

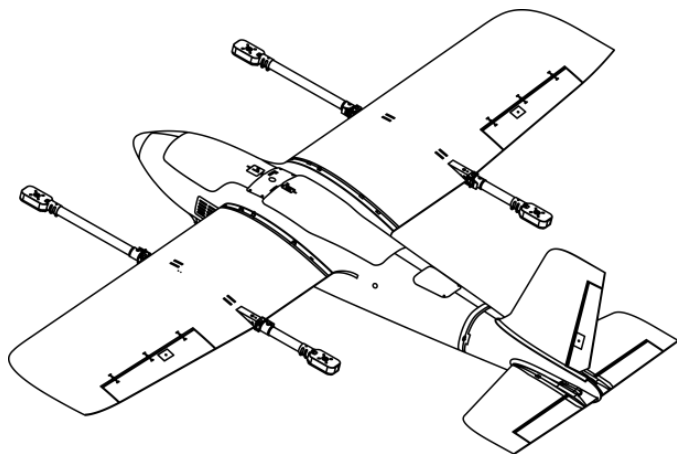
# 奋斗者 **mini** (垂起版)

# STRIVER **mini**

用户手册 V5.0

User Manual V5.0

2026.03



**mfe**  
makeflyeasy

# 产品概述

## 简介 Introduction

奋斗者 mini 是一款轻量化 EPO 材质垂直起降固定翼飞机壳体，具有携带易用，操作友好，稳定可靠等特点。奋斗者 mini 定位为一款整体轻量化、模块化、装配简易化的固定翼，进一步降低使用门槛。该产品可折叠机臂，可快拆机翼、可快拆尾翼，使飞机具有实用的便携性和友好的用户体验。

The Striver Mini is a lightweight VTOL fixed-wing aircraft airframe constructed of EPO material. It boasts easy portability, user-friendly operation, outstanding stability and reliability. Positioned as an all-round lightweight, modular and easy-to-assemble fixed-wing platform, the Striver Mini further lowers the entry barrier for users. This model features foldable arm frames, quick-detachable wings and quick-detachable empennage, bringing excellent practical portability and a superior user experience.

## 免责声明 Disclaimer

Makeflyeasy 系列产品为通用航模/无人机零配件，任何理由引起的直接，间接衍生性意外伤害造成的后果，厂家不承担任何责任。

禁止用于军事相关用途，禁止用于涉密及违禁飞行场景，严禁擅自闯入机场、军事管理区、禁飞区飞行，使用者承担全部飞行责任。

请把飞行器放置儿童触及范围之外，确保飞行器飞行时远离人群及危险物品，切勿在饮酒，疲劳或精神不佳情况下进行任何飞行器操作。

All products of the Makeflyeasy series are general model aircraft and UAV spare parts. The manufacturer shall not be held liable for any consequences arising from direct, indirect or consequential personal injury caused by any reason.

This product is prohibited for military-related purposes, confidential operations and prohibited flight scenarios. Unauthorized flight into airports, military restricted areas and no-fly zones is strictly prohibited. The end user shall bear full responsibility for all flight activities.

Keep the aircraft out of the reach of children. Always operate it away from crowds and hazardous objects. Do not operate the aircraft under the influence of alcohol, when fatigued, or in poor mental condition.

### 产品规格 Products specifications

材质 Material	EPO、EVA、碳纤维、PC、工程塑料等 EPO,EVA,carbon fiber,PC,engineering plastics etc.
翼展 Wingspan	2100mm
机身高 Fuselage height	156mm
机身长 Fuselage length	1200mm
翼面积 Wing area	59dm <sup>2</sup>
产品净重 Net Weight	3.8 Kg/VTOL
装箱重量 Gross Weight	8.6 Kg/VTOL
包装箱尺寸 Transport case size	1.208m×0.35m×0.48m

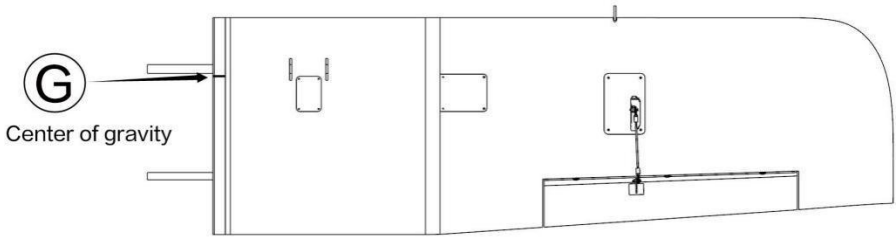
# 产品使用注意事项 Usage Attentions

## 安装注意 Installation Attentions

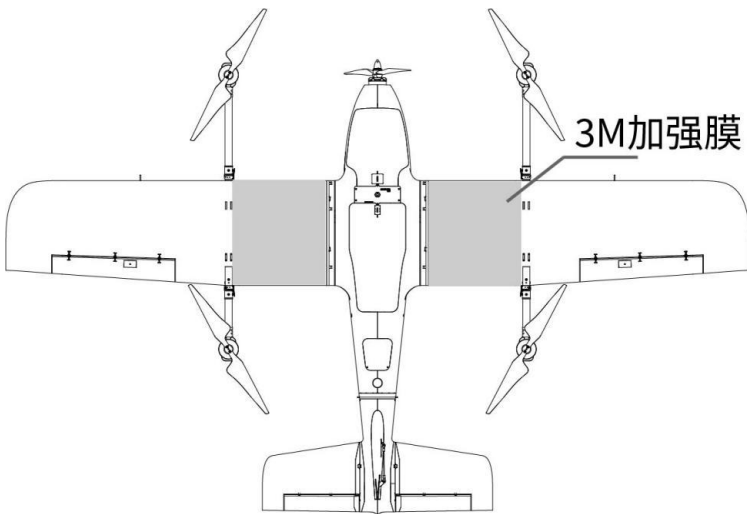
1. 在焊接大电流连接器时，注意线序——对应，以免烧毁电调、舵机。  
1. When soldering high-current connectors, match the wiring sequence strictly to avoid damaging ESC and servos.
2. 副翼和尾翼推荐使用 **MFE3054** 数字舵机，或者其他相同尺寸的舵机，便于舵机安装和尾翼快拆装置的安装。  
2. We recommend the MFE3054 metal digital servo, or other same size servo for the easy installing of servo and tail wings quick release devices.
3. 在安装多旋翼电机座时注意调至水平。  
3. Take care to level the multi-rotor motor mount when installing it.

## 飞行注意 Flying Attentions

1. 请避免在 10m/s 以下的速度飞行转弯，以免飞机失速。  
1. Avoid making turns at airspeed below 10 m/s to prevent aircraft stall.
2. 飞行前请务必检查电机、螺旋桨安装正确稳固，电调信号线和电源线插头连接紧固可靠。  
2. Ensure the motor and propeller were installed correctly and toughly before flying, inspecting the ESC signal wires and power wires plug, ensure they were connected firmly.
3. 飞行时请远离不安全因数，如障碍物、人群、儿童、建筑物、高压线。  
3. When flying, keep away from unknown risks such as barrier, crowd, children, buildings, high-voltage wires and etc.
4. 务必在安全起飞重量下飞行，切勿在机场净空区范围飞行。  
4. Always operate within the safe takeoff weight. Flight within airport no-fly zone is strictly prohibited.
5. 请按标识重心位置配重（位于机翼翼根塑料件下凸起处）。  
5. Conduct the counterweight at the marked center of gravity position. (Located at the protrusion underneath the wing root plastic fitting.)

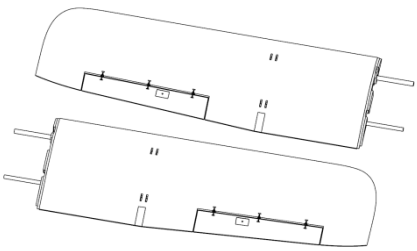
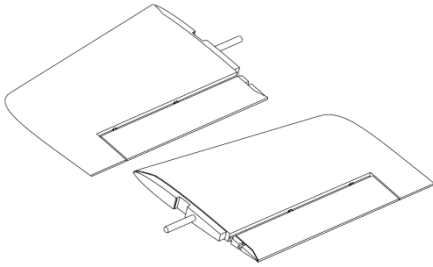
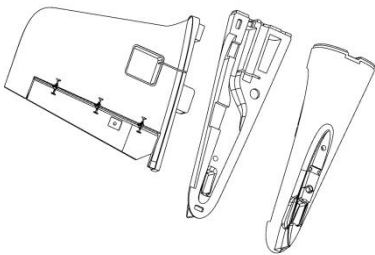
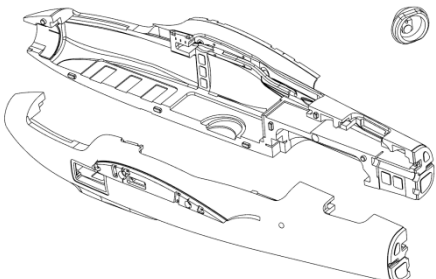
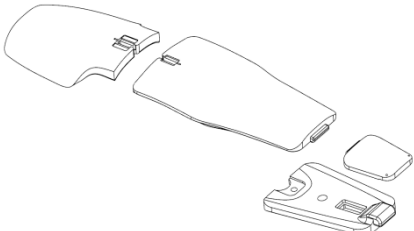
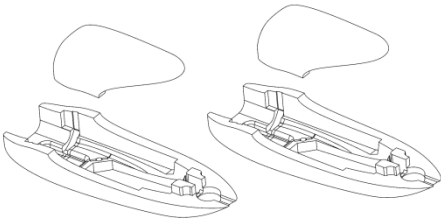


**警告 (Warning) :** 垂直起降版本请使用配套的背胶加强贴膜对机翼进行加强。 For VTOL versions, please reinforce the wings with the supplied adhesive reinforcement film.


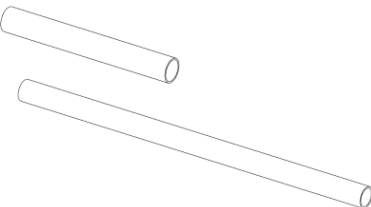



# 盒内物品清单 Contents in the box

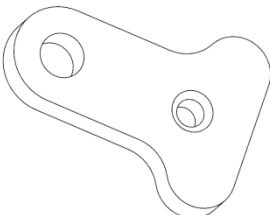
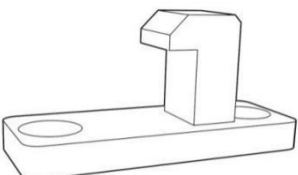
## EPO 部件 EPO Parts

<p>1 左右机翼 1 left &amp; right wing</p> 	<p>2 水平尾翼 2 Horizontal Empennage</p> 
<p>3 垂直尾翼 3 Vertical Empennage</p> 	<p>4 左右机身 4 left &amp; right fuselage</p> 
<p>5 机舱盖 5 Cabin cover</p> 	<p>6 双发电机座 6 Motor mount on wing</p> 

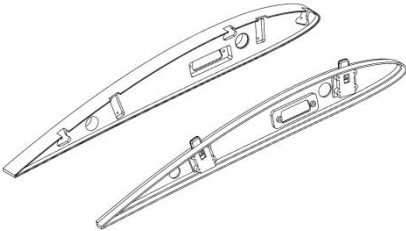
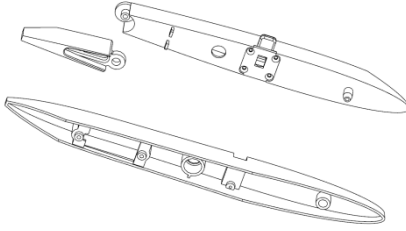
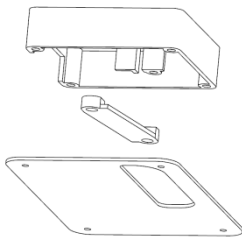
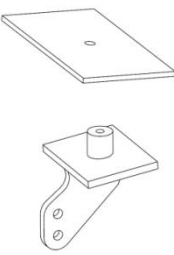
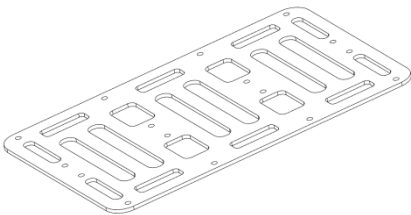
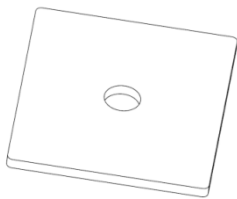
## 碳管部件 Carbon tube parts

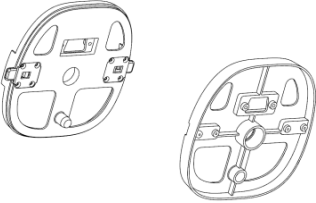
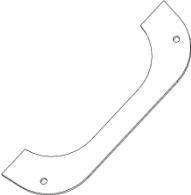
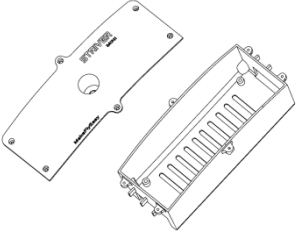
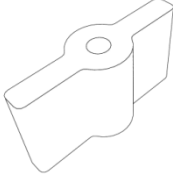
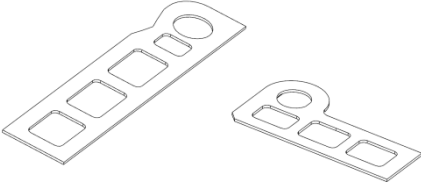
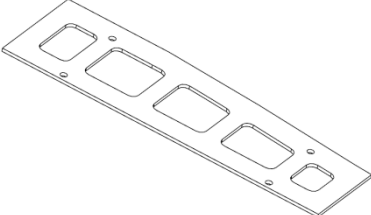
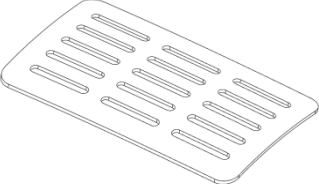
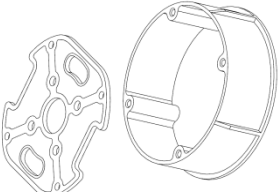
<p>1 机身支撑碳管 1 Fuselage supporting carbon tube 14*12*260mm 12*10*260mm</p> 	<p>2 机身尾翼连接碳管 2 Fuselage&amp;tail-fincarbon tube 16*14*100mm 14*12*200mm</p> 
<p>3 平尾对插碳管 3 Horizontal Empennage carbon tube 8*6*97.4mm</p> 	

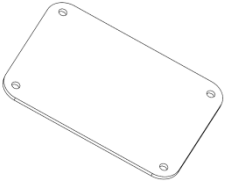
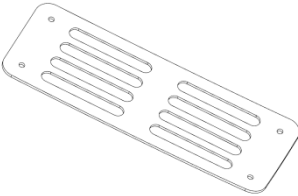
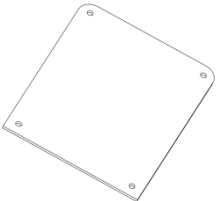
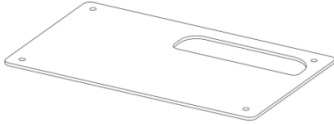
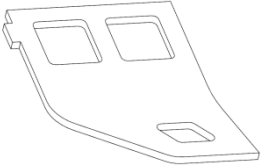
## 金属部件 Metal parts

<p>1 金属挂钩*4 1 Metal Hooks *4</p> 	<p>2 金属锁钩*8 2 Metal latching hook*8</p> 
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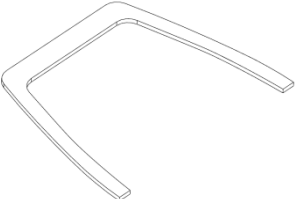
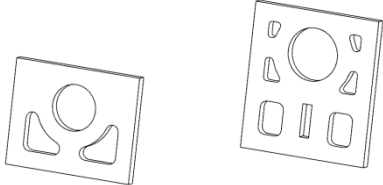
## 塑料部件 Plastic parts

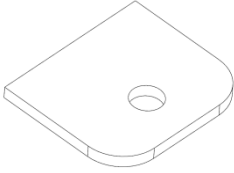
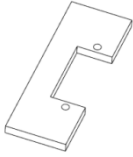
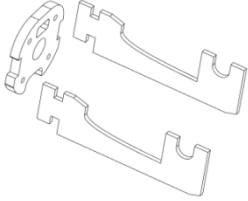
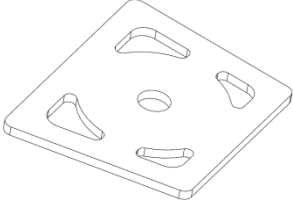
<p><b>1 机翼连接件*2</b> 1 Wings connecting parts*2</p> 	<p><b>2 尾翼连接件*2</b> 2 Tailsconnecting parts*2</p> 
<p><b>3 舵机固定件*3</b> 3 Servo fixing parts*3</p>  <p>舵机安装座 servo installing base</p> <p>舵机压片 servo presser</p> <p>舵机盖板 servo covering plate</p>	<p><b>4 舵角*3</b> 4 Control Horn *3</p> 
<p><b>5 电池固定板</b> 5 Battery fixing board</p> 	<p><b>6 天线固定板*2</b> 6 Antenna fixing board*2</p> 

<p>7 机身连接件 7 Fuselage connecting parts</p> 	<p>8 舱盖 (GPS 舱) 固定板 8 Cabin cover fixing board (GPS cabin)</p> 
<p>9 分电舱 9 Distribution room</p> 	<p>10 螺丝柱*14 10 Stud*14</p> 
<p>11 机身碳管加强件*2 11 Fuselage carbon tube reinforcement*2</p> 	<p>12 机身线材固定板*2 12 Fuselage wire plate *2</p> 
<p>13 机头电调盖板 13 Head ESC hatch cover</p> 	<p>14 巡航电机安装座 14 Head motor mounting mount</p> 

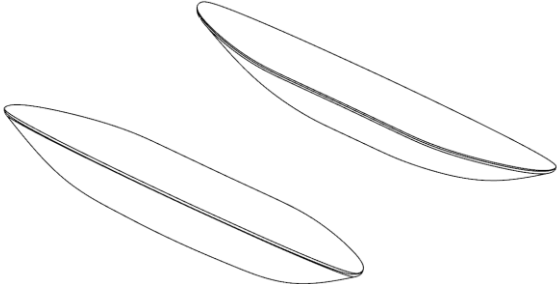
<p>15 机翼小盖板*2 15 Wing hatch cover*2</p> 	<p>16 双发电调舱盖板*2 16 Wing ESC hatch cover*2</p> 
<p>17 机翼接线舱盖板*2 17 Wing wiring hatch cover*2</p> 	<p>18 机翼舵机盖板*2 18 Wing servo cover*2</p> 
<p>19 机身尾部支撑件 19 Fuselage tail support</p> 	

## 木板部件 Wooden parts

<p>1 机头加强板 1 Cruise motor ESC mounting plate</p> 	<p>2 机身尾翼连接加强层板 2 Fuselage tail joint reinforcement</p> 
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<p>3 伞舱盖木板 3 Wooden plate of parachute hatch cover</p> 	<p>4 伞舱舵机座 4 Basement of parachute servo</p> 
<p>5 双发电机座加强件*2 5 Wing motor mounting seat reinforcement *2</p> 	<p>6 GPS 放置板 6 GPS locating board</p> 

### EVA 部件 EVA parts

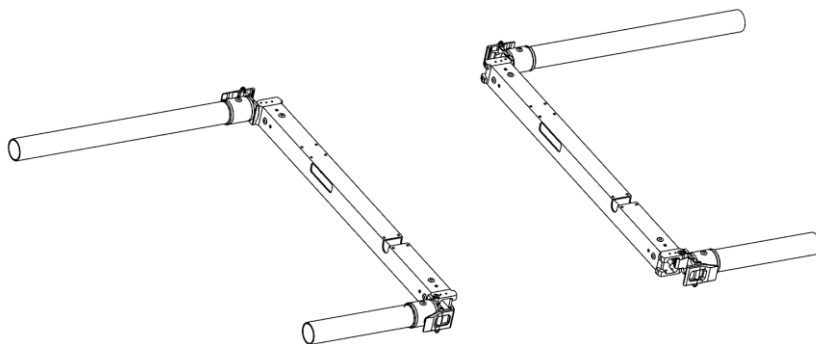
<p>1 电池区缓冲垫    1 Fuselage cushion</p> 
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## 垂起配件 (仅垂起版本含有)

### VTOL parts (Included only in VTOL version)

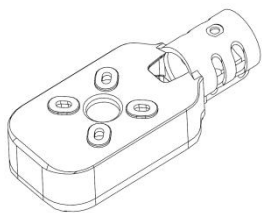
1 左右可拆式折叠机臂

1 Detachable folding wing arm



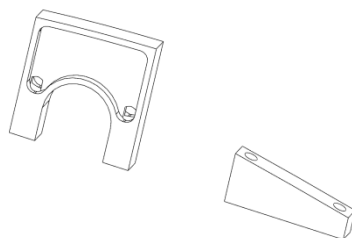
2 电机座\*4

2 Motor frame\*4



3 机臂固定件\*4

3 Machine arm fastener\*4



## 动力部件

编号 NO.	名称及型号 Name & Model	数量 Qty	规格		备注 Notes
1	定制电机 Motor X4120 kv430	1	重量 Weight	307g	
			尺寸 Size	50*47.5mm	
			额定电压	22.2v	
			运行功率	约 0.28kw	
			最大功率	约 2.4kw	
2	定制电机 Motor M4112 kv460	4	重量 Weight	177g	
			尺寸 Size	49.8*27mm	
			额定电压	22.2v	
			运行功率	约 0.27kw	
			最大功率	约 0.96kw	
3	螺旋桨 15 英寸正反桨 Propeller 15in E&EP	2	重量 Weight	28g	
			尺寸 Size	381mm	
4	螺旋桨 16 英寸正桨 Propeller 16in E	1	重量 Weight	52g	
			尺寸 Size	406.4mm	
5	电调 ESC MFE6100 6S 100A	1	重量 Weight	85g	
			尺寸 Size	74*37*16mm	
6	电调 ESC MFE650 6S 50A	4	重量 Weight	49g	
			尺寸 Size	67*37.5mm	
7	舵机 Servo MFE3054	5	重量 Weight	23g	
			尺寸 Size	38.4*13*31.1mm	
8	UBEC 14S 10A	1	重量 Weight	57g	
			尺寸 Size	55*33*13mm	

## 其他配件 Other fittings

编号 NO.	名称及型号 Name & Model	数量 Qty	备注 Notes
1	割尾圆头螺丝 M2*4 Round head flat tail screw M2*4	10	
2	割尾圆头螺丝 M2*8 Round head flat tail screw M2*8	70	
3	割尾圆头螺丝 M2*10 Round head flat tail screw M2*10	8	
4	带垫螺丝 M2.6*8 Gasket screw M2.6*8	22	
5	内六角螺钉 M3*10 Socket head cap screw M3*10	10	
6	金属挂钩 Metal hanger	6	挂降落伞和提重心 Mounted parachute & Measuring the center of gravity
7	一字螺柱 Plastic stud	14	
	尼龙螺柱 Hexagon nylon stud	32	
9	平尾传动螺柱 4.2-M2*8 Horizontal tail drive stud 4.2-M2*8	2	平尾部分 The part of the horizontal tail
	圆头螺钉 Button head screw M2*10	3	
	平尾传动舵角 The transmission leg of the horizontal tail	2	
10	热缩管 heat shrink tubing	直径 5mm*15mm	12
		直径 2mm*15mm	60

11	球头 Ball head		6	球头连杆 Ball link rod
	连杆 Link rod		3	
	圆头螺钉 Button head screw M2*10		7	
	自锁螺母 Block nut M2		7	
13	舱盖锁扣 Plastic latch		2	
14	铰链 Hinge		15	
15	大电流连接器 9+2 Large electronic current connector 9+2		2	
16	魔术扎带 Magic tie straps		2	与电池固定板搭配使用 Matching the battery fixing board
17	硅胶线 Silicone wire	14 AWG 红色 1.2 米 14 AWG Silicone wire (red) 1.2M	1	
		14 AWG 黑色 1.2 米 14 AWG Silicone wire (black) 1.2M	1	
18	舵机线材 The servo wire	单端公头线 30cm Single head servo wire(male) 30cm	7	尾翼部分 Tails section
		单端母头线 33cm Single head servo wire(Female)33cm	7	机身部分 Fuselage section

## 辅助安装工具和材料（自备） Auxiliary installation tools and materials (Self-provided)

工具 Tools	用途 Usage
3.0mm 十字螺丝刀 3.0mm cross screwdriver	安装螺丝 Installing the screws
1.5mm-3mm 内六角 1.5mm-3mm Hexagon socket head cap screw	电机座安装 Installing the motor frame
电烙铁、焊锡丝 Electric iron, solder wire	焊接电源、舵机线 Welding the power line and servowire
打火机 Lighter	固定热缩管 Fix heat shrink tube
小刀 Knife	剥线 Wire stripping tool
纸胶、透明胶、纤维胶带(Transparent) adhesive tape, fabric adhesive tape	飞机粘合辅助定位、飞机局部加强 Aircraft bonding and temporary positioning, local reinforcement

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