

HEXPLORER LR 4 Manual





1/ drone introduction

As we said before, we will explore more fun with Dave_C in the new field of #micro long range. We did it! After the success of Explorer LR 4, everyone has many new needs. For example: I hope it can carry a full-size gopro! I hope it is perfect for freestyle and cruising! I hope it has Bluetooth function!

We are proud to announce that Hexplorer Hexa-copter is finally here Continue to develop new products to meet the needs of more users.



The Flywoo Explorer made a new class of quads mainstream: Micro Long Range! These quads are a compact, sub 250g 4" platform that will still allow you an impressive range and flight times of over 30 minutes on Lithium-Ion packs. Next to these 4" platforms we do see more and more light 5" quads geared towards long flight times. They are usually over 250g but overall faster and capable of carrying heavy loads like full GoPros - Something I wouldn't recommend on 4" where a naked GoPro is a much better choice. Instead of moving up to a bigger prop size for these increased payloads, Flywoo applied some really cool out of the box thinking and created the HEXplorer! Six 4" props have indeed almost the exact same disc area a 5" quad has. Disc load and therefore the overall noise level gets reduces a lot compared to the Explorer when you carry a heavy 4S Li-Ion and a GoPro, while power and freestyle capabilities are increased on lighter packs.

So to summarize things: If you want super long flight times and range while staying sub 250g - Get the Explorer! If you want the smallest and quietest platform to able to carry a full GoPro while still having good flight times and performance - Get the Hex! " -----Dave_C





HEXplorer LR 4 Vista / Nebula pro BNF Specification :

Goku F745 hex nano stack 16x16 Dave_C & Nin 1404 V2 2750kv motors Goku M8N mini gps v2.0 Flywoo Finder v1.0 Flywoo Bt-nano Bluetooth module Gemfan 4024 props Atomic 5.8 G antenna LHCP

Recommend Battery :

Naked Gopro & SMO 4K & Insta360 go ---Explorer 18650 Gopro 5/6/7/8 & Insta360 One R ---- Tattu 1050 4s mah or 850 4s mah

Highlights & Specification :

Equipped with GOKU HEX F745 16X16 NANO STACK, and NIN 1404 v2-2750kv, support 4s battery. Use powerful F745 BGA chip, barometer, black box, WS2812LED, support 7 complete hardware serial ports, I2C and other functions are all open ! Enough to meet all FPV needs.

	KU FC SERIES 745HEX 13A Stack COKÜ OVERSION IZE: 22*23mm IDIE: 16 ¹⁶⁻³ mm Vejfht: 2.3 ICU: STM32F745 ICU: STM			RX7 TX7 +SV GND TX5 RX5 LED SCL SDA	R551 537 630 736 736 736 736 736 746 74 76	14				- M2 - M5 - M1
Identifier	Configuration/MSP	Serial Rx	Telemetry Output		Sensor	Input	Per	ripherals		1
USB VCP	115200 🔻		Disabled • AUTO	•	Disabled •	AUTO •	Disabled	▼ AUTO	•	
UART1	115200 •	-	Disabled • AUTO	•	Disabled •	AUTO •	Disabled	▼ AUTO	•	RX IN
UART2	115200 •		Disabled • AUTO	•	GPS •	9600 •	Disabled	▼ AUTO	•	GPS Serial Port
UART3	115200 🔻		Disabled • AUTO	•	Disabled •	AUTO •	Disabled	▼ AUTO	۲	VISTA OSD UART
UART4	115200 •		Disabled • AUTO	•	Disabled •	AUTO •	Disabled	▼ AUTO	T	VISTA SBUS IN
UART5	115200 🔻		Disabled • AUTO	•	Disabled •	AUTO •	Disabled	▼ AUTO	T	Bluetooth Module
UART6	115200 •		Disabled • AUTO	•	Disabled T	AUTO •	Disabled	▼ AUTO	¥	NULL
UART7	115200 •		Disabled • AUTO	•	Disabled *	AUTO •	Disabled	▼ AUTO	•	NULL
lf us	ing DJI remote con	trol, turn	on UART4 RX and	turn d	off UARTI	RX, Set th	e receiver pro	otocol to SB	BUS	

UART1: TBS/R9M/XM+/DSMX/SBUS receiver

UART2: GPS module, the default baud rate is 9600

UART3: VISTA OSD TX/RX

UART4: VISTA SBUS RX (Only use DJI remote control to turn on, and turn off RX1)

UART5: Bluetooth module, the default baud rate is 115200

UART6: NULL

UART7: NULL

3/ Receiver binding

TBS NANO 915:

When the USB is connected, the green light of the receiver flashes, and then bind according to the picture operation.

https://www.youtube.com/watch?v=-iNkVcOLITM&ab_channel=Danimal3D



R9MM FCC ACCESS OTA:

Make sure your remote control supports ACCESS protocol, then follow the link to register and bind

https://www.youtube.com/watch?v=az5hDdNBcjg&t=9s&ab_channel=FrSkyRC If the remote control is ACCST protocol, please bind as follows:

1/ Put these two files into the firmware directory of the SD card of the remote control. R9MM firmware: FW-R9MM-ACCST_v20190201

R9M TX module: FW-R9M-ACCST-20190117



2/ Insert the R9M TX module and write the firmware you need



3/ To write the firmware of the R9MM receiver, you need to remove the R9MM receiver, and then write the firmware by connecting to the S.PORT port.



4/ After both R9M TX and R9MM RX are written into the ACCST firmware.

Binding method:

1/ Press and hold the button of RX, power on, the red and green lights are always on.

2/ Then after R9MM selects binding, RX red light flashes, and then exit

3/ RX is powered on again, and only a green light is displayed, indicating that the binding is successful.



XM+ receiver:

1/ Press the XM+ receiver button, USB power supply, the red and green lights are always on

2/ The remote control turns on the binding mode, the green light flashes to indicate successful binding, turn off and restart





3-1/ Then set the corresponding serial port and receiver protocol to ensure the normal output of each channel of the receiver.

	Camera			
Configuration	FPV Camera Angle [degrees]	Setup مکر	Pocoivor	
Power & Battery	• • • • • • • • • • • • • • • • • • •	🖌 Ports	Receiver	
Collecte		Configuration	Please read receiver chapter of the documentation. Configure serial port (if required),	receiver r
₩ Fallsale	Receiver	Power & Battery	contigure channel endpoints/range on 1X so that all channels go from ~1000 to ~2000 when TX is off or out of range.	. Set midp
க் PID Tuning	Serial-based receiver (SPEKSAT, 5 V Receiver Mode		IMPORTANT: Before flying read failsafe chapter of documentation and configure fails	afe.
de Receiver	Nete: Remember to configure a Carial Port (via Ports tab) and choose a Carial	击 PID Tuning	Roll [A] 1500	a
🖀 Modes	Receiver Provider when using RX_SERIAL feature.	n Receiver	Yew [R] 1500	5 🕒
-	CRSF Serial Receiver Provider	🕱 Modes	Throttle [T] 885	'St
141 Aujustitients	SPEKTRUM1024		AUX 2 1350	- L
🚖 Servos	SPEKTRUM2048	141 Aujusunenus	AUX 3 1500	RC
* CD5	SUMD	🛨 Servos	AUX 4 2000	
(% GF3	SUMH	A GPS	AUX 5 1500	
🛔 Motors	XBUS_MODE_B all flight controllers. If you enable a speci	fic A Marrier	AUX 6 1500	RC
	XBUS_MODE_B_RJ01 iave and Reboot', it means that this featu	re Motors	AUX 7 1E00	
CSD CSD	IBUS	co OSD	AUX 8 1500	
(w) Video Transmitter	CRSF In-flight level calibration	0x0 Video Transmitter	AUX 9 1900	4 4
	SPEKTRUM2048/SRXL			510
🗍 LED Strip	TARGET_CUSTOM Servo gimbal	🕜 🖷 LED Strip		511
	FrSky FPort SPEKTRUM SRXL2 Enable CPU based serial ports	C Sensors		- F
Tethered Logging	SONAR Sonar	III Tethered Logging		

4/ Mode setting:

Set the ARM switch and flight mode switch, AUX* corresponds to the remote control switch, and the yellow area mark is turned on.

🖋 Setup	Remember to save your settings using the Save button.
💉 Ports	Hide unused modes
🏟 Configuration	ARM ALIX 2
Power & Battery	Min: 1375
👽 Failsafe	Max: 2100 900 1000 1200 1400 1500 1600 1800 2000 2100 Add Range
ஃ PID Tuning	ANGLE
📥 Receiver	Add Link
🗟 Modes	Add Range
‡‡† Adjustments	HORIZON AUX 2 V
🛨 Servos	Add Link Min: 1700
💸 GPS	Add Range 900 1000 1200 1400 1500 1600 1800 2000 2100
🛔 Motors	HEADFREE
🚥 OSD	Add Link
(ቀ) Video Transmitter	Add Range
🛱 LED Strip	FAILSAFE
Sensors	Add Link
📾 Tethered Logging	Add Range
: Blackbox	GPS RESCUE AUX 4 V
🖻 CU	Add Link Min: 1700 I



5/ Motor test:

Unload the propeller, test the rotation direction of the motor, turn on the safety switch, and test the rotation of the motors one by one.





6/ GPS rescue mode

1/ When GPS finds 5 satellites and locks, it will display latitude/longitude/altitude/distance information.

2/ GPS rescue can only be turned on when the flight distance data exceeds 100 meters, otherwise it will fall directly.

3/ After the GPS rescue is turned on, DRONE will turn around and rise gradually and return to the home location.

4/ DRONE will not automatically land. When the control is restored, you need to control DRONE to land.



37 – Unique devi 37 – Craft name: 37 – Arming Dis	ce ID: 0x390022x3135511031303738 FLYWOOF7NANO abled				
	885 Minimum length			Stage 1 • Fallsafe Switch Action	
				Stage 2 - Settings	
У	Channel Fallback Settings		0	4	
	Roll [A]	Auto	T	100 🗘 Failsafe Throttle Low Delay [1 = 0.1 sec.]	
	Pitch [E]	Auto	•	Stage 2 - Failsafe Procedure	
	Yaw [R]	Auto	•		
	Throttle [T]	Auto	•	O Drop	
	AUX 1 BEEPER	Hold	T	-	v
	AUX 2 ARM HORIZON	Hold	•		
	AUX 3 GPS RESCUE	Set	• 2000 \$	○ Land	
	AUX 4 FLIP OVER AFTER CRASH	Hold	•	<u>-</u>	0
	AUX 5	Hold	¥	1000 🗘 Throttle value used while landing	
ter	AUX 6	Hold	•	10 Delay for turning off the Motors during Failsafe [1 = 0.1 sec.]	
	AUX 7	Hold	Ŧ		
	AUX 8	Hold	¥	GPS Rescue	Return to Home
ng	AUX 9	Hold	Ŧ		•
	AUX 10	Hold	Ŧ	32 v nigre	
	AUX 11	Hold	Ŧ	Do Dessent distance (meters)	
	AUX 12	Hold	¥	Descent distance (meters)	
				1100 Throttle minimum	
				····· •	



7/ Bluetooth function



8/ Finder BUZZER function



The buzzer has two modes of operation:

1. It is compatible with the functions of the traditional active buzzer and synchronized with the flight control.

2. When the flight control is normally connected, if the main battery in the flight is powered off, it can still automatically emit 100 dB of drip sound after 30 seconds of power failure, and the LED will emit white light.

To turn off the buzzer: Press and hold the release button for more than 2 seconds, the Finder V1.0 turns off the sound.

9/ Flight firmware upgrade and write default CLI

1/ Activate DFU mode

Target: FLYWOOF411			Vode Firmw
2020-12-24 @ 21:59-32 Unique de 2020-12-24 @ 21:59-32 Craft nam 2020-12-24 @ 21:59-32 Arming Di 2020-12-24 @ 21:59-32 Arming Er 2020-12-24 @ 21:59-32 Runaway	vice ID: 0x1c00403439510436383737 e: Isabled habled Takeoff Prevention temporarily Dis	abled	
🗲 Setup	Cotup		
🖌 Ports	Setup		
Configuration	Calibrate Accelerometer	Place board or frame on leveled surface, proceed with calibration, ensure platform is not moving durin	g calibration period
Power & Battery		Move multirotor at least 360 degrees on all axis of rotation, you have 30 seconds to perform this task	
💎 Failsafe	Reset Settings	Restore settings to default	
கீ PID Tuning	Backup Restore	Backup your configuration in case of an accident, CLI settings are not included - use the command 'diff	f all' in CLI for this.
📩 Receiver	Activate Boot Loader / DFU	Reboot into boot loader / DFU mode.	
a Modes			
∔ ‡ Adjustments	Heading: 352 deg Pitch: 22.9 deg	Reset Z axis, offset: 0 deg	Arming Disable
🚖 Servos	Roll: 100.7 deg	· ·	Flags:
🚴 GPS			Battery voltage:
A Motors			Current draw:
and OSD			RSSI:
(e) Video Transmitter			GPS
			3D Fix:
			Sats:
-//- Sensors		NT I	Latitude:
Tethered Logging			Longitude:



2/ BF Configurator will display to enter DFU mode. If it does not enter DFU mode, it may be that the driver is not installed. The driver can be installed using IMPULSE RC software

🈵 BETAFLI	ант					tru t t Auto Corrent		H ImpulseRC Driver Fixer	X v1
0-12-18 @ 02.24.13 - Marring - 0 0-12-18 @ 03.24.14 - Using cache 0-12-18 @ 03.24.15 - Using cache 0-12-18 @ 03.24.19 - Loadert rele 0-12-18 @ 03.24.12 - Faller to 18 0-12-18 @ 03.24.21 - Faller to 18	25 Mindows, Chrome 86.8.3997.116, Configuration editoriale efformation for configuration measure, editoriale efformation for price, ease information for formane from Gitmat, ad remote config for tests if was gehaluser contents	9878 coshealigts/aded	ergenstnedarformligski elseks 5100-71980-04	411.com/g			scipil	QO	
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Contraction of the second	Loading	•	Sensit foreware sensitive for your la	and .					
	No reboot sequence		Louisie of pour 27 is in boost made.	in gyou passend on your 75 with the baseloo	de pilo jumpés ar sécle reising your FCs 3007	button.			
	Fish an connect		Attempt to feast the assess success	alcody its ggereal by newly iterational terral ports					
	Pull (htp erese		Wate all configuration data nerve	ntly strend on the board.					
	Menual baud rate 255500 *		Manual telescolar of based rate for Manual Not used when fraining via	Access into worth support the aligned speed or USB DPU	for thistory we bluetooth			• •	
				Westing					
	Polaro do rent try to faun even exerting an inter- bol not discense the basis of in turn off your to News 15MD contains in strength of the model, is an News Anto Contaction in strength of the technology News (An use you have polarow to favor inter upp News (An use interg hours that have directly in News Werk interg hours that have directly in	are with this formulae computer while flashing most be brocked and are make formulae f soled thourgester with soccing all cables from privacted USB sockets in for your target. Factor	ashe: seles: year 8 chin, ty nisoong, Lagrate chinana, s year 8 chin, ty nisoong, Lagrate chinana, o to rever basisti enturi you fave meat the g a timay for the word; tagpt can cause see to	ograde crivers. Se Passing process of the Bezellight manua	and have the correct software and proves vet	and .		Impulser	C
				Barrowy Harrison and the second	_		-		
	Pyou have fact communication with your board + Power off - Draits The reboot sequence, what is Tub - Unique the BOOT parts ar road BOOT but - Power cancers yield with NOT than it can - Instal at ITMAS towers and Saligh require - Close compareds. Coops almostly chose + Researd BOOT button it your IC has see.	foliais these steps to m may shape. n. e comethyl. ed tose USB Flashing o te instances, Close all C	esser communication ection of Becafight manual . motion appr, Anstan Configuration					Installing DFU driver	

Driver software:

https://impulserc.blob.core.windows.net/utilities/ImpulseRC_Driver_Fixer.exe

3/ Then load the local HEX firmware and wait for the flashing to complete. A green progress bar is displayed to indicate completion, and DFU will become a COM port



			~ 0 ×			
FLIGHT		Lacon a lector a place Connect			COND E 115300 E Auto Connect	Upfate Firmware
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4/ After the connection is entered, it is a blank interface, you need to write CLI commands



5/ If the command is not restarted after writing the command, please write SAVE and press Enter to save, and the FC will restart



6/ Then all functions of FC return to normal.



