

FlameWheel450

User Manual

V 1.8



FLAME WHEEL

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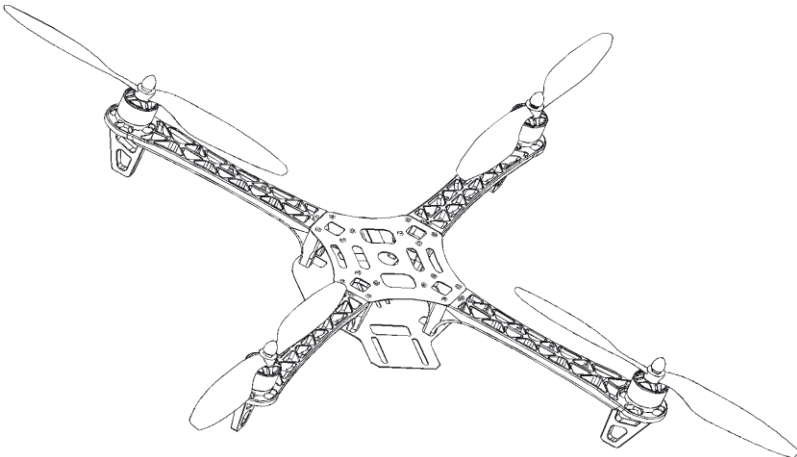
Disclaimer

Read this disclaimer carefully before using FlameWheel450. By using this product, you hereby agree to this disclaimer and signify that you have read them fully. FlameWheel450 is an excellent multi-rotor. With a good autopilot, it will even offer tremendous flight features for low altitude flight working in restricted space. Despite the controller of autopilot operate in the safest manner when the main power battery is connected, we strongly recommend customers to remove all propellers, use power supply from R/C system or flight pack battery, and keep children away during system calibration and parameter setup. Please respect the AMA's National Model Aircraft Safety Code. DJI Innovations assumes no liability for damage(s) or injuries incurred directly or indirectly from the use of this product.

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F450 Profile

FlameWheel450 (F450) is a multi-rotor designed for all pilots for fun or AP. With DJI WKM or NAZA autopilot system, it can achieve hovering, cruising, even rolling and other flight elements. It can be applied for entertainment, aerial photography, FPV and other aero-modeling activities.



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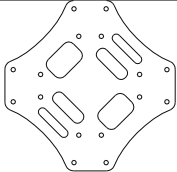
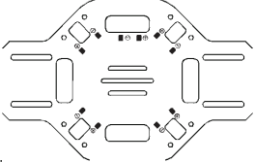
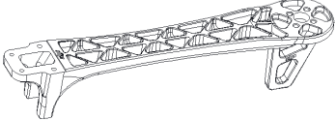
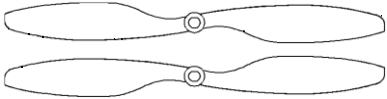
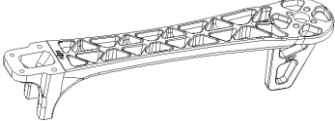
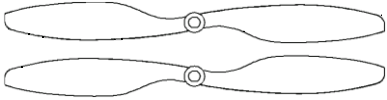
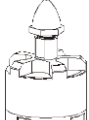
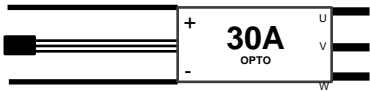
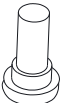
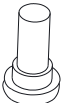
Product Usage Cautions

When flying, the fast rotating propellers of FlameWheel450 will cause serious damage and injury. Therefore, please fly with a high safety consciousness.

- 1. Keep flying multi-rotor away from objects, such as obstacles, human beings, high-voltage lines and so on.**
- 2. Do not get close to or even touch the working motors and propellers, which will cause serious injury.**
- 3. Do not over load the multi-rotor.**
- 4. Check whether the propellers and the motors are installed correctly and firmly before flight.**
- 5. Make sure the rotation direction of each propeller is correct**
- 6. Check whether all parts of multi-rotor are in good condition before flight. Do not fly with old or broken parts.**
- 7. Use DJI parts as much as possible.**

If you have any problem you cannot solve during installation, please contact our customer service.

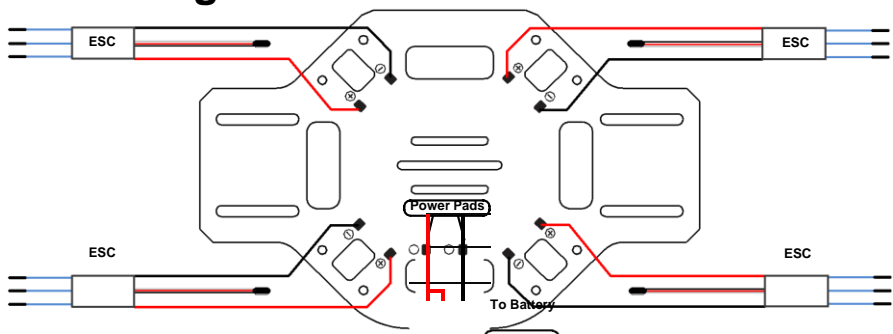
In Box

Top Board 450FBT x1	Bottom Board 450FBB x1
	
Frame Arms 450FAC x2	10in Propeller Pairs 450P10x2
	
Frame Arms 450FAW x2	8in Propeller Pairs 450P08x2
	
Motors 450MOT x4	ESC 450ESC x4
	
Screws 450-M3x8 x16	Screws 450-M2.5x5 x24
	
Magic Strap 450MSX x1, Battery Band 450BBX x1 Power Line Pair 450PLP x1	

Tools Needed

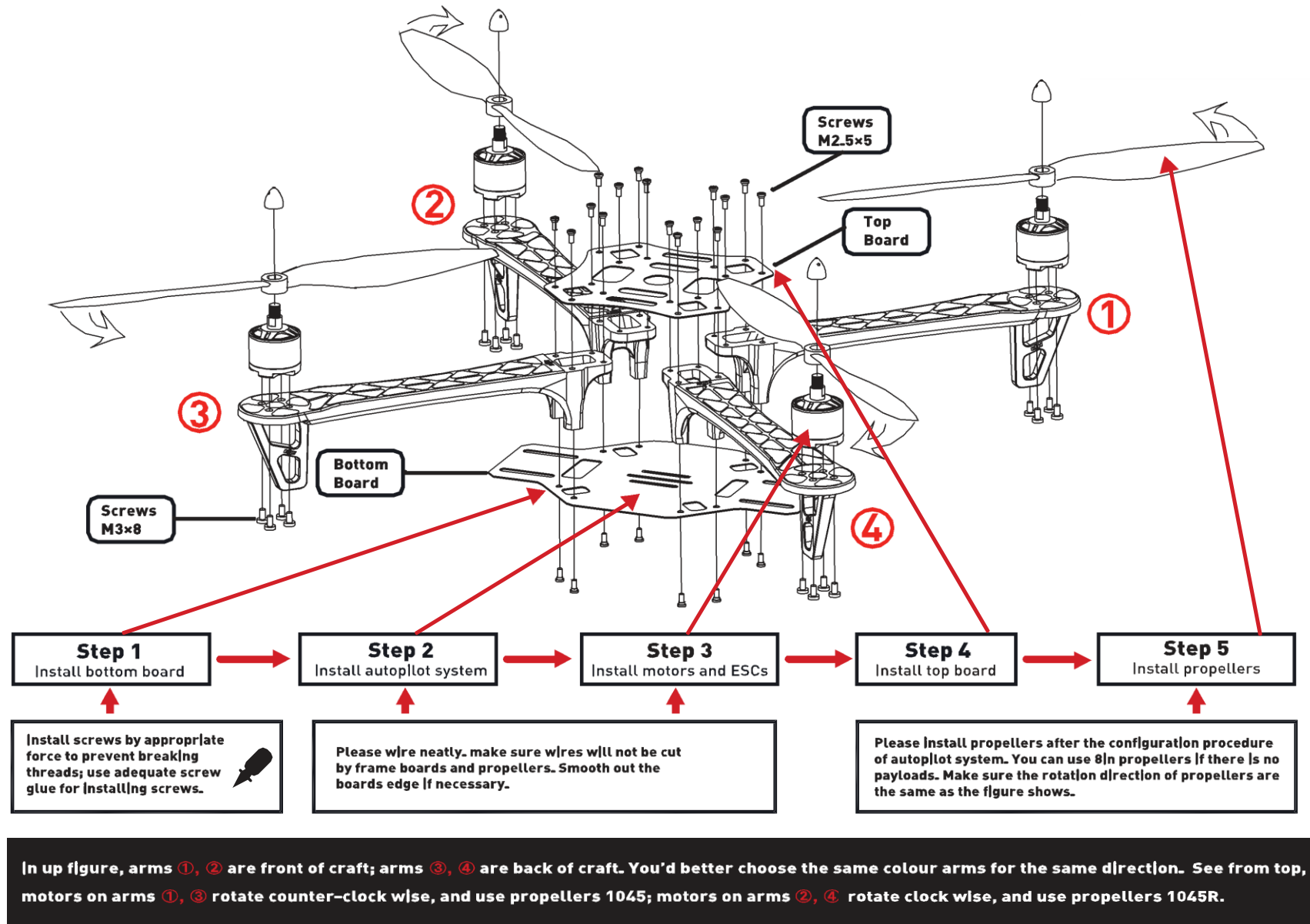
2.0mm Hex Wrench	For frame and motors installation.
Screw Glue	For fastening screws.
Nylon Cable Tie	
Scissors	For binding devices and wires.
Diagonal Cutting Pliers	
Foam Double Sided Adhesive Tape	For fixing receiver, controller and other modules.
Soldering-iron & wires	For connecting ESCs' power cables to bottom board.

ESC Wiring



Please solder ESCs to bottom board as the up figure shows. Use any insulating method at all soldering spots. Make sure there is no short or open circuit. Make sure the side with bonding pads is upward.

Assembly



ESC Sound Introduction

ESC State	Sound
Ready	J1234567
Throttle stick is not at bottom	BBBBBB...
Input signal abnormal	B-----B-----B...
Input voltage abnormal	BB---BB---BB---BB...

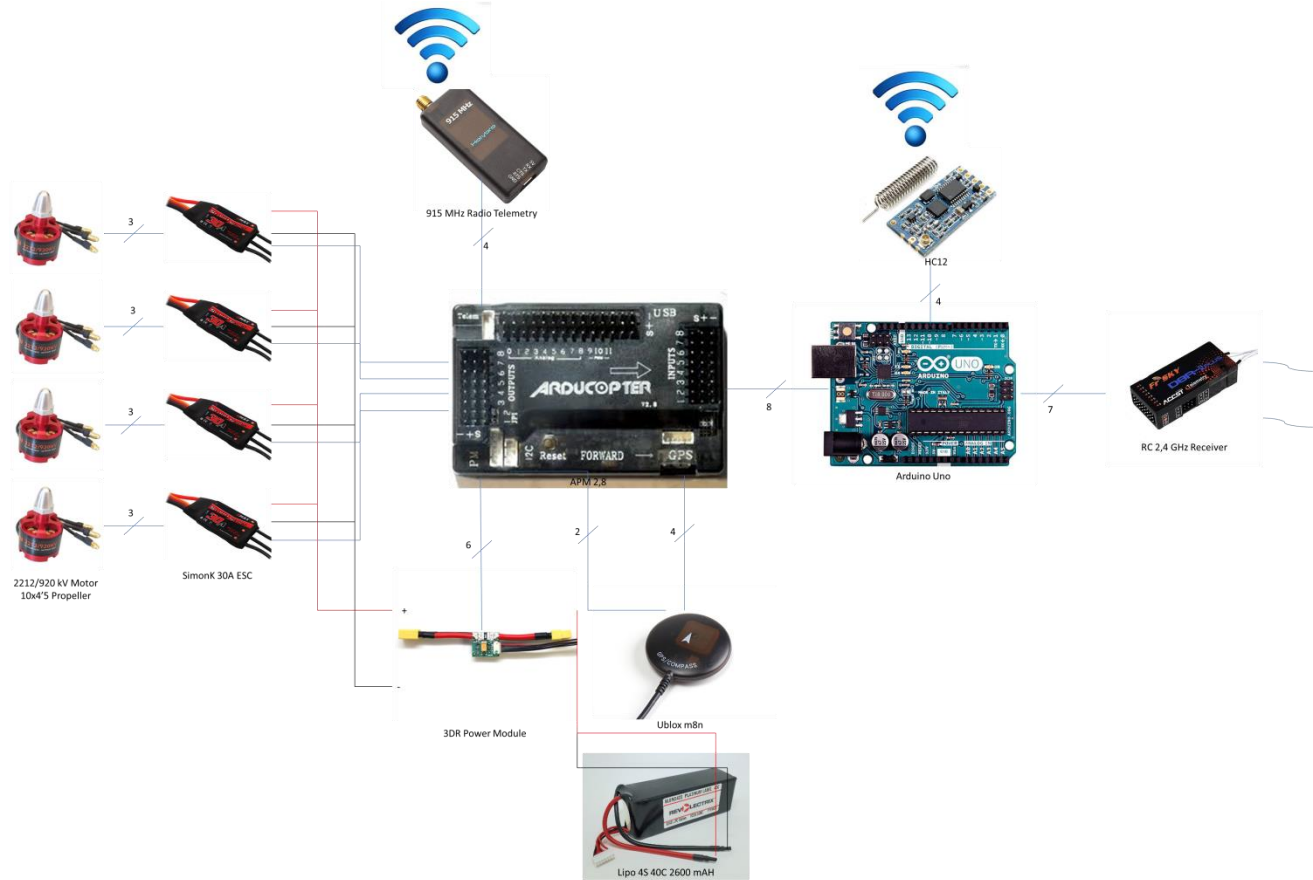
Tips:

DJI ESCs are specially designed for multi-rotors. When use with DJI autopilot systems, you do not have to setup any parameters or calibrate travel range.

Specifications

Frame	
Diagonal Wheelbase	450mm
Frame Weight	282g
Takeoff Weight	800g ~ 1600g
ESC	
Current	30A OPTO
Signal Frequency	30Hz ~ 450Hz
Battery	3S ~ 4S LiPo
Motor	
Stator size	22×12mm
KV	920rpm/V
Propeller	10 × 4.5in (@3S); 8 × 4.5in (@4S)

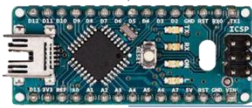
ELECTRONIC SYSTEM DESIGN



KILL SWITCH



HC12



ARDUINO NANO



5V POWERBANK



SWITCH

4

2

2

REMOTE CONTROL



2,4 GHz Remote Control