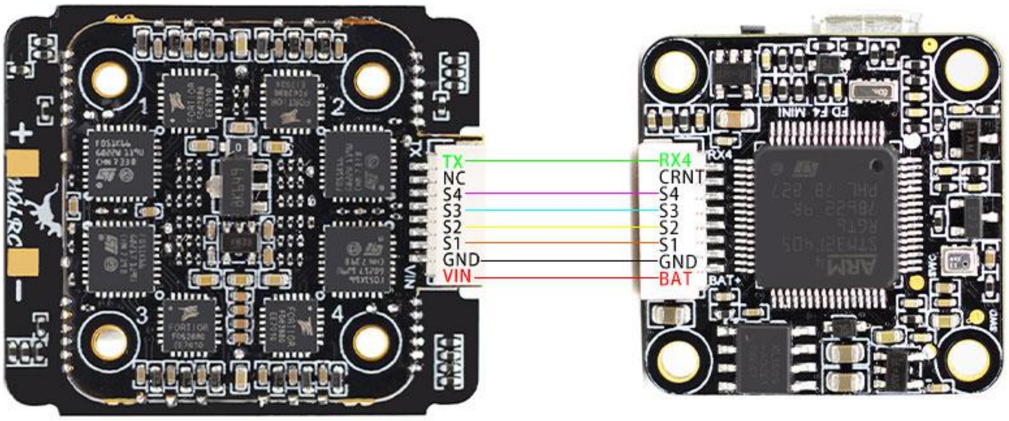
Package Included

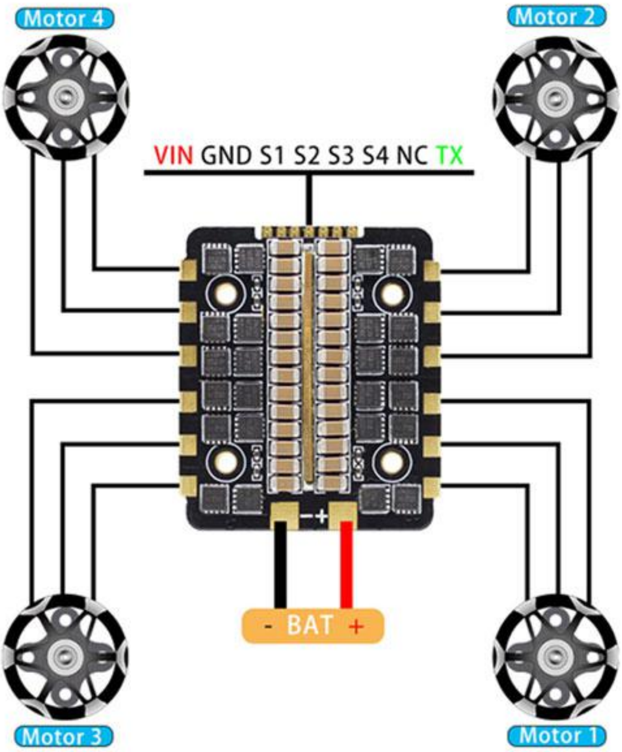
Forward 45A 4in1 MINI ESC*1	Accessory Bag*1

1.Product Specifications

Product parameters	
Model	Forward 45A 4in1 MINI ESC
Input Voltage	2-6S Lipo battery
CPU	STM32F051
Continuous current	45A-4S/35A-6S
Peak Current	55A（5s）
Firmware	BLHELI_32
MOS Tube	TOP QUALITY MOSFET
BEC Output	NO
Protocol:	DSHOT1200/600/300/150/Oneshot125/42,MultiShotDamped mode,forward and reverse
Size	36.5X31.7mm board, 20.0mm mounting holes（M2）
Weight	10.8g

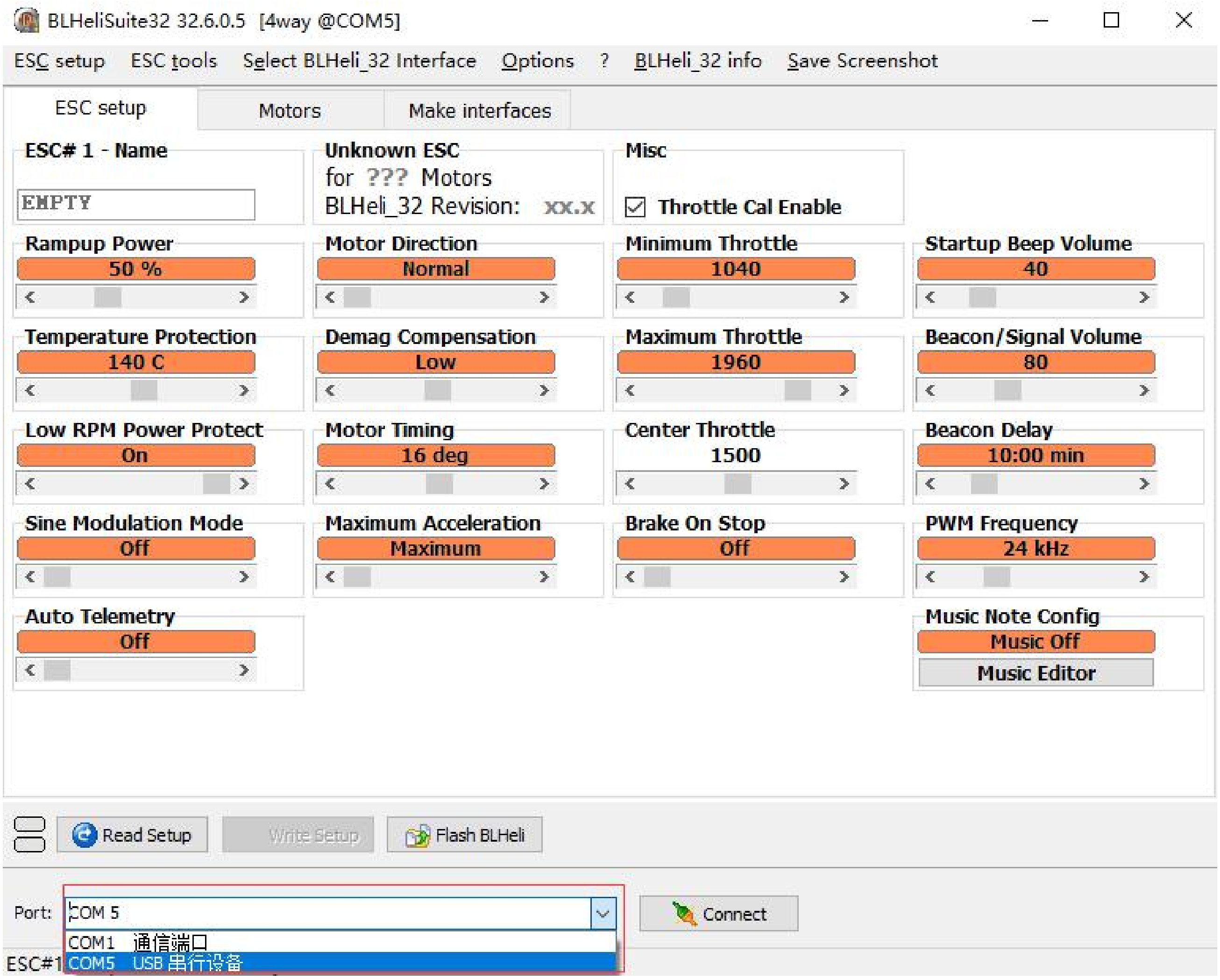
2.Interface Description


TX
NC
S4
S3
S2
S1
GND
VIN
RX4
CRNT
S4
S3
S2
S1
GND
BAT
1
2
3
4
+
-


Motor 4
Motor 2
VIN GND S1 S2 S3 S4 NC TX
- BAT +
Motor 3
Motor 1

3.Upgrade ESC firmware

1.First, the flight controller is connected to the ESC and then opened (BLHeliSuite32) for connection.Select com serial port（Different computer COM）


ESC setup
ESC tools
Select BLHeli_32 Interface
Options
?
BLHeli_32 info
Save Screenshot
ESC setup
Motors
Make interfaces
Music Editor
Read Setup
Write Setup
Flash BLHeli
Connect

BLHeliSuite32 32.6.0.5 [4way @COM5]

ESC# 1 - Name: EMPTY

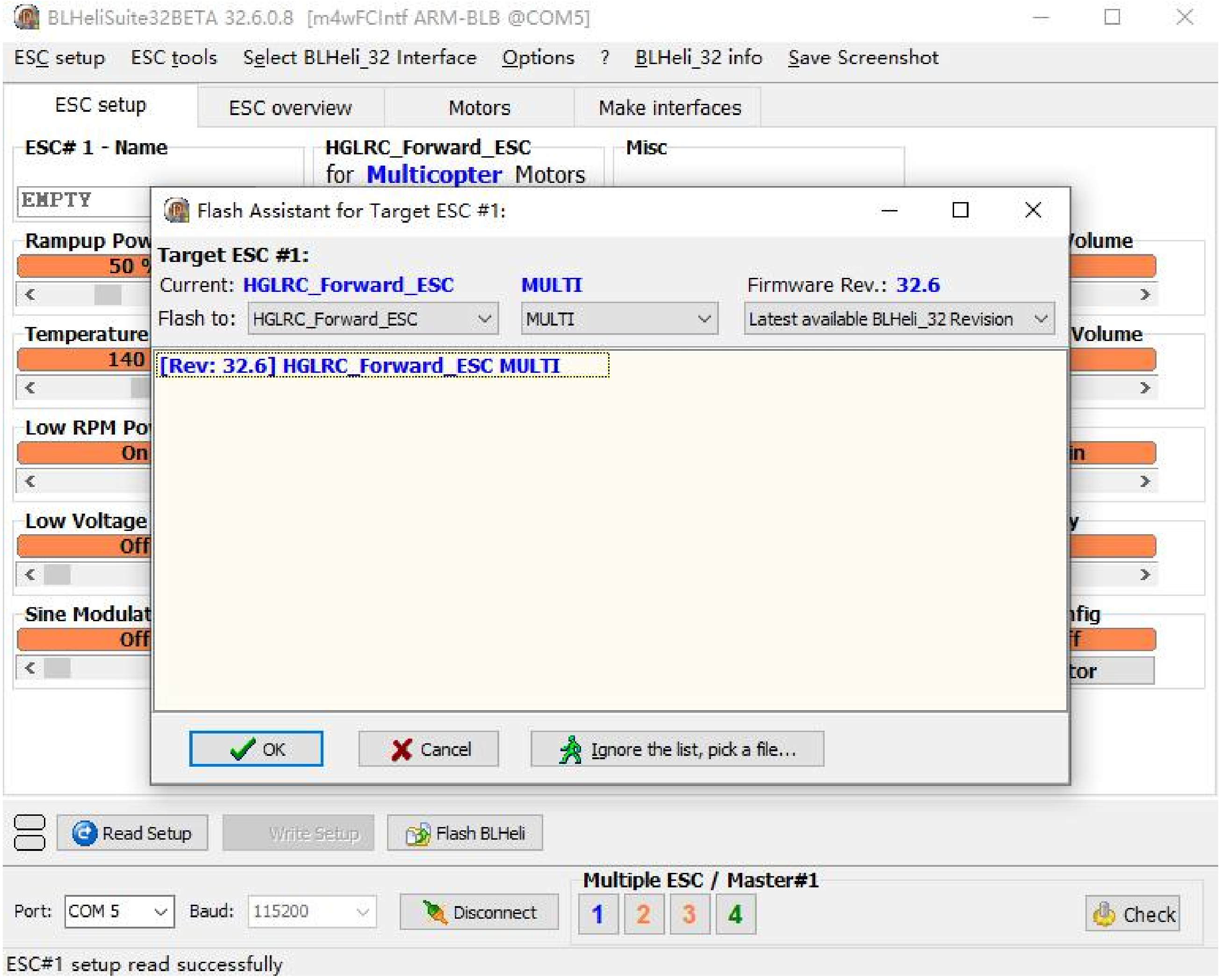
Unknown ESC
for ??? Motors
BLHeli_32 Revision: xx.x

Misc
☑ Throttle Cal Enable

Rampup Power: 50 %
Motor Direction: Normal
Minimum Throttle: 1040
Startup Beep Volume: 40
Temperature Protection: 140 C
Demag Compensation: Low
Maximum Throttle: 1960
Beacon/Signal Volume: 80
Low RPM Power Protect: On
Motor Timing: 16 deg
Center Throttle: 1500
Beacon Delay: 10:00 min
Sine Modulation Mode: Off
Maximum Acceleration: Maximum
Brake On Stop: Off
PWM Frequency: 24 kHz
Auto Telemetry: Off
Music Note Config: Music Off

Port: COM 5
COM1 通信端口
COM5 USB 串行设备
ESC#1

2. click the link Disconnect .Plug in the battery and click Check .The ESC version number appears.Then Click Flash BLHeli ESC upgrade。


BLHeliSuite32BETA 32.6.0.8 [m4wFCIntf ARM-BLB @COM5]
ESC setup
ESC tools
Select BLHeli_32 Interface
Options
?
BLHeli_32 info
Save Screenshot
ESC setup
ESC overview
Motors
Make interfaces
Flash Assistant for Target ESC #1:
OK
Cancel
Ignore the list, pick a file...
Read Setup
Write Setup
Flash BLHeli
Disconnect
Check
Multiple ESC / Master#1
1
2
3
4

ESC# 1 - Name: EMPTY

HGLRC_Forward_ESC for **Multicopter** Motors

Misc

Rampup Power: 50 %

Temperature: 140

Low RPM Power: On

Low Voltage: Off

Sine Modulation: Off

Target ESC #1:

Current: **HGLRC_Forward_ESC** **MULTI** Firmware Rev.: **32.6**

Flash to: HGLRC_Forward_ESC MULTI Latest available BLHeli_32 Revision

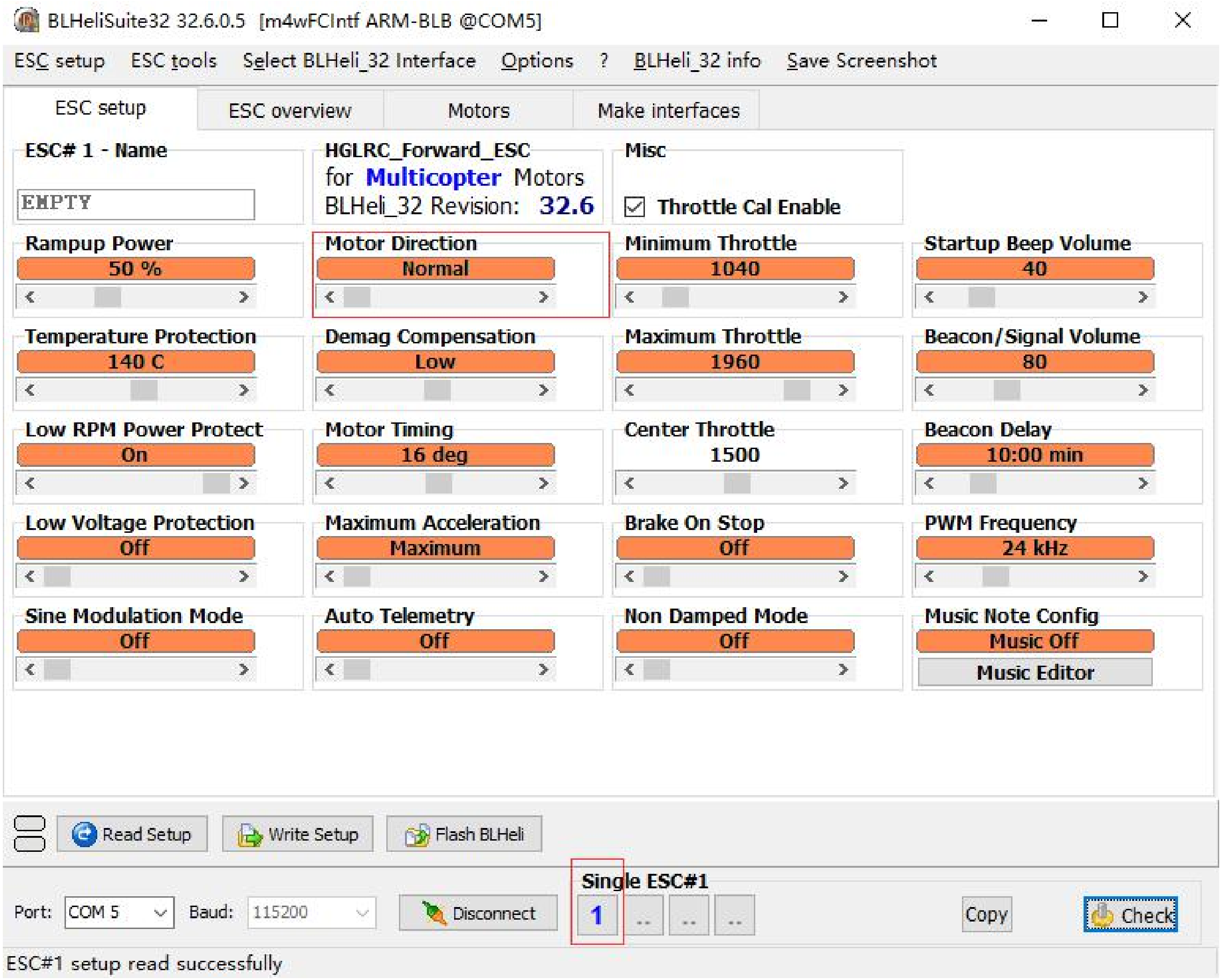
[Rev: 32.6] HGLRC_Forward_ESC MULTI

Port: COM 5 Baud: 115200

ESC#1 setup read successfully

3. Change motor steering

1. Open first (BLHeliSuite32) to connect.Find the ESC model that needs to change direction (right mouse button to select ESC).Remembering to save after modification。 Remember to modify and click (Write Setup) to save


BLHeliSuite32 32.6.0.5 [m4wFCIntf ARM-BLB @COM5]
ESC setup
ESC tools
Select BLHeli_32 Interface
Options
?
BLHeli_32 info
Save Screenshot
ESC setup
ESC overview
Motors
Make interfaces
Music Editor
Read Setup
Write Setup
Flash BLHeli
Disconnect
Copy
Check

ESC# 1 - Name
EMPTY

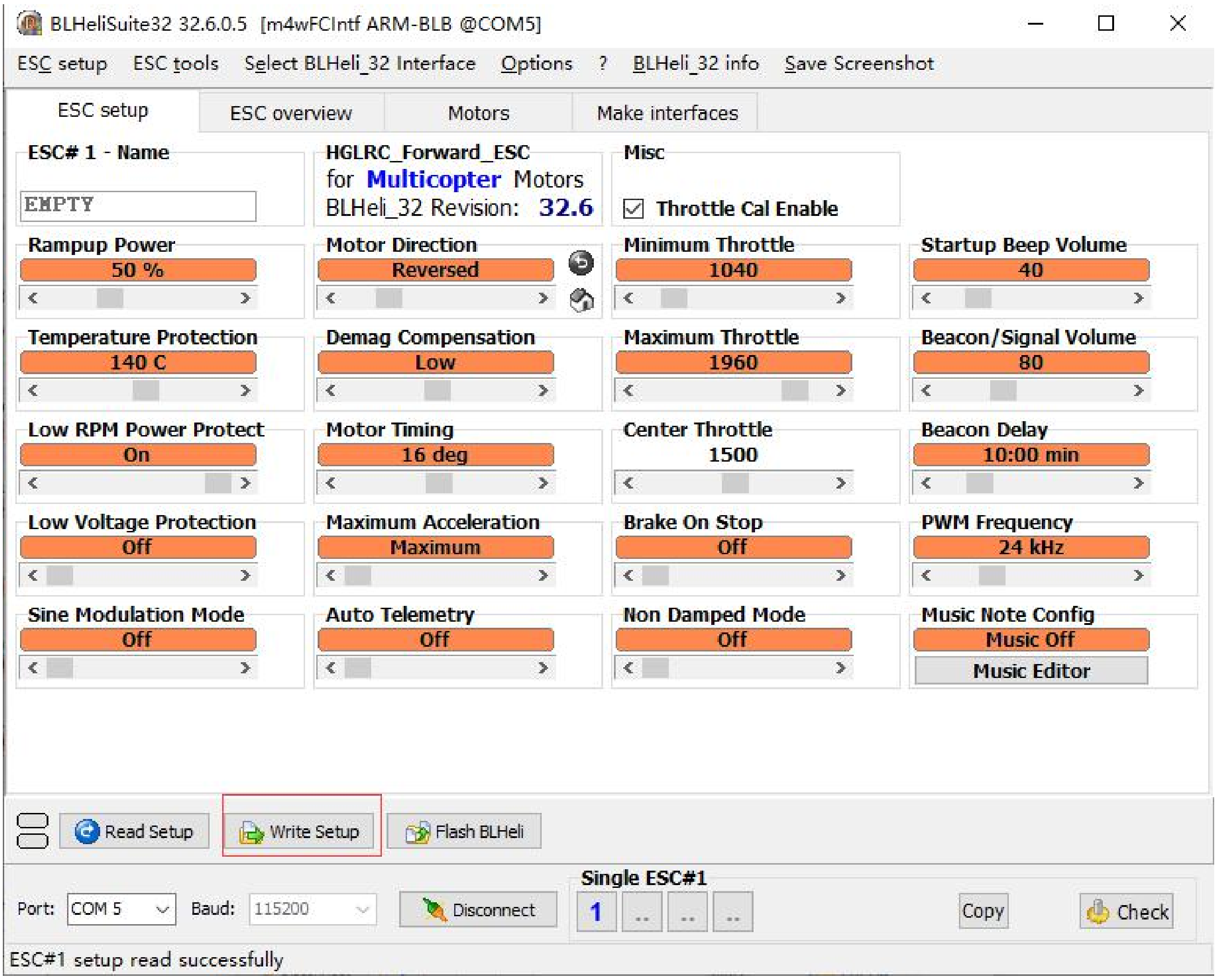
HGLRC_Forward_ESC
for **Multicopter** Motors
BLHeli_32 Revision: **32.6**

Misc
☑ Throttle Cal Enable

Rampup Power: 50 %
Motor Direction: Normal
Minimum Throttle: 1040
Startup Beep Volume: 40
Temperature Protection: 140 C
Demag Compensation: Low
Maximum Throttle: 1960
Beacon/Signal Volume: 80
Low RPM Power Protect: On
Motor Timing: 16 deg
Center Throttle: 1500
Beacon Delay: 10:00 min
Low Voltage Protection: Off
Maximum Acceleration: Maximum
Brake On Stop: Off
PWM Frequency: 24 kHz
Sine Modulation Mode: Off
Auto Telemetry: Off
Non Damped Mode: Off
Music Note Config: Music Off

Port: COM 5 Baud: 115200
Single ESC#1
1 .. .. ..

ESC#1 setup read successfully


BLHeliSuite32 32.6.0.5 [m4wFCIntf ARM-BLB @COM5]
ESC setup
ESC tools
Select BLHeli_32 Interface
Options
?
BLHeli_32 info
Save Screenshot
ESC setup
ESC overview
Motors
Make interfaces
Music Editor
Read Setup
Write Setup
Flash BLHeli
Disconnect
Copy
Check

ESC# 1 - Name
EMPTY

HGLRC_Forward_ESC
for **Multicopter** Motors
BLHeli_32 Revision: **32.6**

Misc
☑ Throttle Cal Enable

Rampup Power
50 %

Motor Direction
Reversed

Minimum Throttle
1040

Startup Beep Volume
40

Temperature Protection
140 C

Demag Compensation
Low

Maximum Throttle
1960

Beacon/Signal Volume
80

Low RPM Power Protect
On

Motor Timing
16 deg

Center Throttle
1500

Beacon Delay
10:00 min

Low Voltage Protection
Off

Maximum Acceleration
Maximum

Brake On Stop
Off

PWM Frequency
24 kHz

Sine Modulation Mode
Off

Auto Telemetry
Off

Non Damped Mode
Off

Music Note Config
Music Off

Port: COM 5
Baud: 115200

Single ESC#1
1 .. .. ..

ESC#1 setup read successfully

4.Troubleshooting

Warning:

Please read the cautions as follows, otherwise stability of your flight controller cannot be ensured, your flight controller will even get damaged.

- Keep focus on the polarity. Check carefully before power supply.
- Cut off the power when you connect, plug and pull anything.

after sales question:

1. After receiving the goods, it is found that the product can not be used normally. If the return to the factory is a quality problem, the repair service will be provided free of charge.
2. If the product is damaged due to improper operation, the repair service may be provided under the condition that the inspection can be repaired.
3. For domestic customers, please contact the after-sales service personnel. For overseas customers, please contact the official website for after-sales service.

Product daily problems:

1. The ESC does not pass the self-test:

Check if the ESC protocol is correct.

2. Connect BLHeliSuite32 software ESC does not recognize:

1. Please check if the ESC connection flight control cable is loose.
2. Change the USB cable test or change the computer USB socket test