

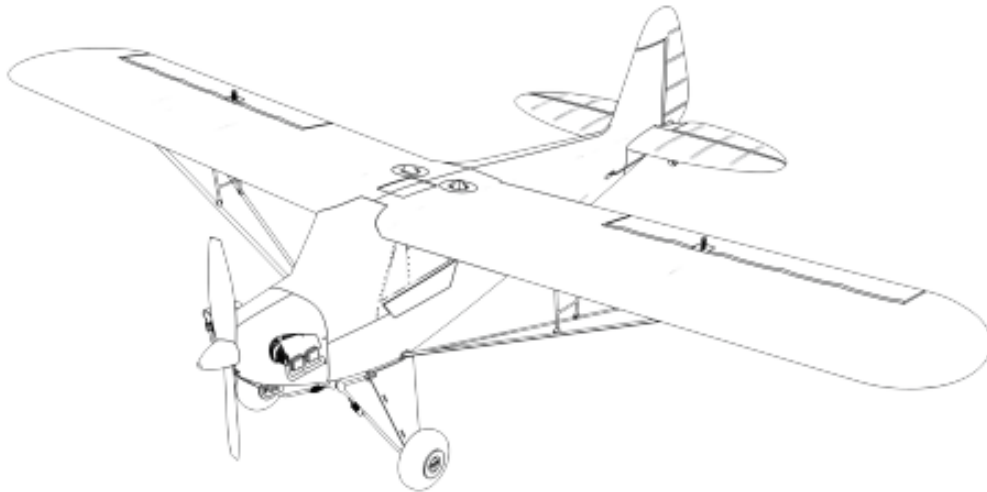


14+

A160

5CH 3D6G SYSTEM AIRPLANE

快速入门手册



www.xk-innovations.com

Product introduction

产品简介

1. Suitable for beginners and expert enthusiasts.
2. Low stall speed, stable flight, easy to control to achieve rolling, inverted flight, somersault and other aerobatic stunts.
3. With 3D 6G mode switch, to ensure the safety or actions of the flight.
4. Modular, user-friendly design, easy to carry and maintain, convenient wing disassembly
5. Glide with standard battery for about 10 minutes.

1. 适合初级及以上飞行爱好者。
2. 有较低的失速速度，飞行稳定，易于操控；可实现横滚、倒飞、筋斗等基本特技动作。
3. 兼有三轴陀螺仪（3D）和六轴陀螺仪（6G）两种飞行模式及切换，同时保证飞行的姿态和安全性。
4. 采用模块化、人性化设计，易于携带和维护，机翼拆装方便。
5. 使用标配电池滑翔飞行约10分钟左右。

Basic parameters and configuration

基本参数及配置

Parameter:

1. Wingspan: 650mm
2. Full length: 460mm
3. Flying full weight: 145g
4. Body material: EPP
5. Gliding flight time: 10 minutes

参数:

1. 翼展: 650mm
2. 全长: 460mm
3. 飞行全重: 145g
4. 主体材质: EPP
5. 滑翔飞行时间: 约10分钟

Configuration:

1. Battery: 600mAh 20C 7.4V
2. Remote controller: 5 channels

配置:

1. 电池: 600mAh 20C 7.4V
2. 遥控器: 5通道

Packing list

包装清单

No. 序号	Name 名称	Quantity 数量	No. 序号	Name 名称	Quantity 数量	No. 序号	Name 名称	Quantity 数量
1	Color box 彩盒	1	6	Right wing 右机翼	1	11	Accessory kit 附件包	1
2	Foam box 发泡盒	1	7	Horizontal tail 平尾	1	12	USB charging cable USB充电线	1
3	Instruction 说明书	1	8	Vertical tail 垂尾	1			
4	Body 机身	1	9	Remote controller 遥控器	1			
5	Left wing 左机翼	1	10	Battery 电池	1			

Safety precautions

安全注意事项

Remote control model airplanes, a hazardous goods, be sure to stay away from the crowd when you fly, man-made improper assembling or mechanical damage, poor control of electronic equipment, as well as on unskilled manipulation, are likely to lead to out of control flight and other unexpected injuries. Please be sure to pay attention to fly safely, and need to learn any accident responsibility caused for own negligence.

遥控器模型飞机，属于危险性商品，飞行时务必远离人群，人为组装不当或机件损坏，电子控制设备不良，以及操控上的不熟练，都有可能导导致飞行失控损毁等不可预期的意外，请飞行者务必注意飞行安全，并需了解自负疏忽所造成任何意外之责任。

This product is suitable for outdoor and under wind condition less than Grade 4. When flying model aircraft, please select the proper outdoor space without obstacles, and maintain an appropriate distance away from the crowd or pet, do not operate in an unsafe environment, such as heat, wires, power supplies, to avoid collision, landing, entangled and cause a fire, electric shock or other hazardous loss of life and property.

本产品适合户外且风力小于4级条件下飞行，模型飞机飞行时请妥善选择无障碍物的室外场地，并与人群或宠物等到保持适当距离，切勿於不安全的的环境下操作，如热源、电线、电源等等，以免像真机碰撞、迫降、纠缠而引发火灾、电击等危险，造成生命财产损失。



Airplane internal is made up of many precision electronic parts, it is absolutely necessary to prevent from moisture or water vapor, to avoid using in bathroom or rainy day, to prevent moisture from entering the inside body or electronic components and cause by unexpected danger!

机内部也是由许多精密的电子零件组成，所以必须绝对的防止潮湿或水汽，避免在浴室或雨天时使用，防止水汽进入机身内部而导致机体及电子零件故障而引发不可预期的意外！



Do not disassemble, process, modify, upgrade or repair arbitrarily, please use parts in catalogue to ensure the safety of the structure. Make sure the operating clearance in the product, do not overload use, and do not use out of security, law or regulation or other illegal purposes.

请勿任意拆卸或任意改造加工，任何的升级改装或维修，请使用本产品目录中的零件，以确保结构的安全。请确认於产品限界内操作，请勿过载使用，并勿用於安全、法令外其他非法用途。





Make sure that the positive and negative electrode position are correct, do not mix old and new batteries to avoid affecting the battery life. Batteries should be taken out if don't use for long time to avoid liquid leakage or any fault. If battery leakage do not use any more. Discarded appliances, please recycle according to the country or regional Waste Disposal Act of recycling, not to be discarded in order to avoid any pollution of the environment.

安装电池时请确认正负极位置新旧电池请勿同时混用以免影响电池寿命。若长时间不使用本产品，请取出电池，以免造成电池漏液、故障。若电池有漏液状况请勿再使用。废弃的电器，请依照该使用国家或地区的废弃物清理法令回收，切勿任意丢弃以免污染环境。



Lipo battery is more dangerous than any other battery. Be sure to read the following precautions before use and follow precautions when using this battery, the Company will not be liable for any damages caused by improper use.

1. Do not use the charger to charge other than the original, in order to avoid the risk of explosion and fire occurred.
2. Do not crash, disassemble, reverse polarity, burning, avoid the metal object to touch the battery positive and negative which will cause short circuit. And prevent sharp objects to pierce the battery to avoid the risk of fire.
3. When charging, please be careful to ensure it charges in your sight. And away from children for touching to avoid danger.
4. If battery fevers, charging is forbidden. Otherwise it will cause the battery to swell, deform or even explode on fire, endangering the safety of life and property.
5. Waste batteries to use in strict accordance with the country's recovery Waste Disposal Act, so as not to pollute the environment.)

<p>锂聚电池较与其他电池有更高的危险性，使用前请务必详读并遵照下列注意事项使用本电池，本公司将不对任何不当使用所造成的损害负责。</p> <p>(1. 严禁使用原厂以外的充电器进行充电，以免发生爆炸起火的危险。</p> <p>2. 严禁撞击、拆解、正负极反接、焚烧电池，避免金属物品碰触电池正负极造成短路。并请防止尖锐的物品刺穿电池，以避免电池起火的危险。</p> <p>3. 充电时请谨慎小心，确保在您的视线范围内进行充电。并远离幼童可以接触的地方，以免发生危险。</p> <p>4. 电池使用后如有发热情况，严禁充电。否则会造成电池膨胀、变形、爆炸甚至起火燃烧，危害生命财产的安全。</p> <p>5. 废弃的电池请严格依照该使用国家或地区的废弃物清理法令回收，以免污染环境。)</p>	
<p>Keep away from heat and sunlight as much as possible to avoid deformation due to high temperatures or even the possibility of melting damage.</p> <p>要尽量远离热源、日晒、以避免因高温而变形甚至熔毁损坏的可能。</p>	
<p>This product uses ages over 14 years old, remote control glider has a certain degree of difficulty in the early stage of learning, want to skillfully control the model glider above the simulator can fly.</p> <p>本产品适用年龄14岁以上，遥控滑翔机在学习初期有着一定难度，需要熟练操作模拟器上面的模型滑翔机可飞行。</p>	

Installation procedure

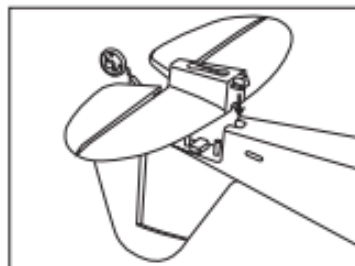
安装步骤

Horizontal tail

1.水平尾翼

Fasten the flat tail to the positioning post below the vertical tail and lock the screw.

把平尾扣到垂尾下方的定位柱上，然后锁上螺丝。

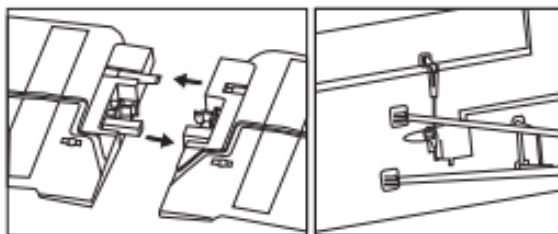


2. Wing

2.机翼

Remove the left and right wings, remove the active joints of the aileron wires, and pull the struts up before attaching the joints. Then align the positioning post and the buckle to snap the left and right wings together.

取出左右机翼，将副翼钢丝的活络接头取下，撑杆拉起后再把接头扣上去。然后对准定位柱和扣位，将左右机翼扣到一起。

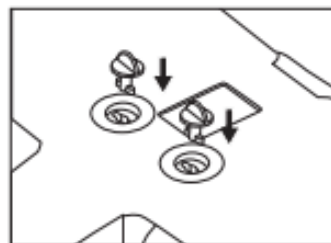
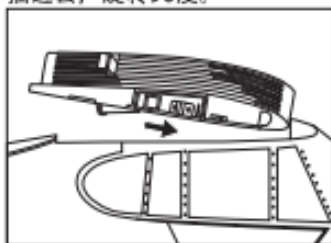


3. Install the wing

3.安装机翼

First insert the positioning post on the wing connector into the positioning hole at the top of the nacelle, and align the positioning hole on the trailing edge of the wing, then insert the wing fixing pin and rotate it 90 degrees.

先把机翼连接件上的定位柱插进机舱顶部的定位孔里，并对准机翼后缘的定位孔，然后把机翼固定销插进去，旋转90度。

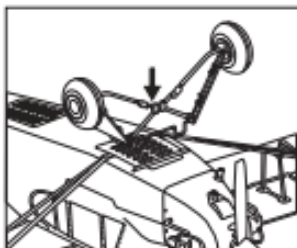
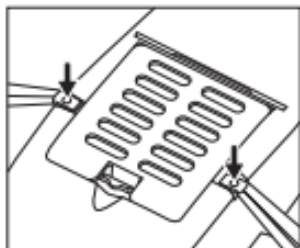


4. installation front landing gear

4.安装前起落架

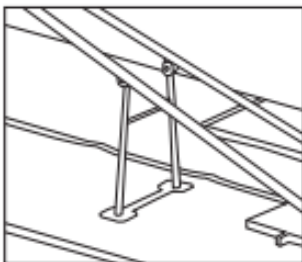
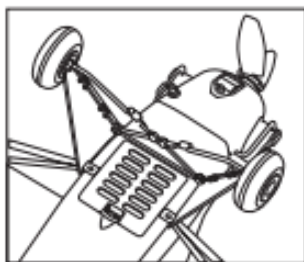
Place the wing left and right struts on either side of the battery compartment, then load the front landing gear into the battery compartment

将机翼左、右撑杆放在电池仓的两边，然后把前起落架装到电池仓里



Finally, use the screws to lock the left and right baffles, the struts and the battery compartment, and insert the middle struts into the struts. All the assembly is completed.

最后用螺丝把左右挡板、撑杆和电池仓锁起来，并把中撑杆插到撑杆座里，所有装配完成。

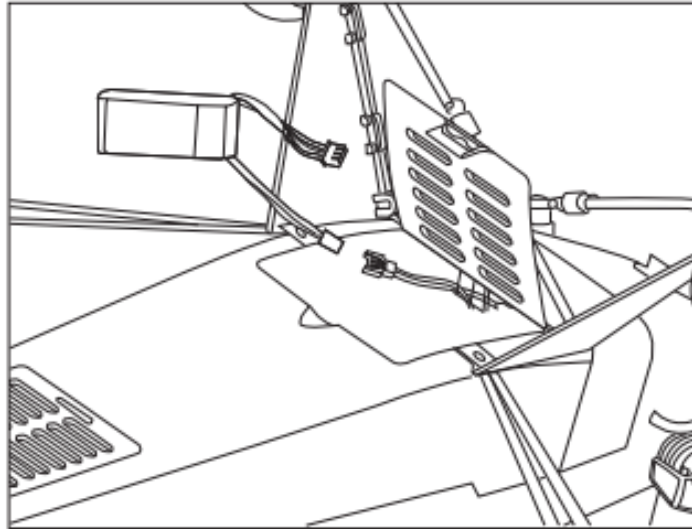


Frequency

对频

Open the battery cover, connect the battery to the receiver correctly, then level the aircraft, turn on the remote control, the receiver and remote control lights are on, the code is completed, and the battery cover is replaced.

打开电池盖，将电池与接收机正确连接，然后将飞机放平，打开遥控器，接收机和遥控的灯长亮，对码完成，并将电池盖装回去。

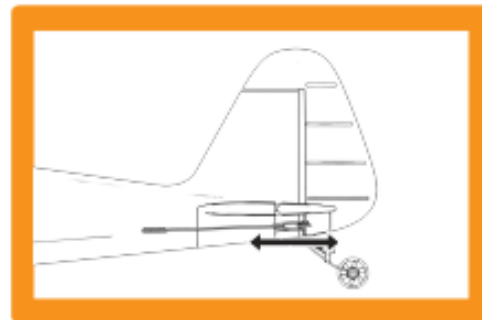


Aircraft rudder adjustment

飞机舵调节

1. to power the plane, perpendicular to the plane elevator aileron rudder should gyrus, if rudder is not in the middle position, by manually rotating the joint to adjust the active control surface to the middle position.
2. Adjust aircraft motor can not be started before, is off to a gyroscope. Gyroscope in repair status can not be accurately adjusted to the middle position of the rudder surface.
3. Rotate the wire can shorten the length of the wire sliding, sliding to the left can be extended the length of the wire.

- 1.给飞机上电，副翼升降舵面垂直舵面应该回中，如果舵面不在中间位置，通过手动旋转活络接头将舵面调整到中间位置。
- 2.调整的飞机马达不能被启动过，陀螺仪要处于关闭状态。陀螺仪在修复状态下不能准确的将舵面调整到中间位置。
- 3.钢丝向右旋转可减短推拉钢丝长度，向左旋转可加长推拉钢丝长度。



Off the ground 地面起飞



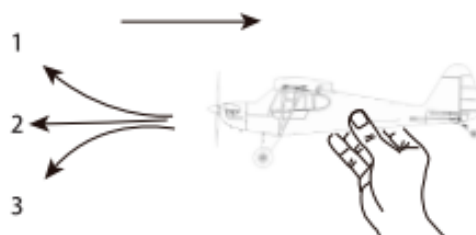
Place a horizontal plane
放置水平面上

1. Place the aircraft on the ground windward, reconfirmed the presence or absence of each rudder gyrus, rudder direction is correct.
2. Verify that no problem after the above steps, push the throttle stick gradually slide to 100%, and pulled a light / down rocker, the aircraft off the ground.

- 1.将飞机迎风放在地面，再次确认各个舵面有无回中，舵面方向是否正确。
- 2.确认上述步骤无问题后，轻推油门摇杆滑行逐步加到100%，并轻拉升/降摇杆，使飞机离开地面。

Throw the takeoff 手抛起飞

1. throwing error method
1.错误投掷方法
2. The correct method of throwing
2.正确投掷方法
3. throwing error method
3.错误投掷方法



landing 降落



The picture shows the
right hand throttle
图示为右手油门

When the aircraft landed Please feel underpowered immediately, the first aircraft to fly downwind landing zone adjustment head wind, the throttle down to reduce the flight speed, the plane will slowly slide down until the plane touches the ground, and then pull the throttle to a minimum, taxiing aircraft should be adjusted according to flight attitude, keep the aircraft steady glide.

当飞机飞行时感觉动力不足时请立即降落，首先把飞机飞到下风区调整机头迎风降落，把油门拉低降低飞行速度，飞机便会慢慢向下滑行，直到飞机接触地面，然后油门拉到最低，滑行过程中要根据飞机飞行姿态进行调整，保持飞机平稳滑行。

Note: 注意:

Falling if these deviate from the rudder to play amended the wind is too large to be controlled from the aircraft downwind areas, so as to avoid excessive wind causing unnecessary losses. To prepare timely power down when the plane landed, not the battery completely run out, again if you need a missed landing improperly leave some power.

下滑过程中如果航线偏离可打方向舵修正，风力过大时要控制飞机在下风区的距离，以免因风力过大造成不必要的损失。要在飞机动力下降时及时准备降落，不要将电池完全用光，如果降落不当需要再次复飞留有一定电量。

3D / 6G conversion 3D/6G转换

1. The boot defaults to 6G attitude mode, by short pressing the mode switch button and making two beeps, it will be converted to 3D (locked)
2. When flying in 3D mode, no matter what the flight attitude is, short press the mode switch button and make a beep to switch to 6G mode, and the flight will immediately return to a stable attitude.
3. 6G gesture mode is suitable for beginners flight, 3D mode to do aerobatics.

1. 开机默认为6G姿态模式，通过短按模式切换按钮，并“滴滴”两声，转换为3D（锁定式）
2. 3D模式飞行，无论飞行处于任何姿态，通过短按模式切换按钮，并“滴”一声，转换到6G模式，飞行马上恢复到平稳姿态。
3. 6G姿态模式适合初学者飞行，3D模式可做特技飞行。

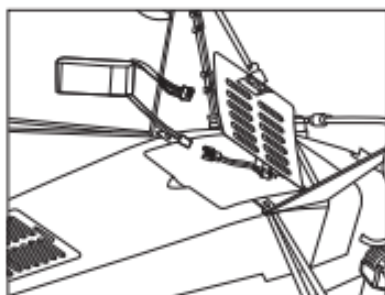


End Flight 结束飞行

At the end of the flight, the model aircraft battery safe place inside removed.
Please develop good habits, so as to avoid regret.

结束飞行时，请将模型飞机内的电池安全取下。

请养成良好习惯，以免造成遗憾。

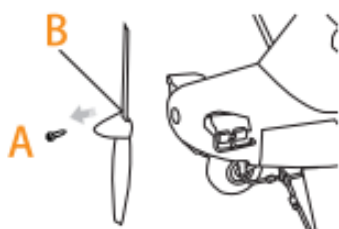


Caveat:
警告:

The battery is not removed, it will cause the battery to excessive discharge damage, and even cause a fire burning danger.

电池未取下，将导致电池过度放电而损坏，甚至造成起火燃烧的危险。

Replace propeller 螺旋桨更换



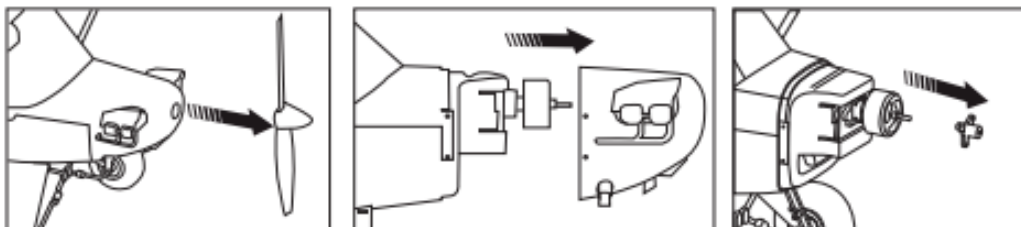
1. Use a screwdriver blade is fixed to the screw counter-clockwise Niuchu (A).
2. Then pull out the fan (B) outwards from the center of the motor shaft.

- 1.用螺丝刀将固定在风叶上的螺丝按逆时针方向旋转扭出（A）。
- 2.再将风叶从马达中心轴上向外拔出（B）。

Replace hub 桨箍更换

Remove the propeller first, then remove the screws that secure the left and right hoods and pull out the hood.

先拆掉螺旋桨，然后将左右固定头罩的螺丝拆掉，拔出头罩。

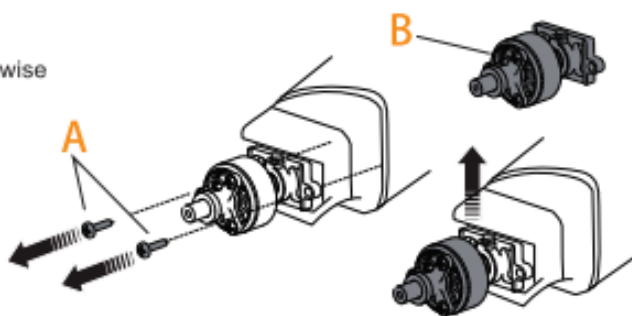


Use a screwdriver to turn the 3 screws on the paddle counterclockwise, then remove the paddle and replace the new paddle.

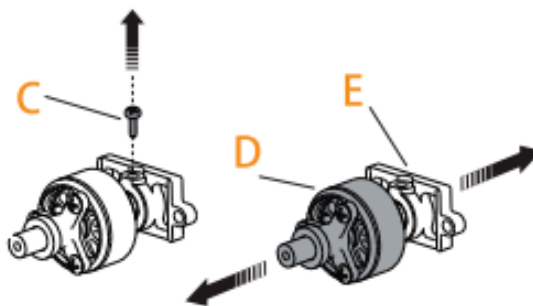
用螺丝刀把桨箍上的3颗螺丝按逆时针方向旋转扭出，再取下桨箍，更换上新的桨箍。

Motor replacement 马达更换

1. Use a screwdriver to turn the 2 screws fixed on the motor bracket counterclockwise to twist out (A).
2. Pull the motor forward forcefully from the motor bracket (B).
3. screw with a screwdriver on the motor rotates counterclockwise Niuchu (C).
4. Place the motor with the fixing plate separation, re-replacement of the motor (D-E).



- 1.用螺丝刀将固定在马达支架上的2颗螺丝按逆时针方向旋转扭出 (A)。
- 2.将马达从马达支架处用力向前拔出 (B)。
- 3.再用螺丝刀将马达上的螺丝按逆时针方向旋转扭出 (C)。
- 4.将马达跟固定板分离，重新更换新的马达 (D-E)。



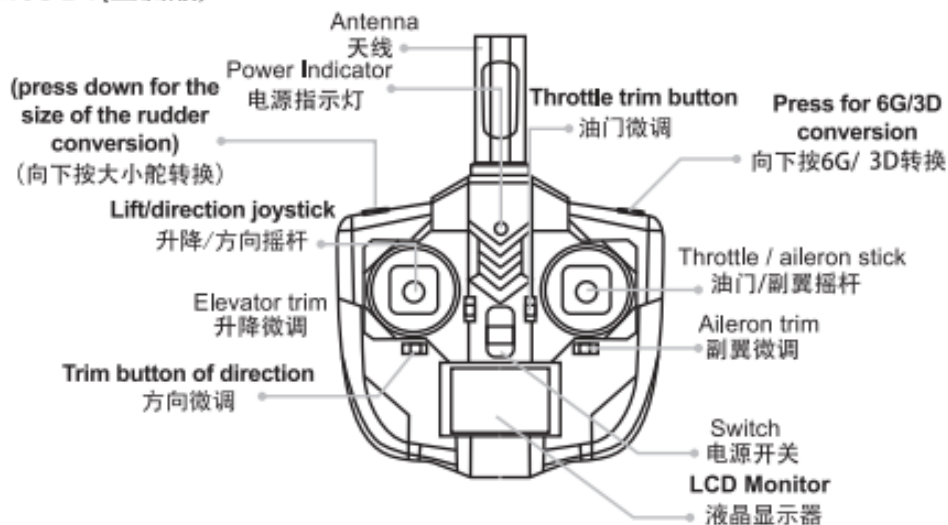
Caveat: 注意:

Model aircraft after use. The motor will produce high temperature, before it is not cooled down, please do not touch and replace the motor in order to avoid the risk of burns.

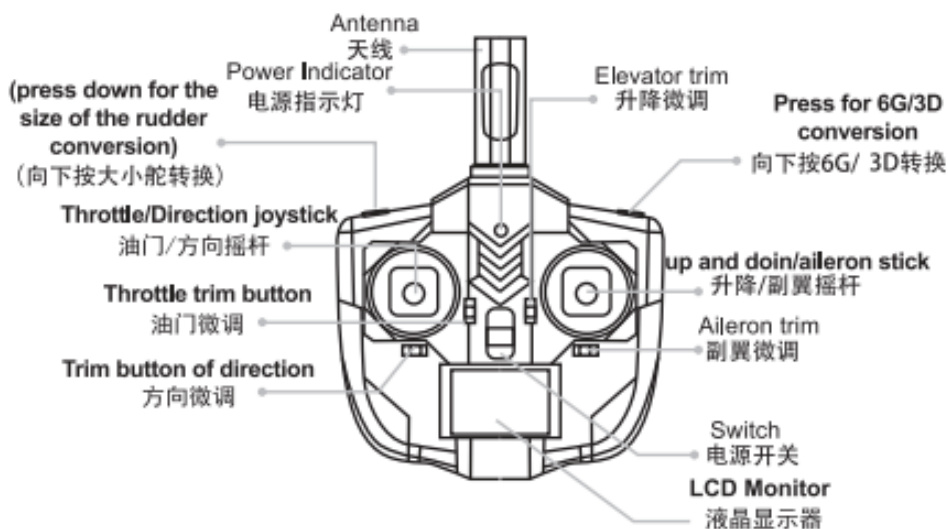
模型飞机使用后。马达将会产生高温，在其未冷却之前，请不要触摸及更换马达，以免发生烫伤危险。

Name of remote controller parts 遥控器各部位名称

MODE 1 (Asian version) MODE 1(亚洲版)



MODE 2 (European version) MODE 2(欧洲版)



Matching frequency guide of TX and receiver 遥控器与接收机对频说明

Model you bought has completed frequency matching at factory, if need to match frequency again, please follow the following tips:

1. Connect the aircraft to the battery first, and keep the aircraft stationary, then turn on the remote control, Pull the throttle lever down to the lowest position,
2. The red indicator light on the receiver flashes, the receiver flashes red quickly, then turns into a long light, and the frequency is completed.
3. When using the frequency, please avoid the same type of remote control with the same frequency to open, so as not to affect the frequency.

你所购买的模型在出厂前已经完成对频，如果需要重新对频，请按照如下方法对频：

1. 先将飞机连接电池，并保持飞机静止不动，接着打开遥控器。并将油门操纵杆拉倒最下端位置。
2. 接收机上红色指示灯闪亮，接收机红灯快闪，然后变为长亮，对频完成。
3. 对频时请避免周围有同类型同频率遥控器打开，以免影响对频。

Pre-flight preparation 飞行前准备



First, open the remote control, make sure the throttle stick at the lowest position, the other rocker in the middle position.

首先打开遥控器，确保油门摇杆在最下位置，其他摇杆在中间位置。



Open the battery cover of the battery connector shown in the figure "B" with the battery cover of the connection port connection.

打开电池盖，将电池的连接头按图“B”中所示跟电池盖内的连接口连接。



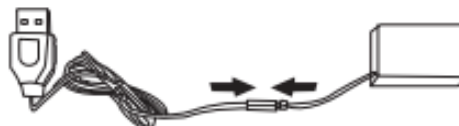
When the battery is connected, the battery into the battery slot, and press in Figure "C" in the battery cover, the self-test to be completed gyroscope, you can fly.

电池连接完成后，将电池装入电池槽内，并按图“C”中所示盖上电池盖，待陀螺仪自检完毕，即可飞行。

USB Charger

USB 充电器使用

1. Insert the USB charger into the charging base, and the red light will be on at this time
2. Insert the battery into the USB charging port. At this time, the green light starts to flash slowly, and the green light will stay on when the battery is full.
3. The charging time is about 120 minutes.



- 1.将USB充电器插入充电座，此时红灯长亮
- 2.将电池插入USB充电口，此时绿灯开始慢闪，电池充满后绿灯长亮。
- 3.充电时间约120分钟。

Caveat:

1. To ensure safety, please charge under the supervision of someone.
2. Children should not be charged by themselves and should be charged with the assistance of an adult.
3. Please use the original standard charger of this product for charging. The charger with unknown origin may have a burning explosion accident.

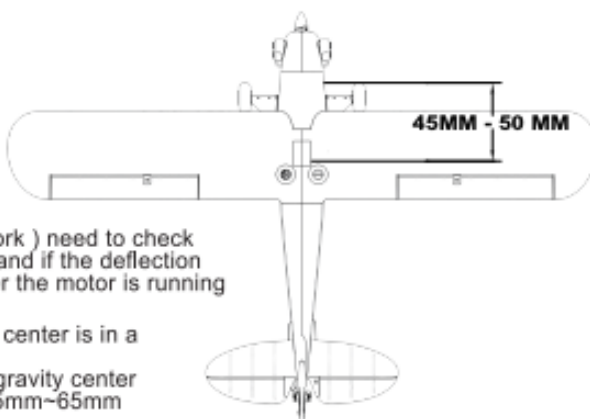
警告:

- 1.为了确保安全，请在有人监护下进行充电。
- 2.儿童不可独自进行充电，要在成人协助下进行充电。
- 3.请使用本产品原装标配充电器进行充电，使用来历不明的充电器可能发生燃烧爆炸事故。

Pre-flight adjustments

飞行前调整

1. Turn on the transmitter, put the plane flatly on a clean flat platform, connect power battery, cover battery. Before the motor is running (in this case the gyroscope is not involved in the work) need to check if the rudder is in the neutral position, and if the deflection direction is correct, then check whether the motor is running smoothly.
2. Check if the position of aircraft gravity center is in a reasonable range:
Under normal circumstances, aircraft gravity center should be located in the range from 55mm~65mm from the wings.



1. 打开发射机，将飞机平放在平整干净的地面或平台上，连接动力电池，盖上电池盖。在电机运行之前（此时陀螺仪未参与工作）需要检查各舵面是否处于中立点位置，且偏转方向是否正确，然后再查看电机运行是否平顺。
2. 检查飞机重心位置是否处于合理范围：
正常情况下，飞机重心应该处于距机翼前缘45mm~50mm范围内：

Hand throwing takeoff right way

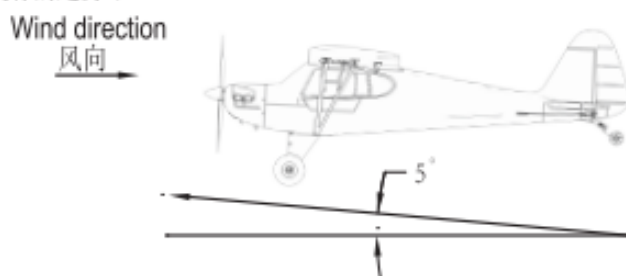
手掷起飞正确方法

As shown in the figure, against the wind, at full power, at an angle of 5° , try to throw the aircraft with force.

如下图中所示，逆着风向，开足动力，以 5° 的角度将飞机用力掷出。

(Note: aircraft took off under 6-axis mode, on condition of throwing correctly, the aircraft will automatically default to level off after about 5 seconds of flight climb attitude, after that, it will automatically fly flatly. Since aircraft has function of attitude correction, at this stage as long as the plane did not head drop, it is not recommended pull the elevator rocker, otherwise the plane will fly back down trend.)

(注：飞机以6轴模式起飞时，正确投掷的前提下，飞机默认以爬升姿态飞行5秒钟左右后会自动改平，由于飞机有姿态修正功能，此阶段只要飞机没有低头趋势，建议不要向下拉升降舵摇杆，否则飞机会有反向低头飞行的趋势。)



3D / 6G mode switch

3D/6G模式切换

1. The default is 6G mode, which makes the flight more stable. When you are skilled in flight and want to do stunts, you can press the switch button to 3D mode (Press the button twice in 3D mode, and once in 6G mode). **(The operating system is more sensitive in 3D mode. Please switch the 3D mode when the aircraft is at high altitude to familiarize yourself with the flight and pay attention to flight safety ⚠)**
 2. 6G mode: more stable flight, can be summarized the mode of steady and holding when level fly, in this case, plane can only fly flat, can not roll, inverted fly, side fly, somersaults or any other stunts.
 3. Special note: this flight modes can be arbitrarily switched by a switch as the following figure, if the aircraft cause emergency in 3D mode, switch to mode of 6G made the aircraft to level flight immediately to reduce the crashes possibility.
1. 开机默认为6G模式，这样飞行更稳定。当你熟练飞行后想做特技动作，可以按下转换按键到3D模式（3D模式按一下按键滴滴两声，6G模式响一声）。**(3D模式下操作系比较灵敏，请将飞机高空时切换3D模式，以便熟悉飞行，并注意飞行安全 ⚠)**
 2. 6G模式：飞行更加稳定，可简单概括为飞机平飞姿态的增稳和保持模式，在此模式下飞机只能平飞，不能做横滚、倒飞、侧飞、筋斗等特技动作
 3. 特别说明：飞行中此两种模式可通过如上图中的切换开关进行任意切换，如果飞机在3D模式下出现紧急情况，切换为6G模式可使飞机立即改为平飞，减少摔机的可能性。

Troubleshooting guide

排除故障及异常情况

Situation 状况	Reason 原因	Countermeasure 对策
After power, aircraft lights flash and manipulate without response 飞机上电后信号灯闪动, 操作无反应	Remote control and aircraft match code unsuccessfully 遥控器与飞机对码绑定不成功	Re-match code according to steps of matching code showed in page 11 按第11页内的温馨提醒中的对码绑定步骤重新对码
After power on, gyroscope began to work before motor starts 飞机上电后未启动马达陀螺仪就开始工作	Power on the plane when the throttle stick is not in the lowest position or throttle trim is too high 飞机上电时油门摇杆未在最低位置或油门微调过高	Pull throttle stick in the correct position, power on again after the throttle trim is back to the midpoint 将油门摇杆放到正确位置, 将油门微调回到中点后从新上电
After power on, the plane does not turn when pushing the throttle, steering lights work properly 飞机上电后推动油门不转, 信号灯正常舵机工作正常	The battery is low, speed controller enters shutdown protection 电池电量过低, 调速器进入关断保护	Charge the battery or replace the charged battery 将电池充电或更换有电的电池
Individual rudder servo block when manipulating the joystick 摇杆操纵时个别舵机出现卡舵现象	Steering gear teeth to be less 舵机齿轮出现少齿	Replace the faulty steering 更换有问题的舵机
Powerful vibration when the motor is running 马达运转时震动的很厉害	Blade deformation, untight position between hoop and motor, or hoop broken, motor seat loose 桨叶变形, 桨箍与马达定位不牢或桨箍断裂, 马达固定座松脱	Replace problematic blades and paddles, secure the paddles, and secure the motor mounts 更换有问题的桨叶及桨箍, 将桨箍固定牢固, 将马达固定座固定牢固
Model yaw fly, can not fly straight 模型飞起来偏舵, 不能直线飞行	The rudder surface is not in the center position, the foam is deformed, and the remote fine adjustment is not centered 舵面没有在居中位置, 泡沫变形, 遥控微调没有回中	1. Turn the rudder back to center 2. Manually repair the foam deformation position, return to the middle of the remote control fine-tuning and restart, and can be adjusted by the remote control fine-tuning during flight 1.将舵面回中 2.手动修复将泡沫变形位置掰回、遥控微调回中重新开机、飞行中可以通过遥控微调调整
Plane fly but gyroscope has no reaction, can not repair normally 飞机飞起来陀螺仪无动作, 不能正常修复	Gyroscope is out of control 陀螺仪失灵	Replace the receiver 更换接收机
The plane is still in operation when the plane lands or the throttle stick is in the lowest position 飞机降落, 或油门摇杆在最低位置, 马达仍在运转	During flight, mistakenly raised throttle trim 飞行中误将油门微调调高	Turn the throttle trim back to the mid-point 将油门微调调回中点



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