

1.52M Pitts

Balsawood Scale Airplane



Instruction Manual

XCG03

ARF



飞行参数 Specification

翼展:1.52M (60")
机长:1.36M (53.5")
起飞重量:~EP 3.8Kg / GP 4.2Kg
翼面积: 65.7dm²
翼载荷: EP: 58g/dm² GP: 64g/dm²
Wingspan:1.52M (60")
Fuselage Length:1.36M (53.5")
Fly weight:~EP 3.8Kg / GP 4.2Kg
Wing Area : 65.7dm²
Wing Load : EP: 58g/dm² GP: 64g/dm²

推荐配置 Suggested Equipment

电动机达: AT4125-540KV
桨叶: 16inch
电调: 80A (6S)
电池: 6S 3800-6000mAh
舵机: 17g*2pcs 25g*3pcs
通道: 4CH+
油动引擎: NGH GT25
桨叶: 17inch
舵机: 17g*2pcs 25g*3pcs
油门控制 37g*1pcs
通道: 4CH+
Motor: AT4125-540KV
Prop:16inch
ESC: 80A (6S)
Battery: 6S 3800-6000mAh
Servo: 17g*2pcs; 25g*3pcs
Radio: 4CH+
Oil Engine: NGH GT25
Prop: 17inch
Servo: 17g*2pcs; 25g*3pcs; 37g*1pc
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 may be slightly differ from the photos due to continuous improvement on products.



- | | | |
|-------------------------------|----------------------------|----------------------------|
| XCG03-A:机身 Fuselage | XCG03-B:上机翼 Upper Wing | XCG03-C:下机翼 Lower Wing |
| XCG03-D:起落架 Landing Gear | XCG03-E:机翼支架 Wing bracket | |
| XCG03-F:水平尾翼 Horizontal tail | XCG03-G:尾轮组 tail wheel set | XCG03-H:垂直尾翼 Vertical tail |
| XCG03-I:头罩 Cowling | XCG03-J:垂直尾翼 Vertical tail | |
| XCG03-K: 螺丝及配件 screws & parts | 连杆 Connecting rod | |
| 舵角 Rudder horn | 拉线 Stay wire | |
| 木块, 木杆 Wood block; Wood rod | 碳杆 Carbon rod | |
| 魔术贴 Velcro | | |

★ 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



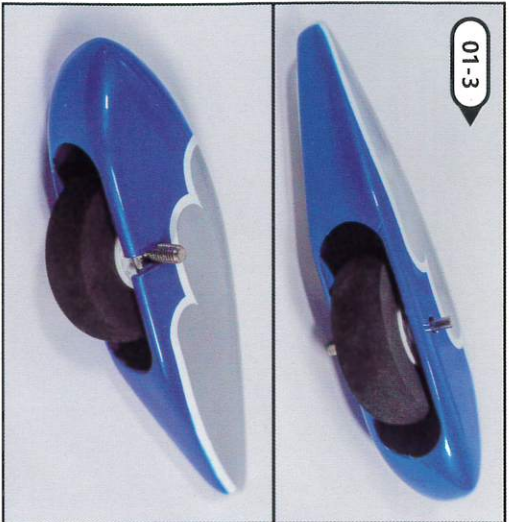
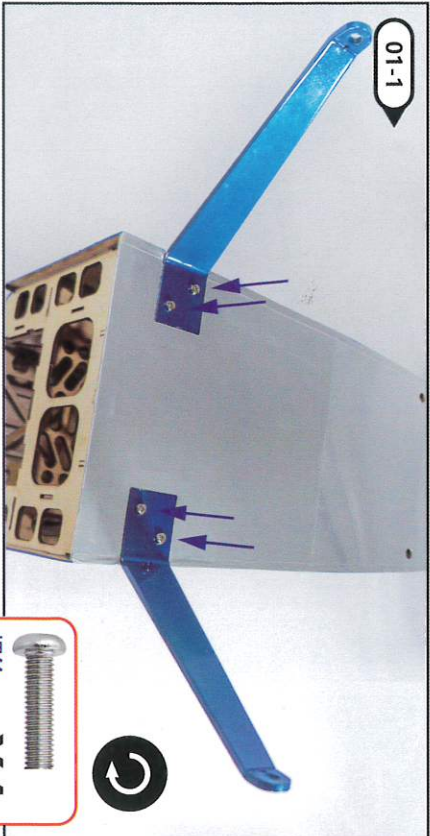
左右对称安装
Assemble right and left



使用环氧胶粘固
Use epoxy adhesive

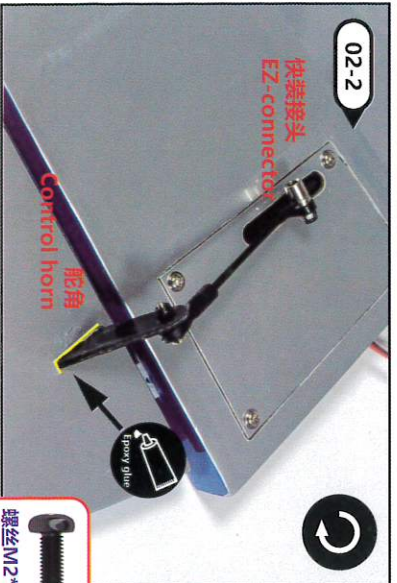
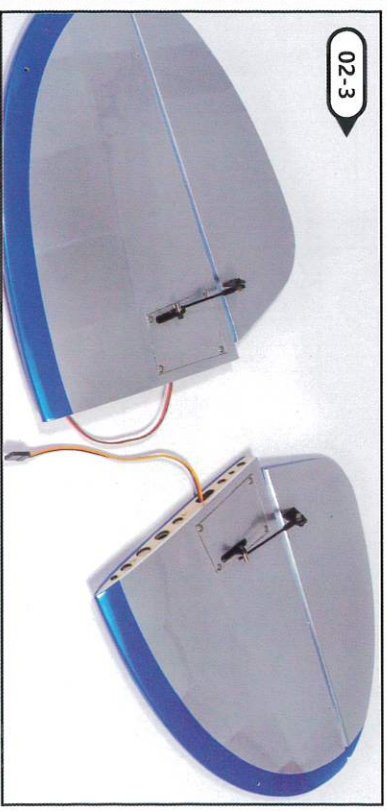
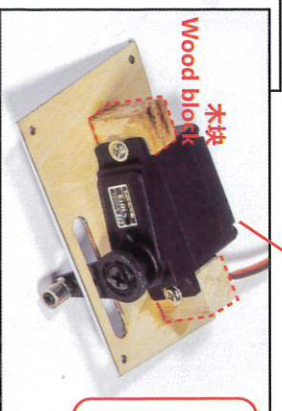
01

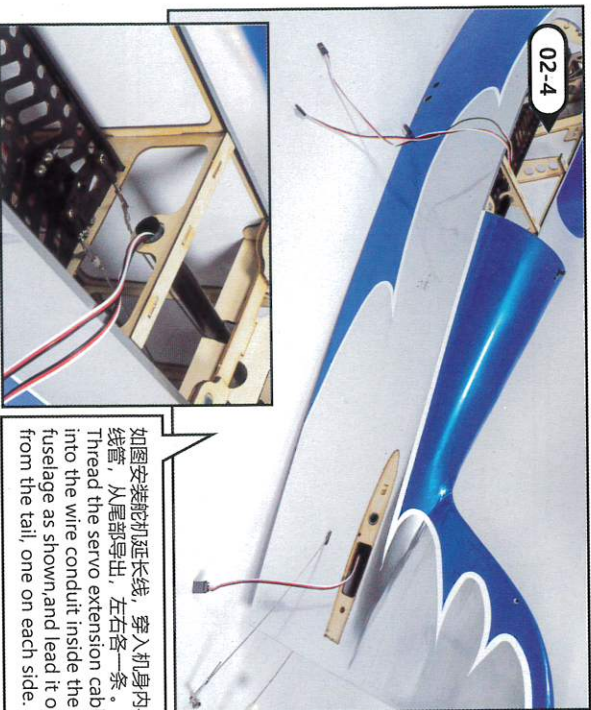
起落架安装
Assemble the Landing Gear



02

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





02-4

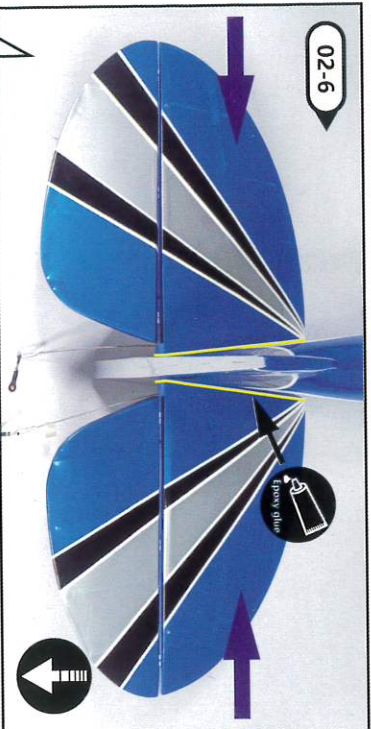
如图 安装舵机延长线，穿入机身内导线管，从尾部导出，左右各一条。
Thread the servo extension cable into the wire conduit inside the fuselage as shown, and lead it out from the tail, one on each side.



02-5

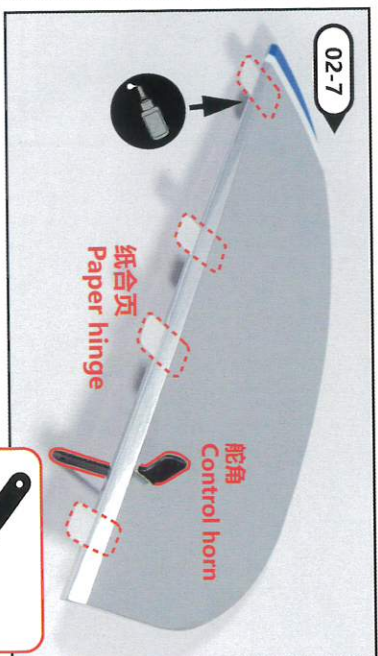
机身尾部插入碳管。
Insert the carbon tube into the tail.

碳管 $\Phi 6 \times 164\text{mm}$
Carbon tube



02-6

两片尾翼插入碳管，同时舵机底线连接舵机延长线。然后用环氧胶粘固尾翼到机身。
Insert the two tail wings into carbon tube, and connect the servo cable to the servo extension cable. Then use epoxy adhesive to bond the tail wing to the fuselage.

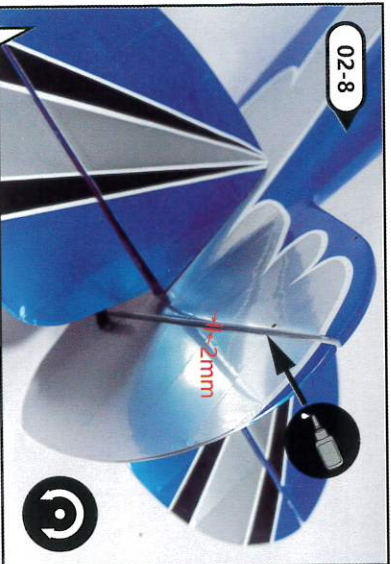


02-7

纸合页
Paper hinge

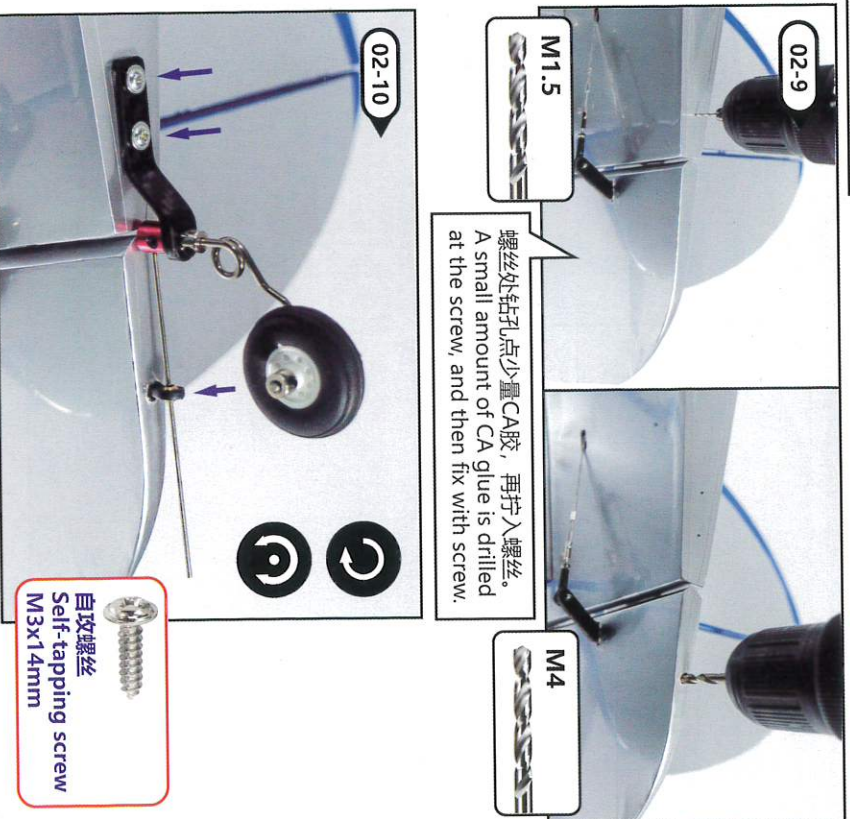
舵角
Control horn

X2



02-8

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.



02-9

M1.5

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.

M4

02-10

自攻螺丝
Self-tapping screw
M3x1.4mm

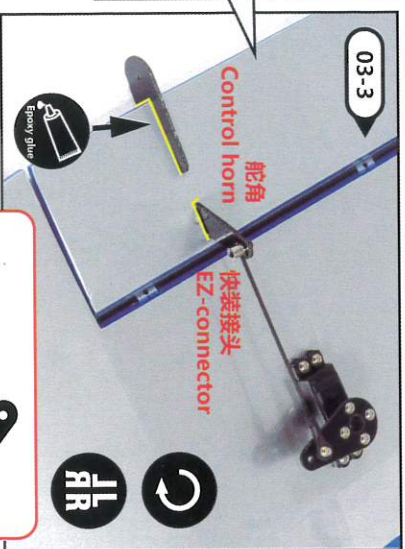
03 机翼安装 Assemble the Wing

下机翼底面
Bottom of the lower wing



如图安装舵机，舵机线从机翼侧面导出。
Install the servo as shown, and derive servo cable from side of the wing.

组装好的连杆安装到舵机，另一端与舵角上的快装接头连接并固定。
Install the assembled connecting rod to the servo, and attach the other end with the EZ-connector of the servo.



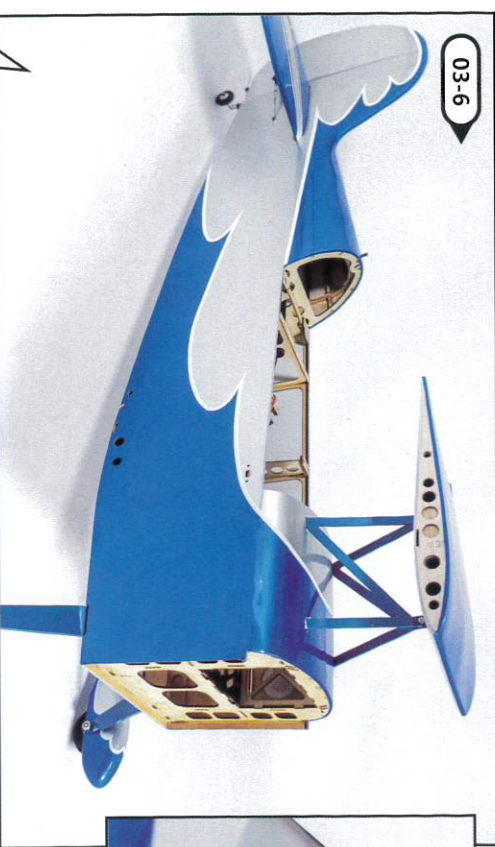
上机翼底面
Bottom of the upper wing



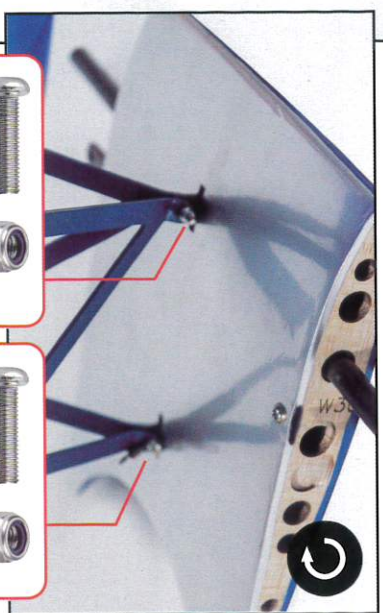
下机翼顶面
Top of the lower wing

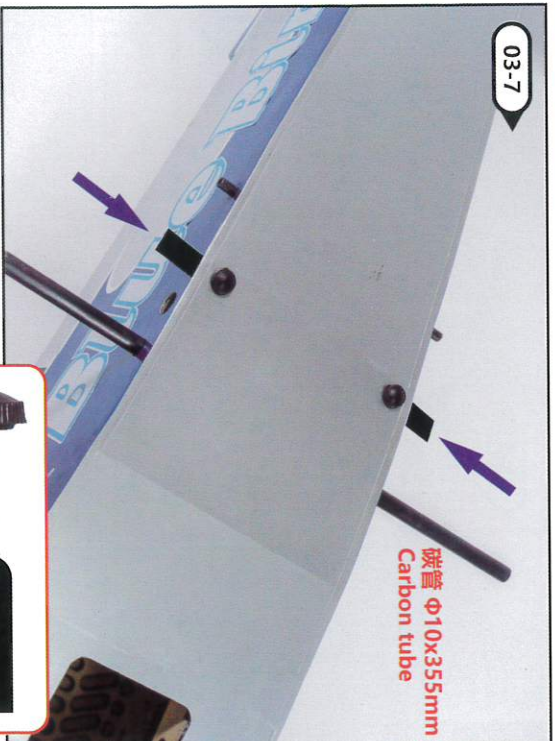


左右机翼相同安装，用环氧胶粘固。
Install in the left and right wings in the same way and fix them with epoxy adhesive.



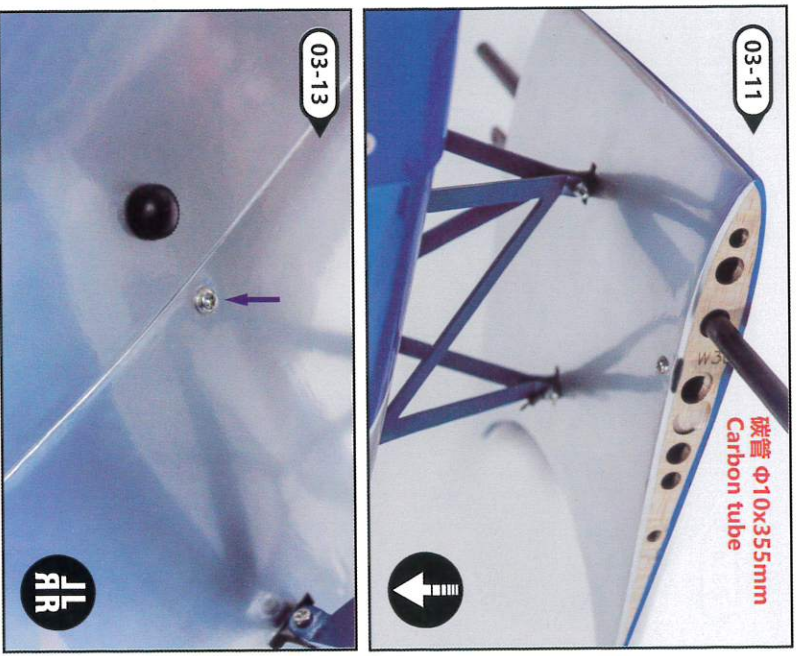
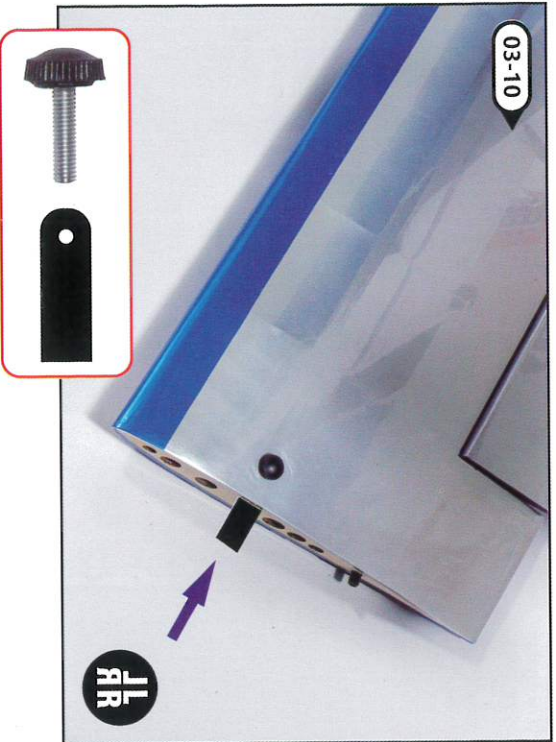
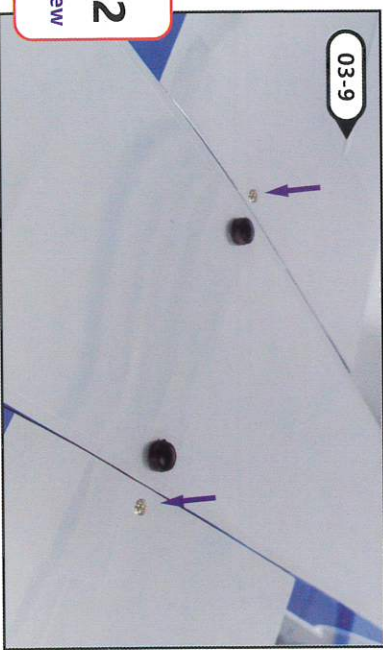
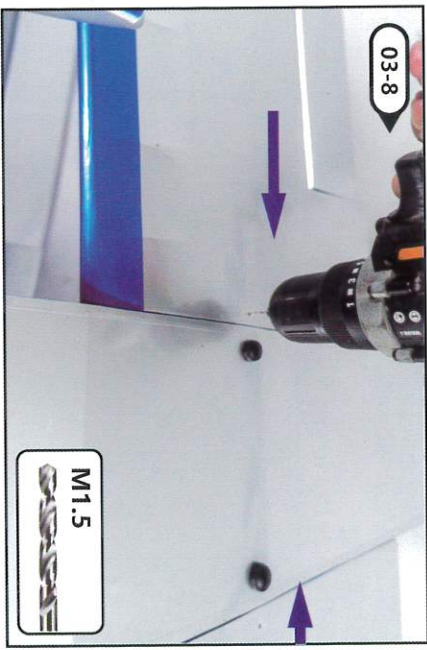
注意：此时支架暂不粘固到机身
Note: Don't stick bracket to the fuselage for now.



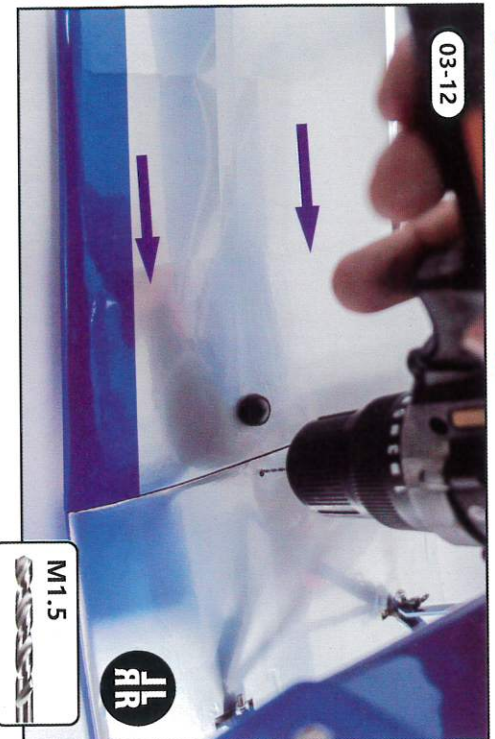


螺丝处钻孔点少量CA胶，再拧入螺丝。
A small amount of CA glue is drilled at the screw, and then fix with screw.

自攻螺丝
Self-tapping screw
M3x10mm
X2



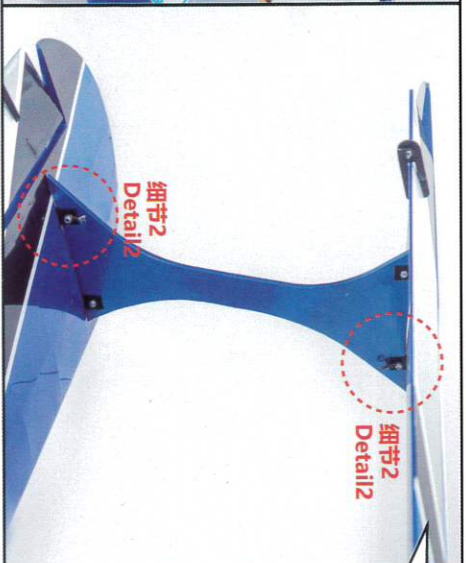
螺丝处钻孔点少量CA胶，再拧入螺丝。
A small amount of CA glue is drilled at the screw, and then fix with screw.



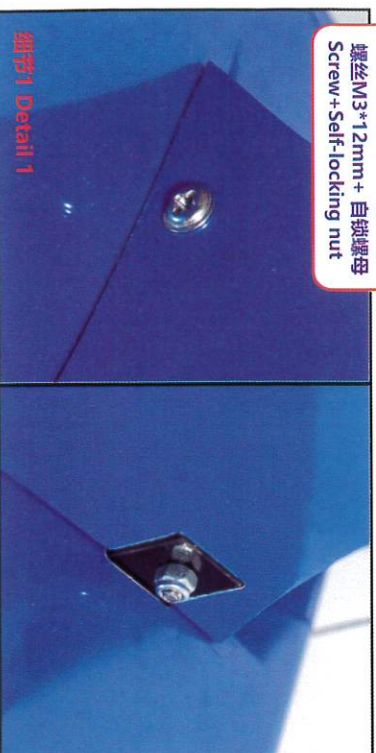


03-14

螺丝M3*12mm + 自锁螺母
Screw+Self-locking nut



安装机翼支架, 如图所示, 并注意几处细节。Install the wing bracket as shown, and pay attention to several details.



细节1 Detail 1

03-15



安装固定好左右机翼支架后, 最后粘固中间支架。用环氧胶粘固, 粘合同时保持上机翼平直。
After installing and fixing the left and right wing brackets, finally fix the middle bracket. Use epoxy adhesive to bond and keep the upper wing straight during bonding.



细节2 Detail2

X2



03-16

旋转调整长度
Rotate to adjust length

安装连杆, 连接上下机翼的副翼。旋转连接头调整连杆到合适长度。
Install connecting rods to connect the ailerons of the upper and lower wings. Rotate the connector to adjust the connecting rod to the appropriate length.

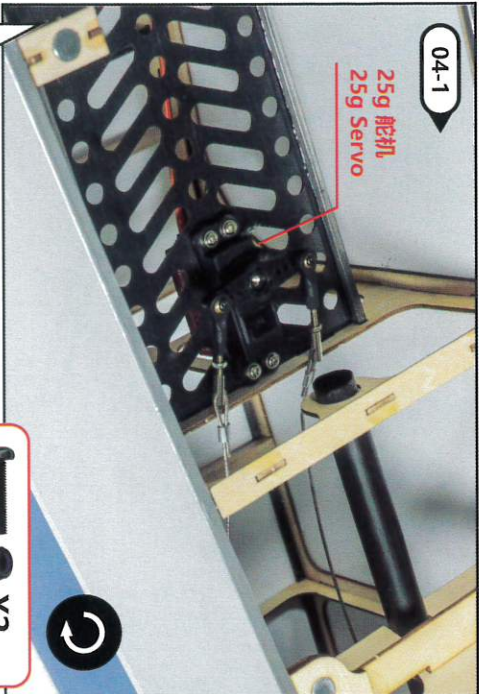


螺丝M2*10mm + 自锁螺母
Screw+Self-locking nut

X2

04

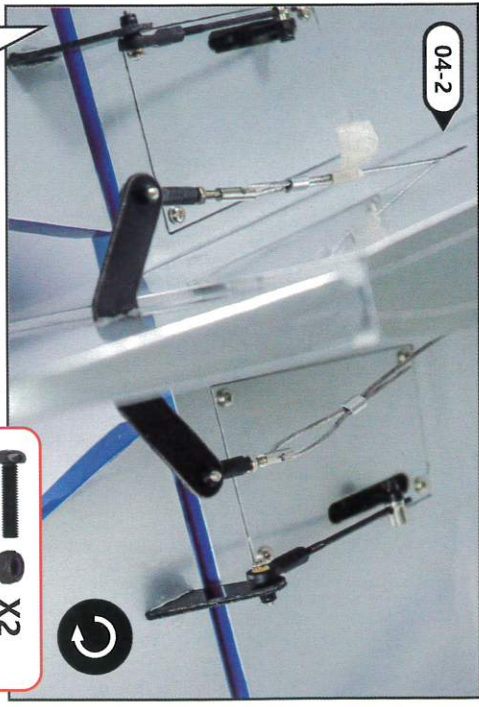
垂直尾翼控制舵机安装
Install the control servo of vertical tail



04-1

25g 舵机
25g Servo

X2
螺丝 M2*10mm + 自锁螺母
Screw + Self-locking nut



04-2

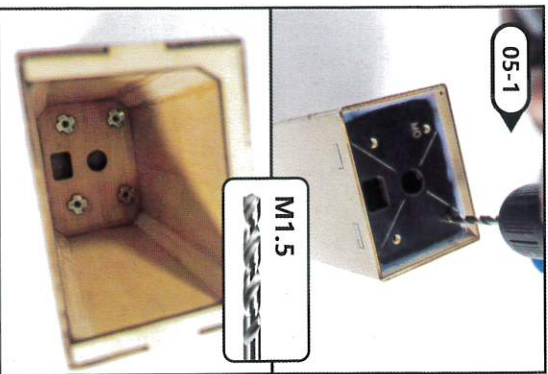
X2
螺丝 M2*10mm + 自锁螺母
Screw + Self-locking nut

机身尾部的钢丝拉线安装到方向舵的舵角上，调整两根拉线长度，使钢丝紧绷。
Install the steel wire cables at the rear of the fuselage to the rudder angle, adjust the length of the two cables to make the steel wire tight.

在上图舵机位安装舵机，舵机使用一字型摇臂，并把机身内预留的钢丝拉线安装到摇臂上。
Install the servo in the servo position shown in the diagram, using a horizontal rocker arm, and install the steel wire cables reserved in the body onto the rocker arm.

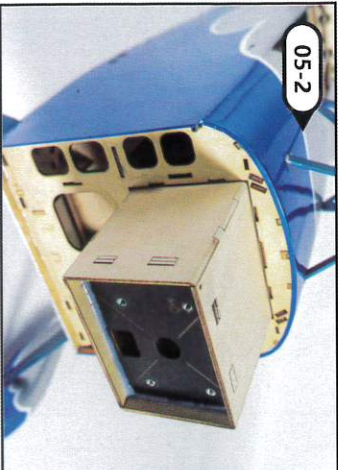
05

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



05-1

M1.5



05-2

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



05-3

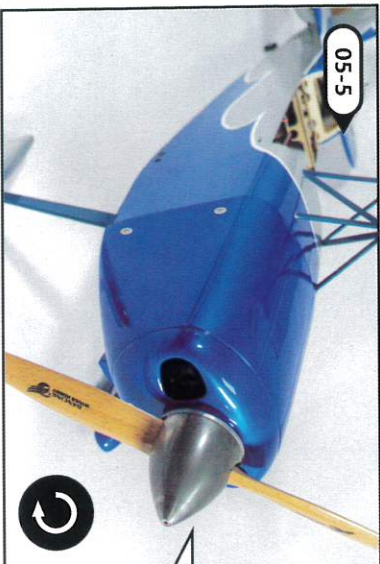
三角木
Triangle wood

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



05-4

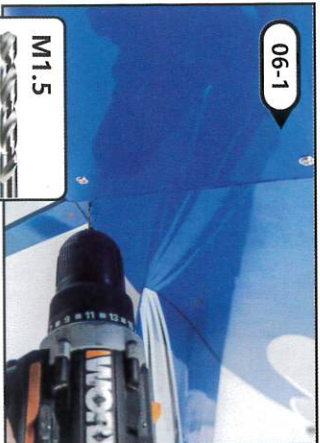
X4
自攻螺丝
Self-tapping screw
M3x10mm



05-5

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

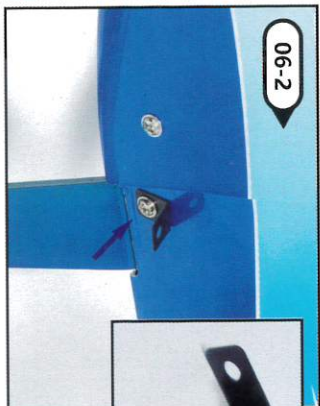
06 机翼拉线安装 Install the stay wire



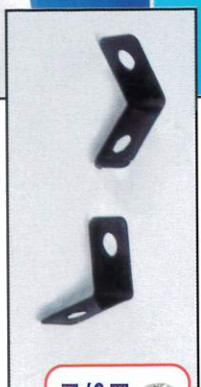
06-1

M1.5

06-1



06-2

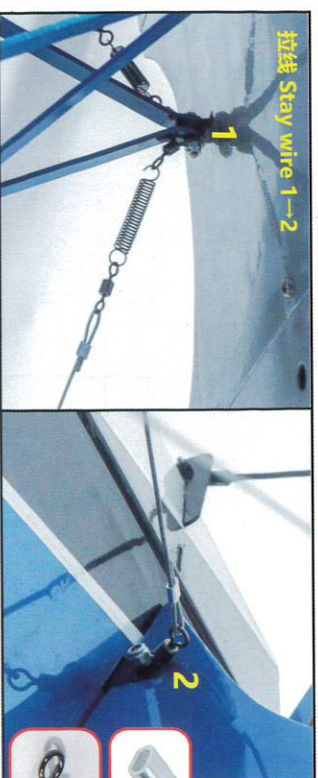


自攻螺丝
Self-tapping screw
M3x10mm



06-3

机翼拉线为两条钢丝拉线，如上圖安裝，并注意几处细节。
The wing stay wires consists of two steel wire cables, installed as shown in the above picture, and pay attention to several details.



拉线 Stay wire 1-2

06-4

穿过
Go through

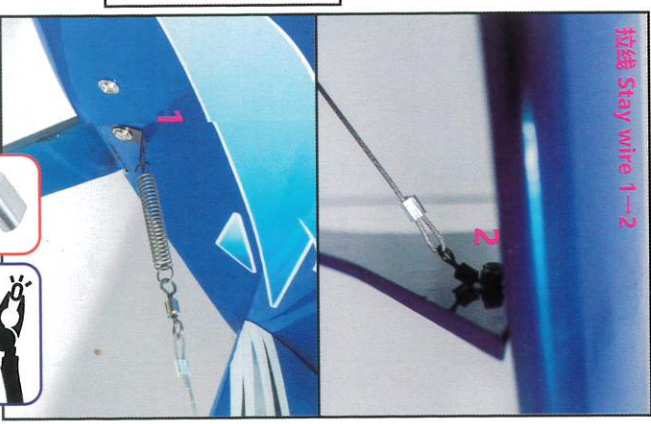
打结
Tie a knot.

打结
Tie a knot.

穿过
Go through



X2
螺丝M2x17mm + 自锁螺母
Screw + Self-locking nut
X4



拉线 Stay wire 1-2



06-5



自攻螺丝
Self-tapping screw
M2x10mm
X2

尾翼拉线为两条尼龙拉线，如上圖安裝。
The tail stay wire consists of two nylon wires, installed as shown in the above picture.

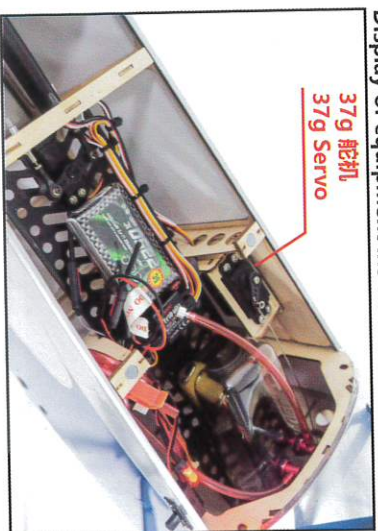
07

设置和调试 Set and Adjust

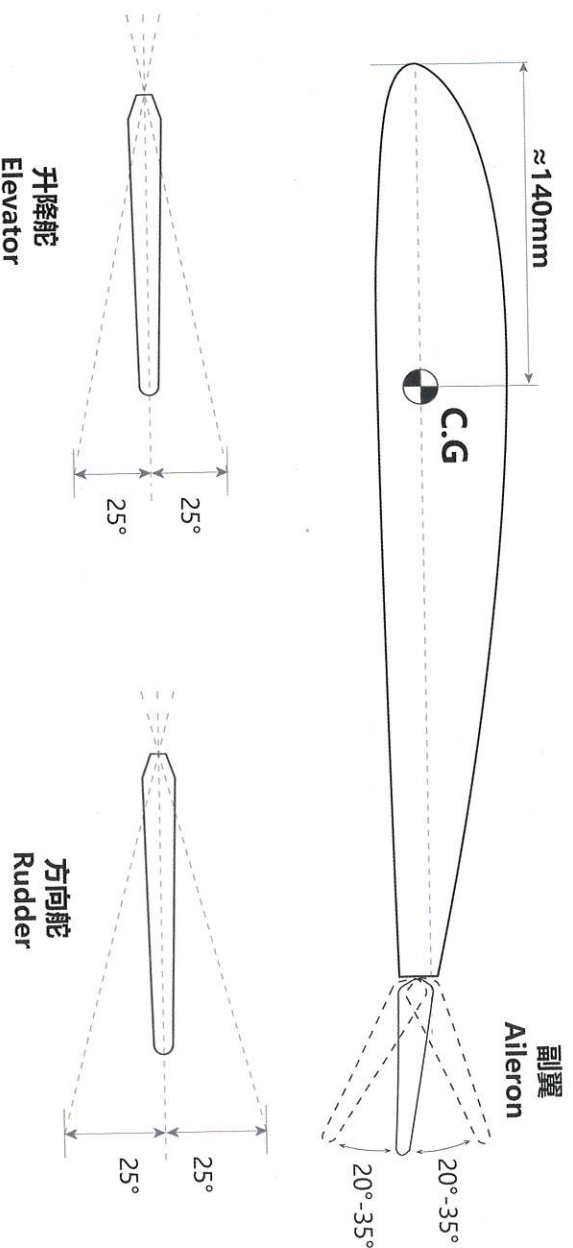
重心位置展示 Display the C.G



机身内设备展示
Display of equipment inside the aircraft



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)	± (15°-30°)
副翼 Aileron	±15°
平尾 Elevator	±15°
垂尾 Rudder	±15°
常用襟翼 Flap	(起飞 take-off) 15°-20° (降落 Landing) 20°-40°

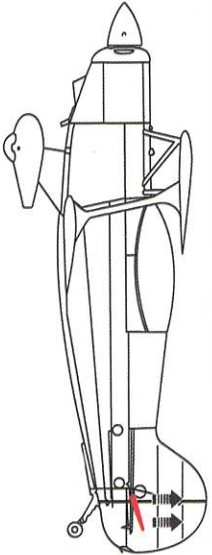
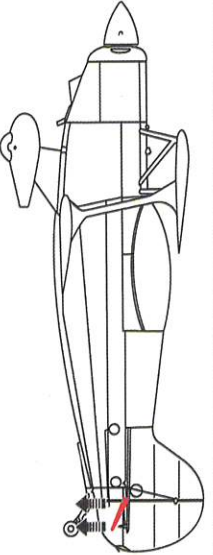
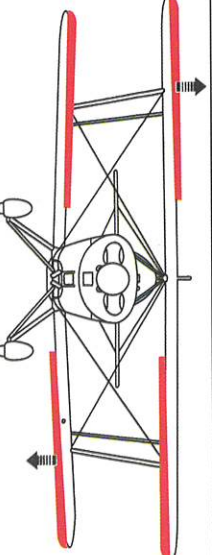
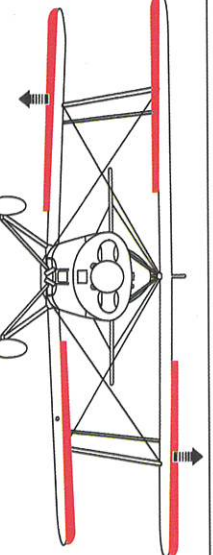
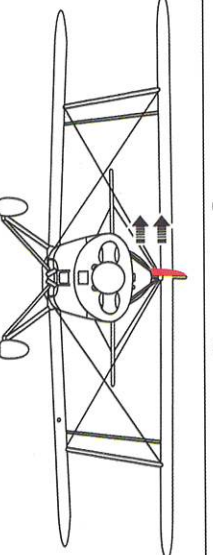
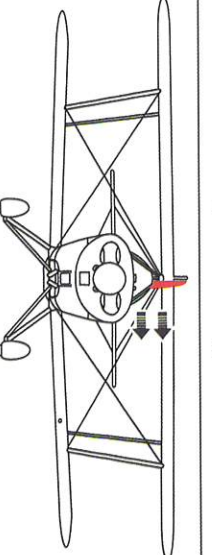
3D飞行部分飞机支持(3D Flying only support some models)

±40° 或者更大(or larger)
±40° 或者更大(or larger)
±40° 或者更大(or larger)
±40° 或者更大(or larger)
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，在您不确定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
升降杆下拉 Lifting rod down	
升降杆上推 Lifting rod up	
转向杆向右 Steering rod to the right	
转向杆向左 Steering rod to the left	
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 (可直接扫描二维码)
More details about power system adjustment, please refer
to below link: (You can scan QR Code directly.)
<http://www.dwhobby.com/art/connection>

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应您的机型。
- 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定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璃纤维雕刻的部件，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原因，您可以在当地文具店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.



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