SpeedyBee F405 V4 BLS 55A 30x30 Stack

User Manual V1.0

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Layout

Connection with Motors & Power Cable

- ESC Configuration
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- Specifications

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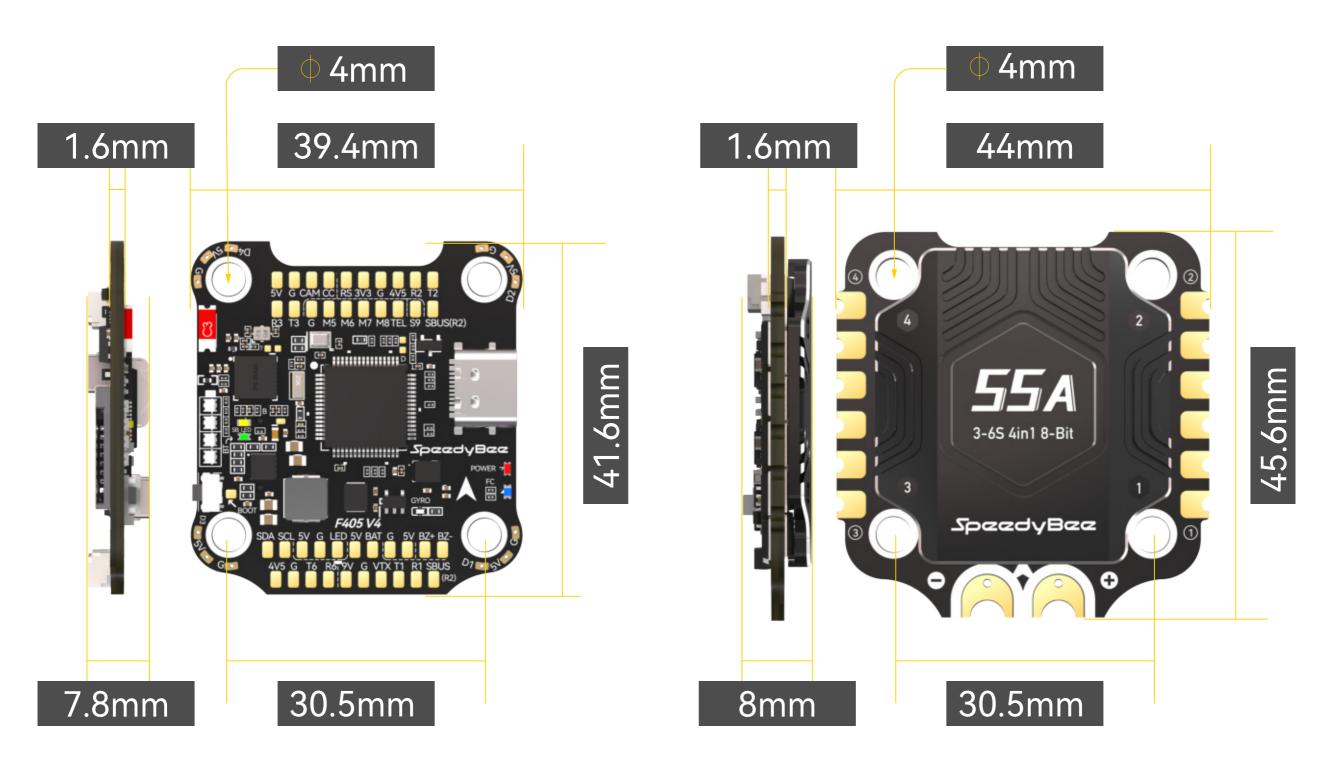
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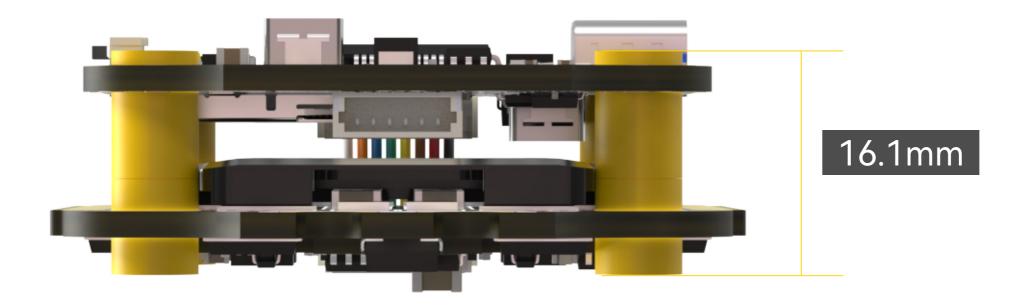
Part 1 - OverView

Specs Overview

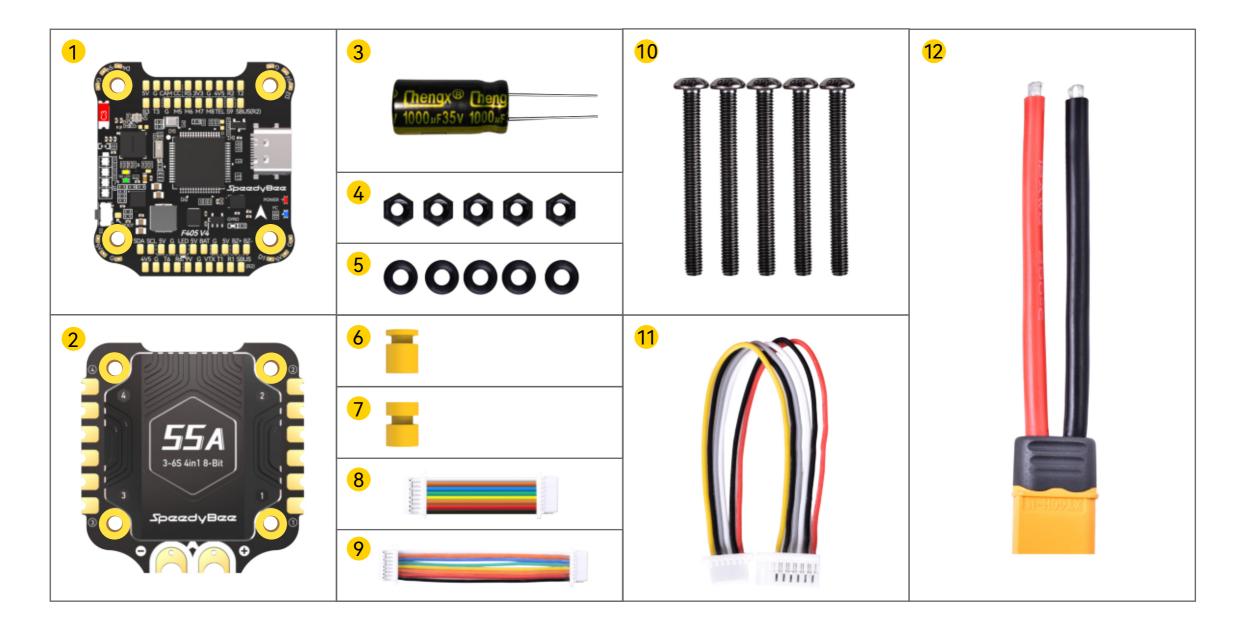
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Product Name	SpeedyBee F405 V4 BLS 55A 30x30 Stack
Flight Controller	SpeedyBee F405 V4 Flight Controller
ESC	SpeedyBee BLS 55A 4-in-1 ESC
Bluetooth	Supported. For FC & ESC parameter settings
Wireless FC Firmware Flashing	NOT Supported
Wireless Blackbox Dwonload & Analysis	NOT Supported
Power Input	3-6S LiPo
Mounting	30.5 x 30.5mm(4mm hole size)
Dimension	45.6mm(L) x 44mm(W) x 18.3mm(H)
Weight	34g





Option 1 – SpeedyBee F405 V4 55A 30x30 Stack

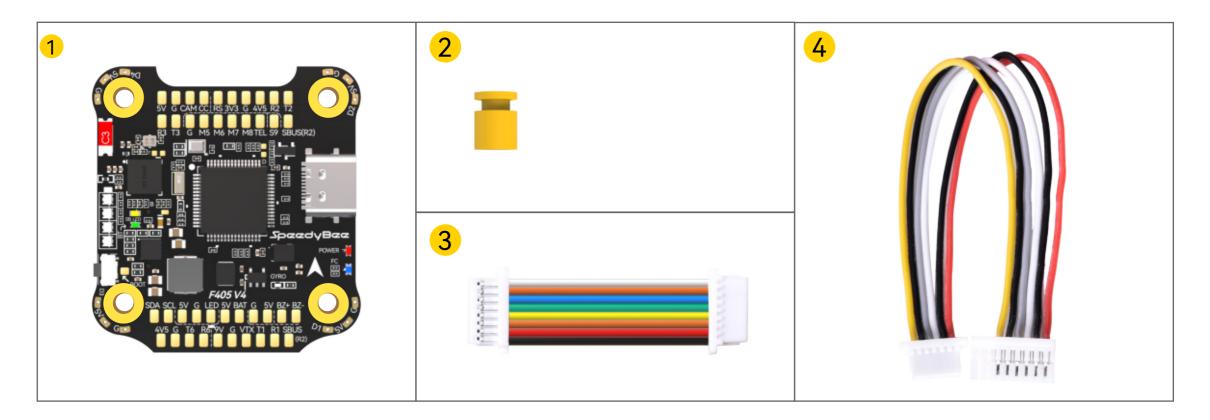


- SpeedyBee F405 V4 Flight Controller x 1 1
- SpeedyBee BLS 55A 4-in-1 ESC x 1 2
- 35V 1000uF Low ESR Capacitor x 1 3
- M3 Nylon Nut x 5
- 5 M3 silicone O Ring x 5

- 6 M3*8mm Silicone Grommets(for FC) x 1
- 7 M3*8.1mm Silicone Grommets(for ESC) x 1
- SH 1.0mm 25mm-length 8pin Cable(for FC-ESC connection) x 1 8
- 9 SH 1.0mm 75mm-length 8pin Cable* x 1
- M3*30mm Iner-hexagon Screws x 5 10
- DJI 6pin Cable(80mm) x 1 11
- 12 XT60 Power Cable(70mm) x 1

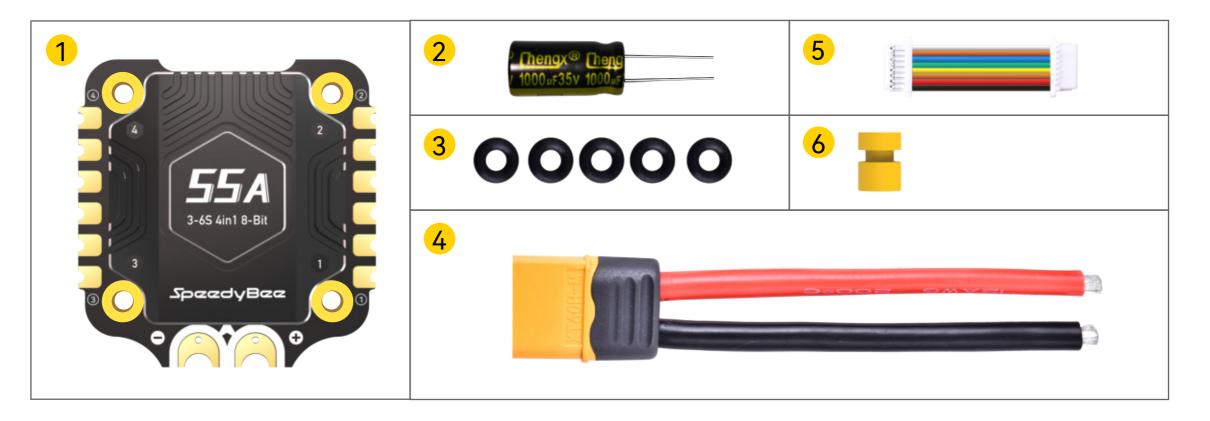
* When the ESC tail faces the drone's front, use this cable for the flight controller and ESC; both ends plug interchangeably.

Option 2 – SpeedyBee F405 V4 Flight Controller



- 1 SpeedyBee F405 V4 Flight Controller x 1
- 2 M3*8mm Silicone Grommets(for FC) x 1
- **3** SH 1.0mm 25mm-length 8pin Cable(for FC-ESC connection) x 1
- 4 DJI 6pin Cable(80mm) x 1

Option 3 - SpeedyBee BLS 55A 4-in-1 ESC

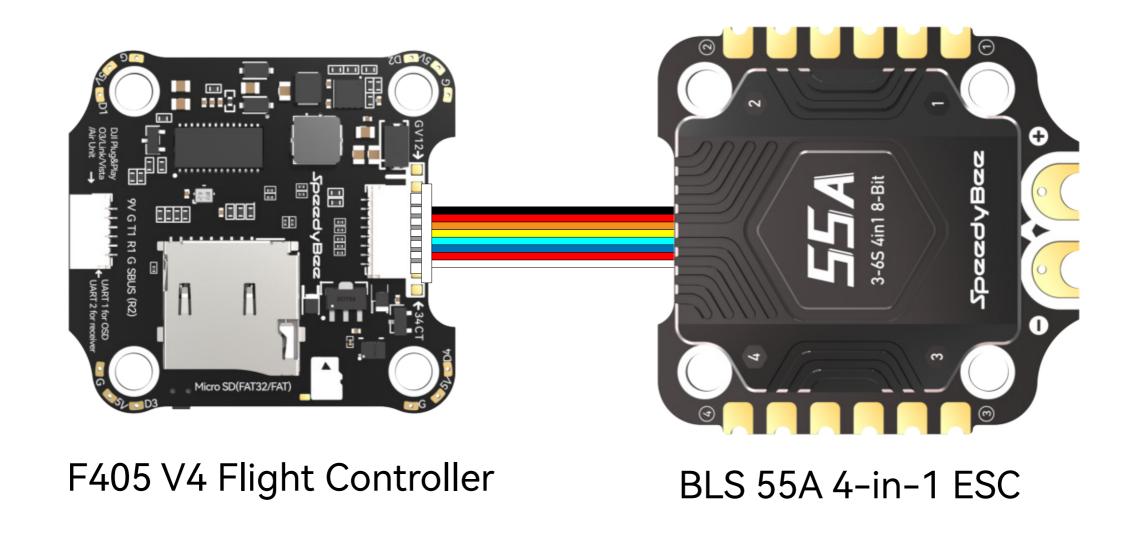


- 1 SpeedyBee BLS 55A 4-in-1 ESC x 1
- 2 35V 1000uF Low ESR Capacitor x 1
- 3 M3 silicone O Ring x 5
- 4 XT60 Power Cable(70mm) x 1
- 5 SH 1.0mm 25mm-length 8pin Cable(for FC-ESC connection) x 1
- 6 M3*8.1mm Silicone Grommets(for ESC) x 1

Use the 8-pin cable in the package to connect the FC and the ESC. Or solder 8 wires directly to the 8 pads on each end.

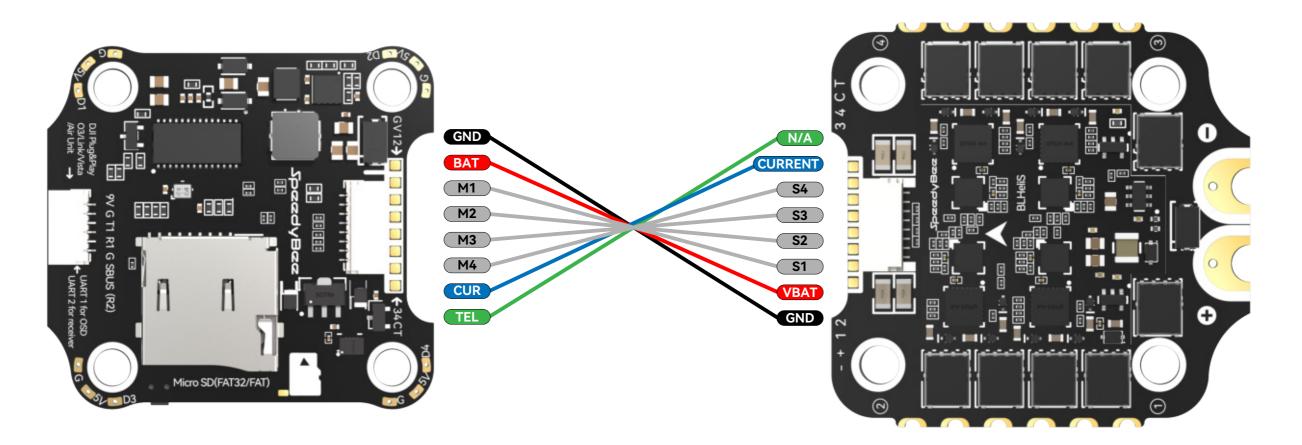
Method 1 - Using 8-pin cable

Use any end of the 8-pin JST cable to connect the FC to the ESC.



Method 2 - Direct soldering

Solder 8 wires to the 8 pads on each end referring to the pad definition below.



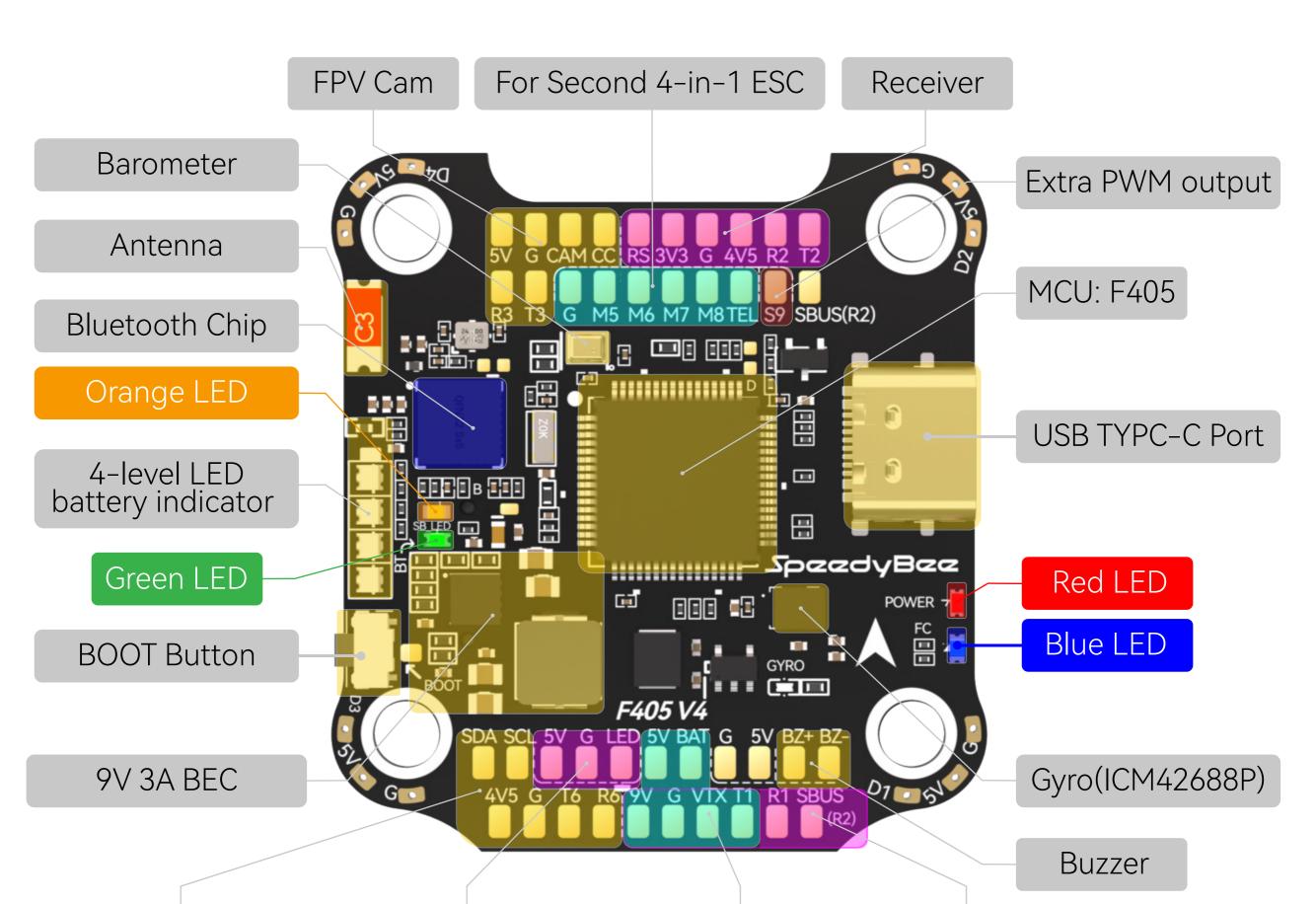
F405 V4 Flight Controller

BLS 55A 4-in-1 ESC

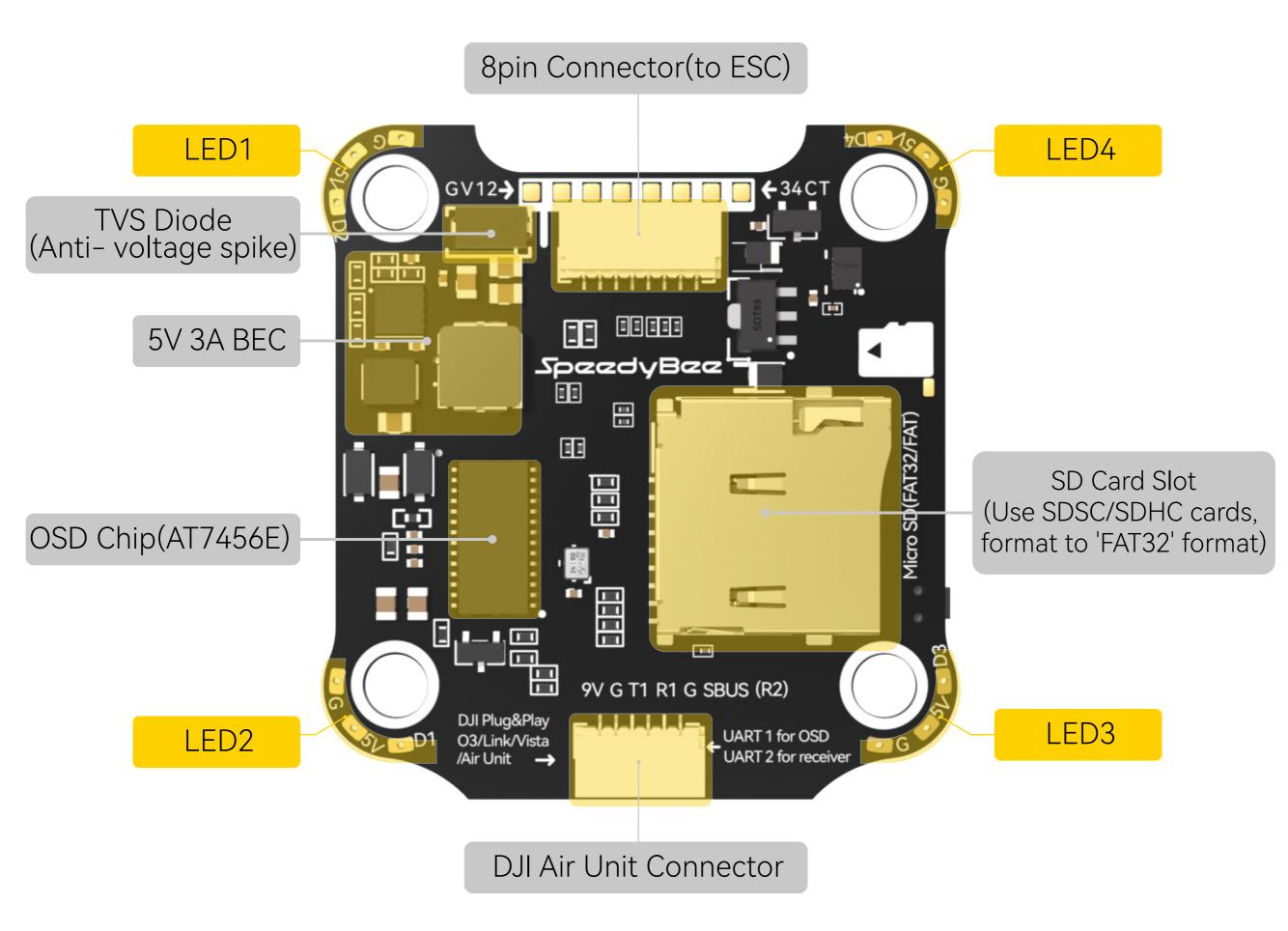
Part 2 – F405 V4 Flight Controller

Layout

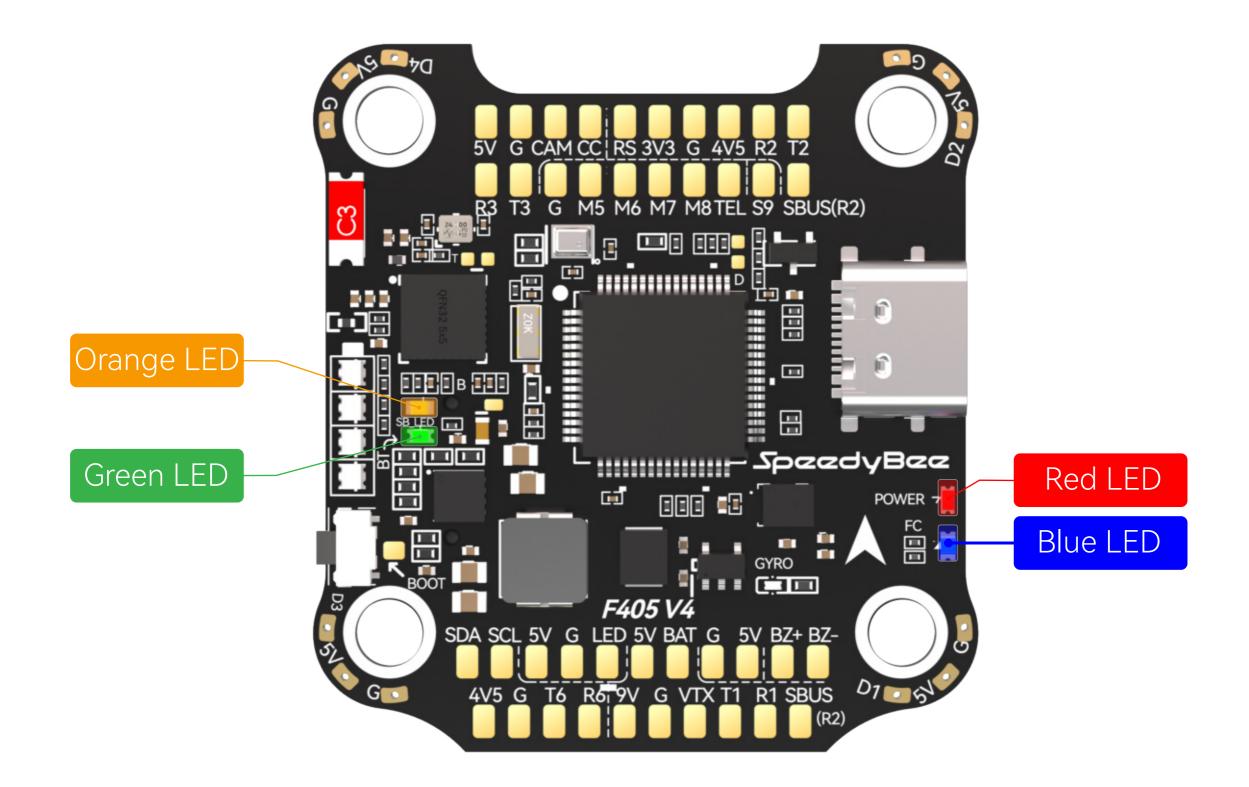
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LED Indicator Definition



RED LED – Power Indicator.Solid Red after powering up.

GREEN LED – Bluetooth status light. Solid Green indicates Bluetooth is connected.

BLUE LED – Flight controller status light which is controlled by the flight controller firmware.

Orange LED – LED Control Mode Indicator. It indicates the 4 sets of LED strips connected to LED1–LED4 pads on the corners of the flight controller are controlled by Betaflight firmware(BF_LED mode) or the Bluetooth chip(SB_LED mode).

Solid Orange : tindicates the 4 x LEDs are in SB_LED mode. In this mode, when the FC is powered on and in standby mode, press the BOOT button to cycle the display modes of the LEDs.

OFF : indicates the 4 x LEDs are controlled by Betaflight firmware. Long press the button for 3 seconds to switch the control modes between BF_LED mode and SB_LED mode.

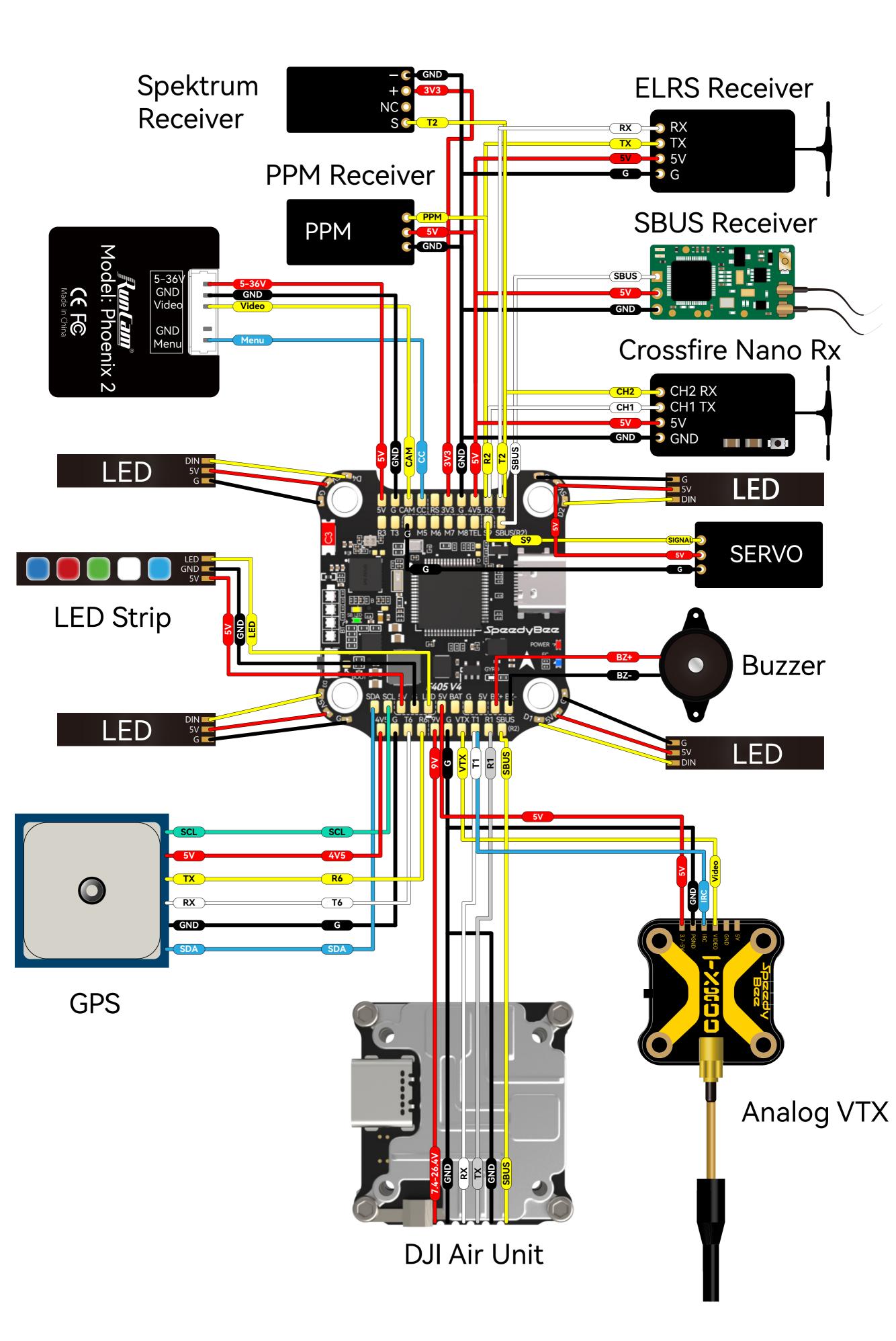
BOOT Button

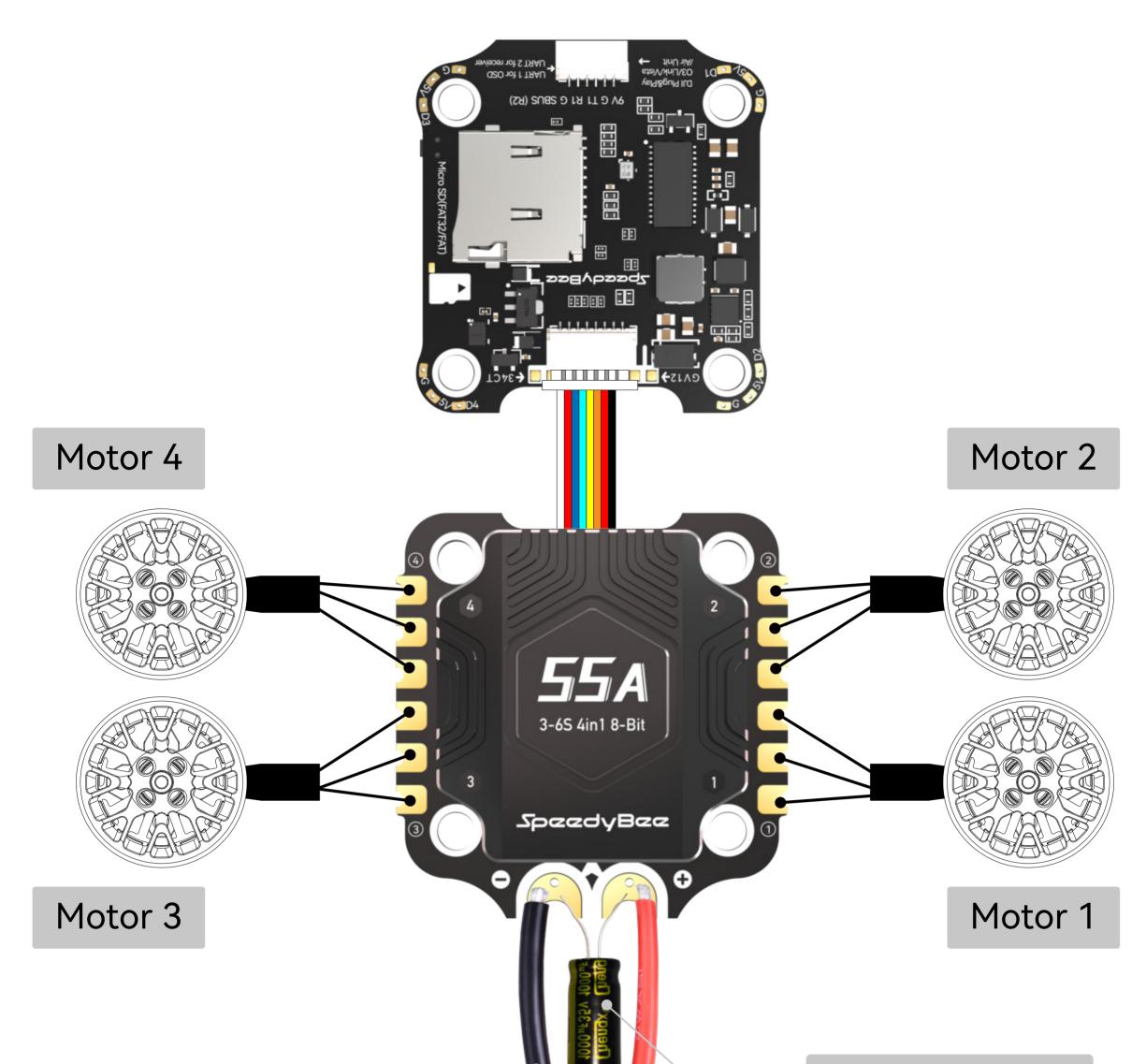
[A]Only if the flight controller gets bricked and can't power up, please follow these steps to re-flash firmware for it:

- ① Insert a USB A to TYPE-C cable to your PC.
- ② Press and hold the BOOT button, insert the USB cable into the flight controller, then release the BOOT button.
- ③ Open Betaflight/INAV configurator on the PC, go to the 'Firmware Flashing' page, choose the target 'SPEEDYBEEF405V4' and flash.

[B]. When the FC is powered on and in standby mode, the BOOT button can be used to control the LED strips connected to LED1-LED4 pads on the corners. Short-press the BOOT button to cycle the LED displaying mode. Long-press the BOOT button to switch between SpeedyBee-LED mode and BF-LED mode. Under BF-LED mode, all the LED1-LED4 strips will be controlled by the Betaflight firmware. The default mode is BF-LED mode.

FC's Peripheral Connection

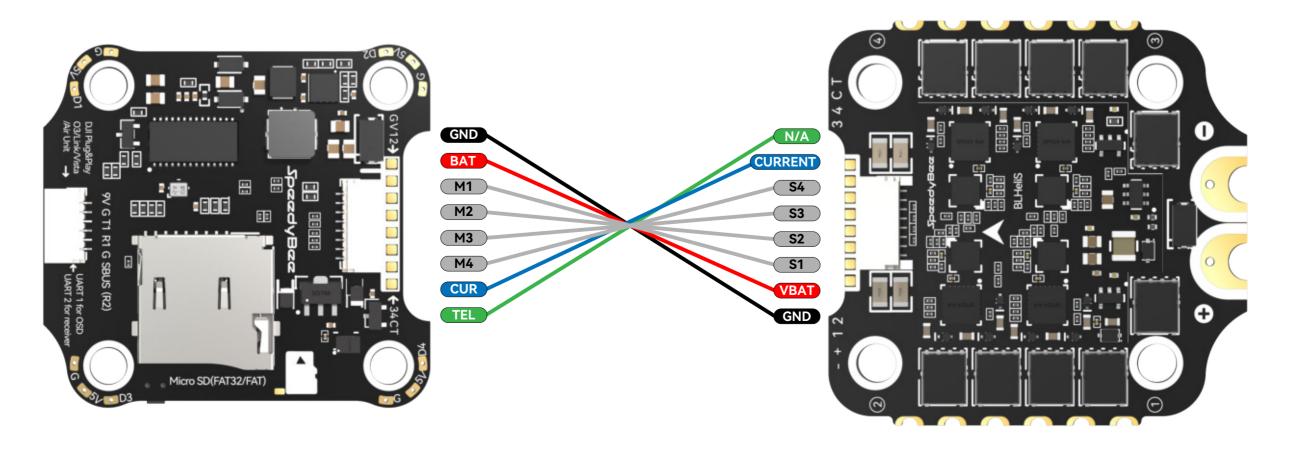




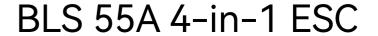


Note1: In order to prevent the stack from being burnt out by voltage spikes on powering up, it is strongly recommended to use the Low ESR capacitor in the package.

Note2: The FC and ESC can also connected via direct soldering. Soldering pads definition is as follows.

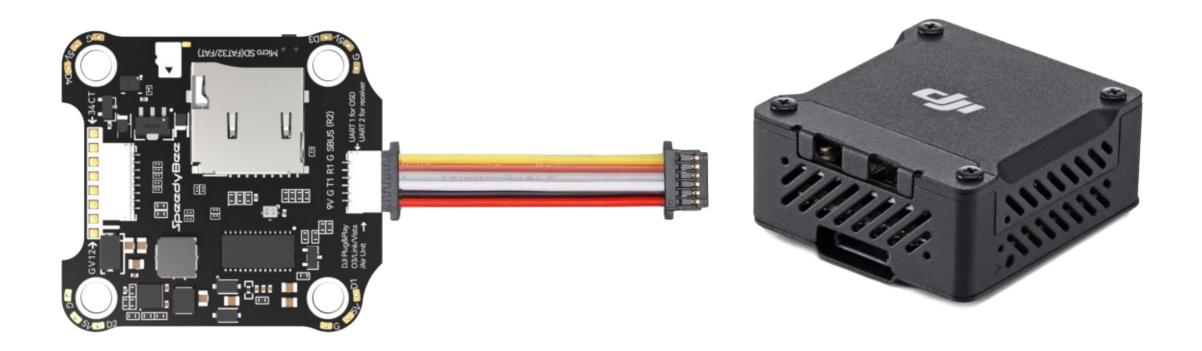


F405 V4 Flight Controller



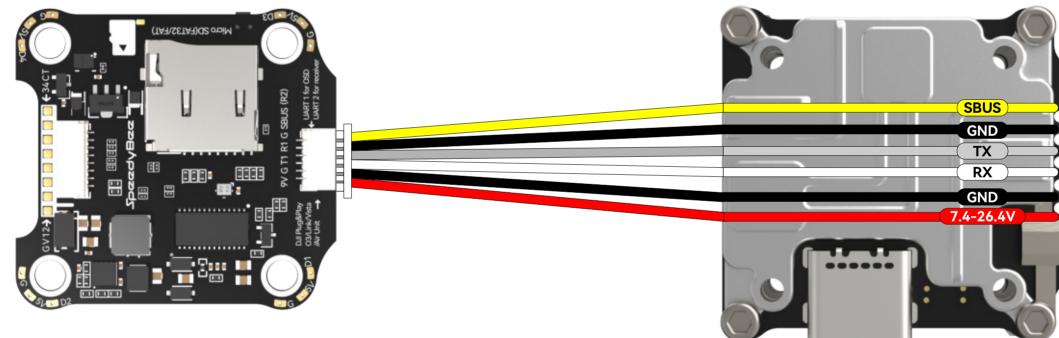
Cable Connection vs DJI O3 Air Unit

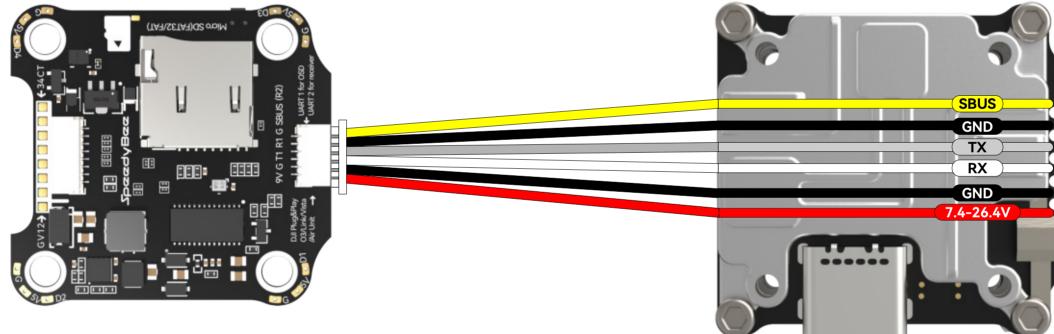
Use 6-pin cable comes with the O3 Air Unit



Cable Connection vs RunCam Link/ Caddx Vista Air Unit

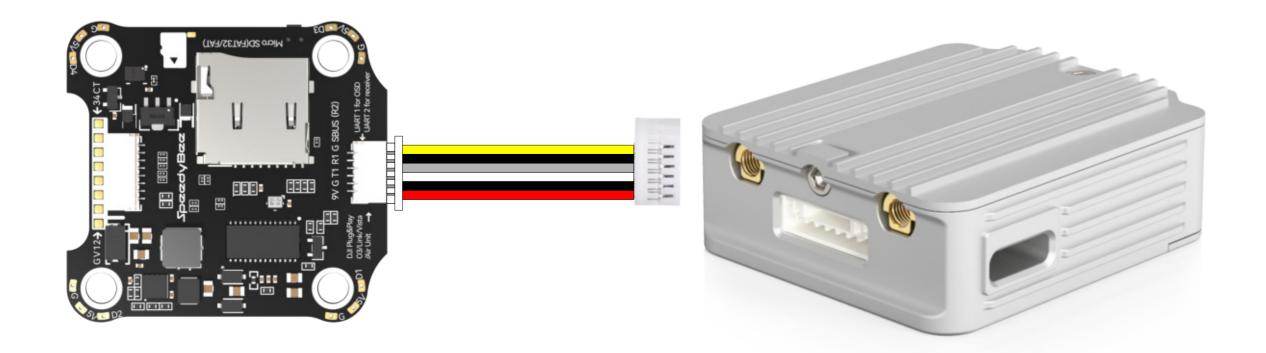
Use 6-pin cable comes with the F405 V4 stack (See the accessory No.11 in the package section)





Cable Connection vs DJI Air Unit V1

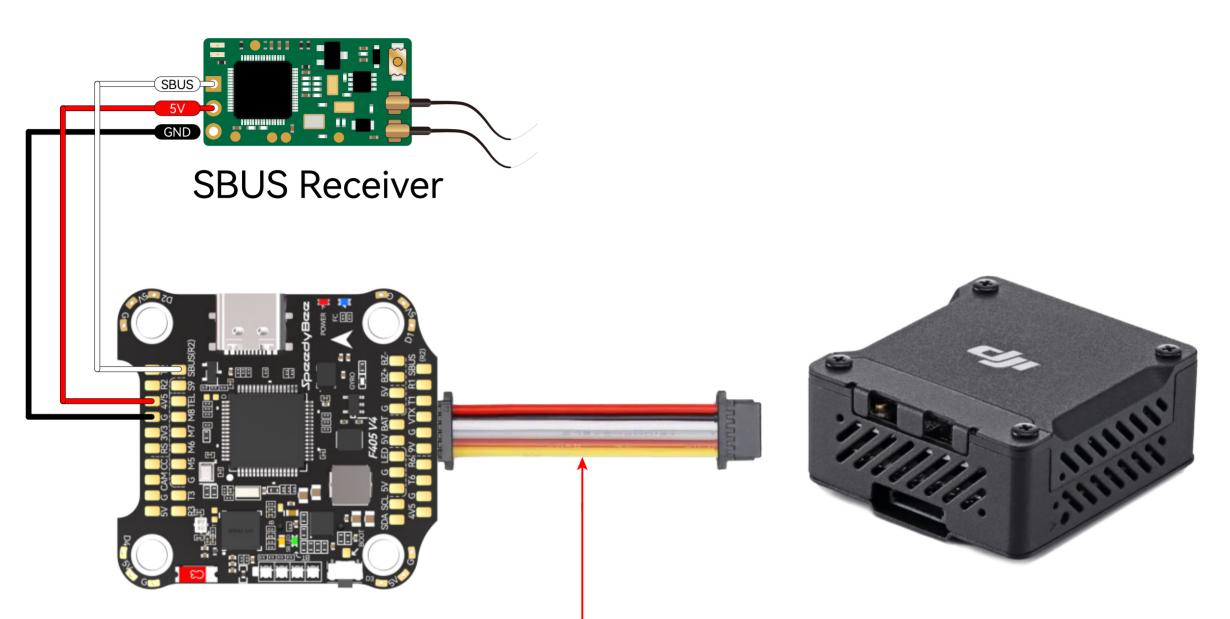
Use 6-pin cable comes with the F405 V4 stack (See the accessory No.11 in the package section)



Importance notice for SBUS receiver

When using an SBUS receiver, the SBUS signal wire of the receiver must be connected to the SBUS pad on the front side of the flight controller (this pad internally uses UART2).

If you are also using the DJI Air Unit(O3/Link/Vista/Air Unit V1), you will need to disconnect the SBUS signal wire from the Air Unit harness. Failure to do so will prevent the SBUS receiver from being properly recognized by the flight controller. You can use tweezers to pick out the SBUS wire from the 6-pin harness connector (or directly cut this wire) and insulate the exposed part of the wire carefully.



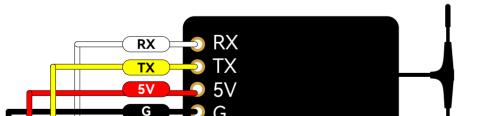
F405 V4 Flight Controller

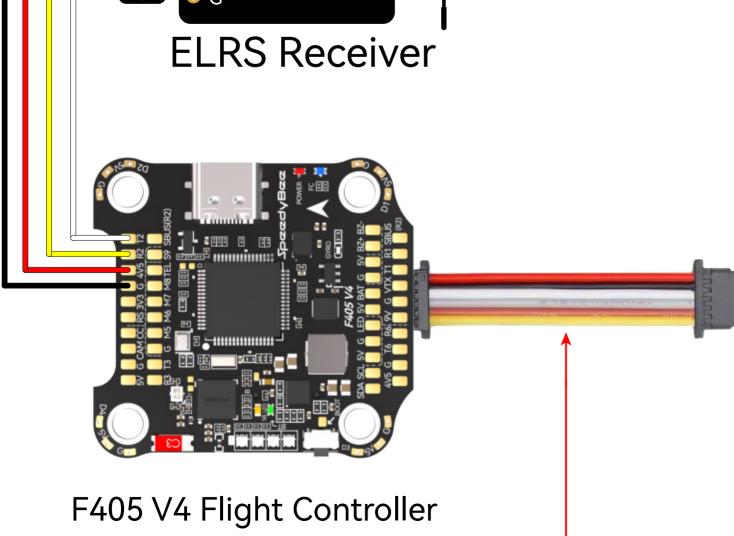
DJI O3/Vista/Link/Air Unit V1

Do NOT connect this wire to assure the external SBUS receiver work properly!

Importance notice for ELRS receiver

We recommend connecting the ELRS receiver's TX and RX to the T2 and R2 pads on the flight controller. However, when using the DJI Air Unit simultaneously, some ELRS receivers may not be recognized properly by the flight controller. If you encounter this issue, you need to disconnect the SBUS signal wire from the Air Unit harness. You can use tweezers to pick out the SBUS wire from the 6-pin harness connector (or directly cut this wire) and insulate the exposed part of the wire carefully.







DJI O3/Vista/Link/Air Unit V1

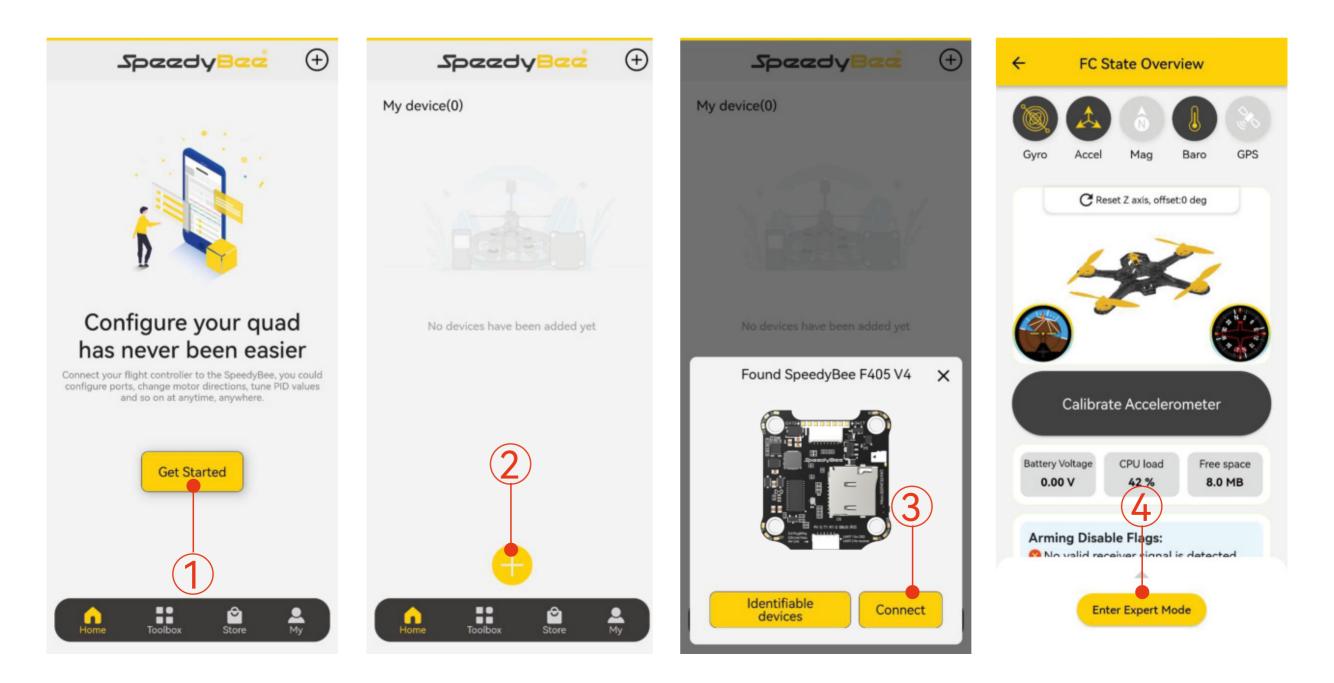
For some ELRS receivers, it is necessary to disconnect this wire in order to function properly!

App & FC Configuration

Get the SpeedyBee App

Search 'SpeedyBee' on Google Play or App Store. Or download the Android .apk file on our website: https://www.speedybee.com/download.

FC Configuration



FC Firmware Update

SpeedyBee F405 V4 flight controller does not support wireless firmware flashing, so please flash firmware for it on your PC following the steps below:

① Connect the flight controller to the PC with a USB cable

② Open Betafight/ INAV configurator on your PC. Take Betaflight

configurator as an example, go to the 'Firmware Flashing' page, choose the target '**SPEEDYBEEF405V4**' and flash.

BETAFLIC Configurator: 10.9.0-del			COM6 - Betaflight STM32F405 Auto-Connect 115200 Update Firmware Connect
2022-09-07 @11:56:25 Loaded builds 2022-09-07 @11:56:26 Loaded releas	ccessfully closed information for jobs from build server. information for jobs from build server. information for firmware from GitHub. information for firmware from GitHub.		Hide Log Scroll V
™ Welcome			
🖪 Changelog	Show unstable releases		Show release candidates in addition to stable releases
Privacy Policy	Enable Expert Mode		Show unreleased and potentially unstable builds
Documentation & Support	Release	~	Select build type to see available boards.
Options	SPEEDYBEEF405V4	~	Auto-detect Select or auto-detect your board to see available online firmware releases - Select the correct firmware appropriate for your board.
📋 Firmware Flasher	13-07-2022 11:13 - 4.3.1	~	Select firmware version for your board.
	No reboot sequence		Enable if your FC is in boot mode. i.e. if you powered on your FC with the bootloader pins jumped or whilst holding your FC's BOOT button.
	Full chip erase		Wipes all configuration data currently stored on the board.
	Manual baud rate 256000 V		Manual selection of baud rate for boards that don't support the default speed or for flashing via bluetooth. Note: Not used when flashing via USB DFU
Port utilization: D: 0 % U: 0 % Packet	Please load firmware file	adı (Exit DFU Mode Flash Firmware Load Firmware [Online] Load Firmware [Local] 0 % Configurator: 10.9.0-debug-ea02d9a
Port dull2duon, D, 0 % 0, 0 % Packet	t error: 0 I2C error: 0 Cycle Time: 0 CPU Lo	au. (Configurator, 10.9.0-debug-ea02d9a

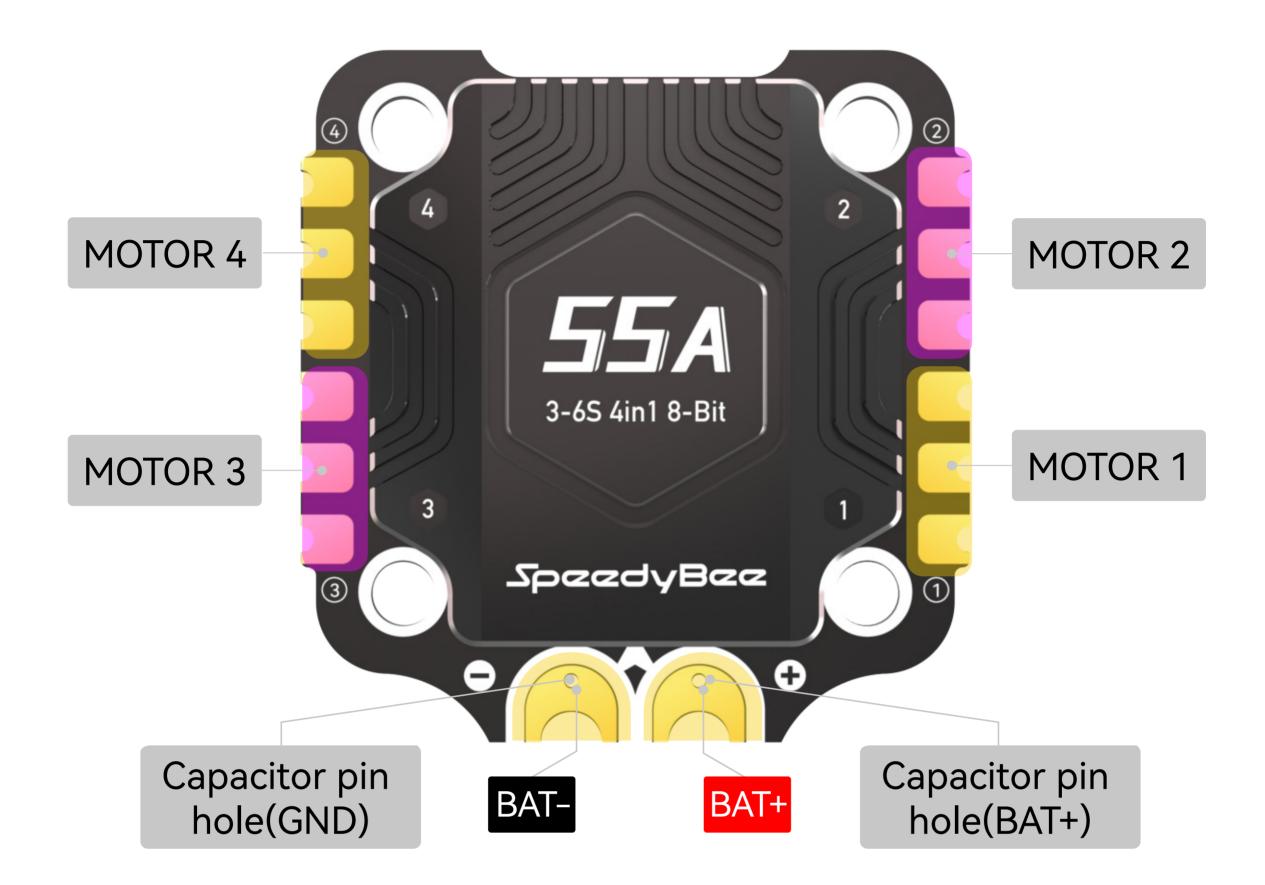
Specifications

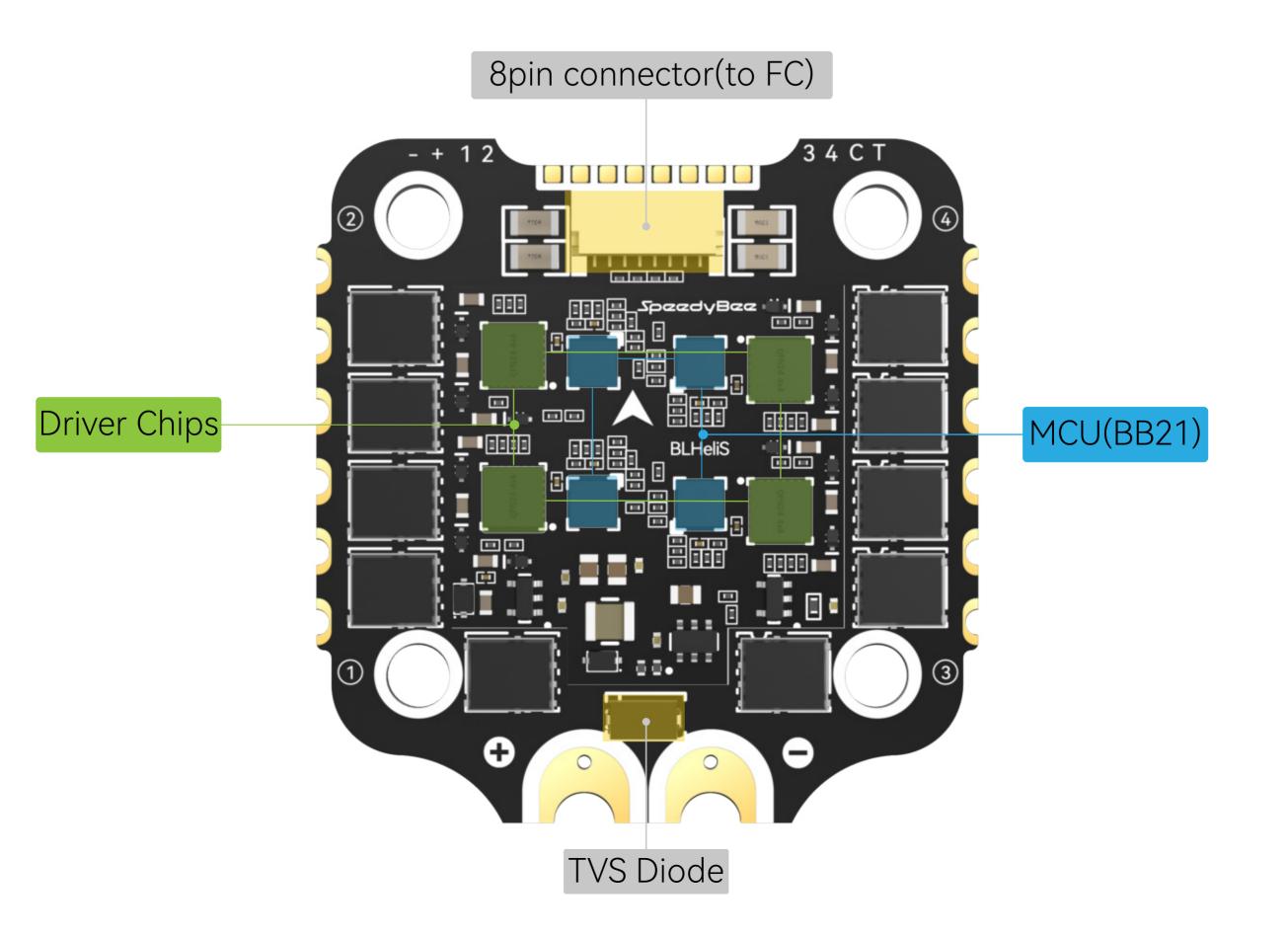
IMU(Gyro) ICM42688P USB Port Type Type-C Barometer Built-in OSD Chip AT7456E chip BLE Bluetooth Supported. Used for Flight Controller configuration (MSP should be enabled with Baud rate 115200 on UART4) WIFI Not supported DJI Air Unit Connection Way Two ways supported: 6-pin connector or direct soldering. 6-pin DJI Air Unit Plug Supported. Completely compatible with DJI O3/RunCam Link/Caddx Vista/DJI Air Unit V1, no wire is needed to be changed. Blackbox MicroSD Card Slott "Betaflight firmware requires the type of the microSD card to be either Standard (SDSC) or High capacity (SDHC) under 32GB, so extended capacity cards (SDXC) are not supported (Mary high-speed U3 cards are SDXC). Also the microSD card MUST be formatted with the FAT16 or FAT32 (recommended) format. So, you could use any SD card less than 32GB, but the Betaflight can only recognize 4 GB maximum. We suggest you use this 37d party formatting. too] and choose 'Overwrite format' then format your card. Also check out here for the recommended SD cards or buy the tested cards from our store. Current Sensor Input Supported. For SpeedyBee BLS 55A ESC, please set scale = 400 and Offset = 0. Power Input 3S - 6S Lipo(Through G, BAT pins/pads from the 8-pin connector or 8-pads on the bottom side for words is 3A. 9V Output 2 groups of 5V output, four +5V pads and 1 BZ+ pad(used for Buzzer) on front side, and 4x LED 5V pads. The total current load is 3A.	Product Name	SpeedyBee F405 V4 30x30 Flight Controller
USB Part Type Type C Barometer Built-in OSD Chip AT /466E chip Barometer Supported. Used for Flight Controller configuration (MSP should be enabled with Baud rest 15200 on UARTA) WFI Not supported. DII Ar Unit Connection Way Two ways supported. Complex compatible with DII 03/RunCam. Link/Caddx Vista/DII Air Unit VI. 6-pin DJI Ar Unit Plug Not wapported. Complex compatible with DII 03/RunCam. Link/Caddx Vista/DII Air Unit VI. Blackbow MicroSD Card Site Betafilight Immware requires the type of the microSD card to be either Standard (SDSC) or Hithin phip-space(US) cards as SDX. Also the microSD card (SDXC) are Used and choose Overwrite format: then format your card. Also check out bgts for their second cards on buy the testack cards (SDXC) or use this Alter formation to call and choose Overwrite format: then format your card. Also check out bgts for their second cards on buy the testack cards (SDXC) or use this Alter formation to call and choose Overwrite format: their format your card. Also check out bgts for their second cards on buy the testack cards (SDXC) or use this Alter formation to call and choose Overwrite format: their format your card. Also check out bgts for their second cards on the testack cards form on or second cards. Current Sensor Input Supported. Designed for a 20-Vi pads and 1 B2+ pad (seed for Buzcer) on front side. and the SDX output. Gurd Alter for also and the SH pad (seed for Buzcer) on front side. Sv Output Supported. Designed for receiver and GPS module even when the FC is powere	MCU	STM32F405
Built-in Built-in OSD Chip AT7456E chip OSD Chip AT7456E chip BLE Bluctooth Supported. Used for Flight Controller configuration (MSP should be enabled with Blud ret 115200 on UART4) WiFi Not supported. DJI Air Unit Connection Way Two ways supported: 6-pin connector or direct soldering. 6-pin DJI Air Unit Connection Way Two ways supported: 6-pin connector or direct soldering. 6-pin DJI Air Unit Connection Way Two ways supported: be changed. Blackbox MicroSD Card Slot Thestangint firmware requires the type of the microSD card VIST be formatics with the Bestifight can only recognize destinated support were formatic with the Bestifight can only recognize AGB maximum. We supgers you use this 32d party formating than advoctor were formatic with the formatics and card sch bare for the recommended SD cards or buy the tested cards from our store. Current Sensor Input Supported. For SpeedyBes BLS 55A ESC, please set scale = 400 and Offset = 0. Power Input Supported. For SpeedyBes BLS 55A ESC, please set scale = 400 and Offset = 0. Supported. Supported. Chargher for salve and offset included in a connector on bottom side. The total current load is 3A. 33 V Output Supported. Designed for receiver and GPS module even when the FC is powered through the USB port. Up to 1A current load. ESC Signal M1 – M4 on bot	IMU(Gyro)	ICM42688P
OSD Chip A17456E chip BLE Bluetooth Supported. Used for Flipht Controller configuration (MSP should be enabled with Baud refs 115200 on UAR16) WIFI Net supported. DI Air Unit Connection Way Two ways supported: 6- pin connector or direct soldering. 6-pin DJI Air Unit Connection Way Supported: Completiely compatible with DJI 03/RunCam Link/Caddx Vista/DJI Air Unit V1, no wire is needed to be changed. Blackbox MicroSD Card Star "Betaflight firmware requires the type of the microSD card to be either Standard (SDSC) or High capacity (SDPC) and cards are SDX. Also the microard Also check out bags for the EAT1 for AF32 (recommended) format. Sa, you could use any SD card less than 32GB, but the EAT1 for AF32 (recommended) format. Sa, you could use any SD card less than 32GB, but the EAT1 for AF32 (recommended) format. Sa, you could use any SD card less than 32GB, but the EAT1 for AF32 (recommended) format. Sa, you could use any SD card less than 32GB, but the EAT1 for AF32 (recommended) format. Sa, you could use any SD card less than 32GB, but the EAT1 for AF32 (recommended) format. Sa, you could use any SD card less than 32GB, but the Supported. For Speedybee BLS SSA ESC, please set scale = 400 and Offset = 0. Pawer Input Supported. For Speedybee BLS SSA ESC, please set scale = 400 and Offset = 0. Sy Output 2 groups of Y output, four +SY yeads and 1 B2+ pa(Luced for Buser) Supported. Designed for receiver and GPS module even when the FC is powered through the Supported. SDA & SCL pads on front side. LART Supported. SDA & SCL pa	USB Port Type	Туре-С
BLE Bluetooth Supported. Used for Flight Controller configuration (MSP should be enabled with Baud rist 11200 on UARTA) WiFI Not supported. DII Air Unit Connection Way Two ways supported. 4-pin connector or direct soldering. Supported. Completely compatible with DJI 03/NunCam Link/Caddx Vista/DJI Air Unit V1, no wire is needed to be changed. Blackbox MicroSD Card Slot Supported. Completely compatible with DJI 03/NunCam Link/Caddx Vista/DJI Air Unit V1, no wire is needed to be changed. Blackbox MicroSD Card Slot Supported. Card Slot Feining Inf. Immuser requires the type of the microSD card to be either Standard (SDSC) or High capacity (SDHC) under 320B, so extended capacity cards (SDXC) are not supported. Blackbox MicroSD Card Slot Blackbox MicroSD Card Slot Supported. For SpeedyBee BLS S5A ESC, please set scale = 400 and Offset = 0. Power Input 32 - 65 Lipo(Through G, BAT pins/pads from the 8-pin connector or 8-pads on the bottom side SV Output 9 groups of SV output, four = 45V pad on front side and other included in a connector on bottom side. The total current load is 3A. 33V Output 2 groups of 9V output, and #S-MB on front side. 46V Output Supported. Designed for receiver and GPS module even when the FC is powered through the USS port. Us to 1A current load. 52C Gard II 11 - 44 on bottom side and MS-MB on front side. 62C Signal M1 - M4 on bottom side and MS-MB on front side. Used	Barometer	Built-in
Bale Boundool rate 115200 on LARTA) WIFI Not supported DII Air Unit Connection Way Two ways supported: 6-pin connector or direct soldering. 6-pin DJI Air Unit Plug Supported. Completely compatible with DJI 03/RunCam Link/Caddx Vista/DJI Air Unit V1, no wire is needed to be changed. Blackbox MicroSD Card Stot *Betaflight timware requires the type of the microSD card to be either Standard (SDSC) or High capacity (SIGE) (SDC) are not supported (Mary high-speed U3 cards are SDXC). Also the microSD card MUST be formated with the Betaflight can only recognize / 4GB mamm. We suggest you use this 3:dp aprix (Sigmatting, Education Choose Overwrite format: So., you coursel. Not Sochead with the recommended SD cards or huy the tested cards from our sione. Current Sensor Input Supported. For SpeedyBee BLS SSA ESC, please set scale = 400 and Offset = 0. Power Input 35 - 65 Lipe(Through G, BAT pins/pads from the 8-pin cannector or 8-pads on the bottom side. SV Output 2 groups of 5V output, for +5V pads and 1 B2+ pad(used for Buzzer) on front side, and 4x LED SV pads. The total current load is 3A. 32V Output 2 groups of 5V output, for +5V pads and 1 B2+ pad(used for Buzzer) on front side. 45V Output Supported. Designed for 32-Vinput receivers. Up to 500mA current load. 45V Output Supported. Designed for 32-Vinput receivers. Up to 500mA current load. 45V Output Supported. Designed for 32-Vinput receivers. Up to 50	OSD Chip	AT7456E chip
DJI Air Unit Connection Way Two ways supported: 6-pin connector or direct soldering. 6-pin DJI Air Unit Plug Supported. Completely compatible with DJI O3/RunCam Link/Caddx Vista/DJI Air Unit V1, no wire is needed to be changed. Blackbox MicroSD Card Slot "Bestafight finuware requires the type of the microSD card tob StoC) are not supported (may high-spead) (SDHC) under 32GB, so extended capacity cards (SDXC) are not supported. Blackbox MicroSD Card Slot "Bestafight finuware requires Maximum. We suggest you use this 3ct party formatied with the FAT1 6 or FAT32 (recommended) format. So, you could use any SD card less than 32GB, but the Betafilight can only recorptive AGM maximum. We suggest you use this 3ct party formating tool and choose Overwrite format thest format your card. Also check out here for the recommended SD cards on by the tested cards from our store. Current Sensor Input Supported. For SpeedyBee BLS 55A ESC, please set scale = 400 and Offset = 0. Power Input 3S - 65 Lipo(Through G, BAT pins/pads from the 8-pin connector or 8-pads on the bottom side 5V Output. ActED SV pads The total current load is 3A. 9V Output 2 groups of 9V output, one -9V pad on front side and other included in a connector on bottom side. Designed for acciver and GRS module even when the FC is powered through the USB port. Up to 1A current load is 3A. 3.3V Output Supported. SUR3. ULT3, UART4 (Decitated for Bluetooth connection), UART5 (Decitated for ESC telemetry), UART 6 ESC Signal M1 - Ma on bottom side and M5-M8 on front side. Used for WS2812 LED Pod Decitated for ESC t	BLE Bluetooth	
6-pin DJI Air Unit Plug Supported. Completely compatible with DJI O3/RunCam Link/Caddx Vista/DJI Air Unit V1, no wire is needed to be changed. Blackbox MicroSD Card Slott "Betaflight firmware requires the type of the microSD card to be either Standard (SDSC) or mot supported (Mary high-speed U3 cards are SDXC). Also the microSD card MUST be formating. Unit V1, figh-speed U3 cards are SDXC). Also the microSD card MUST be formating. Blackbox MicroSD Card Slott "Betaflight firmware requires the type of the microSD card to be either Standard (SDSC) or mot supported. (Mary high-speed U3 cards are SDXC). Also the microSD card MUST be formating. to condition and choose Overwise format: then forms toy our card. Mac Orther Institutes. To condition and choose Overwise format: then forms toy our card. Mac Orther Institutes. To condition and choose Overwise format: then forms toy our card. Mac Orther Institutes. The formation of the speed V3E earls or DV the tested cards from our store. Current Sensor Input 35 - SS Lipo/Through G, BAT pin/pads from the 8-pin connector or 8-pads on the bottom side SV Output. 9 oroups of SV output, four -FV pads and 1 BZ: padf used for Buzzer) on front side. and 4. K LED SV pads. The total current load is 3A. 9V Output Supported. Designed for a 3V-input receivers. Up to 500mA current load. 8.VS Output Supported. Designed for a Current load is 4A. 8.SS Output. Supported. Designed for S3V-input receivers. Up to 500mA current load. 8.VS Output Supported. Designed for S3V-input receivers. Up to 500mA curent load. 8.SV Out	WIFI	Not supported
Optimization no wire is needed to be changed. Blackbox MicroSD Card Slot *Betaflight firmware requires the type of the microSD card MUST be formatted with the high capacity (SDHC) under 3268, so extended capacity cards (SDXC) are not supported (Many high-speed U3 cards are SDXC). Also the microSD card MUST be formatted with the Betaflight can only recognize 4GB maximum. We suggest you use this <i>id</i> and those Overwrite format then forma you could use any you card values then a 2008. But the Betaflight can only recognize 4GB maximum. We suggest you use this <i>id</i> and those Overwrite format then forma you could use any you card values of the other tecommended SD cards or buy the tested cards from our store. Current Sensor Input Supported. For SpeedyBee BLS 55A ESC, please set scale = 400 and Offset = 0. Power Input SJ - 6S Lipo(Through G, BAT pins/pads from the 8-pin connector on 8-pads on the bottom side of y Output. 94 Output 94 groups of SV output, four +SV pads and 1 BZ+ pad (used for Buzzer) on front side, and 4x LED SV pads. The total current load is 3A. 94 Output Supported. Designed for a 3V-input receivers. Up to 500mA current load. 3.3V Output Supported. Designed for receiver and GPS module even when the FC is powered through the USB port. Up to 1 A current load is 3A. 94 Output Supported. Designed for receiver and GPS module even when the FC is powered through the USB port. Up to 1 A current load. 94 Output Supported. Not as SCL bads on front side. 94 Output Supported. SUA & SCL pads on bottom of t	DJI Air Unit Connection Way	Two ways supported: 6-pin connector or direct soldering.
Blackbox MicroSD Card Slot Blackbox MicroSD Card Slot Blackbox MicroSD Card Slot Slot Slot Blackbox MicroSD Card Slot Slot Betaflight can only recognize SDXC). Also the microSD card NUST be formated with the FAT16 or FAT32 (recommended) format. So, you could use any SD card least han 32CB, but the FAT16 or FAT32 (recommended) format. So, you could use any SD card least betaflight can only recognize 4CB maximum. We suggest you use this 3rd party formating. tool and choose Overwrite format then format your card. Also check out here for the recommended SD cards or buy the tested cards from our store. Current Sensor Input Supported. For SpeedyBee BLS 55A ESC, please set scale = 400 and Offset = 0. Power Input 3S - 6S Lipo(Through G, BAT pins/pads from the 8-pin connector or 8-pads on the bottom side 5V Output Supported. Designed for 3.3V-input receivers. Up to 500mA current load, 3.3V Output Supported. Designed for 3.3V-input receivers. Up to 500mA current load. Supported. Designed for 7.3V-input receivers. Up to 500mA current load. Supported. Designed for receiver and GPS module even when the FC is powered through the USR port. Up to 1 A current load. UART Supported. SDA & SCL pads on front side. Supported. SDA & SCL pads on front side. UART Supported. SDA & SCL pads on front side. Supported. UART Supported. SDA & SCL pads on front side. Used for WS2812 LED controlled by Betaflight framware. BUZ Supported. SDA & SCL pads on front side. SUP SDA	6-pin DJI Air Unit Plug	
Power Input 35 - 6S Lipo(Through G, BAT pins/pads from the 8-pin connector or 8-pads on the bottom side SV Output 9 groups of 5V output, four +5V pads and 1 BZ+ pad(used for Buzzer) on front side, and 4x LED 5V pads. The total current load is 3A. 9V Output 2 groups of 9V output, one +9V pad on front side and other included in a connector on bottom side. The total current load is 3A. 3.3V Output Supported. Designed for raceiver and GPS module even when the FC is powered through the USB port. Up to 1A current load. 4.5V Output Gests(UART1, UART2, UART3, UART4/Dedicated for Bluetooth connection)), UART5 (Dedicated for FSC telemetry), UART6 UART Gests(UART1, UART2, UART3, UART4/Dedicated for magnetometer, sonar, etc. Traditional Betaflight LED Pad Supported. 5V, G and LED pads on bottom of the front side. Used for WS2812 LED controlled by Betaflight firmware. Buzzer BZ+ and BZ- pad used for 5V Buzzer BOOT Button [A]. Press and hold BOOT button and power the FC on at the same time will force the FC to enter DFU mode, this is for firmware flashing when the FC gets bricked. BOOT Button [B]. When the FC is powered on and in standby mode, the BOOT button can be used to controller the LED strips connectors on the bottom side. SUpported. Named as RS on the front side. Supported. Endspring mode. Long-press the BOOT button to switch between SpeedyBee-LED mode and BF-LED mode. Under BF-LED mode, all the LED1-LEDA strips will be controlled by Betaflight firmware. <td>Blackbox MicroSD Card Slot</td> <td>High capacity (SDHC) under 32GB, so extended capacity cards (SDXC) are not supported (Many high-speed U3 cards are SDXC). Also the microSD card MUST be formatted with the FAT16 or FAT32 (recommended) format. So, you could use any SD card less than 32GB, but the Betaflight can only recognize 4GB maximum. We suggest you use this <u>3rd party formatting</u> tool and choose 'Overwrite format' then format your card. Also check out <u>here</u> for the</td>	Blackbox MicroSD Card Slot	High capacity (SDHC) under 32GB, so extended capacity cards (SDXC) are not supported (Many high-speed U3 cards are SDXC). Also the microSD card MUST be formatted with the FAT16 or FAT32 (recommended) format. So, you could use any SD card less than 32GB, but the Betaflight can only recognize 4GB maximum. We suggest you use this <u>3rd party formatting</u> tool and choose 'Overwrite format' then format your card. Also check out <u>here</u> for the
9 groups of 5V output, four +5V pads and 1 BZ+ pad(used for Buzzer) on front side, and 9V Output 2 groups of 9V output, one +9V pad on front side and other included in a connector on 9V Output 2 groups of 9V output, one +9V pad on front side and other included in a connector on 33V Output Supported. Designed for 3:3V-input receivers. Up to 500mA current load. 4.5V Output Supported. Designed for receiver and GPS module even when the FC is powered through the USB port. Up to 1A current load. Supported. Designed for receiver and GPS module even when the FC is powered through the UART 6 sets(UART1, UART2, UART3, UART4(Dedicated for Bluetooth connection)), UART5 (Dedicated for ESC telemetry).UART6 UART UART R5(UART5) IZC Supported. SDA & SCL pads on front side. Used for magnetometer, sonar, etc. Traditional Betaflight LED Pad Supported. Buzzer BZ+ and BZ- pad used for 5V Buzzer Buzzer BZ+ and BZ- pad used for SV buzzer BUP of button to synch between SpeadyBev. LED mode, one other sort button can be used to controlled by Betaflight firmware. BOOT Button Supported. Named as RS on the front side. BOOT Button Supported. [A]. Press and hold BOOT button to cycle the LED displaying mode. Long-press the BOOT button to synch between SpeedyBev-LED mode, and BF-LED mode.	Current Sensor Input	Supported. For SpeedyBee BLS 55A ESC, please set scale = 400 and Offset = 0.
SV Output 4x LED SV pads. The total current load is 3A. 9V Output 2 groups of 9V output, one +9V pad on front side and other included in a connector on bottom side. The total current load is 3A. 3.3V Output Supported. Designed for 3.3V-input receivers. Up to 500mA current load. 4.5V Output Supported. Designed for receiver and GPS module even when the FC is powered through the USB port. Up to 1A current load. ESC Signal M1 - M4 on bottom side and M5-M8 on front side. UART 6 sets(UART1, UART2, UART3, UART4(Dedicated for Bluetooth connection)), UART5 (Dedicated for ESC telemetry).UART6 UART UART R5(UART5) IZC Supported. SDA & SCL pads on front side. Used for magnetometer, sonar, etc. Traditional Betaflight LED Pad Supported. Buzzer BZ+ and BZ- pad used for SV Buzzer BUDTButton [A]. Press and hold BOOT button and power the FC on at the same time will force the FC to enter DFU mode, this is for firmware flashing when the FC gets bricked. BD/T Button Supported. Named as RS on the front side. Supported Flight Controller Supported. [A]. Press and hold BOOT button to rycle the LED displaying mode. Long-press the BOOT button to speedyfee-LED mode, and bF-LED mode, all the LED1-LED4 bronnectors on the bottom side. Supported. [A]. Press and hold BOOT button to cycle the LE	Power Input	3S - 6S Lipo(Through G, BAT pins/pads from the 8-pin connector or 8-pads on the bottom side)
9Y Outputbottom side. The total current load is 3A.3.3V OutputSupported. Designed for 3.3V-input receivers. Up to 500mA current load.4.5V OutputSupported. Designed for receiver and GPS module even when the FC is powered through the USB port. Up to 1A current load.ESC SignalM1 - M4 on bottom side and M5-M8 on front side.UARTde sets(UART1, UART2, UART3, UART4(Dedicated for Bluetooth connection)), UART5 (Dedicated for ESC telemetry), UART6ESC TelemetryUART R5(UART5)I2CSupported. SDA & SCL pads on front side. Used for magnetometer, sonar, etc.Traditional Betaflight LED Pad controlled by Betaflight firmware.BuzzerBZ+ and BZ- pad used for 5V BuzzerBUSDT ButtonSupported.[A]. Press and hold BOOT button and power the FC on at the same time will force the FC to enter DFU mode, this is for firmware flashing when the FC gets bricked.BOOT Button[B]. When the FC is powered on and in standby mode, the BOOT button can be used to controller the LED strips connected to LED -LED4 connectors on the bottom side.BSI InputSupported. Named as RS on the front side.Supported Flight ControllerBetaFlight(Default), INAVFirmwareBetaFlight(Default), INAVFirmware Target NameSPEEDYBEEF405V4Mounting30.5 x 30.5mm (4mm hole diameter)Dimension41.6(L) x 39.4(W) x 7.8(H)mm	5V Output	
A.SV OutputSupported. Designed for receiver and GPS module even when the FC is powered through the USB port. Up to 1A current load.4.SV OutputSupported. Designed for receiver and GPS module even when the FC is powered through the USB port. Up to 1A current load.ESC SignalM1 - M4 on bottom side and M5-M8 on front side.UART6 sets(UART1, UART2, UART3, UART4(Dedicated for Bluetooth connection)), UART5 (Dedicated for ESC telemetry),UART6UARTUART R5(UART5)I2CSupported. SDA & SCL pads on front side. Used for magnetometer, sonar, etc.Traditional Betaflight LED PadSupported. SV, G and LED pads on bottom of the front side. Used for WS2812 LED controlled by Betaflight firmware.BuzzerBZ+ and BZ- pad used for 5V BuzzerBoOT ButtonBZ+ and BZ- pad used for stroker with some time will force the FC to enter DFU mode, this is for firmware flashing when the FC gets bricked.BOOT Button[B]. When the FC is powered on and in standby mode, the BOOT button can be used to controller the LED strips connected to LED1-LED4 strips will be controlled by Betaflight firmware.RSSI InputSupported. Named as RS on the front side.Synported Flight Controller FirmwareBetaFlight(Default), INAVFirmware Target NameSPEEDYBEEF405V4Mounting30.5 x 30.5mm (4mm hole diameter)Dimension41.6(L) x 39.4(W) x 7.8(H)mm	9V Output	
4-39 Output USB port: Up to 1A current load. ESC Signal M1 - M4 on bottom side and M5-M8 on front side. LART 6 sets(UART1, UART2, UART3, UART4(Dedicated for Bluetooth connection)), UART5 (Dedicated for ESC telemetry), UART6 ESC Telemetry UART R5(UART5) I2C Supported. SDA & SCL pads on front side. Used for magnetometer, sonar, etc. Traditional Betaflight LED Pad Supported. SV, G and LED pads on bottom of the front side. Used for WS2812 LED controlled by Betaflight firmware. Buzzer BZ+ and BZ- pad used for 5V Buzzer Buzzer Supported. [A]. Press and hold BOOT button and power the FC on at the same time will force the FC to enter DFU mode, this is for firmware flashing when the FC gets bricked. [B]. When the FC is powered on and in standby mode, the BOOT button so we used to controller the LED strips connected to LED1-LED4 connectors on the bottom side. BOOT Button Supported. Nined as RS on the front side. Stapported Flight Controller BetaFlight(Default), INAV RSSI Input Supported. Supported Flight Controller BetaFlight(Default), INAV Firmware Target Name SPEEDYBEFF405V4 Mounting 30.5 x 30.5mm (4mm hole diameter) Mounting 30.5 x 30.5mm (4mm hole diameter)	3.3V Output	Supported. Designed for 3.3V-input receivers. Up to 500mA current load.
UART6 sets(UART1, UART2, UART3, UART4(Dedicated for Bluetooth connection)), UART5 (Dedicated for ESC telemetry), UART6ESC TelemetryUART R5(UART5)I2CSupported. SDA & SCL pads on front side. Used for magnetometer, sonar, etc.Traditional Betaflight LED PadSupported. 5V, G and LED pads on bottom of the front side. Used for WS2812 LED controlled by Betaflight firmware.BuzzerBZ+ and BZ- pad used for 5V BuzzerBOOT Button[A]. Press and hold BOOT button and power the FC on at the same time will force the FC to enter DFU mode, this is for firmware flashing when the FC gets bricked.BOOT Button[B]. When the FC is powered on and in standby mode, the BOOT button can be used to controller the LED strips connected to LED1-LED4 connectors on the bottom side. By default, short-press the BOOT button to cyclic between SpeedyBee-LED mode. Under BF-LED mode, all the LED1-LED4 strips will be controlled by Betaflight firmware.RSSI InputSupported. Supported.Supported Flight Controller FirmwareBetaFlight(Default), INAVFirmware Target NameSPEEDYBEEF405V4 30.5 x 30.5mm (4mm hole diameter)Dimension41.6(L) x 39.4(W) x 7.8(H)mm	4.5V Output	
OKK1 (Dedicated for ESC telemetry),UART6 ESC Telemetry UART R5(UART5) I2C Supported. SDA & SCL pads on front side. Used for magnetometer, sonar, etc. Traditional Betaflight LED Pad Supported. 5V, G and LED pads on bottom of the front side. Used for WS2812 LED controlled by Betaflight firmware. Buzzer BZ+ and BZ- pad used for 5V Buzzer Supported. [A]. Press and hold BOOT button and power the FC on at the same time will force the FC to enter DFU mode, this is for firmware flashing when the FC gets bricked. BOOT Button [B]. When the FC is powered on and in standby mode, the BOOT button can be used to controller the LED strips connected to LED1-LED4 connectors on the bottom side. By default, short-press the BOOT button to cycle the LED displaying mode. Long-press the BOOT button to switch between SpeedyBee-LED mode and BF-LED mode. Under BF-LED mode, all the LED1-LED4 strips will be controlled by Betaflight firmware. Stapported Flight Controller BetaFlight(Default), INAV Firmware Target Name SPEEDYBEEF405V4 Mounting 30.5 x 30.5mm(4mm hole diameter) Dimension 1.6(L) x 39.4(W) x 7.8(H)mm	ESC Signal	M1 - M4 on bottom side and M5-M8 on front side.
12CSupported. SDA & SCL pads on front side. Used for magnetometer, sonar, etc.Traditional Betaflight LED PadSupported. SV, G and LED pads on bottom of the front side. Used for WS2812 LED controlled by Betaflight firmware.BuzzerBZ+ and BZ- pad used for 5V BuzzerBuzpanawaSupported.[A]. Press and hold BOOT button and power the FC on at the same time will force the FC to enter DFU mode, this is for firmware flashing when the FC gets bricked.BOOT Button[B]. When the FC is powered on and in standby mode, the BOOT button can be used to controller the LED strips connected to LED1-LED4 connectors on the bottom side. By default, short-press the BOOT button to switch between SpeedyBee-LED mode and BF-LED mode. Under BF-LED mode, all the LED1-LED4 strips will be controlled by Betaflight firmware.RSSI InputSupported. Named as RS on the front side.Supported Flight Controller FirmwareBetaFlight(Default), INAVFirmware Target NameSPEEDYBEEF405V4Mounting30.5 x 30.5mm (4mm hole diameter)Dimension41.6(L) x 39.4(W) x 7.8(H)mm	UART	
Traditional Betaflight LED Pad Supported. 5V, G and LED pads on bottom of the front side. Used for WS2812 LED Buzzer BZ+ and BZ- pad used for 5V Buzzer Buzzer Supported. [A]. Press and hold BOOT button and power the FC on at the same time will force the FC to enter DFU mode, this is for firmware flashing when the FC gets bricked. BOOT Button [B]. When the FC is powered on and in standby mode, the BOOT button can be used to controller the LED strips connected to LED1-LED4 connectors on the bottom side. By default, short-press the BOOT button to cycle the LED displaying mode. Long-press the BOOT button to cycle the LED mode. JUNder BF-LED mode, all the LED1-LED4 strips will be controlled by Betaflight firmware. RSSI Input Supported. Named as RS on the front side. Supported Flight Controller Firmware BetaFlight(Default), INAV Firmware Target Name SPEEDYBEEF405V4 Mounting 30.5 x 30.5mm (4mm hole diameter) Dimension 41.6(L) x 39.4(W) x 7.8(H)mm	ESC Telemetry	UART R5(UART5)
Traditional Betailight LED Pad controlled by Betaflight firmware. Buzzer BZ+ and BZ- pad used for 5V Buzzer Supported. [A]. Press and hold BOOT button and power the FC on at the same time will force the FC to enter DFU mode, this is for firmware flashing when the FC gets bricked. BOOT Button [B]. When the FC is powered on and in standby mode, the BOOT button can be used to controller the LED strips connected to LED1-LED4 connectors on the bottom side. By default, short-press the BOOT button to cycle the LED displaying mode. Long-press the BOOT button to switch between SpeedyBee-LED mode and BF-LED mode. Under BF-LED mode, all the LED1-LED4 strips will be controlled by Betaflight firmware. RSSI Input Supported. Named as RS on the front side. Supported Flight Controller BetaFlight(Default), INAV Firmware Target Name SPEEDYBEEF405V4 Mounting 30.5 x 30.5mm(4mm hole diameter) Dimension 41.6(L) x 39.4(W) x 7.8(H)mm	I2C	Supported. SDA & SCL pads on front side. Used for magnetometer, sonar, etc.
BOOT Button Supported. [A]. Press and hold BOOT button and power the FC on at the same time will force the FC to enter DFU mode, this is for firmware flashing when the FC gets bricked. [B]. When the FC is powered on and in standby mode, the BOOT button can be used to controller the LED strips connected to LED1-LED4 connectors on the bottom side. By default, short-press the BOOT button to cycle the LED displaying mode. Long-press the BOOT button to switch between SpeedyBee-LED mode and BF-LED mode. Under BF-LED mode, all the LED1-LED4 strips will be controlled by Betaflight firmware. RSSI Input Supported. Named as RS on the front side. Smart Port / F.Port Not supported Supported Flight Controller BetaFlight(Default), INAV Firmware Target Name SPEEDYBEEF405V4 Mounting 30.5 x 30.5mm(4mm hole diameter) Dimension 41.6(L) x 39.4(W) x 7.8(H)mm	Traditional Betaflight LED Pad	
BOOT Button [A]. Press and hold BOOT button and power the FC on at the same time will force the FC to enter DFU mode, this is for firmware flashing when the FC gets bricked. [B]. When the FC is powered on and in standby mode, the BOOT button can be used to controller the LED strips connected to LED1-LED4 connectors on the bottom side. By default, short-press the BOOT button to cycle the LED displaying mode. Long-press the BOOT button to switch between SpeedyBee-LED mode and BF-LED mode. Under BF-LED mode, all the LED1-LED4 strips will be controlled by Betaflight firmware. RSSI Input Supported. Named as RS on the front side. Smart Port / F.Port Not supported Supported Flight Controller Firmware BetaFlight(Default), INAV Firmware Target Name SPEEDYBEEF405V4 Mounting 30.5 x 30.5mm(4mm hole diameter) Dimension 41.6(L) x 39.4(W) x 7.8(H)mm	Buzzer	BZ+ and BZ- pad used for 5V Buzzer
BOOT ButtonFC to enter DFU mode, this is for firmware flashing when the FC gets bricked.BOOT Button[B]. When the FC is powered on and in standby mode, the BOOT button can be used to controller the LED strips connected to LED1-LED4 connectors on the bottom side. By default, short-press the BOOT button to cycle the LED displaying mode. Long-press the BOOT button to switch between SpeedyBee-LED mode and BF-LED mode. Under BF-LED mode, all the LED1-LED4 strips will be controlled by Betaflight firmware.RSSI InputSupported. Named as RS on the front side.Smart Port / F.PortNot supportedSupported Flight Controller FirmwareBetaFlight(Default), INAVFirmware Target NameSPEEDYBEEF405V4Mounting30.5 x 30.5mm(4mm hole diameter)Dimension41.6(L) x 39.4(W) x 7.8(H)mm		Supported.
[B]. When the FC is powered on and in standby mode, the BOOT button can be used to controller the LED strips connected to LED1-LED4 connectors on the bottom side. By default, short-press the BOOT button to cycle the LED displaying mode. Long-press the BOOT button to switch between SpeedyBee-LED mode and BF-LED mode. Under BF-LED mode, all the LED1-LED4 strips will be controlled by Betaflight firmware.RSSI InputSupported. Named as RS on the front side.Smart Port / F.PortNot supportedSupported Flight Controller FirmwareBetaFlight(Default), INAVFirmware Target NameSPEEDYBEEF405V4Mounting30.5 x 30.5mm(4mm hole diameter)Dimension41.6(L) x 39.4(W) x 7.8(H)mm		
Smart Port / F.PortNot supportedSupported Flight Controller FirmwareBetaFlight(Default), INAVFirmware Target NameSPEEDYBEEF405V4Mounting30.5 x 30.5mm(4mm hole diameter)Dimension41.6(L) x 39.4(W) x 7.8(H)mm	BOOT Button	controller the LED strips connected to LED1-LED4 connectors on the bottom side. By default, short-press the BOOT button to cycle the LED displaying mode. Long-press the BOOT button to switch between SpeedyBee-LED mode and BF-LED mode. Under
Supported Flight Controller FirmwareBetaFlight(Default), INAVFirmware Target NameSPEEDYBEEF405V4Mounting30.5 x 30.5mm(4mm hole diameter)Dimension41.6(L) x 39.4(W) x 7.8(H)mm	RSSI Input	Supported. Named as RS on the front side.
Firmware BetaFlight(Default), INAV Firmware Target Name SPEEDYBEEF405V4 Mounting 30.5 x 30.5mm(4mm hole diameter) Dimension 41.6(L) x 39.4(W) x 7.8(H)mm	Smart Port / F.Port	Not supported
Mounting30.5 x 30.5mm(4mm hole diameter)Dimension41.6(L) x 39.4(W) x 7.8(H)mm		BetaFlight(Default), INAV
Dimension 41.6(L) x 39.4(W) x 7.8(H)mm	Firmware Target Name	SPEEDYBEEF405V4
	Mounting	30.5 x 30.5mm(4mm hole diameter)
Weight 10.5g	Dimension	41.6(L) x 39.4(W) x 7.8(H)mm
	Weight	10.5g

Part 3 – SpeedyBee BLS 55A 4-in-1 ESC

Layout

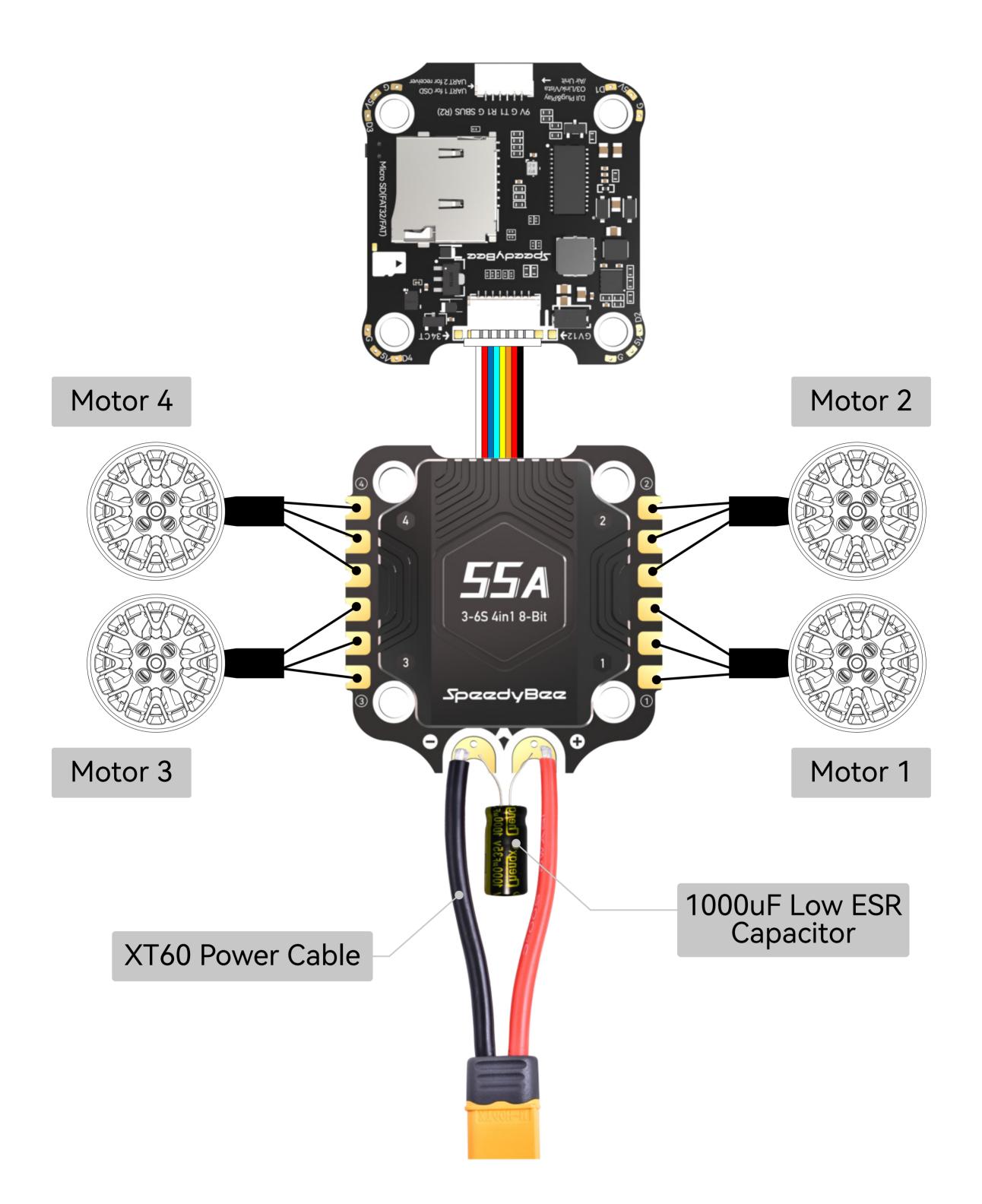
10/14





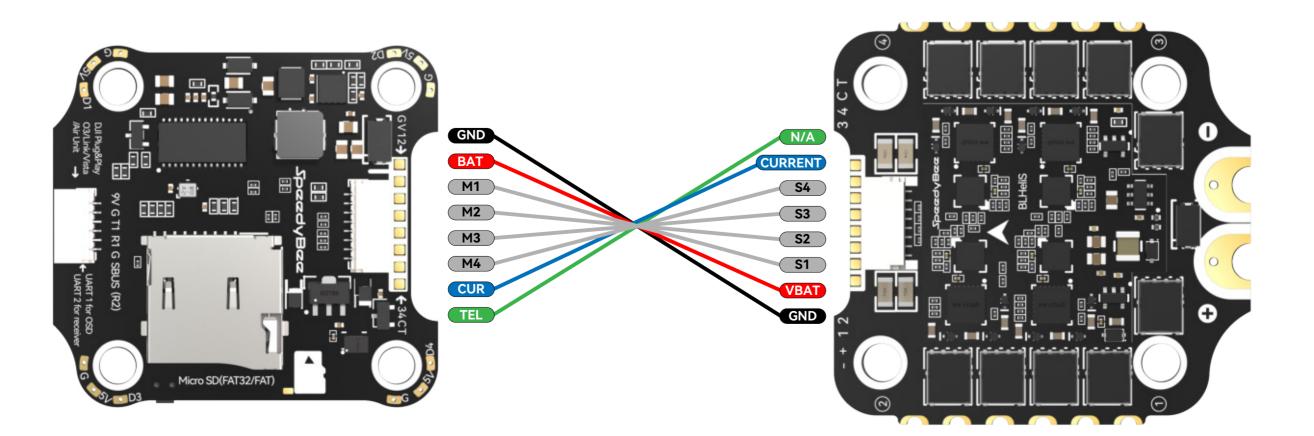
Connection with the flight controller & Motors

11/14



Note1: In order to prevent the stack from being burnt out by voltage spikes on powering up, it is strongly recommended to use the Low ESR capacitor in the package.

Note2: The FC and ESC can also connected via direct soldering. Soldering pads definition is as follows.

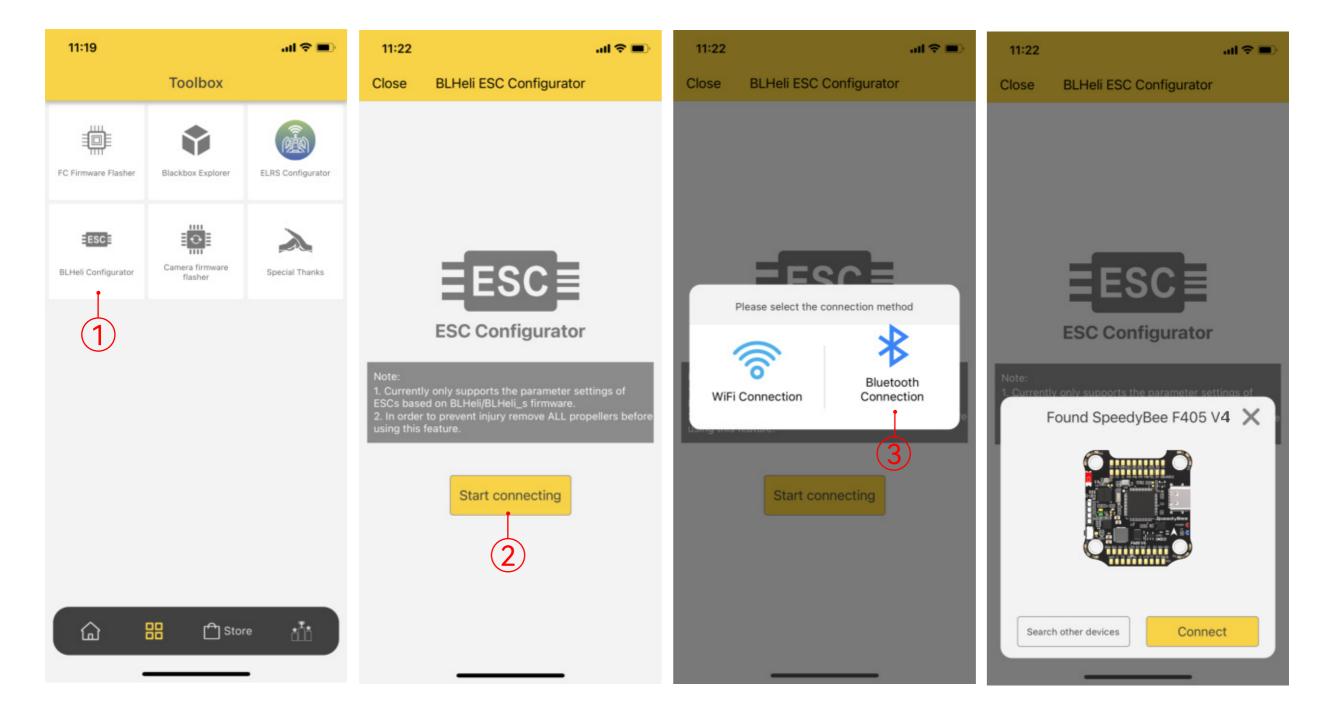


F405 V4 Flight Controller

BLS 55A 4-in-1 ESC

ESC Configuration

You could use the SpeedyBee APP to configure this ESC wirelessly for both BLHeli_S or Bluejay firmware. Steps:



You could also use PC configurators to configure this ESC. We recommend the ESC Configurator. Please use Google Chrome browser and visist: <u>http://www.esc-configurator.com.</u> This 8-bit 55A ESC can run BLHeliS or Bluejay firmware. It is loaded with BLHeliS firmware by default. You could also flash it to Bluejay firmware which can support RPM filtering and Bi-directional Dhsot.

Firmware flashing steps are as follows:

- Remove all the propellers from your drone.
- Ensure that the flight controller is connected properly to the ESC, then power up the drone. This step ensures that the ESC starts up correctly.
- Connect the flight controller to the computer using a USB Type-C cable.
- Open the Chrome browser and visit the following website: <u>https://www.esc-configurator.com/</u>
- Follow the firmware flashing steps as shown in the screenshots below.
 Important note:

On the 6th interface, the "ESC" type must be selected as "J-H-40".



English 🗘

Settings

ection Connec

Select Serial Port

2022-07-29 @ 15:12:41 -- Chrome (103.0.0.0) on Windows

Welcome to **ESC - Configurator**, a utility designed to simplify updating and configuring of your ESCs.

This tool is considered BETA.

Things might not work as expected yet - if you find any bugs please report them. For known browser issues please check the wiki.

Disclaimer

The web application supports ESCs running BLHeli for Atmel, BLHeli for SiLabs and BLHeli_S.

BLHeli FC passthrough is the only interface currently supported.

Should you run into any problems, make sure to use the **Save Debug Log** button and submit a new issue via <u>GitHub</u>.

Application source code can be downloaded from here. Port utilization: D: 0% U: 0% Packet error: 0

This is an experimental web app to configure ESC firmware online.

You will always find the latest stable version here. Currently the following firmware are supported:

- BLHeli S
- <u>Bluejay</u>
- <u>AM32</u>

BLHeli_S

Join us on Discord!

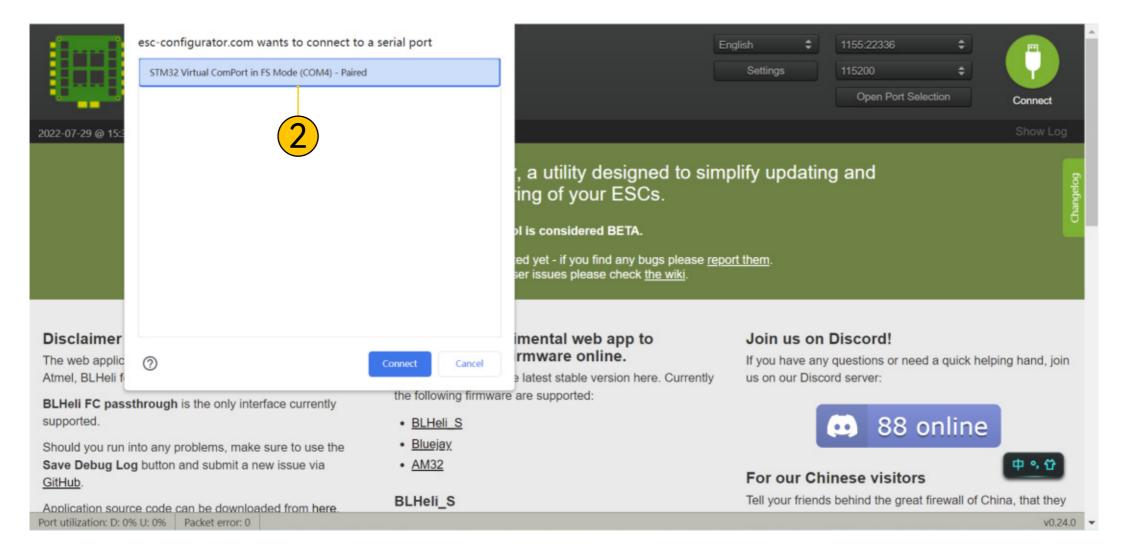
If you have any questions or need a quick helping hand, join us on our Discord server:



For our Chinese visitors

Tell your friends behind the great firewall of China, that they

v0.24.0 -





Welcome to **ESC** - **Configurator**, a utility designed to simplify updating and configuring of your ESCs.

This tool is considered BETA.

Things might not work as expected yet - if you find any bugs please <u>report them</u>. For known browser issues please check <u>the wiki</u>.

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- <u>AM32</u>

BLHeli_S

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3



For our Chinese visitors

Tell your friends behind the great firewall of China, that they

	v0.	24.0) 🔻
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		English Settings	
			Disconnect
2-07-29 @ 15:24:27 Unique device IC) received - 0x04300423039510c35383236		Show Log
Note: Make sure you've taken the propelle Note: Connect power to the ESCs.	rs OFF before doing anything on this tab.		
Motor Control			
Make sure your ESCs are properly set	up to reflect the state of the sliders.		
Eg.: When you enabled 3D mode in yo therwise the motors might go off with	ur flight controller, make sure the ESCs are also set up for 3D mode, full power.		
Also be aware that the motors will not sout the ESC does not support it. Which BLHeli_S.	spin if you have bi-directional Dshot enabled on the Flight-controller, might be the case when flashing from RPM enabled firmware to		
Enable motor control	Battery: 2S @ 7.16V		
Notor 1	Master Speed		
000	1000		\frown
Motor 2			4
Save Debug Log Clear Debug L	og		s Read Settings

				English Settings		155:22336 \$ 15200 \$ Open Port Selection	
2022-07-29 @ 15:24:41 Done	reading E	SCs					Show Log
Note: Make sure you've taken Note: Connect power to the ES		ers OFF before doing anything on this tab.					
Common Parameters			ESC 1: J-H-40 - BLHel	_S, 16.7			
		Programming by TX	Reversed	✓ Motor	Direction ?		
0.50	~	Startup Power ?	1148 µs	DDMA	din Throttle		
140 C	~	Temperature Protection ?	18	32 µs	ain Throtue		
		Low RPM Power Protection	•		Max Throttle		
0		Brake on stop ?	Off	✓ LED C	Configuration		
Low	~	Demag Compensation ?	Flash Firmwa	re to this ESC			
Medium	~	Motor Timing ?					
40			ESC 2: J-H-40 - BLHeli	_S, 16.7	(5)		
		Beep Strength ?	Reversed	✓ Motor	Direction ?		
Save Debug Log	ar Debug	Log	Restore De	fault Settings	Flash All ES	Cs Write Settings	Read Settings
Port utilization: D: 0% U: 0%	Packet err	ror: 0					v0.24.0

		English 🗘	1155:22336 115200 Open Port Selection	Disconnect
2023-07-25 @ 10:07:04 Done reading ESCs				Show Log
 Ignore inappropriate MCU and I Migrate settings between difference Note: Be aware that settings are 	ent firmwares? not migrated between different firmwares, make sure to take n might want to move over. Settings will be migrated between dif	ote of your motor ferent versions of	6	

Specifications

Product Name	SpeedyBee BLS 55A 30x30 4-in-1 ESC
Firmware	BLHeli_S J-H-40
PC Configurator Download Link	https://esc-configurator.com/
Continuous Current	55A * 4
Burst Current	70(10 seconds)
TVS Protective diode	Yes
External Capacitor	1000uF Low ESR Capacitor(In the package)
ESC Protocol	DSHOT300/600
Power Input	3-6S LiPo
Power Output	VBAT
Current Sensor	Support (Scale=400 Offset=0)
ESC Telemetry	Not supported
Mounting	30.5 x 30.5mm(4mm hole diameter)
Dimension	45.6(L) * 44(W) *8mm(H)
Weight	23.5g