

1.6M 1:5 S.E.5a

Balsawood Scale Airplane



Instruction Manual

SCG42

ARF



飞行前的建议 PRE-FLIGHT CHECKS

- 安装舵机前, 请先将舵机通电让舵机中心点回中, 以便能更好的调试舵面。
● Check/adjust servo centering, in order to adjust the control surface better.
- 初次启动电机, 您需要确认电机旋转的方向以适配您的机型。
● Double-check the spinning direction of motor at first usage, and sure it's suitable for your model.
- 请将重心 (CG) 调整至说明书所述位置并尽量靠近。如果有需要, 您可以增加机头或者机尾的重量, 以确保机体有更好的飞行姿态。
● Set the center of gravity (CG) at the position that manual already marked out. If necessary, add weight to the nose or tail to ensure the best flight performance.
- 检查机身内部, 确保所有设备正常连接; 检查机身表面, 包括但不限于蒙皮, 固定螺丝, 舱盖, 座舱罩等位置。
● Double-check the inside of the fuselage, make sure all the equipments are correctly connected; Check the heat-shrink covering material's surface, Make certain all screws, bolts, cabin and canopy remain secure.
- 在飞行前, 请检查您电池情况, 若有低电压, 电池损坏等情况, 请您停止操作并马上更换电池。
● Take great care when connecting/disconnecting the battery, pls replace the battery immediately once found low voltage or damage to battery.
- 机身内部设备连接的方式, 会和您的收发设备有关, 在一些功能更多的收发设备上, 您可以通过设置简化机身内部设备的连接。详细请查看您的收发设备以确认是否满足您需要的功能。
● The way the internal devices of the fuselage are connected will be related to your transmitter-receiver device. For those transmitter-receiver devices with more functions, you can simplify the connection of the internal devices of the fuselage. Check your device for details to see if it meets the features you need.
- 动力设备和收发设备第一次配对时, 可能需要设置油门最大行程, 请您自行设置。
● When the power system and transmitter-receiver device are paired for the first time, you may need to set the maximum stroke of the throttle. Please set it yourself.

注意事项 SAFETY PRECAUTIONS

- 这个产品不是玩具, 而是一个复杂的具有难度的飞行器。您和您身边人的安全取决于您如何操作它, 您需要了解相关知识, 并谨慎操作。禁止没有成人陪伴的儿童独自操作该设备。不适合14岁以下人群使用。再次强调, 这不是一个玩具。
● This product should not be considered a toy, but rather a complicated and sophisticated flying model. Your safety depends on how you use and fly it, if not correctly operated, could cause injury to you or your family members. Children must be accompanied by an adult at all times if operating this product. Not suitable for children under the age of 14. THIS IS NOT A TOY.
- 不要在机场, 军事基地, 居民区或其他任何受限制的地方飞行。
● Do not fly around some restricted location like airports, military bases, residential areas, etc.
- 您需要对发射机进行距离检查, 以确保没有收到任何干扰。
● You will need to range check the transmitter to be sure you are not experiencing any interference.
- 始终保持先打开发射机后打开接收机, 先关闭接收机后关闭发射机的步骤。
● Always turn on the receiver last after turning on the transmitter and shut off the receiver first before turning off the transmitter.
- 如果您是初学者, 建议您在有经验玩家的协助下调试和飞行。
● If you are only a beginner to the radio control model flying, do not attempt to fly your model without any assistance or advice from advanced expert fliers.
- 请将相关物品放置在孩子们够不到的地方。
● Keep relevant items out of reach of children.
- 这个设备的设计已经超过我们正常使用所需要刚性要求, 但若您需要以超出我们推荐的动力飞行时, 请合理控制动作幅度并适当增加机体强度。
● This product has been flight tested to meet or exceed our rigid performance and reliability standards in normal use, if you plan to perform any high-stress flying, you are solely responsible for taking any and all necessary steps to control movement range and reinforce the body strength.
- 您的设备中可能包括一些玻纤和碳纤维雕刻的部件, 这些纤维部件所带的粉尘可能会引起眼睛, 皮肤的不适, 请您在需要的时候带上护目镜或者防尘服。
● This product may include some fiberglass and carbon-fiber reinforced plastic parts, which may cause eye and skin discomfort, pls wear the goggles or dust-proof clothes when needed.
- 因航空运输安全管制, 您收到的产品可能没有清单中出现过的胶水, 请您理解无法发送胶水给您的原因。您可以在当地文具店很方便的购买到您所需要的胶水。
● Due to air traffic safety control, the products you receive may not have the glue that appears in the list. Please understand and purchase the glue you need at your local stationery store.

飞行参数 Specification

翼展: 1.62M (63.8")
机长: 1.25M (49.2")
起飞重量: ≈3.1kg
Wingspan: 1.62M (63.8")
Fuselage Length: 1.25M (49.2")
Fly weight: ≈3.1kg

推荐配置 Suggested Equipment

马达: 3520-4220 800-500KV
桨叶: 14inch
电调: 60-80A (4S)
电池: 4S 2200-4000mAh
舵机: 17g*4pcs
通道: 4CH+

Motor: 3520-4220 800-500KV
Prop: 14inch
ESC: 60-80A (4S)
Battery: 4S 2200-4000mAh
Servo: 17g*4pcs
Radio: 4CH+

工具 Tools Needed



配件图仅供参考，您收到的实物可能因为修改/优化的原因导致与图片略有不同。
Photos shown here just for reference, the product you received maybe slightly differ from the photos due to continuous improvement on products.



- SCG42-A:机身 Fuselage SCG42-B:上机翼 Upper Wing SCG42-C:下机翼 Lower Wing
- SCG42-D:起落架 Landing Gear SCG42-E:机翼支架 Wing bracket
- SCG42-F:水平尾翼 Horizontal tail/垂直尾翼 Vertical tail SCG42-J: 螺丝及配件 screws & parts
- SCG42-H:像真机枪 Dummy machine gun 舵角 Rudder horn
- 瞄准器 Collimator 木块, 木杆 Wood block; Wood rod
- 排气管 Exhaust pipe 连杆 Connecting rod
- SCG42-G:尾轮组 tail wheel set 拉线 Stay wire
- K:PVC 风挡 PVC window shield

★ 装配提示符号 Assembly symbol guide

- | | | | |
|--------------------------------|--------------------------------|-----------------------------------|-------------------------------|
| 确保自由转动
Ensure free rotation | 使用适量快干胶粘固
Use medium CA | 使用少量快干胶粘固
Use thin CA | 用铅笔做记号
Use a pencil |
| 用力推入
Push tightly | 用模型刀切割
Use hobby knife with | 拧紧安装
Fully Tighten | 加润滑油
Apply Oil |
| 重复拼装
Repeat multiple times | 涂抹螺丝胶
Apply threadlock | 左右对称安装
Assemble right and left | 使用环氧胶粘固
Use epoxy adhesive |

01 起落架安装 Assemble the Landing Gear

01-1 JL RR

01-2 JL RR

01-3 JL RR

M6x375mm 丝杆 Screw rod X2
螺母+丝杆 Nut+Screw rod

螺丝 Screw M3x10mm X4

1 2 3 X2
轮轴套+螺母+自锁螺母 Wheel axle sleeve+Nut+Self-locking nut

按图示顺序安装轮轴套与螺母
Install the wheel axle sleeve and nut in the sequence shown in the figure

02 尾翼及尾轮安装 Assemble the Tail Wing and Tail Wheel

02-1

02-2 Epoxy glue

02-3 1mm

02-4

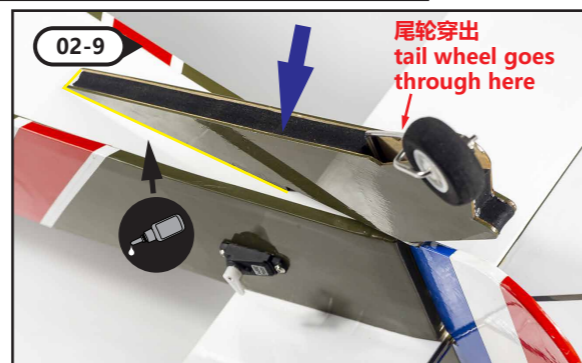
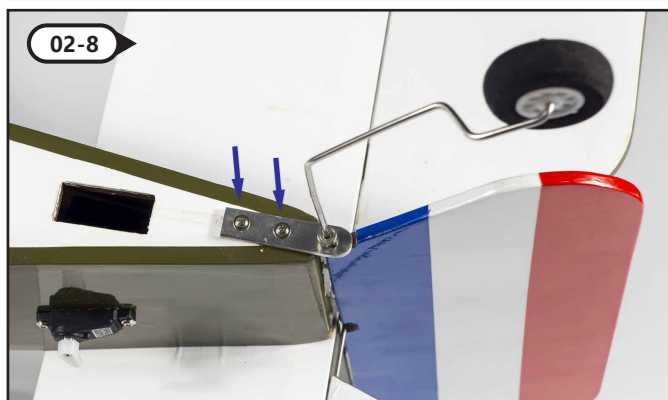
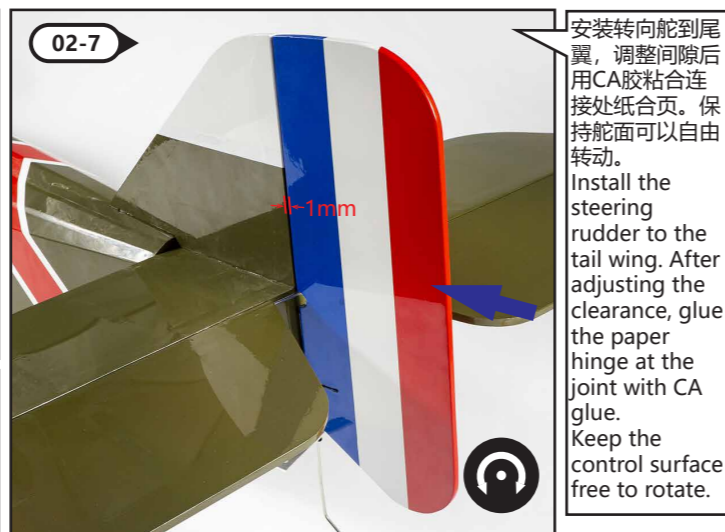
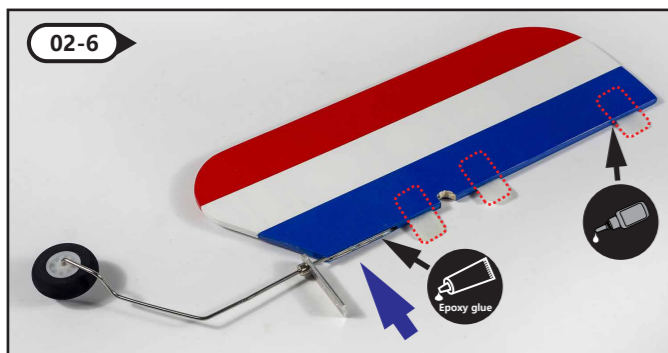
02-5

按图示在尾翼舵面上安装纸合页，并把两个舵面通过U型钢丝连接起来。
Install paper hinges on the tail control surface as shown in the figure, and connect the two control surfaces with U-shaped steel wires.

把舵面通过纸合页与尾翼连接，调整间隙后纸合页处用CA胶粘合，并保持舵面可以自由转动。
The control surface is connected with the tail wing through the paper hinge. After adjusting the clearance, the paper hinge is fixed with CA adhesive and the control surface can rotate freely.

尾翼反面切除部分蒙皮，方便后续粘固。
Part of the covering film on the reverse side of the tail wing is cut off to facilitate subsequent bonding.

安装垂直尾翼与水平尾翼到机身尾翼，调整到相互垂直后，用CA胶粘固。
Install the vertical tail and horizontal tail to the fuselage tail, adjust them to be perpendicular to each other, and then use CA glue to fix them.

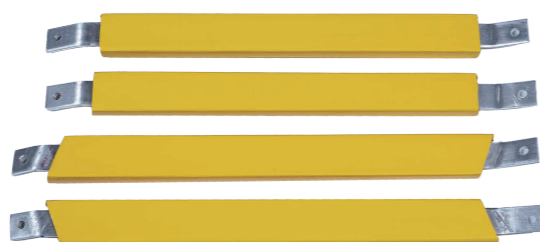
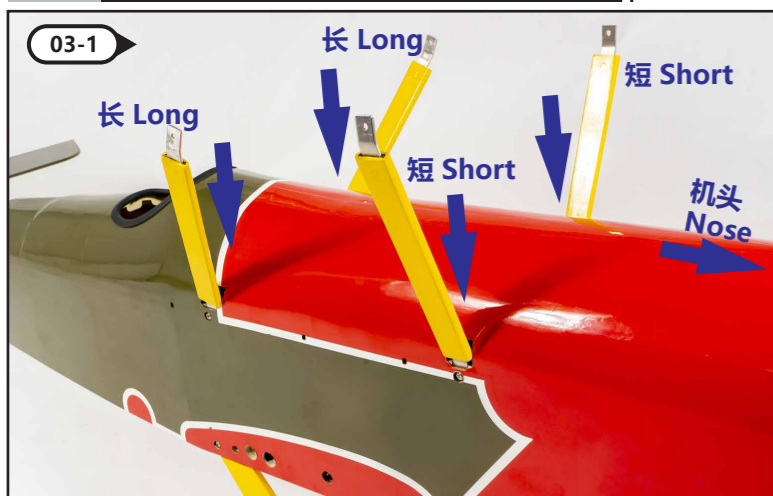


02-6 安装转向舵到尾翼，调整间隙后用CA胶粘合连接处纸合页。保持舵面可以自由转动。
Install the steering rudder to the tail wing. After adjusting the clearance, glue the paper hinge at the joint with CA glue. Keep the control surface free to rotate.

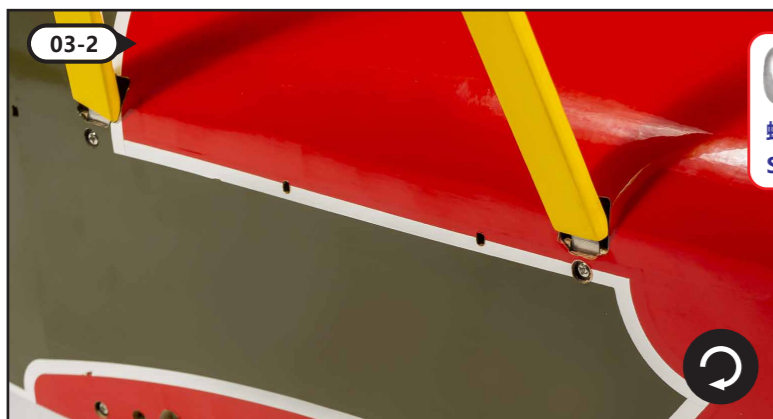
02-8 螺丝处钻孔点少量CA胶，再拧入螺丝。A small amount of CA glue is drilled at the screw, and then fix with screw.

自攻螺丝 Self-tapping screw M2x10mm

03 机翼安装 Wing installation



03-1 安装机翼支架，调整到图示角度，并注意安装顺序。Install the wing brackets, adjust them to the angle shown in the figure, and pay attention to the installation sequence.



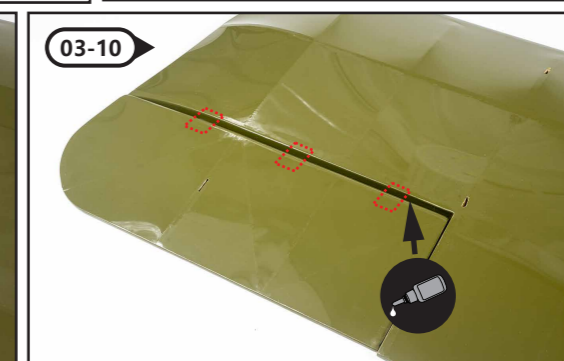
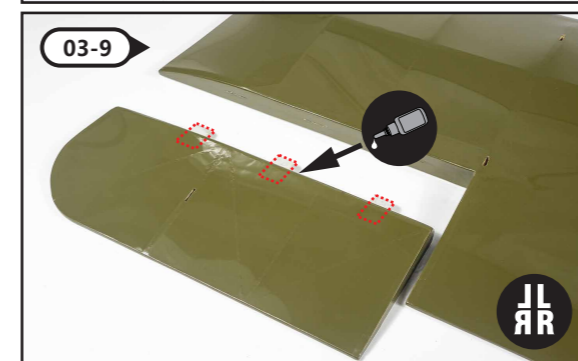
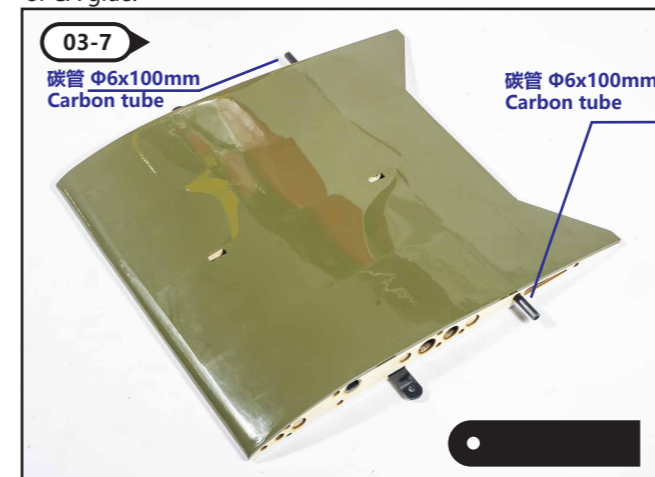
03-2 螺丝M3*15mm X4
Screw

安装部分像真件 Installation of dummy parts



03-3 安装像真排气管 Install the dummy exhaust pipe.
X6 支架装入预留孔，少量CA胶粘固，左右相同安装。The bracket is installed into the reserved hole, and a small amount of CA glue is used for fixing. The left and right sides are installed the same.

03-4 如图安装排气管，左右相同安装。Install the exhaust pipe as shown in the figure, with the same installation on the left and right.
X2 碳杆 Φ6 carbon rod



03-5 安装风挡、像真瞄准器 Installation of windshield and dummy collimator
自攻螺丝 Self-tapping screw M2x10mm

03-6 安装像真机枪 Install the dummy machine gun
自攻螺丝 Self-tapping screw M2x10mm

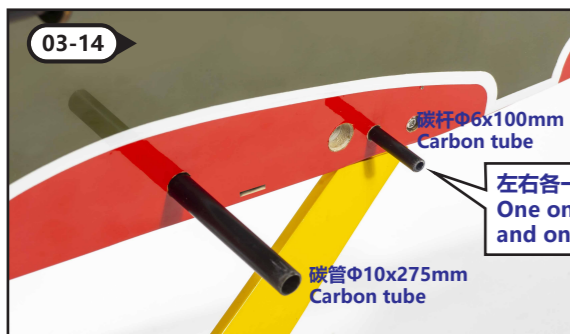
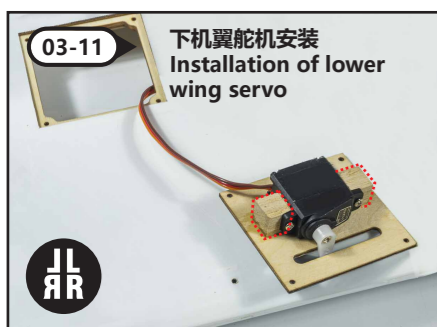
03-7 碳管 Φ6x100mm Carbon tube
碳管 Φ6x100mm Carbon tube

03-8 碳管 Φ10x525mm Carbon tube
Epoxy glue

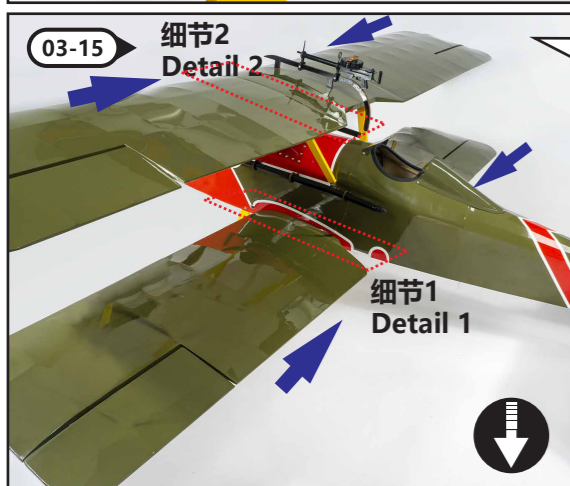
03-9

03-10

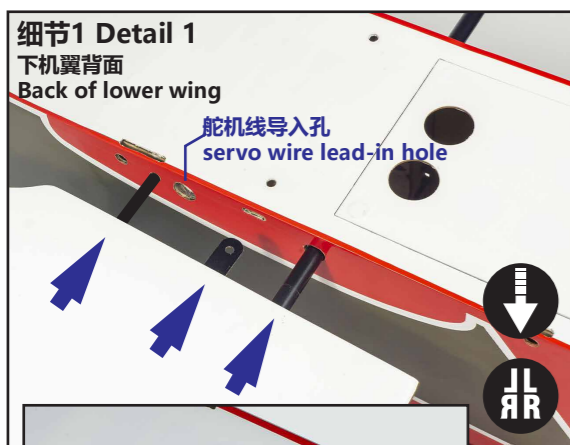
注意：上下机翼舵面均按03-9、03-10步骤安装，左右相同安装。
Note: The upper and lower wing control surfaces shall be installed according to steps 03-9 and 03-10, and the left and right wing control surfaces shall be installed the same.



左右各一个
One on the left and one on the right



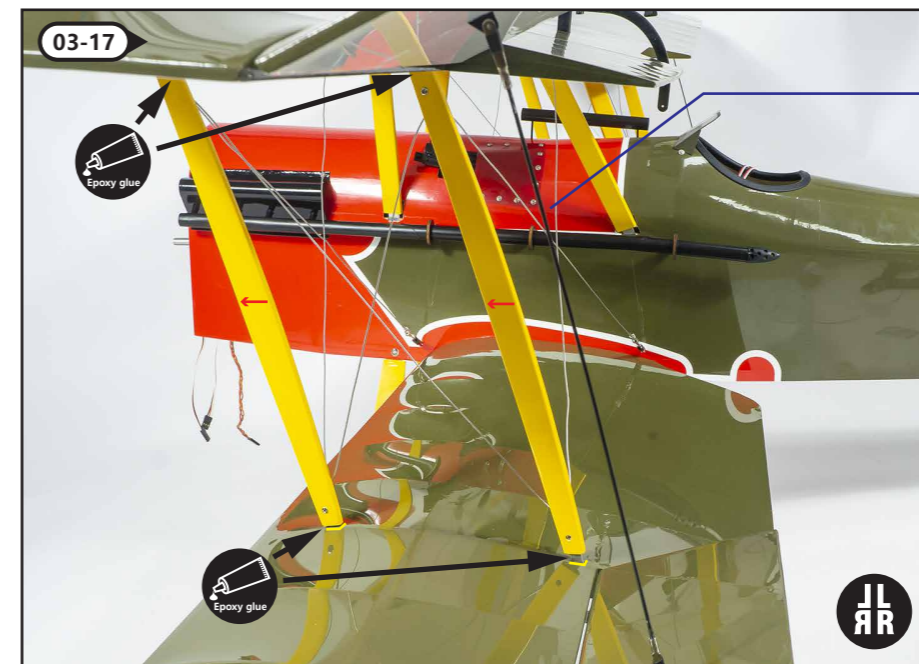
机翼安装到机身，并注意几处安装细节。
Install the wing onto the fuselage, and pay attention to several installation details.



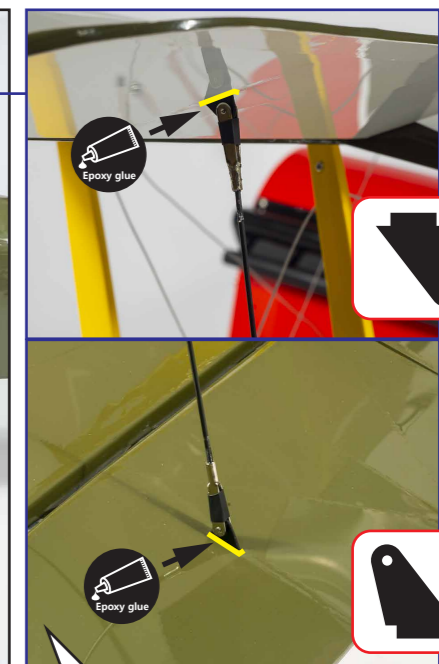
X2
手拧螺丝 M4x10mm
Hand screw

旋转夹头调整联动连杆的长度，结合03-17的距离调整到合适长度，然后安装。
Rotate the collet to adjust the length of the linkage rod, and adjust it to a proper length in combination with the distance of 03-17, and then install it.

X2
手拧螺丝 M4x10mm
Hand screw

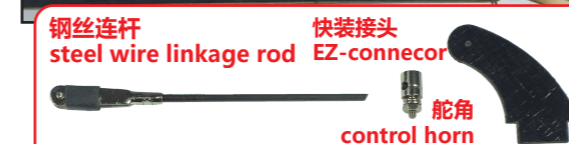
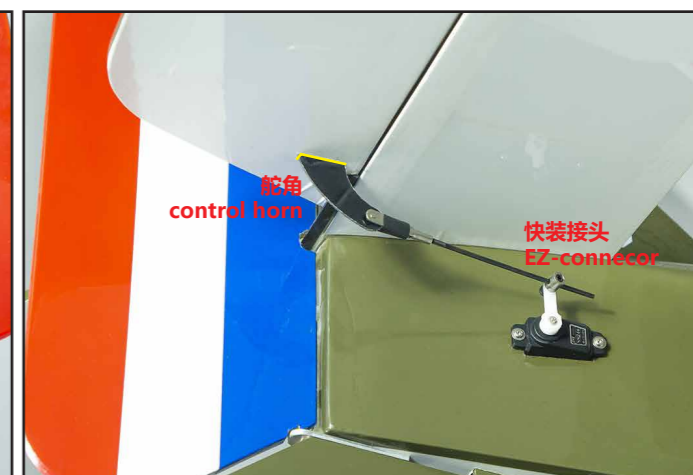
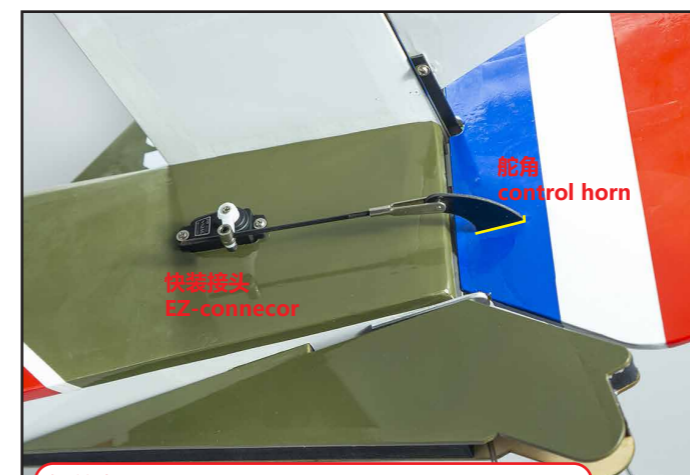


机翼支架安装到上下机翼之间，插入机翼上的预留孔，连接处用环氧树脂粘固。安装支架时注意调整方向。
The wing bracket is installed between the upper and lower wings, inserted into the reserved hole on the wing, and the joint is bonded with epoxy adhesive. Pay attention to the adjustment direction when installing the bracket.



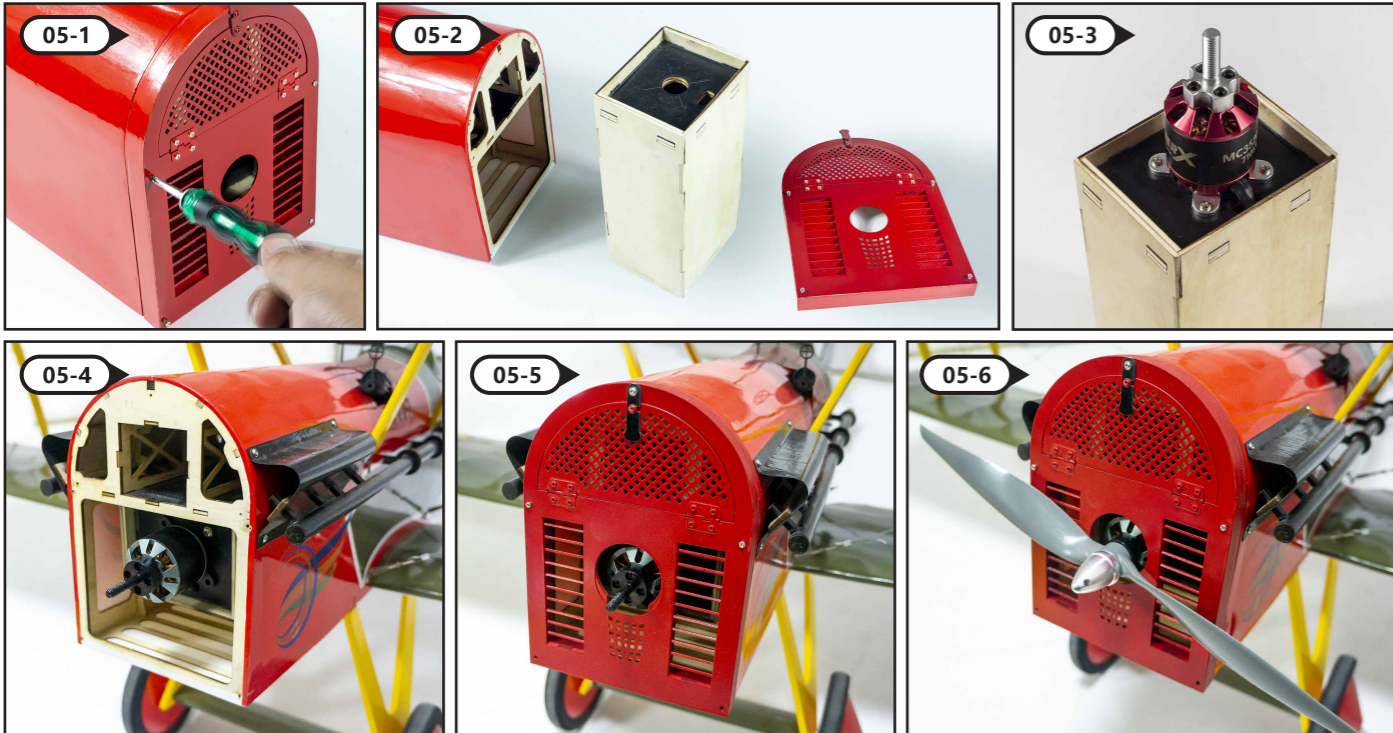
在舵面的预留孔上安装舵角，用03-16调整好的钢丝连杆连接上下机翼的舵面，并保持可以联动。
Install the control horn on the reserved hole of the control surface, connect the upper and lower wing control surfaces with the 03-16 adjusted steel wire connecting rod, and keep them linked.

04 水平尾翼，垂直尾翼控制舵机安装 Installation of control servos for horizontal tail and vertical tail



在图示舵机位置安装舵机，舵臂上安装快装接头，升降舵和方向舵预留孔处安装舵角，把舵机与舵角用钢丝连杆连接。
Install the servo at the servo position shown in the figure, install the EZ-connector on the rudder arm, install the control horn at the reserved hole of elevator and rudder, and connect the servo and control horn with steel wire connecting rod.

05 安装马达及机头罩 Install the motor and cowling

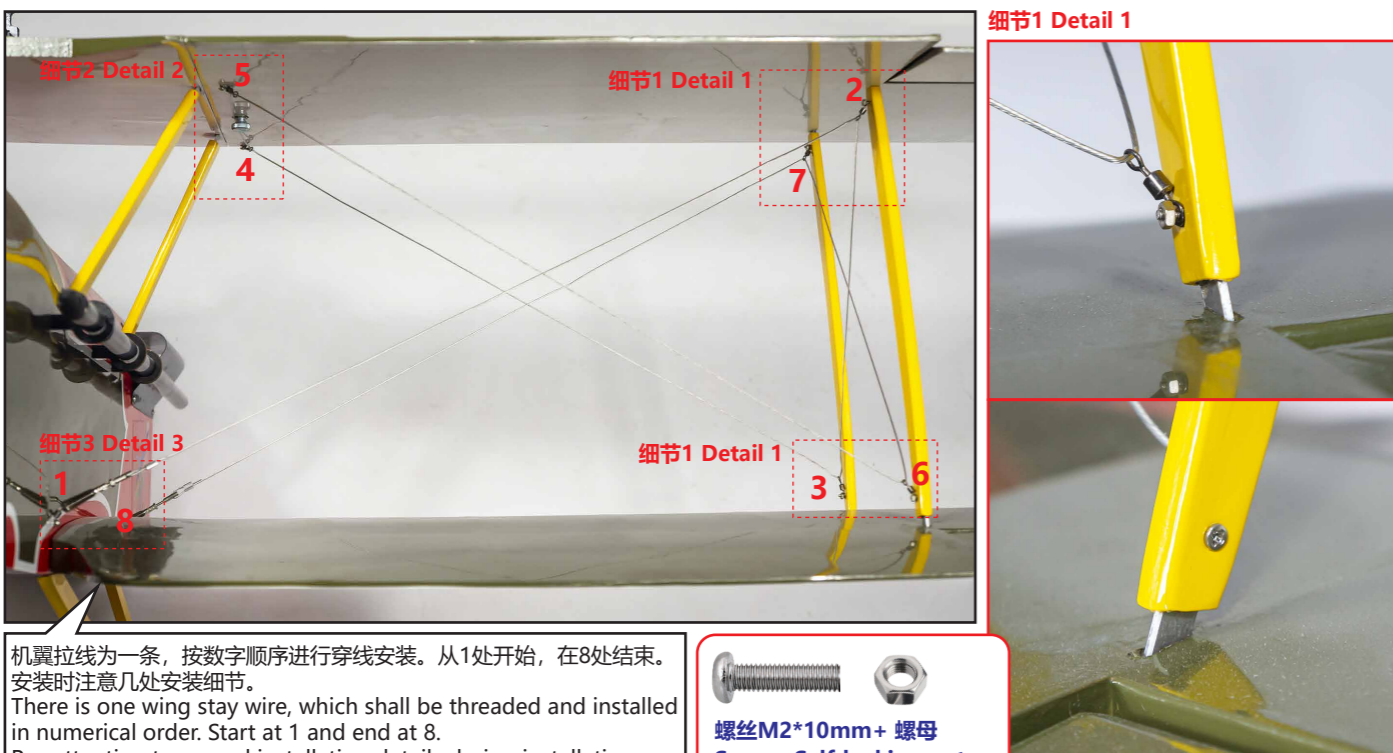


结合05-4,05-6两个步骤, 根据马达尺寸调整马达座位置, 调整好后再用环氧树脂粘固马达座。
In combination with steps 05-4 and 05-6, adjust the position of the motor base according to the size of the motor, and then use epoxy adhesive to fix the motor base.

安装桨叶, 用桨夹固定。
Install the propller and fix with adapter.

注意: 马达座已设计右拉和下拉角度。
Note: The motor base has been designed with right pull and pull down angles.

06 机翼拉线安装 Install the stay wire

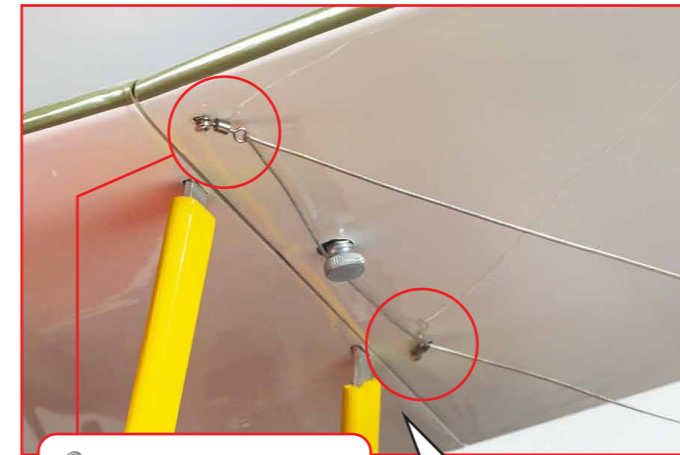


机翼拉线为一条, 按数字顺序进行穿线安装。从1处开始, 在8处结束。
安装时注意几处安装细节。
There is one wing stay wire, which shall be threaded and installed in numerical order. Start at 1 and end at 8.
Pay attention to several installation details during installation.

拉线 Stay wire
1→2→3→4→5→6→7→8

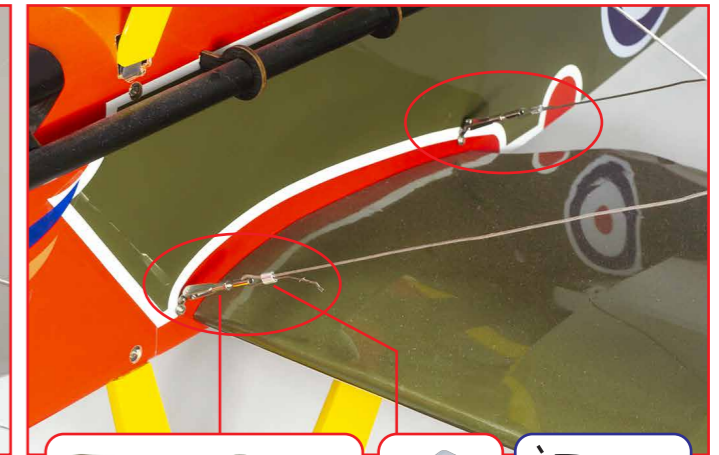


细节2 Detail 2

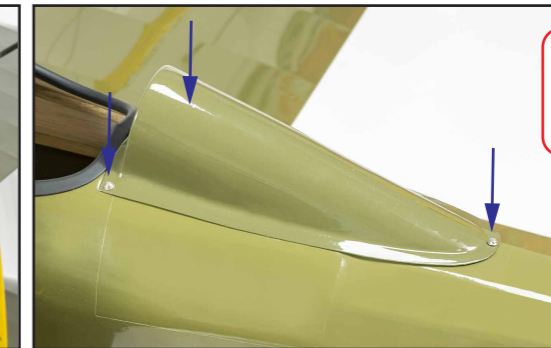


在细节2, 3预留的螺丝孔中点入少量CA胶, 再如图安装自攻螺丝及相关扣具。
Insert a small amount of CA glue into the reserved screw holes in Details 2 and 3, and then install the self-tapping screws and relevant fasteners as shown in the figure.

细节3 Detail 3

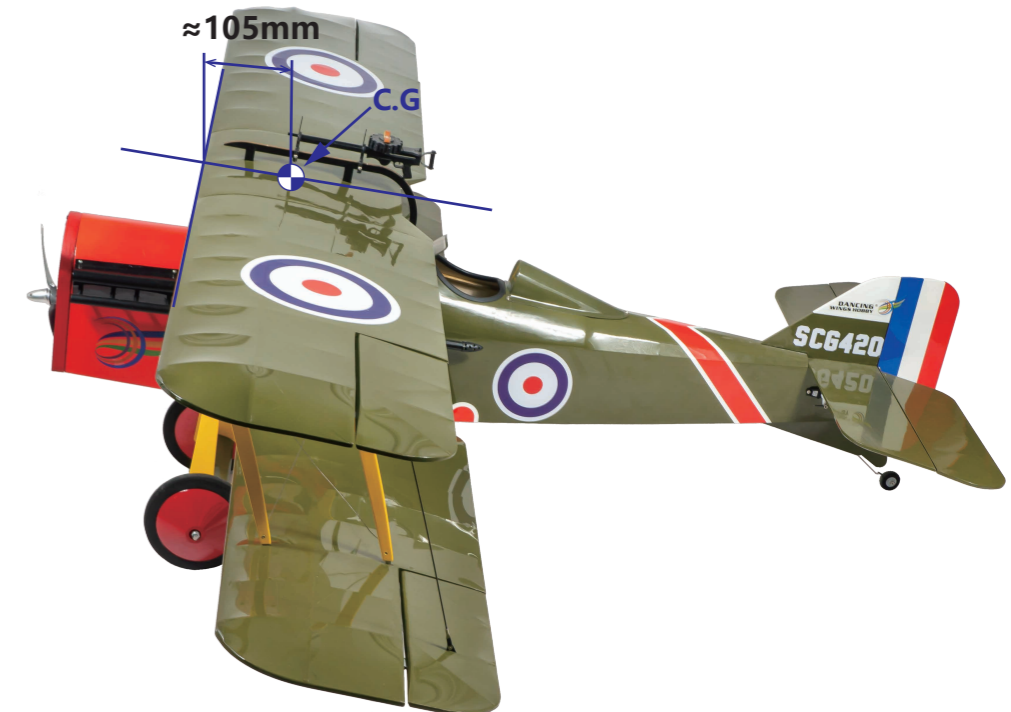


安装部分像真件 Installation of dummy parts

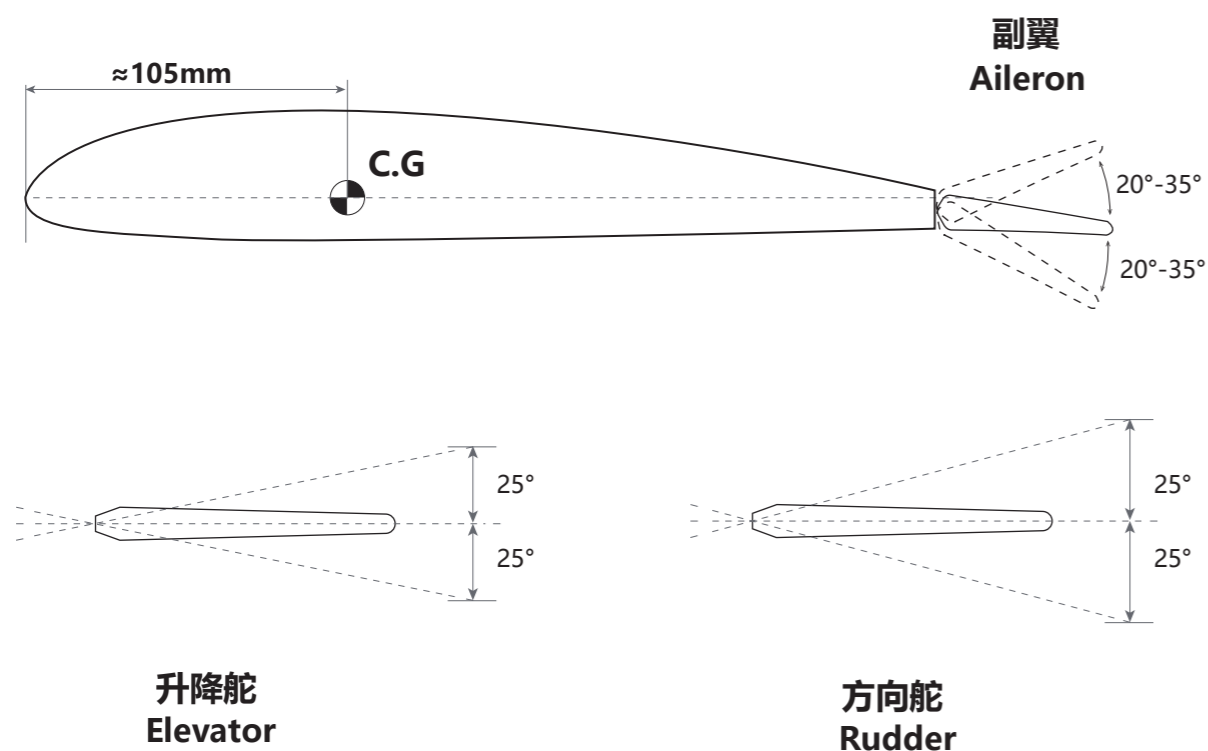


07 设置和调试 Set and Adjust

重心位置展示
Display the C.G



通常情况下，舵面角度的设置如下：
Usually, the control throws set as below:



常规飞行(Normal Flying)	3D飞行 部分飞机支持(3D Flying only support some models)
副翼 Aileron ± (15°-30°)	±40° 或者更大(or larger)
平尾 Elevator ±15°	±40° 或者更大(or larger)
垂尾 Rudder ±15°	±40° 或者更大(or larger)
常用襟翼 Flap (起飞 take-off) 15°-20° (降落 Landing) 20°-40°	

部分特殊机型会有V型尾翼，襟翼，前缘机翼或舵面很小等，可以以常规飞行的角度作为参考，在您不确认且没有有经验人员指导的情况下，我们建议您先以小角度试飞以确认您的设置是否正确。
Some special models will have V-tails, flaps, leading edge wings, etc., which can be used as a reference for conventional flight angles. If you do not confirm and there is no experienced person to guide you, we recommend that you first test at a small angle to confirm that your settings are correct.

地面控制方向测试 Control Directions Tests

	遥控器动作 Transmitter Command	飞机反应 Aircraft Reaction
升降舵 Elevator	升降杆下拉 Lifting rod down	
	升降杆上推 Lifting rod up	
副翼 Aileron	转向杆向右 Steering rod to the right	
	转向杆向左 Steering rod to the left	
方向舵 Rudder	方向杆向右 Direction rod to the right	
	方向杆向左 Direction rod to the left	



更多电子设备调试细节可参考以下链接查看（可直接扫二维码）
More details about power system adjustment, please refer to below link: (You can scan QR Code directly.)
<http://www.dwhobby.com/art/connection>