🗱 88 Tiny FPV Quadcopter ARF Kit

Specification
Wheelbase: 80mm
Dry weight: 40g (Exclude battery)
Size: 118mm*118mm*55mm
Flight controller: SPRACING F3 EVO BRUSH
Firmware version: Cleanflight 1.13.0
Motor size: 8520 Brushed
Propeller diameter: 55mm
Camera: 520TVL HD CMOS 1/4 inch camera
VTX: 5.8g 25mw 32ch
Battery: 3.7v 600mah
Flight time:6 minutes

Components	QTY	Part No
QX80 Airframe	1	QX80F
Motors -8.5mm Brushed	4	QX803CW/QX803CCW
Flight controller	1	QX804
5.8G VTX w/ Camera antenna	1	QX80V
Propeller	4 pairs	QX807
Lipo-battery	2	QX808
Charger cable	1	QX810
Propeller Disassembly tool	1	Qx811

CAUTION: Read and follow all instructions and warnings in the manual prior to setup or CAUTION: Read and follow all instructions and warnings in the manage of the product, use. Failure to operate the product correctly can result in damage to the product, personal property and/or injury.

This is a sophisticated hobby product. It must be operated with caution and

common- sense and requires some basic mechanical ability

Age Recommendation: Not for children under 14 years. This is not a toy. **Operating Safety Precautions**

- As the user of this product, you are responsible for operating it safely, not endangering yourself and others, or damaging the product or the property of others.
- Operate your product in open spaces away from people and property.
- Never operate your product with damaged electrical components.
 Keep the transmitter powered on while model is powered on.
- Let parts cool after use before touching, motors will get hot in use
- Remove batteries after use, as applicable.

General Product Safety Precautions

- Keep all batteries, chemicals, small parts and anything electrical out of the reach of children.
- Avoid water exposure to this product. Keep parts dry.
- Keep moving parts clean.

5.8G VTX channels list



Charge the Flight Battery

NOTICE: Inspect the battery to make sure it is not damaged e.g., swollen, bent, broken or punctured. Charge only batteries that are cool to the touch and are not damaged.

Connect the 2 batteries and the charge cable, then connect the cable to 2S Balance charge (Not include) like B3PRO, 3S10D,4S15D,





immediately remove the battery. Never leave a battery connected to the charger.

QX80 Airframe setup



The Camera&VTX was fixed to the Airframe by the rubber band The motors were installed to the rubber stopper directly Flight controller and the receiver were fixed to the center in the QX80 Airframe by the Double-sided adhesive

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QX80 Motor and propeller install



CW Motor: M1/M4, Blue wire solder to GND, Red wire solder to Positive CCW Motor: M2/M3, Black wire solder to GND, White wire solder to Positive M1/M4 motor use the propeller marked NO.2 M2/M3 motor use the propeller marked NO.1

QX80 VTX setup



Work voltage: 3.3v~4.5v Current: 140ma @ 3.7v Red wire solder to Positive Black wire solder to GND DIP 1/2/3/4/5 used to change the channel, DIP 6 used to reverse the display.

Receiver configuration:

1. Please check the Channel map is matched with your transmitter, otherwise the quadcopter will not be armed. The default channel map comes is JR/ Spektrum/ Graupner, Please choose the appropriate channel map based on your Remote controller.

Channel Map			RSSI Channel
TAER1234		•	Disabled
Default			
Futaba / Hitec			
JR / Spektrum / Graupner			
Pitch	1525		
Yaw	15 <mark>02</mark>		
Throttle	1012		
AUX 1	1007		

2.DSM/DSM2/DSMX receiver soldered directly to the DSM/DSM2/DSMX Receiver interface 3.3V, GND, RX3. Enable Seria_RX for UART3 and Set Receiver mode RX_SERIAL ,Select Spektrum1024(DSM/DSM2) or Spektrum2048(DSMX) in Cleanflight configurator.

sentifier	Outa	Logging Blackbox 115200 •	Telemetry Disabled • AUTO •	RX Serial RX	GPS 57600 *						
ARTI	MSP 115200 *	Blackbox 115200 *	Disabled * AUTO *	Serial RX	57600 *						
ART2	MSP 115200 •	Blackbox 115200 •	Disabled * AUTO *	Serial RX	57600 •						
ART3	MSP 115200 *	115200 *	Disabled * AUTO *	Serial RX	57600 •						
Rece	iver Mode										
○ F	X_PPM	PPM RX inp	PPM RX input								
• F	RX_SERIAL	Serial-base	Serial-based receiver (SPEKSAT, SBUS, SUMD)								
0 F	RX_PARALLEL_PWM	PWM RX in	WM RX input (one wire per channel)								
○ F	RX_MSP	MSP RX inp	out (control via MSP port)								
Not	I Receiver Provide e: Remember to cor SERIAL feature.		Ports tab) and choose a S	ierial Receiver Pro	vider when using						
SPE SBU SUM SUM	ID				Â						

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3. SBUS receiver welded to the UART2 GND, + 5V, RX2 . Then Enable Seria_RX for uart2 and Set Receiver mode RX_SERIAL ,Select Sbus signal in Cleanflight configurator.

orts					DOCUMENTATION FOR
te: not	all combinations are valid. When the flight conto NUT disable MSP on the first serial port unless v	oller firmware detects this the serial port config- ou know what you are doing. You may have to re	uration will be reset. Mash and erase your configuration if you do		
ntifier	Orea	Logging	Telemetry	RX	695
B VCP	MSP 116200 *	Biackbox 115200 •	Disabled • AUTO •	Serial RX	67600 *
111	MSP 115200 *	Blackbox 115200 *	Disabled . AUTO .	Serial RX	57600 •
172	MSP 115200 *	Blackbox 115200 *	Disabled * AUTO *	Serial RX	57600 •
RT3	MSP 115200 *	Blackbox 115200 •	Disabled • AUTO •	Serial RX	57600 •
Rec	eiver Mode				
0	RX_PPM	PPM RX inp	put		
۲	RX_SERIAL	Serial-base	d receiver (SPEKSAT, SBU	S, SUMD)	
0	RX_PARALLEL_PWM	PWM RX in	put (one wire per channe	1)	
0	RX_MSP	MSP RX inp	ut (control via MSP port)		
N	ial Receiver Provider ote: Remember to conf		Ports tab) and choose a S	erial Receiver Pro	vider when using
SP	EKTRUM1024 EKTRUM2048 US				
SU SU XB	MD MH US_MODE_B US_MODE_B_RJ01				

4. PPM receiver welded to the UART2 GND, + 5V, RX2 .Then set Receiver mode to RX_PPM in Cleanflight configurator.

	Data	Logging	Telemetry	RX.	GPS					
VCP	MSP 115200 •	Elackbox 115200 •	Disabled . AUTO .	Serial RX	57600 •					
F1	MSP 115200 •	Blackbox 115200 •	Disabled . AUTO .	Serial RX	57600 •					
2	MSP 116200 •	Blackbox 115200 •	Disabled • AUTO •	Serial RX	57600 •					
3	MSP 115200 *	Bieckbox 115200 •	Disabled * AUTO *	Serial RX	57600 •					
ec	eiver Mode									
۲	RX_PPM	PPM RX inp	ut							
D	RX_SERIAL	Serial-base	Serial-based receiver (SPEKSAT, SBUS, SUMD)							
C	RX_PARALLEL_PWM	PWM RX in	put (one wire per channel	I)						
	RX_MSP	MSP RX inp	ut (control via MSP port)							
No RX	SERIAL feature.		Ports tab) and choose a Se	erial Receiver Pro	vider when using					

QX80 ARM/DISARM

1. Turn on the transmitter and move to the MIXER interface, Set "SA" or "SB" switch etc. for Ch5 to ARM/DISARM the motor. Used Taranis X9D as an example.



2. The QX80 ARF Flight controller was set AUX1(CH5) to ARM/DISARM the motor before shipping, you can also customize it by yourself.

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ARM	AUX 1 *																						
Additiongr	Min. 1450 Max. 2100	 HOII		1000				 12000			110	1	 1508	' 183				l '			1	2108	
ANGLE	AUX 1 T																						

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3. The blue LED on the flight controller Will solid once the motor was armed.



The default PID SETUP of QX80 ARF KIT

10 Controller fult/Wii (Rewrite)		Reset PID O	ontroller Show all PIDs				
lame	Proportional	Integral	Derivative	ROLL rate	PITCH rate	w.	AW rate
lasic/Acro				0.80		0.80 0	0.8
OLL	8.0					_	
ITCH	8.0	0.030 :	44 0	TPA	TIM	. Breakpoire	
RN	18.5	0.045 0	: 0 \$		0.00 \$		150
ingle-Horizon	@ Strength (Angle)	Strength (Horizon)	Transition (Horizon)				
EVEL.	5.0	0.010 :	100 ‡				

SP racing f3 EVO_BRUSH

Firmware Cleanflight R1.13.0 Support SBUS/PPM/DSM/DSM2/DSMX receiver

