

Item No.: F3301

SPIRIT

INSTRUCTION MANUAL

WINGSPAN : 815mm (32-1/16")



- The manual suit for every color scheme of Freewing Spirit.
- The manual only choose one color scheme as an example.

Version No.: F3301-V01

FC CE  
MADE IN CHINA

Catalogue

- 1 Product Introduction
- 5 Assemble Instruction
- 17 Operating instruction of Radio Control
- 18 Center of Gravity
- 19 Assemble Structure
- 20 Nose /Mid-prop Propeller Assemble Photo
- 21 Motor Specification

- 3 产品介绍
- 5 组装说明
- 17 遥控器设定
- 18 飞机重心
- 19 组装结构图
- 20 前驱/背推螺旋桨组装图解
- 21 电机参数

Welcome to purchase our new mini glider Spirit ,we spend a long time to consider and design this airplane, its not a scale plane ,its just our idea product. Its excellent appearance and special designed color scheme, show the plane's perfect flight in air.

The airplane use EPO material ,compared to EPS material, It ensures the fuselage anti-impact performance. Two power version exchange freely, it's not only bring more fun for people ,it also suit for different kinds of people. Special full elevator design ,enhance its flight performance greatly, and let people feel freshly.

The mini-glider spirit use modular design on main wing ,rudder,elevator. Special plastic plug structure make the installation process to become very simple. Just imagine, how wonderful if in travel we fly in anywhere and anytime.

Of course,the two version of spirit have some different,please refer to the following to distinguish.

Nose-propeller version		Mid-proppeller version	
Material	EPO	Material	EPO
Fuselage length	815mm (32-1/16")	Fuselage length	815mm (32-1/16")
Wingspan	623mm (24-1/2")	Wingspan	623mm (24-1/2")
Flight weight	345g (12.16 oz.)	Flight weight	375g (13.22 oz.)
Thrust	580g (20.45 oz.)	Thrust	480g (16.93 oz.)
Motor size	2621- 1100KV	Motor size	2226- 2200KV
Prop size	8050 fold proeller	Prop size	2-Bladed propeller 5045
Battery	3S 11.1V 450mAh 20C	Battery	3S 11.1V 450mAh 20C
ESC	20A ESC	ESC	20A ESC
Servo	5g 4pcs	Servo	5g 4pcs
Landing gear	Hand launch, No landing gear	Landing gear	Hand launch, No landing gear
Aileron	YES	Aileron	YES
Elevator	YES	Elevator	YES
Rudder	YES	Rudder	YES
Throttle	YES	Throttle	YES

According to different demands ,we provide three kinds of configuration options(RTF,PNP,KIT) for two power version, please according to the configuration list ,refer to the following pictures to check the products.

Note: 1. Picture use PNP version for your reference.
 2. ○ refer to RTF version △ refer to PNP version ● refer to Airframe version

Configuration list(Nose-prop version)	
EPO Foam Fuselage	○ △ ●
Motor	○ △
ESC	○ △
Servo	○ △
Battery	○
Charger	○
2.4G Transmitter,Receiver	○
Manual	○ △ ●
Spare Parts Bag	○ △ ●



Configuration list(Mid-prop version)	
EPO Foam Fuselage	○ △ ●
Motor	○ △
ESC	○ △
Servo	○ △
Battery	○
Charger	○
2.4G Transmitter,Receiver	○
Manual	○ △ ●
Spare Parts Bag	○ △ ●



Accessory Bag Content List

Mid-prop Accessory Bag(RTF,PNP)

Tools Bag

No.	Name	Specification	Qty.
1	Y-Wire	L=100mm	1
2	Screw Driver Handle	/	1
3	Screw Driver Head	/	1
4	Screw Driver Head	/	1
5	Screw Driver Head	/	1

Screw Bag

No.	Name	Specification	Qty.
1	Screw	PA3*10mm	2
2	Jimi Screw	M3*3mm	2
3	Spacer	φ 3.2mm	1
4	Screw Nut	M3	2
5	Screw	CM2.5*6mm	4
6	Screw	PA2.3*6mm	2

Fold Propeller Plastic Parts Bag (Nose-prop Version)

No.	Name	Specification	Qty.
1	Fold Propeller	8050	1
2	Main Wing Decorate Cover	/	1
3	Main Wing Decorate Cover For Screw	/	1
4	Nose-prop Motor Cowling	/	1

Airframe Spareparts Bag(Suitable For Two Version)

Fold propeller plastic parts bag(Nose-prop version)

No.	Name	Specification	Qty.
1	Fold Propeller	8050	1
2	Main Wing Decorate Cover	/	1
3	Main Wing Decorate Cover For Screw	/	1
4	Nose-prop Nose Cone	/	1
5	Left/Right Wing Servo Cowling	/	2
6	Servo Cover	/	1

Screw Bag

No.	Name	Specification	Qty.
1	Screw	PA3*10mm	2
2	Screw	PA2*6mm	2
3	Jimi Screw	M3*3mm	2
4	Spacer	φ 3.2mm	2
5	Screw nut	M3	4
6	Screw	CM2.5*6mm	8
7	Screw	PA2.3*6mm	9

Nose-prop accessory bag(RTF,PNP)

Tools Bag

No.	Name	Specification	Qty.
1	Y-Wire	L=100mm	1
2	Screw Driver Handle	/	1
3	Screw Driver Head	/	1
4	Screw Driver Head	/	1
5	Screw Driver Head	/	1

Screw Bag

No.	Name	Specification	Qty.
1	Screw	PA3*10mm	2
2	Screw	PA2*6mm	2
3	Jimi Screw	M3*3mm	2
4	Spacer	φ 3.2mm	1
5	Screw Nut	M3	2
6	Screw	CM2.5*6mm	4
7	Screw	PA2.3*6mm	5

Mid-prop Motor Holder/Propeller Plastic Parts

No.	Name	Specification	Qty.
1	Propeller	5045	1
2	Main Wing Decorate Cover	/	1
3	Main Wing Decorate Cover For Screw	/	1
4	Nose-prop Nose Cone	/	1
5	Mid-prop Motor Holder	/	1
6	Mid-prop Motor Cowling	/	1

Mid-prop Motor Holder/Propeller Plastic Parts

No.	Name	Specification	Qty.
1	Propeller	5045	1
2	Main Wing Decorate Cover	/	1
3	Main Wing Decorate Cover For Screw	/	1
4	Nose-prop Nose Cone	/	1
5	Mid-prop Motor Holder	/	1
6	Mid-prop Motor Cowling	/	1

Tools Bag

No.	Name	Specification	Qty.
1	Y-Wire	L=100mm	1
2	Main Wing Servo Metal Wire	φ 1.0mm 48*4.5mm	1
3	Screw Driver Handle	/	2
4	Screw Driver Head	/	1
5	Screw Driver Head	/	1
6	Screw Driver Head	/	1

非常高兴您购买我们的Spirit(精灵)这款迷你滑翔机,这款飞机是我们花费很长时间来构想并设计生产出来的产品。它不是一款像真机,仅仅是我们想象的一个产物。不过,它的外观非常的优美。专门为款飞机所设计的涂装,将Spirit在空中飞行的优美姿态展现得淋漓尽致!

这款飞机模型采用EPO材料制作。相比EPS材料,保证了机身抗撞击性能。二种动力模式的自由转换,不仅给大家带来更大的乐趣,也让这款飞机尽可能的适合于不同的人群。独特的全动平尾设计,极大的提升飞行性能的同时,带给人耳目一新感觉。

这款Spirit(精灵)迷你滑翔机在主翼、垂尾、平尾全部采用模块化设计,独特的塑料对插结构让安装过程变得非常的简便。过以想象,旅行的时候带上它,随时随地的飞行,将是一件多么美妙的事情。

当然,精灵(Spirit)的二个版本会有一些不同的地方,请参考下列表格进行区别。

前驱版		背推版	
材料	EPO	材料	EPO
机身长度	815mm (32-1/16")	机身长度	815mm (32-1/16")
翼展	623mm (24-1/2")	翼展	623mm (24-1/2")
起飞重量	345g (12.16 oz.)	起飞重量	375g (13.22 oz.)
推力	580g (20.45 oz.)	推力	480g (16.93 oz.)
电机尺寸	2621- 1100KV	电机尺寸	2226- 2200KV
桨叶尺寸	8050折叠桨	桨叶尺寸	5045直驱二叶桨
电池	3S 11.1V 450mAh 20C	电池	3S 11.1V 450mAh 20C
电调	20A ESC	电调	20A ESC
舵机	4pcs 5克舵机	舵机	4pcs 5克舵机
起落架	手抛类型,无起落架	起落架	手抛类型,无起落架
副翼	YES	副翼	YES
平尾	YES	平尾	YES
方向	YES	方向	YES
油门	YES	油门	YES

根据每位消费者不同的需求,我们为二种动力模式分别提供整机、PNP、空机三种不同的配置方案以供大家选择。请参考下列清配置清单和图片来核对产品的完整性。

注: 1. 图片采用PNP配置做为参考。

2. ○符号代表整机配置 △符号代表PNP配置 ●符号代表空机配置

前驱版配置清单	
EPO泡沫机身套件	○ △ ●
电机	○ △
电调	○ △
舵机	○ △
电池	○
充电器	○
2.4G接收、发射机	○
说明书	○ △ ●
零件包	○ △ ●



后推版配置清单	
EPO泡沫机身套件	○ △ ●
电机	○ △
电调	○ △
舵机	○ △
电池	○
充电器	○
2.4G接收、发射机	○
说明书	○ △ ●
零件包	○ △ ●



附件包内容列表

背推版附件包(整机、PNP)

工具包

序号	品名	规格	数量
1	Y线	L=100mm	1
2	螺丝刀手柄	/	1
3	钢丝刀头	/	1
4	钢丝刀头	/	1
5	钢丝刀头	/	1

螺丝包

序号	品名	规格	数量
1	螺丝	PA3*10mm	2
2	机米螺丝	M3*3mm	2
3	垫片	内径 ϕ 3.2mm	1
4	螺母	M3螺母	2
5	螺丝	CM2.5*6mm	4
6	螺丝	PA2.3*6mm	2

前驱折叠桨塑料套件

序号	品名	规格	数量
1	折叠桨套件	8050折叠桨	1
2	前翼装饰盖	/	1
3	主翼螺丝装饰盖	/	1
4	前驱电机整流罩	/	1

空机附件包(适合二种模式)

前驱折叠桨塑料套件

序号	品名	规格	数量
1	折叠桨套件	8050折叠桨	1
2	前翼装饰盖	/	1
3	主翼螺丝装饰盖	/	1
4	前驱电机整流罩	/	1
5	左、右主翼舵机整流罩	/	1
6	舵机盖	/	2

螺丝包

序号	品名	规格	数量
1	螺丝	PA3*10mm	2
2	螺丝	PA2*6mm	2
3	机米螺丝	M3*3mm	2
4	垫片	内径 ϕ 3.2mm	2
5	螺母	M3螺母	4
6	螺丝	CM2.5*6mm	8
7	螺丝	PA2.3*6mm	9

前驱版附件包(整机、PNP)

工具包

序号	品名	规格	数量
1	Y线	L=100mm	1
2	螺丝刀手柄	/	1
3	钢丝刀头	/	1
4	钢丝刀头	/	1
5	钢丝刀头	/	1

螺丝包

序号	品名	规格	数量
1	螺丝	PA3*10mm	2
2	螺丝	PA2*6mm	2
3	机米螺丝	M3*3mm	2
4	垫片	内径 ϕ 3.2mm	1
5	螺母	M3螺母	2
6	螺丝	CM2.5*6mm	4
7	螺丝	PA2.3*6mm	5

背推电机座\螺旋桨塑料套件

序号	品名	规格	数量
1	螺旋桨	5045直驱桨	1
2	主翼装饰盖	/	1
3	主翼螺丝装饰盖	/	1
4	前驱机头罩	/	1
5	后驱电机固定座套件	/	1
6	后驱电机整流罩	/	1

背推电机座\螺旋桨塑料套件

序号	品名	规格	数量
1	螺旋桨	5045直驱桨	1
2	主翼装饰盖	/	1
3	主翼螺丝装饰盖	/	1
4	前驱机头罩	/	1
5	后驱电机固定座套件	/	1
6	后驱电机整流罩	/	1

前驱折叠桨塑料套件

序号	品名	规格	数量
1	Y线	L=100mm	1
2	主翼舵机钢丝	外径 ϕ 1.0mm 48*4.5mm	1
3	螺丝刀手柄	/	1
4	钢丝刀头	/	1
5	钢丝刀头	/	1
6	钢丝刀头	/	1

Install

Note:

1. When install, please read the manual carefully. if you have any questions, kindly contact with your distributor, or contact us on freewing@sz-freewing.com
2. Install have two parts. One is nose-propeller install version. Another is mid-propeller install version.
3. Before install, please refer to P19-20, check the screw position.

组装部份

提示:

1. 组装过程中, 请仔细对照说明书, 如有任何疑问, 可以联系您购买产品的经销商, 或者联系我们公司邮箱 freewing@sz-freewing.com 来寻求帮助。
2. 组装过程分为二部份: 第一部份为前驱模式的组装指导; 第二部份为后推模式的组装指导。
3. 组装过程中, 请参考第19-20页, 查看螺丝正确的应用位置。

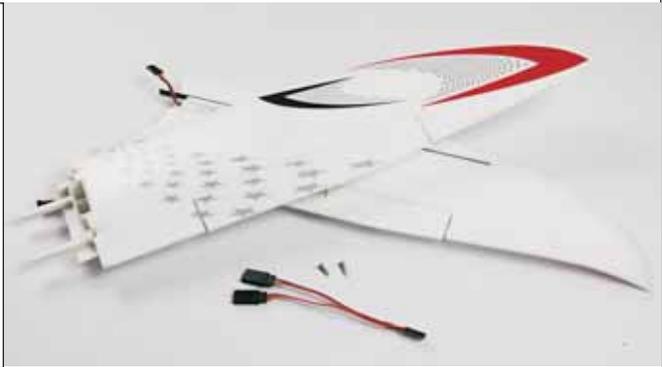
Nose-Prop Version

-Prepare main wing install accessory as the right photo shown.

1. Y-wire
2. Screw
3. left/right wing

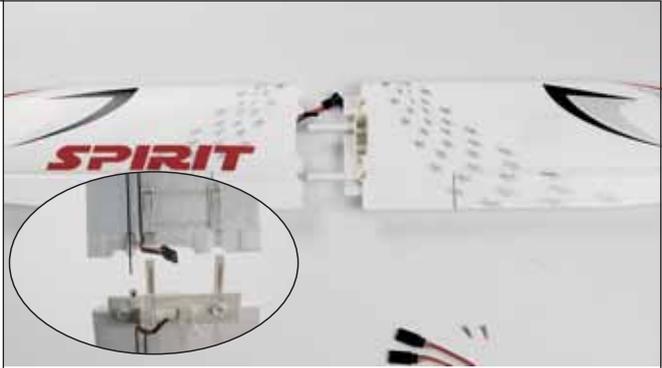
-如右图所示, 准备好主翼组装配件。

1. Y线
2. 螺丝
3. 左右主翼



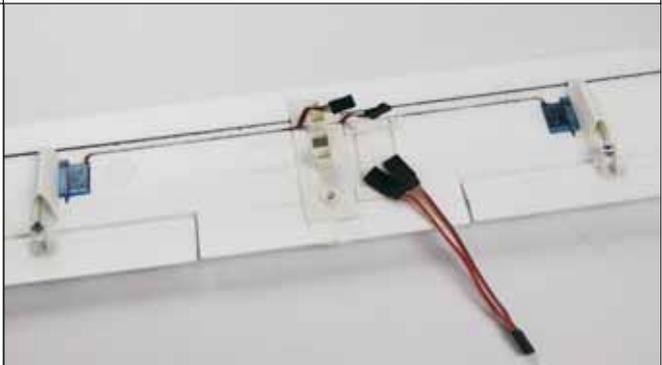
-Press on Left/right wing by bolt.

-左、右主翼通过插销对插到一起。



-Use Y-wire connect left/right servo wire, combine to one channel.

-用Y线连接左\右主翼舵机线。合并为一个通道。



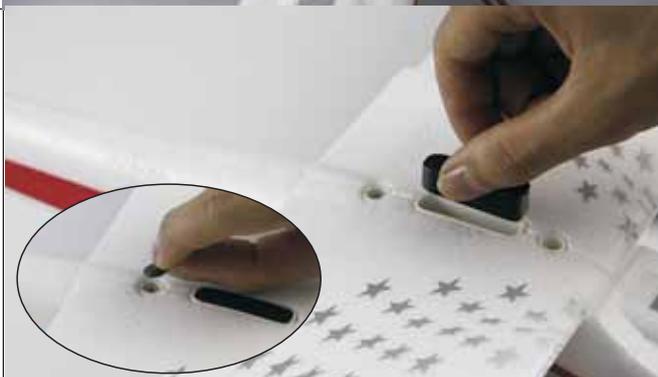
-As the right photo shown, prepare insert main wing to fuselage accessory.

1. fuselage
2. screw
3. main wing decorate cover
4. main wing screw decorate cover

-如右图所示, 准备好将主翼安装到机身所需要的配件。

1. 机身
2. 螺丝
3. 主翼装饰盖
4. 主翼螺丝装饰盖



<p>-Remove the black canopy and the bottom cover.</p> <p>-拆下机身上黑色的座舱罩和机身底部的电子舱盖。</p>	
<p>-As the right photo shown, install mainwing.</p> <p>-如右图所示, 安装主翼.</p>	
<p>-Fix the main wing by screws.</p> <p>-用螺丝固定主翼。</p>	
<p>-Press on the decorate cover as the right photo shown.</p> <p>-Under nose-propeller version, we don't need the main wing motor hole. In order more beautiful, we cover them.</p> <p>-将装饰盖分别压入右图所示位置。 前驱模式下，主翼的电机座孔是多余的，为了美观，我们必须遮盖它。</p>	
<p>-After install as the right photo shown.</p> <p>-安装好的效果如右图所示。</p>	

<p>-Next step, we install elevator.</p> <ol style="list-style-type: none"> 1. Elevator set 2. Fuselage <p>-接下来，我们需要进行平尾安装。</p> <ol style="list-style-type: none"> 1. 平尾套件 2. 机身 	
<p>-Insert left elevator into rudder.</p> <p>-左侧平尾插销直接插入到垂尾上。</p>	
<p>-Buckle the left/right elevator plug.</p> <p>-将左、右平尾通过插销扣紧。</p>	
<p>-After install as the right photo shown.</p> <p>-平尾安装完成效果如右图所示。</p>	
<p>-Cover the canopy, finish to install.</p> <p>-盖上黑色座舱罩，飞机组装完毕。</p>	

Change from Nose-propeller Version to Mid-propeller Version

- 1.If you want to try the Mid-propeller flight, you can revise it by our provide plastic parts with free charge.
- 2.Factory standard motor of mid-propeller version is 2226-2200KV motor. If you choose another brand motor, please refer to P20. According to the motor install specification, purchase correct motor.
- 3.In here, just show the install step by factory standard motor.

前驱模式更改为背推模式

- 1.如果你想体验背推模式飞行的感觉，那么您可以通过我们免费赠送的塑料配件来进行驱动模式的更改。
- 2.我们工厂标准配置的背推动力为2226-2200KV型号马达.如果您想选择的其它品牌马达,请参考P20页面所列的电机安装座参数，购买适合安装的马达。
- 3.此处，仅以我公司默认配置的马达进行介绍。

-Take out the mid-propeller plastic parts from package and prepare the motor.

-从包装盒中取出
“背推电机座\螺旋桨塑料套件”零件包。
准备好马达。



-Screw the motor on the motor holder.

Attention: When install, refer to the right photo, put wires in order.

-将马达锁在电机座上。
注意：安装时要根据右图整理好马达线。



-Cover another motor holder part.

-锁紧马达后，盖上另一半电机座。

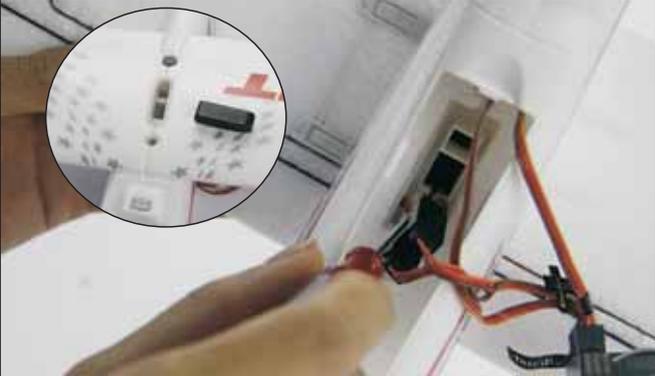


-Refer to P20, install propeller and cowling.

-接下来，我们将参考第20页安装螺旋桨及螺旋桨整流罩。



<p>-Install well as the right photo shown.</p> <p>-安装完成效果如右图所示</p>	
<p>-Disassemble the nose propeller and motor.</p> <p>-拆除前驱螺旋桨及电机。</p>	
<p>-Take out the black nose cone and screw.</p> <p>-取出黑色机头罩及螺丝</p>	
<p>-Install well the nose cone.</p> <p>-安装好机头罩</p>	
<p>-Prepare the ESC and installed mid-propeller motor holder, arrange next step.</p> <p>-将拆除下来的电调与装好的电机座准备好. 进行下一步安装。</p>	

<p>-Take out the decorate cover.</p> <p>-用螺丝刀从电子舱内顶开“主翼装饰件”</p>	
<p>-Let the motor line insert through the hole upward to the main wing.</p> <p>-将电调一端的电机线由中间孔穿出到主翼上方</p>	
<p>-Connect motor and ESC.</p> <p>Attention: After connect motor and ESC, power on and test.</p> <p>-Please refer to P16.</p> <p>-连接电机和电调。 注意：电机、电调连接后，我们需要通电测试是否连接错误。 -请参考第16页详细说明。</p>	
<p>-Press the motor holder on the fuselage.</p> <p>-将电机座插入主翼内。</p>	
<p>-Install well as the right photo shown.</p> <p>-安装完成效果如右图所示</p>	

Install

Note:

1. When install, please read the manual carefully. if you have any questions, kindly contact with your distributor, or contact us on freewing@sz-freewing.com
2. Install have two parts. One is nose-propeller install version. Another is mid-propeller install version.
3. Before install, please refer to P19-20, check the screw position.

组装部份

提示:

1. 组装过程中, 请仔细对照说明书, 如有任何疑问, 可以联系您购买产品的经销商, 或者联系我们公司邮箱 freewing@sz-freewing.com 来寻求帮助。
2. 组装过程分为二部份: 第一部份为前驱模式的组装指导; 第二部份为后推模式的组装指导。
3. 组装过程中, 请参考第19-20页, 查看螺丝正确的应用位置。

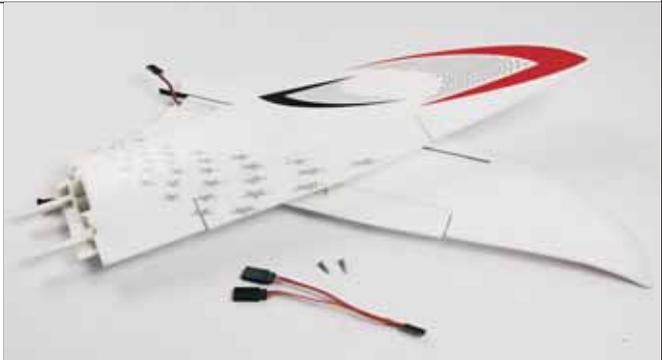
Mid-proppeller version

-Prepare main wing install accessory as the right photo shown.

1. Y-wire
2. Screw
3. left/right wing

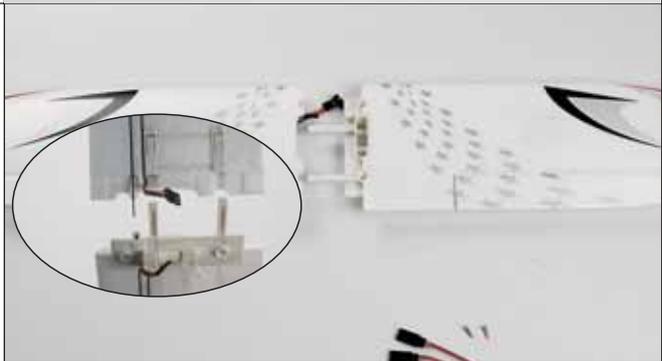
-如右图所示, 准备好主翼组装配件。

1. Y线
2. 螺丝
3. 左右主翼



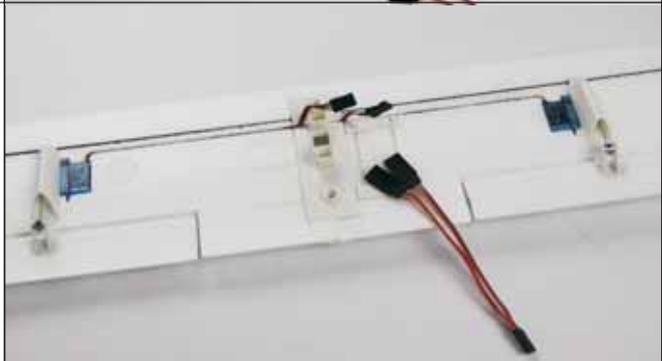
-Press on Left/right wing by bolt.

-左、右主翼通过插销对插到一起。



-Use Y-wire connect left/right servo wire, combine to one channel.

-用Y线连接左\右主翼舵机线。合并为一个通道。



-As the right photo shown, prepare insert main wing to fuselage accessory.

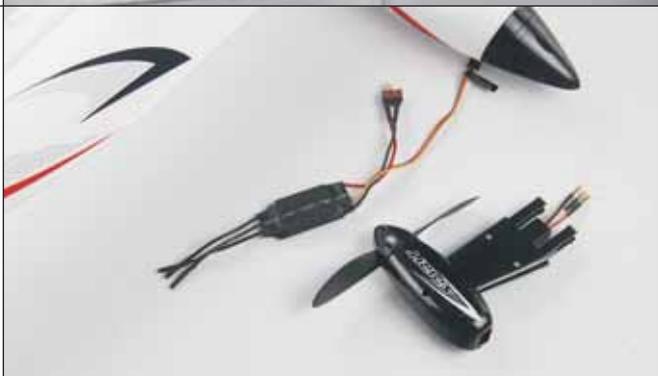
1. fuselage
2. screw
3. main wing decorate cover
4. main wing screw decorate cover

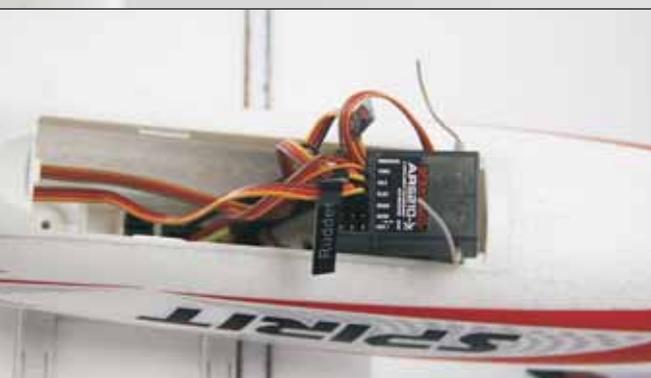
-如右图所示, 准备好将主翼安装到机身所需要的配件。

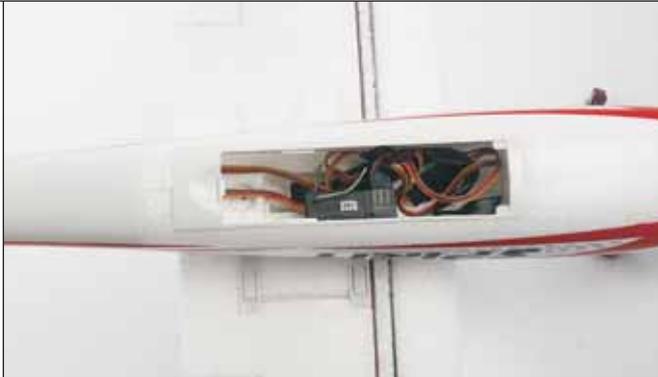
1. 机身
2. 螺丝
3. 主翼装饰盖
4. 主翼螺丝装饰盖



<p>-Remove the black canopy and the bottom cover.</p> <p>-拆下机身上黑色的座舱罩和机身底部的电子舱盖。</p>	
<p>-As the right photo shown, install mainwing.</p> <p>-如右图所示, 安装主翼.</p>	
<p>-Fix the main wing by screws.</p> <p>-用螺丝固定主翼。</p>	
<p>-Press the main wing decoration cover into the right photo shown position.</p> <p>-After install as the right photo shown.</p> <p>-将主翼螺丝装饰盖压入右图所示位置。</p> <p>-安装好的效果如右图所示</p>	
<p>-Next step, we install elevator.</p> <p>1. Elevator set 2. Fuselage</p> <p>-Insert left elevator into rudder.</p> <p>-接下来, 我们需要进行平尾安装.</p> <p>1. 平尾套件 2. 机身</p> <p>-左侧平尾插销直接插入到垂尾上。</p>	

<p>-Buckle the left/right elevator plug.</p> <p>-将左、右平尾通过插销扣紧。</p>	
<p>-After install as the right photo shown.</p> <p>-平尾安装完成效果如右图所示。</p>	
<p>-Prepare the ESC and installed mid-propeller motor holder, arrange next step.</p> <p>-准备好电机、电调. 进行下一步安装。</p>	
<p>-Let the motor line insert through the hole upward to the main wing.</p> <p>-将电调一端的电机线由中间孔穿出到主翼上方</p>	
<p>-Connect motor and ESC.</p> <p>Attention: After connect motor and ESC, power on and test.</p> <p>-Please refer to P16.</p> <p>-连接电机和电调. 注意：电机、电调连接后，我们需要通电测试是否连接错误。 -请参考第16页详细说明。</p>	

<p>-Press the motor holder on the fuselage.</p> <p>-将电机座插入主翼内。</p>									
<p>-Install well as the right photo shown.</p> <p>-安装完成效果如右图所示</p>									
<p>-ESC and Battery placed photo.</p> <p>-电调侧放在右图所示位置。</p>									
<p>-We advise you use following specification battery, the factory standard battery is 3S 11.1V 450mah battery.</p> <p style="text-align: center;">3S 11.1V 400mAh---800mAh Li-Po Battery</p> <p>-Battery Cabin Size :L=75mm*W=30mm*23mm</p> <p>-我们建议您选用以下规格的电池. 工厂标准配置为450mAh容量电池。</p> <p style="text-align: center;">3S 11.1V 400mAh---800mAh Li-Po Battery</p> <p>电池舱最大尺寸:L=75mm*W=30mm*23mm</p>									
<p>-In general ,after the main wing use Y-wire, the plane have four channel.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">1.Aileron</td> <td style="width: 50%;">3.Rudder</td> </tr> <tr> <td>2.Elevator</td> <td>4.Throttle</td> </tr> </table> <p>Please refer to P17, Check receiver connect detail.</p> <p>一般情况下，主翼使用Y线后，飞机将有四个通道。</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">1. 副翼</td> <td style="width: 50%;">3. 方向舵</td> </tr> <tr> <td>2. 升降舵</td> <td>4. 油门</td> </tr> </table> <p>可以参考第17页接收机连接资料。</p>	1.Aileron	3.Rudder	2.Elevator	4.Throttle	1. 副翼	3. 方向舵	2. 升降舵	4. 油门	
1.Aileron	3.Rudder								
2.Elevator	4.Throttle								
1. 副翼	3. 方向舵								
2. 升降舵	4. 油门								

<p>-Receiver placed photo.</p> <p>-电子舱内接收机位置放置图.</p>	
<p>-Please trim the plane.</p> <p>-Then refer to P18 adjust the CG of plane.</p> <p>-After adjustment ,cover the electric cover.</p> <p>-对飞机进行调效.</p> <p>-然后参考第18页调整飞机的重心位.</p> <p>-调试完成后，盖好电子舱盖.</p>	
<p>-Finish the plane installation and trim.</p> <p>-飞机安装、调试完毕.</p>	

Mid-prop version revised to Nose-prop version

- 1.If you want to try the nose-prop version flight ,you can revise it by our provide plastic parts with free charge.
- 2.Our factory standard configuration of nose-prop version power is 2621-1100KV motor ,if you want to choose other brands motor ,please refer to P21 "motor specification" to purchase suitable motor
- 3.About the exchange operating ,please refer to P5"nose-prop version" to guide the operation

背推模式更改为前驱模式

- 1.如果你想体验前驱模式的飞行，那么您可以通过我们免费赠送的塑料配件来进行驱动模式的更改。
- 2.我们工厂标准配置的前驱动力为2621-1100KV型号马达.如果您想选择的其它品牌马达,请参考P20页面所列的电机参数，购买适合安装的马达。
- 3.具体更换操作，可参考说明书第5页“前驱模式”组装部份内容和第19页“精灵组装图解”内容进行指导操作。

Motor and ESC connection photo shown 电机、电调连接示意图



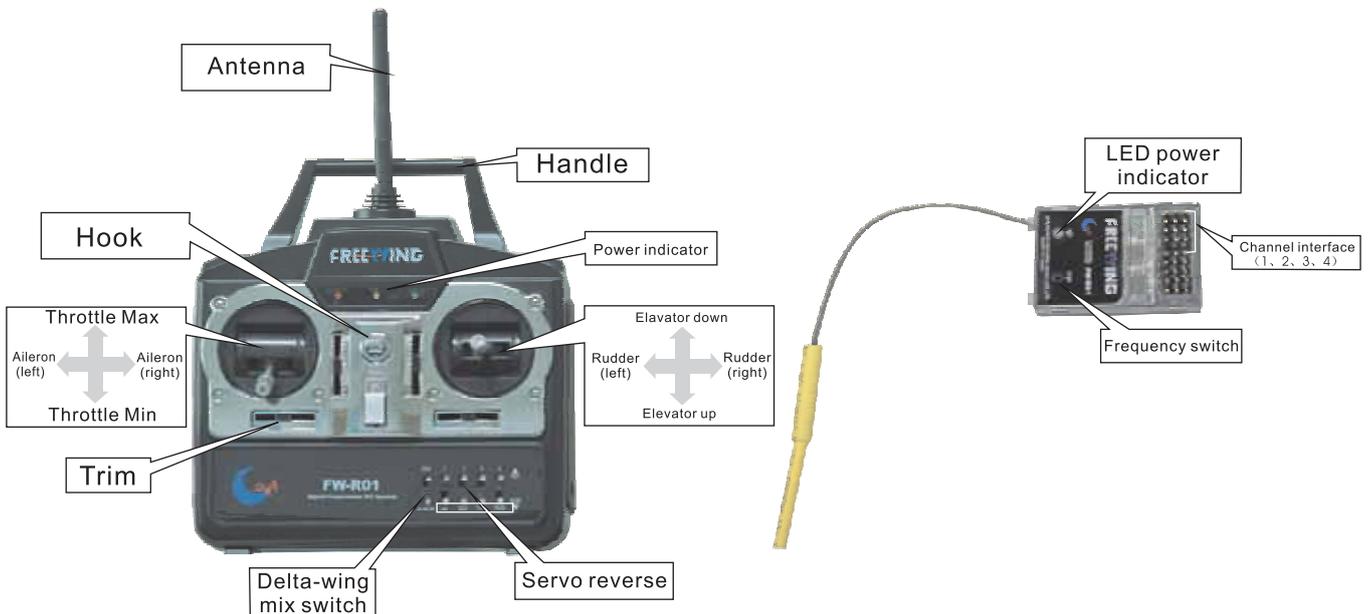
- 1.Connect the motor and ESC ,we must ensure connect the middle line of ESC output and motor input.
 - 2.If want to change the motor rotation direction ,ensure the first point ,just need to switch the two lines connection. So, when test, if we find the motor turn reverse ,it need to according to above two points to change the motor rotation direction.
1. 电机与电调的连接，我们必须保证电调输出端中间线与电机输入端中间线相连。
2. 如果要更改电机转动方向，在保证第一点的情况下，仅需切换二条线的连接即可达到目的。所以，在测试的时候，我们发现电机反转，需要根据以上二点内容来改变电机转动方向即可。

Operating instruction of Radio Control

1. Radio control include the transmitter and receiver.



2. Radio control function introduction.



3.2.4G Radio control frequency method.

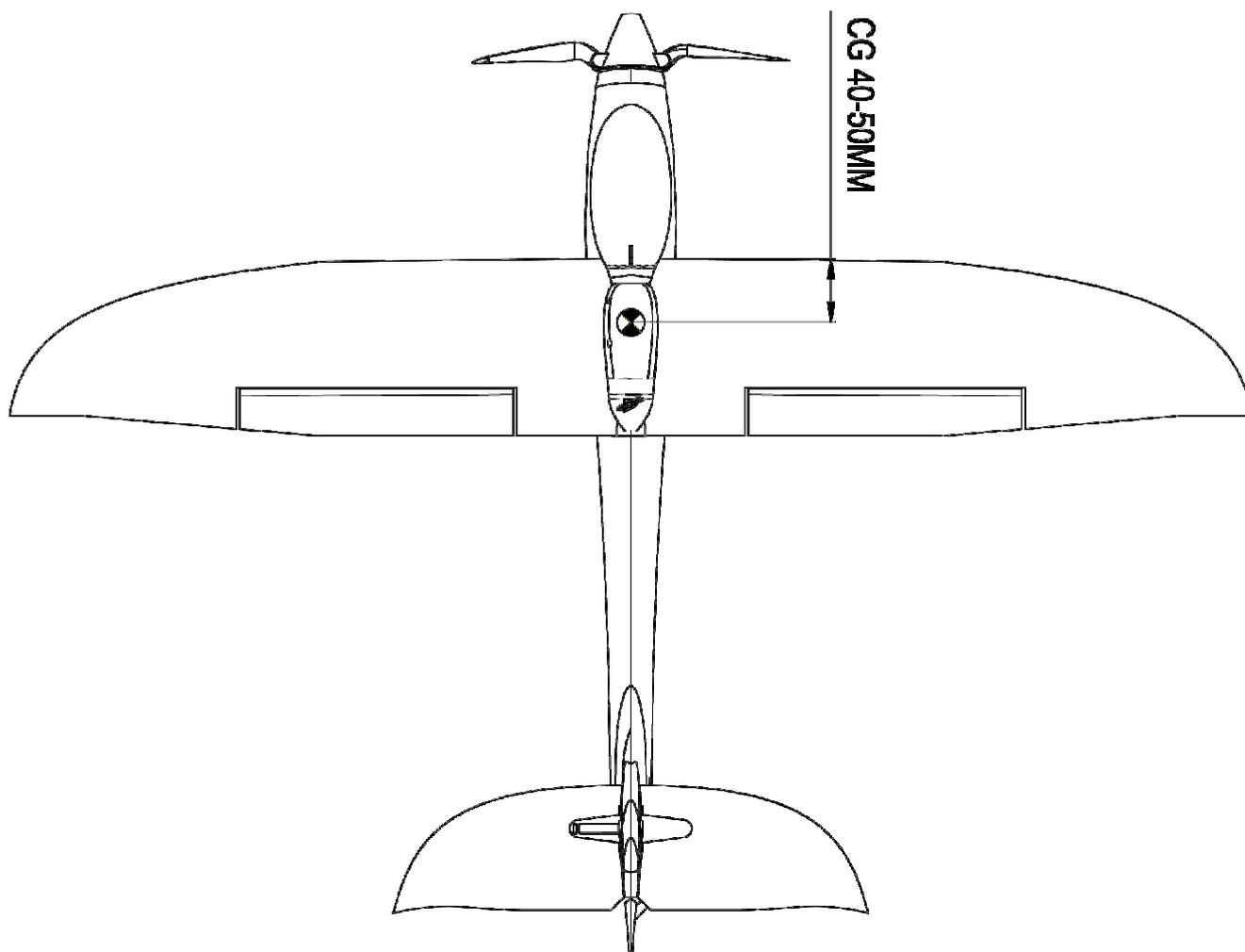
Note: the radio control has been established on the frequency treatment in factory, could use directly. In exceptional case, it need re-adjust frequency, please set as following:

- Press on the receiver frequency switch,
- While press on the receiver frequency switch, the receiver power on.
(Now, the receiver frequency signal light should be continue flashing.)
- Turn on the transmitter power switch
(Now, in transmitter panel, red light ,yellow light, green light will be continue flashing)
- Stop to press on the receiver frequency switch
- After the success of the frequency, the receiver frequency signal light is on, not flashing.
The transmitter signal light is on, not flashing, it transformed to battery signal light

Center of Gravity

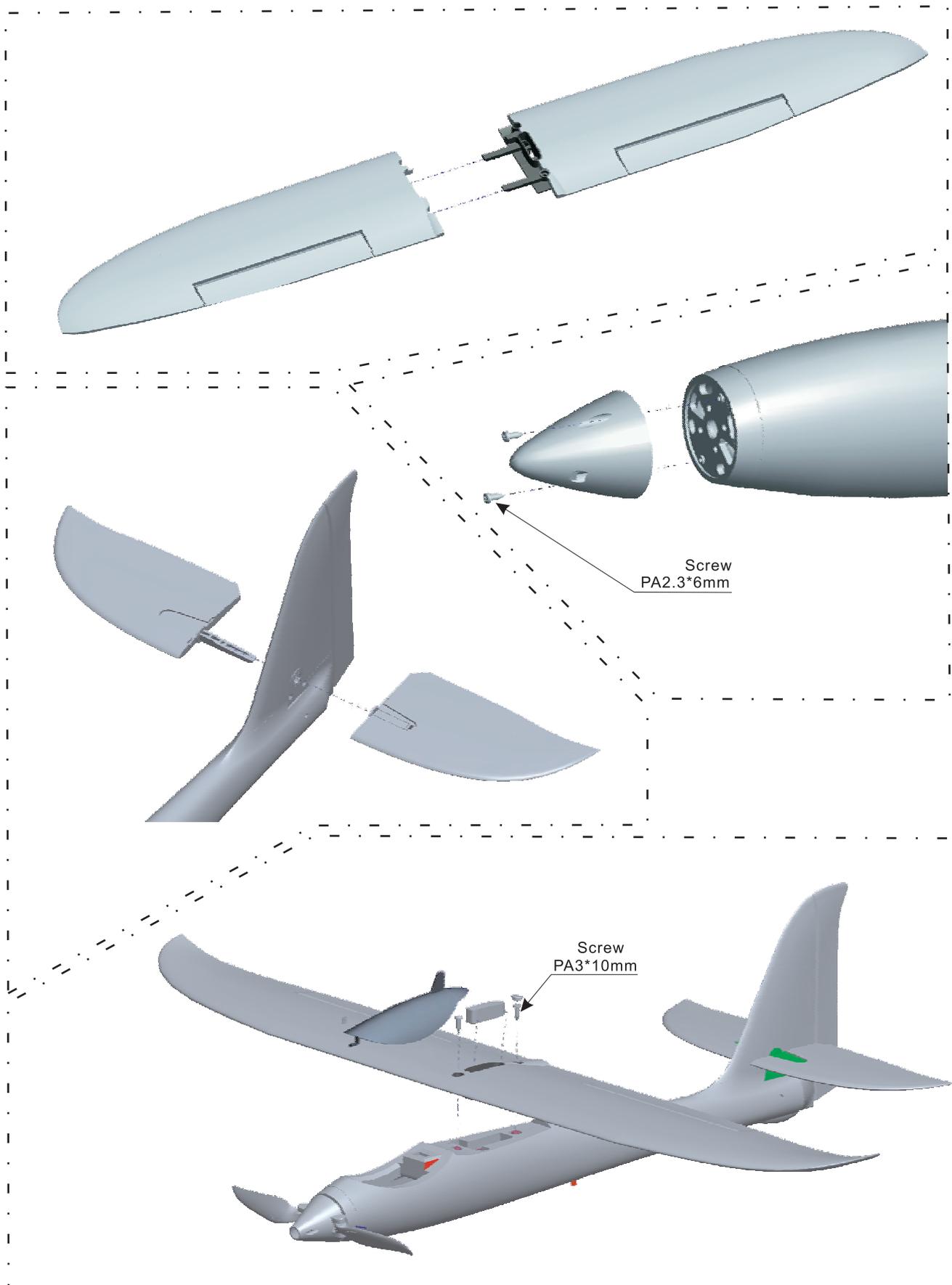
Check the aircraft center of gravity ,wrong center of gravity will lead to failure fly.
(Please refer to the following photo to check CG.)

我们在飞行前需要确认飞机的重心位置，错误的重心位置可能会导致您的飞行失败。
(请参考下列图片所标示的重心位来调整飞机的重心。)



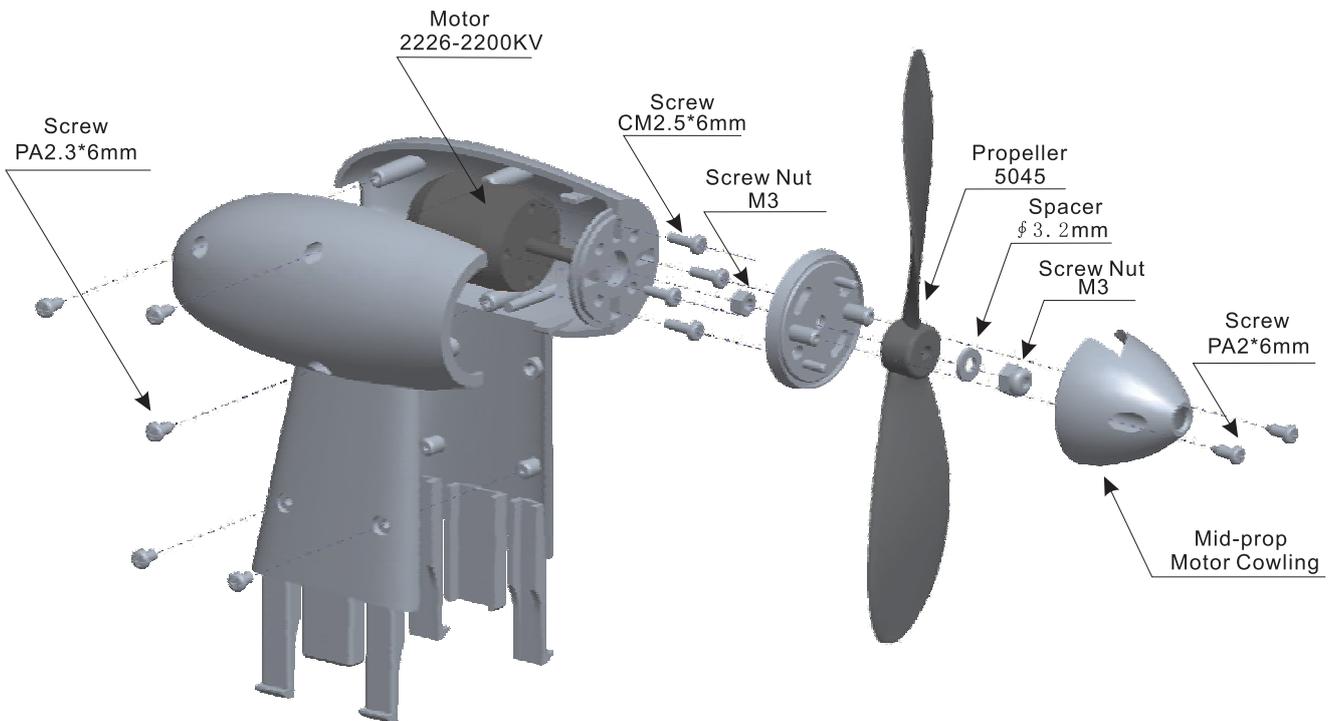
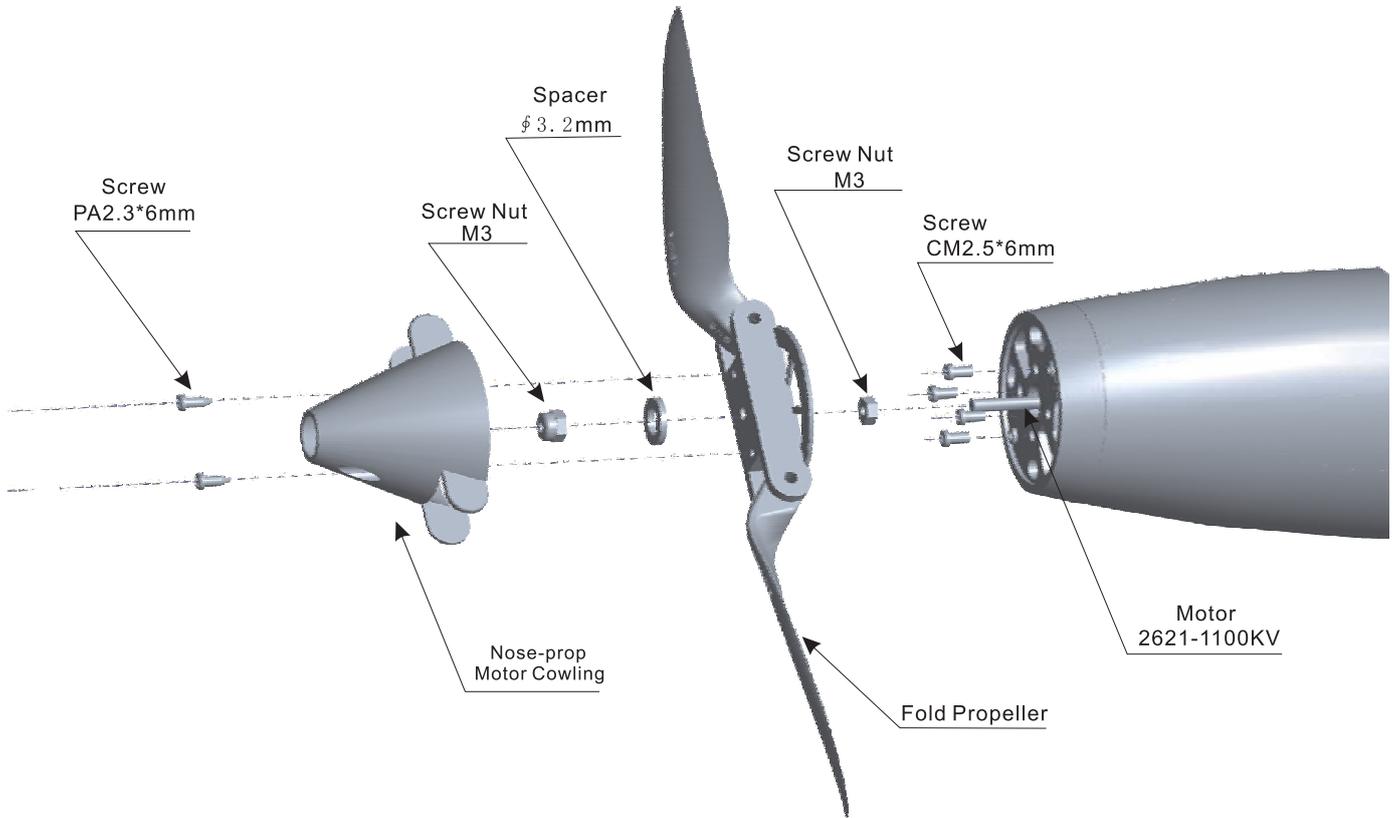
Spirit Assemble Photo

“精灵” 组装图解



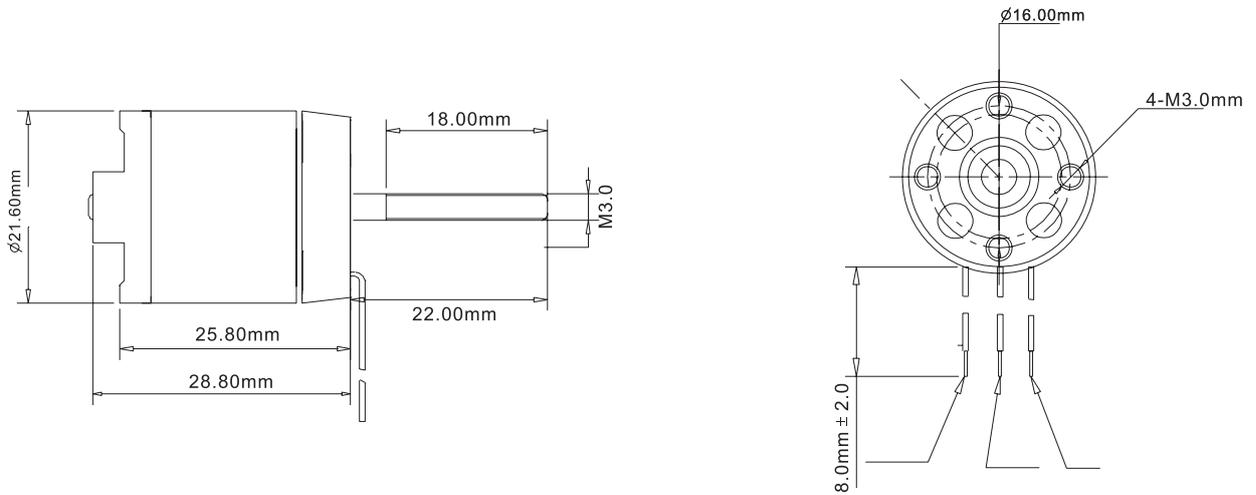
Nose /Mid-prop Propeller Assemble Photo

前驱/背推螺旋桨组装图解

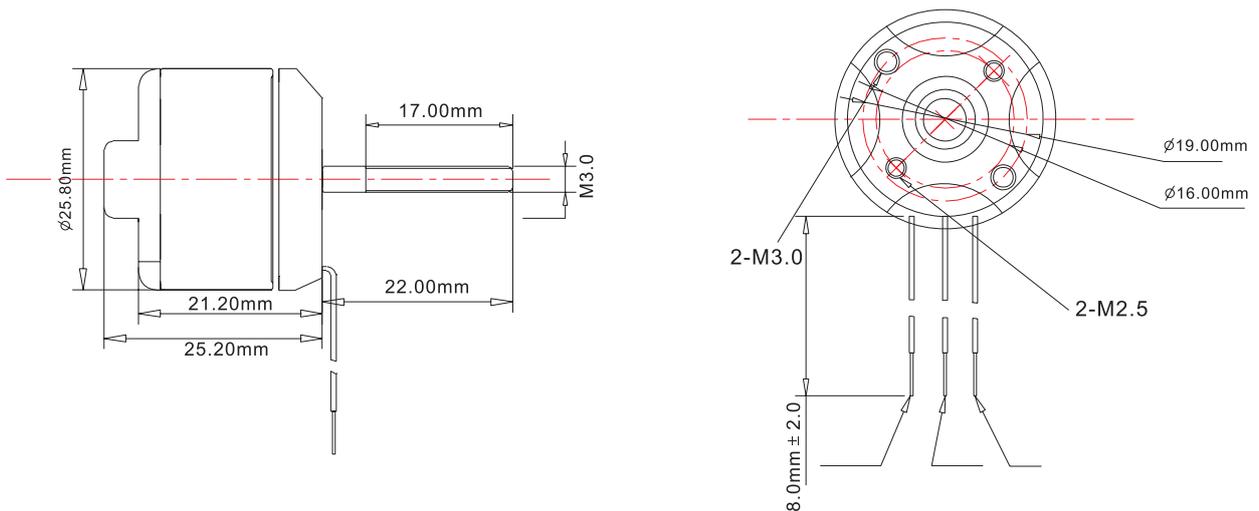


Motor Specification

电机参数



Model	KV Value	Volute (V)	Current (A)	Pull (g)	RPM	Weight (g)	G/A	No Load Current	Prop	ESC
2226-2200	2200RPM/V	11.1	8.4	390	----	35	45.4	0.9	5045	15A



Model	KV Value	Volute (V)	Current (A)	Pull (g)	RPM	Weight (g)	G/A	No Load Current	Prop	ESC
2621-1100	1100RPM/V	11.1	9.3	550	----	36	59.1	0.4	8050	15A



Have Fun!
We hope that you have many pleasant
flights with your Spirit !



Shenzhen Freewing Model Co.,Ltd
HK Freewing Model Internatiolal Limited

Add.:FeiYi Building,face to Labor Bureau, Fumin Middle Road, Dalang Town,
Dongguan City, Guangdong Province, China
Web: <http://www.sz-freewing.com>
Email:freewing@sz-freewing.com
Tel: 86-769-82669669 Fax:86-769-82033233