Here are the instructions for programming the Tribunus II.

Although those of us with Android phones share the convenience of quick and simple mobile access to the Sproto app those with iPhones will have to gain access through a PC.

If using a PC, download the Sproto app here and register:
https://sproto.net/#

Once you have downloaded the Sproto App to your PC:

1. MAKE SURE you have the Micro male to USB data cable that is appropriate for your Android phone. iPhone is no supported.

2. Plug the Micro male to your Tribunus II side port, and the USB to your PC.
3. You no longer need to power the ESC.
4. Launch the Sproto app.
5. With the Sproto app open on your screen, select the Tribunus II ESC Configuration button to open the management screens.

Important Note:

If you are having trouble getting your Tribunus II and II+ controllers to initialize and perform the throttle calibration, here are a few things I suggest trying.

Once you have downloaded, installed, and registered the Sproto app from Google Play to your Android phone, or downloaded and registered Sproto from Sproto.net to your PC:

1. Make sure you are using the correct mini/micro USB cables and connectors
2. If using Sproto on your PC, make sure the cable you are using can transfer data.
3. The original Android phone charger cable with the USB connector on one end is the correct cable, but some replacement cables may not be of the data variety.
4. If you are using Sproto on your Android phone (highly recommended), make sure you are using the correct A-Male to Micro B cable - Amazon has them for $7.
5. If you are using Tribunus II or II+ devices with the micro side port, the V-Link or V-Link II is NOT to be used.

Once you have correctly installed Sproto on your PC or Android device, and have the correct cables:

1. Make sure the prop is off the plane
2. Make sure your throttle trim is in a neutral position
3. Make sure any kill or idle switches are in the position that enables motor rotation
4. Make sure the SBEC is enabled, even if you will not use the SBEC when flying the plane
5. Make sure the sound is enabled so you can hear tones from the ESC

Once this is done, you can try connecting the ESC

1. Turn on your transmitter.
2. Push the throttle stick to a 100% throttle setting.
3. Power the ESC with your main pack batteries.
4. After a few seconds, you should hear one beep.
5. Quickly return the throttle stick to the zero-throttle position.
6. You should now hear a series of Morse code beeps.
7. This series of beeps signals that the ESC, motor, and Rx, are communicating.

You can now test the throttle to make sure the connection is made, and that the motor is rotating in the correct direction, which is counterclockwise when looking at the front of the plane.

You can then unplug your batteries, and turn off your transmitter, and make any programming corrections you need. You can switch the rotation direction in the Tribunus programming screens, plus you can now disable the SBEC if you will power the receiver with a separate battery or batteries.

From this point forward, you can now simply power up your system normally, but I suggest that if you change any component in the electric power system, that you recalibrate your throttle.

Anytime you update your Tribunus firmware version, the default heli settings will be reapplied during the update, so you will have to reprogram every screen again, and go through this entire process again.

Once connected, the Main screen will populate fields with default settings:
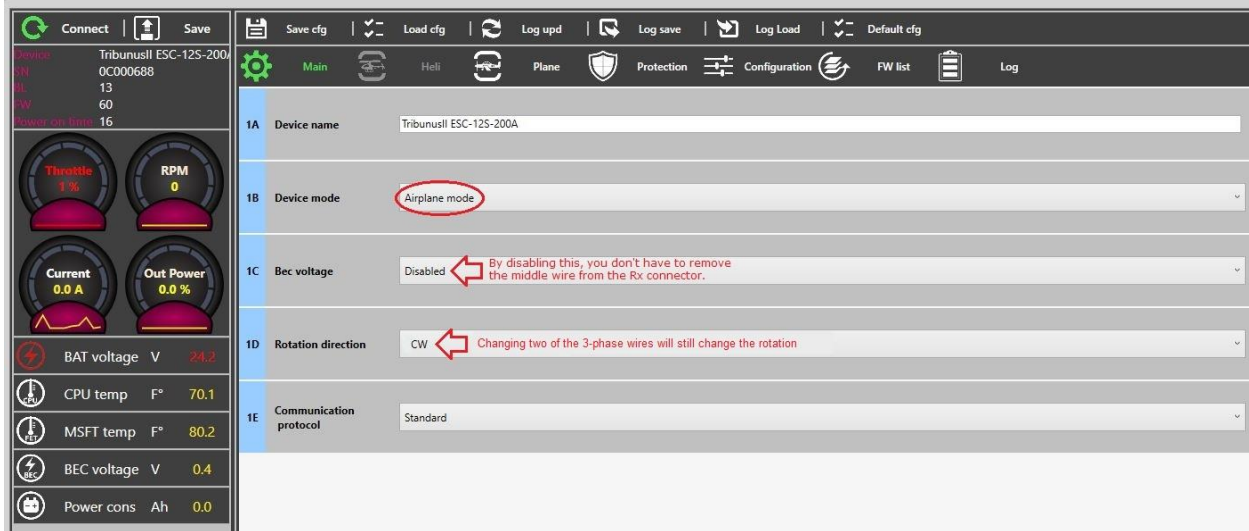

Make sure that the:

1. Airplane mode is selected
2. BEC voltage is disabled unless you will use the internal SBEC
3. Rotation direction is CW but you will still need to check the motor rotation before mounting a propeller. You can change it by selecting the other Rotation direction setting instead of changing two of the three 3-phase wires.
4. Communication protocol is Standard but if you are using Jeti, Vbar, or Futaba, you can make these changes
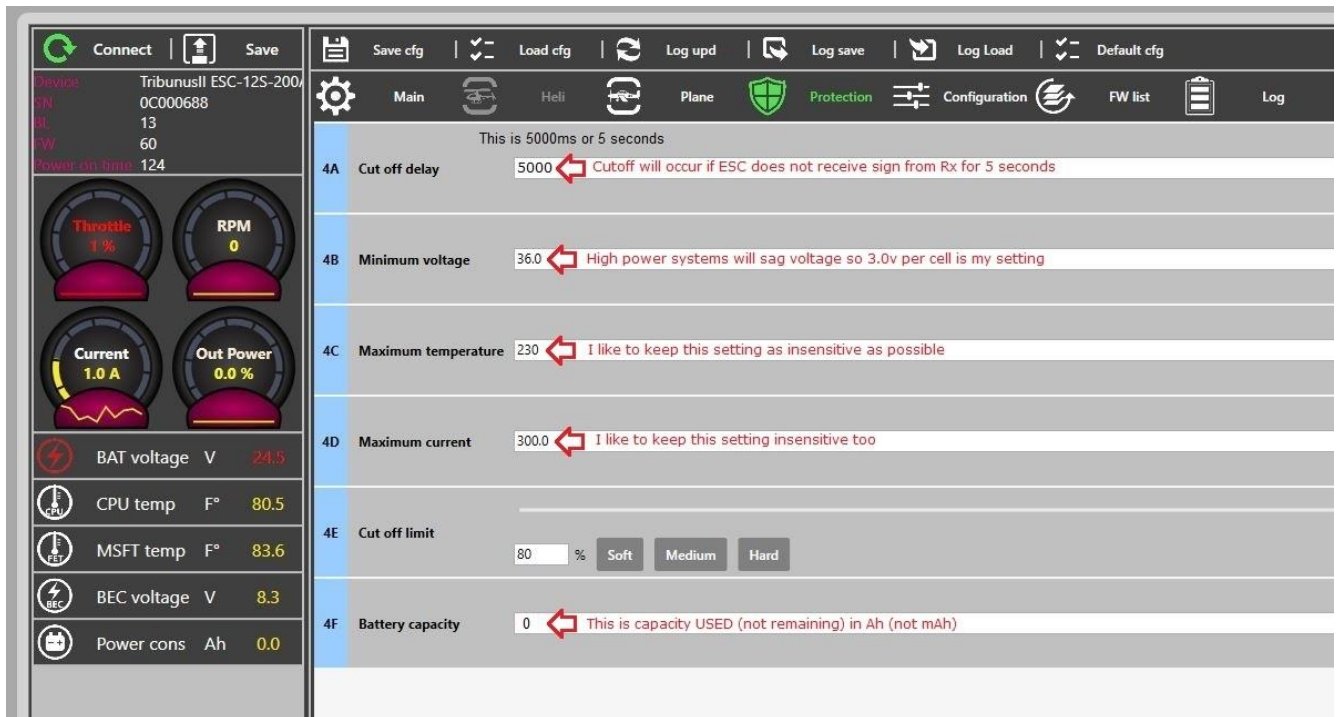
In the Airplane screen, the Drag brake is 0%.
The Throttle acceleration is okay at 250ms for the StinGR 85 and 450 to 850 ms is okay with the StinGR 120 and up.
The PWM mode is Regular.
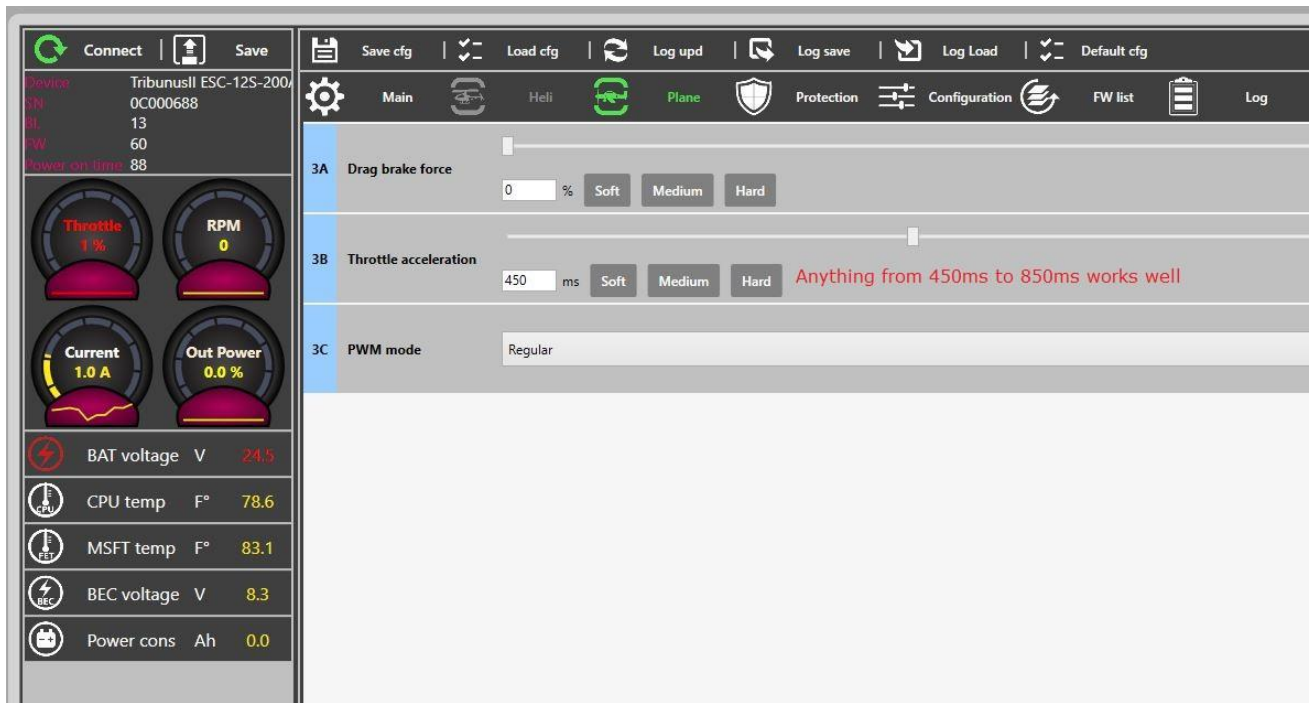
In the Protection screen, I try to keep the setting less sensitive with bigger planes since the sensors can pick up wider ranges of feedback.

The Cutoff delay in the screen above is set to 5 seconds (5000ms) which means the controller will not go to cutoff too early if it senses no connection with the transmitter. 3000ms is fine too.
The minimum voltage is set low so that any common voltage sagging due to high propeller load will not be interpreted as a voltage failure.

My personal maximum temperature is set to 105*C since I do not want my controller cutting off from heat until it's a little above 110*C.

The Maximum current is set to the maximum since the controller can manage this level at short spikes. I set the Cut off limit to 75% or 80% since I will still notice the drop in power while not letting the reduction create a safety issue to my plane in-case I am low and slow and out of position.

I have the Battery capacity setting set to zero to not make capacity a cutoff issue. If you are not using telemetry and what the ESC to tell you when you are reaching the low-safe capacity level of about 76% to 78% of full capacity, just remember that this value represents "used" capacity and not "remaining" capacity. It is also represented in Ah and not mAh.

The Configuration screen will offer Fahrenheit or Celsius options.
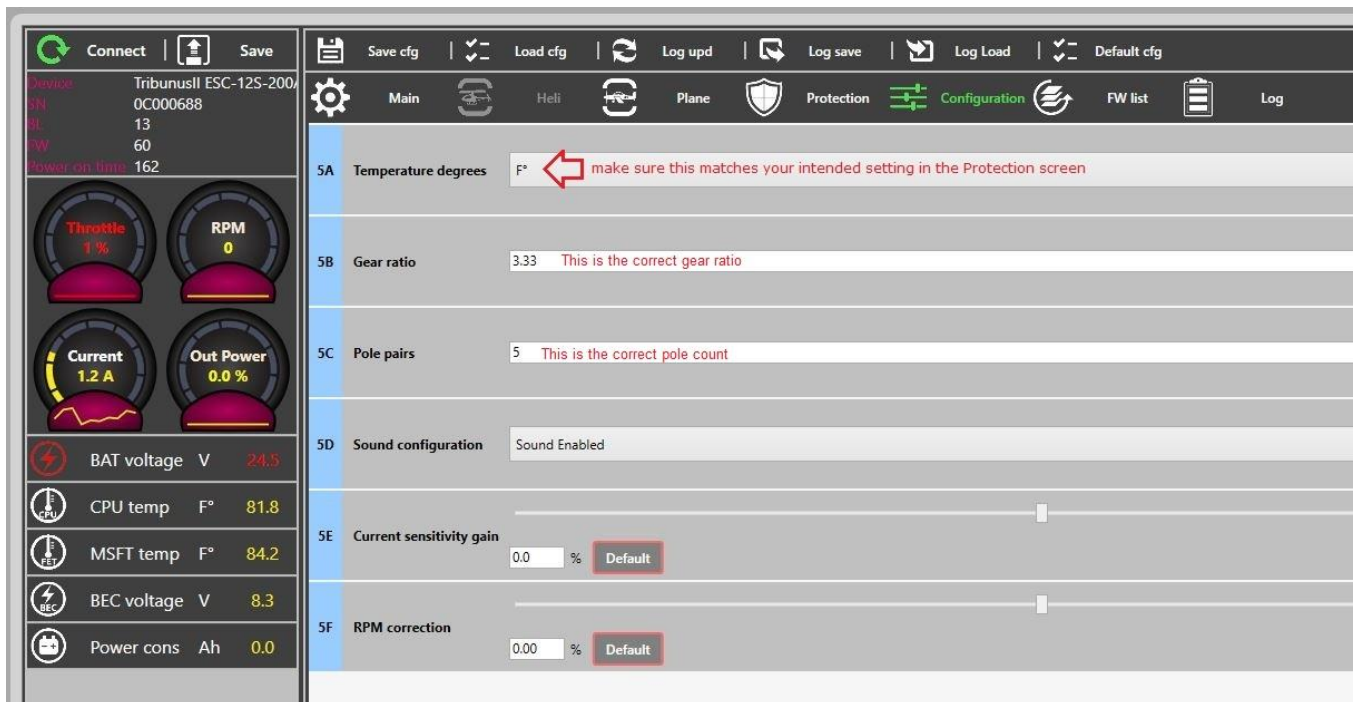
The ratio for the StinGR is either 3.33 or 3.16 and this will be set correctly for you if you purchased the Tribunus with your StinGR. Otherwise, please ask.
The Pole pairs is 5 (10 pole motor).
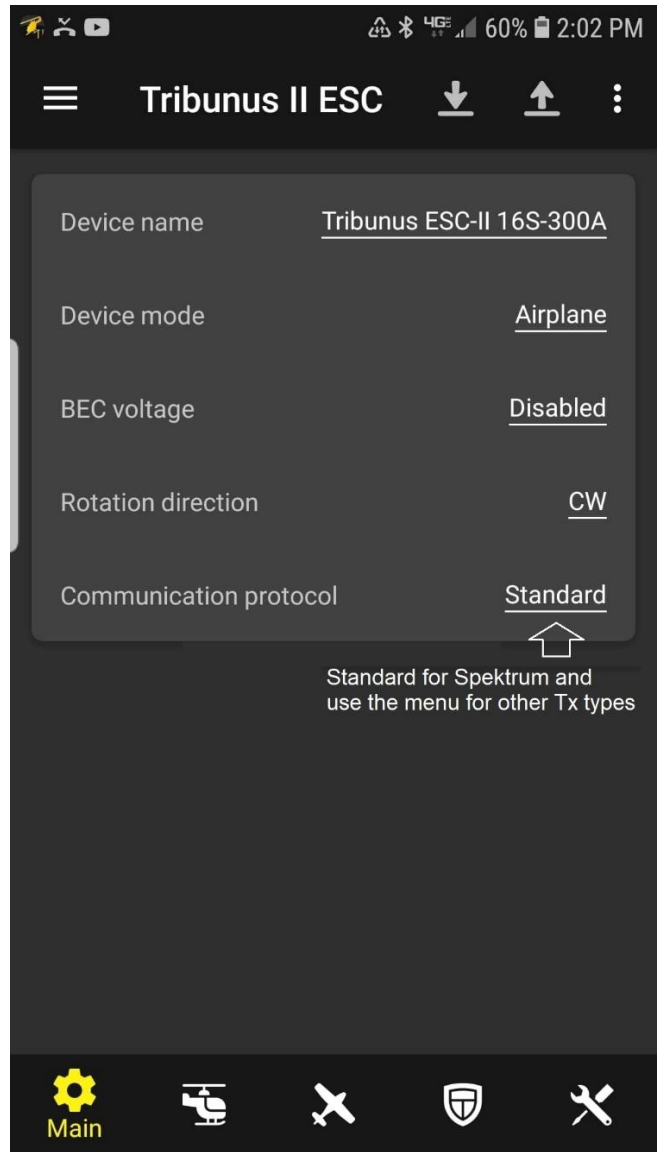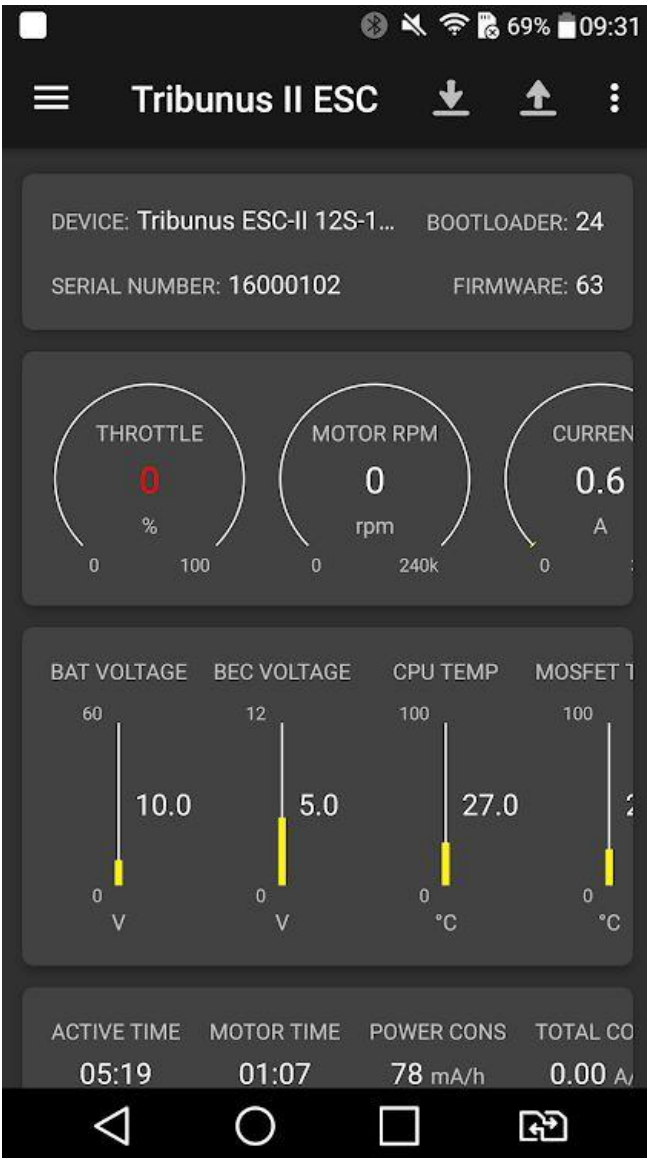I leave the sound on.
And I leave the current sensitivity and RPM correction off.

These are my current Sproto setting using the PC and what I suggest for StinGR users, but setting like throttle acceleration, BEC disabling, cutoff delay, cut off limit, max current, and minimum voltage, can be customized at your own discretion, and battery capacity will also need to be manage with different pack capacity.

If you are using the Android Sproto App (highly recommended), you will need the appropriate Mico USB connector for your phone version that looks like this:

CableCreation Micro USB to Micro USB OTG Cable, Male to Male, Compatible with DJI Spark and Mavic, PS4, Owlet, Android Phone and Tablet, DAC and More,8 inch...

Color:Black (1-Pack)

I bought mine for about $6 from Amazon and shipping is free and next day for Prime members. The same programming options are available through the phone app's interface, as well as the full and log data graph and line-by-line data grid. You can use the following recommended settings.

DEVICE: Tribunus ESC-II 12S-1...   BOOTLOADER: 24

SERIAL NUMBER: 16000102   FIRMWARE: 63

THROTTLE
0
%
0   100

MOTOR RPM
0
rpm
0   240k

CURREN
0.6
A
0

BAT VOLTAGE
60
10.0
0
V

BEC VOLTAGE
12
5.0
0
V

CPU TEMP
100
27.0
0
°C

MOSFET T
100
0
°C

ACTIVE TIME   MOTOR TIME   POWER CONS   TOTAL CO
05:19   01:07   78 mA/h   0.00 A

Device name	Tribunus ESC-II 16S-300A
Device mode	Airplane
BEC voltage	Disabled
Rotation direction	CW
Communication protocol	Standard

Standard for Spektrum and
use the menu for other Tx types

Main

Tribunus II ESC ⬇ ⬆ ⋮

Drag brake	0 %
Acceleration 300ms for the StinGR 85 400ms for the StinGR 120 500ms for the StinGR 150 600ms for the StinGR 170	400 ms
PWM mode	Regular

⚙ 🚁 ✈ **Plane** 🛡 🛠

Tribunus II ESC ⬇ ⬆ ⋮

Cutoff delay	3500 ms
Minimum voltage	36.0 V
Maximum temperature	100 °C
Maximum current 250A for the 200A 350A for the 300A	350.0 A
Cutoff power	70 %
Maximum battery capacity	0.00 A·h

⚙ 🚁 ✈ 🛡 **Protection** 🛠
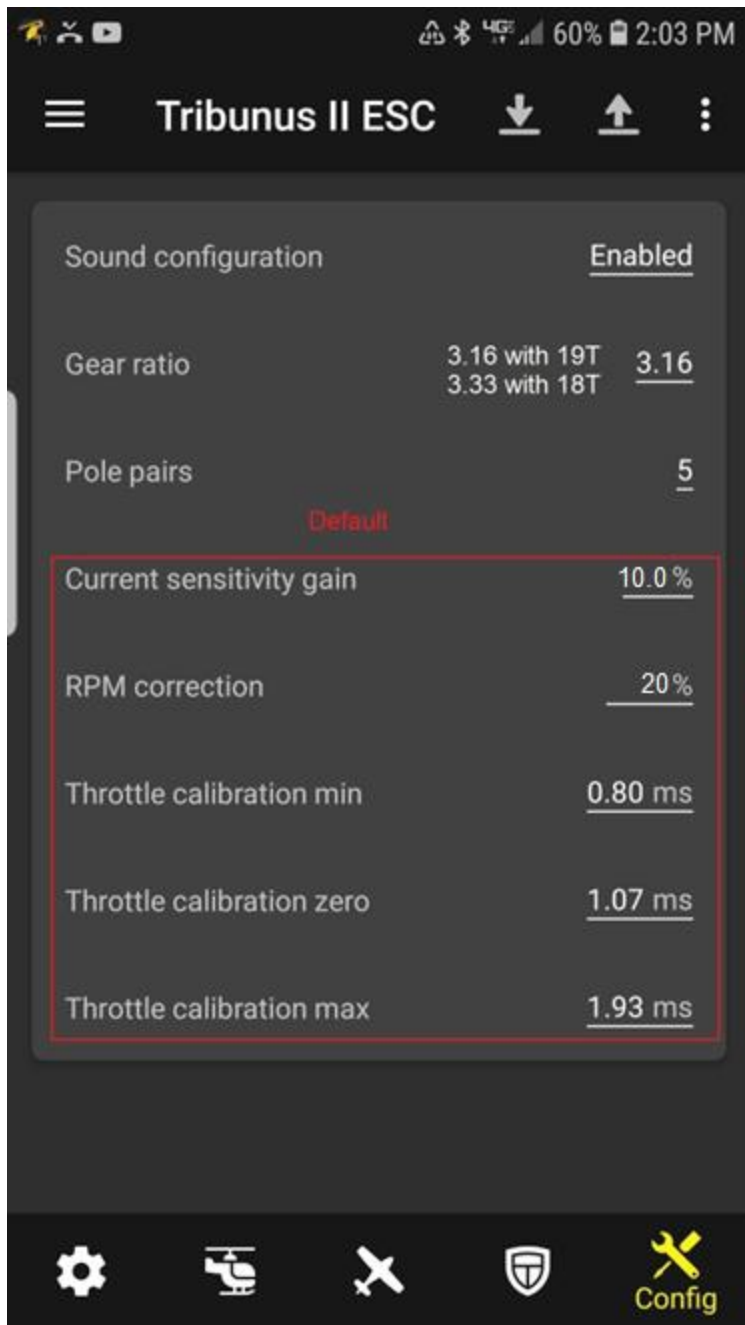
Please contract me if you have any questions about programming or the Sproto App.