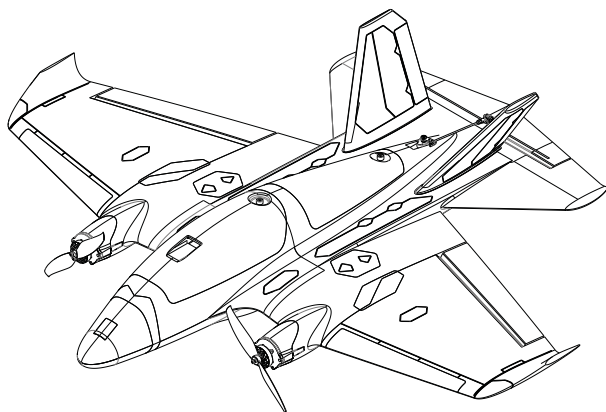




User Manual

Penguin

企鹅



Introduction/简介

The Penguin is an FPV aircraft with 750mm wingspan, the wingsuit flight layout suitable for mid range flying in low altitudes chasing . the penguin has many advantages such as easy take-off and landing, in the full speed range. It retains the maneuverability of the traditional flying wing layout and improves the controllability of the height.

Allows you to fly with ease in FPV.

The new buckle design is fastened firmly, the left and right wings can be quickly disassembled, and the integrated built-in always-on navigation light increases the visibility of the aircraft. Penguin's newly designed nose is compatible with most image transmission installations. After assembling the flight control equipment, the aircraft is easy to adjust the cg balance . Provide you with a stable flight experience. Whether you are a beginner or an experienced pilot, Penguin will give you most reliable flight experience

企鹅 (Penguin) 是一款750mm翼展, 翼装飞行布局适合中低空中短距离飞行的FPV飞机。这款飞机具备易起降、零反扭和全速域性能优异等多项优点, 保留传统飞翼布局的机动性, 提升高度的可控性, 让您在FPV飞行中游刃有余。

全新的卡扣设计坚固牢靠, 左右机翼可快速拆装, 而一体式内置安装常亮航灯则增加了飞机的可视性。

企鹅 (Penguin) 全新设计的机头, 兼容大部分的图传安装, 在装配完飞控设备后, 飞机比较容易达到重心配平的状态。为您提供稳定的飞行体验。不论您是初学者还是经验丰富的飞行员, 企鹅 (Penguin) RTH版本的飞机, 都将成为您最可靠的飞行体验!

Specifications/规格

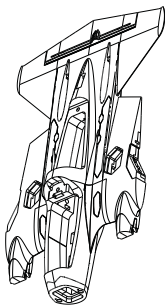
Penguin Specifications/企鹅规格	
Wingspan/翼展:	750mm
Length/长度:	640mm
WingArea/翼面积:	15.06dm ²
Servo/舵机:	9g Servo*3PCS
Material/材料:	EPP
Recommend Motor/推荐电机:	2004/2206
Recommend ESC/推荐电调:	BLS 30A 2~4S
Recommend Propeller/推荐螺旋桨:	6024-2
Recommend Weight/建议起飞重量	1200g
Recommned Battery/推荐电池:	2000~3000mAh 4S Lipo (200g~300g)

Version Description/版本说明

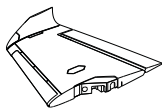
ATOMRC Penguin Fixed Wing				
	Version	KIT	PNP+S	RTH
	Description	Pre-glued Fixed WING	PNP+Pre all electronics are installed	PNP+Pre-turned FC+GPS, all electronics are installed
Basic Pack	预装飞机泡沫	√	√	√
	木片、螺丝、拉杆配件	√	√	√
	快快拆套件	√	√	√
	航灯	√	√	√
Motor	2004 2400KV		2PCS	2PCS
ESC	ATOMRC Exceed BLS 4s30A ESC		2PCS	2PCS
Servo	S09M 9g金属舵机		3PCS	3PCS
Prop	Gemfan 6024-2		2PCS	2PCS
FC	ATOMRC F405 NAVI			√
GPS	BE220			√
The specs will be slightly adjusted according to different, actual specs are subject to the latest manual and real objects.				

ATOMRC 企鹅固定翼				
	版本	KIT	PNP+S	RTH
	版本描述	泡沫预组装好	泡沫、电子配件、装配完成	泡沫、电子配件、飞控组装调试完成
基础配件	预装飞机泡沫	√	√	√
	木片、螺丝、拉杆配件	√	√	√
	快快拆套件	√	√	√
	航灯	√	√	√
电机	2004 2400KV		2PCS	2PCS
电调	ATOMRC Exceed BLS 4s30A ESC		2PCS	2PCS
舵机	S09M 9g金属舵机		3PCS	3PCS
螺旋桨	Gemfan 6024-2		2PCS	2PCS
飞控	ATOMRC F405 NAVI			√
GPS	BE220			√
实际配置参数会持续优化，最新配置参数请留意Atomrc的官网，最终参数以实物为准。				

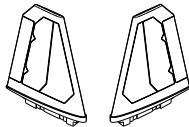
KIT Contents



FB-U/FB-D:
Fuselage/机身



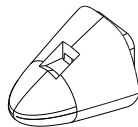
FE-L/FE-R:
Wing/机翼



FF-L/FF-R:
V Tail/V尾



FG-L/FG-R/FH:
Wing hatch cover/ 外设舱盖



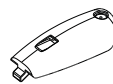
FA-U/FA-D:
Nose/泡沫机头



FD:
Rear Hatch cover/设备舱盖



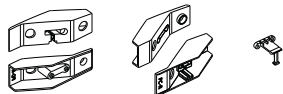
FC-A:
Front Hatch cover/平台舱盖



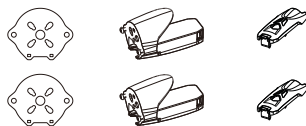
FC:
Front Hatch cover/电池舱盖



PA:
FPV Nose
FPV 机头



PE-L/PE-R/PF-L/PF-R:
Quick release Kit
机身对插件套件



Sf1200 PA/PB/PC
Motor Mount/
电机座套件



PF-L/PF-R/PG-L/PG-R:
V Tail Flight Light Cover/
V尾航灯套件



P1:
Servo cover/
摆臂保护罩



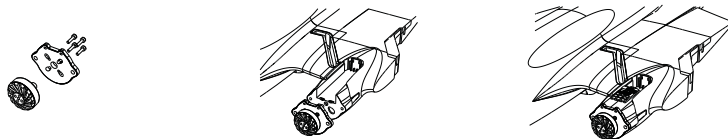
P2:
Camera Mount/
摄像头支架



P3:
Control horn/
舵角

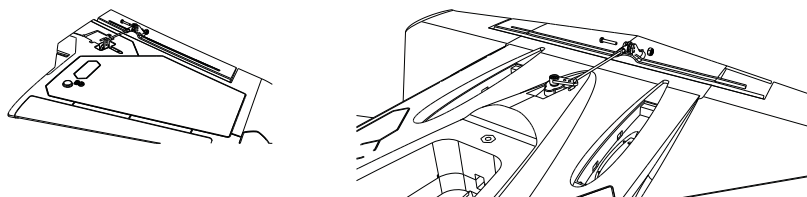
KIT Installation / 安装指南

1



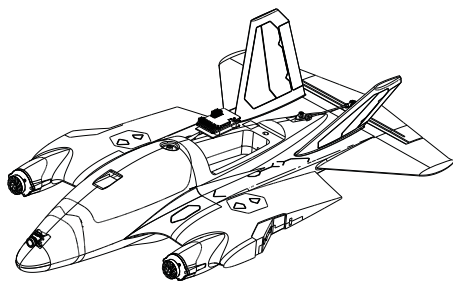
Install the motor,esc.power cable length suggest to 300mm
安装电机、电调。电调电源线、信号线线长建议裁剪300mm

2



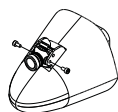
Install the servo and push rods.
安装机翼、平尾舵机和拉杆

3

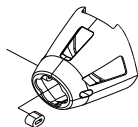


Install the FC/Receiver
安装飞控/接收机

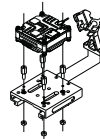
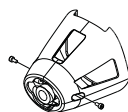
4



EPP nose: Analog system



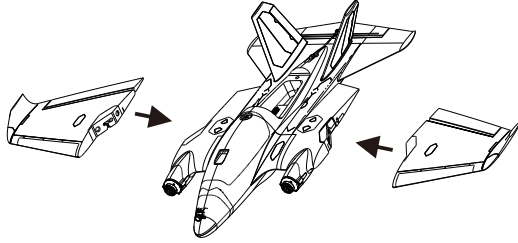
Plastic nose: Digital system



Install the FPV system.
安装FPV设备

PNP+S、RTH Installation/安装指南

1



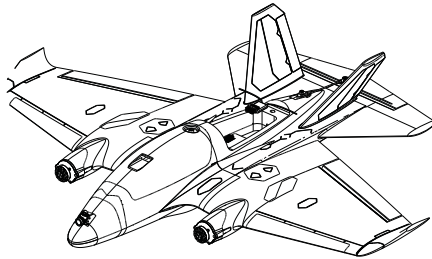
Install the Wing, Left aileron PWM3 Right wing PWM4.
安装机翼, 左机翼连接PWM3、右机翼连接到PWM4

2



Install the INAV configurator then plug to PC
下载INAV地面站, 安装接收机, 连接地面站

3



Install the receiver: CRSF in on UART 2 by default,
If using Sbus, please change the UART 2 and receiver protocol
接收机安装: 飞控默认为CRSF协议, UART2,
如用Sbus或其他接收机, 需修改UART2及接收机协议

4

Install the FPV system, OSD: analog OSD by default,
if using digital vtx, user need change the settings on INAV configurator.

安装FPV设备, 默认设置为模拟图传OSD设置
如使用数字图传, 需在INAV地面站进行改动

5



Check INAV Configurator the receiver type,
then assign the channel and mode.

检查接收机类型及协议

检查模式开关行程设置、检查舵机输出是否正确

7

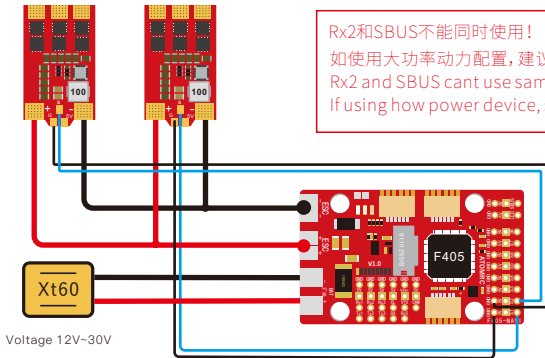
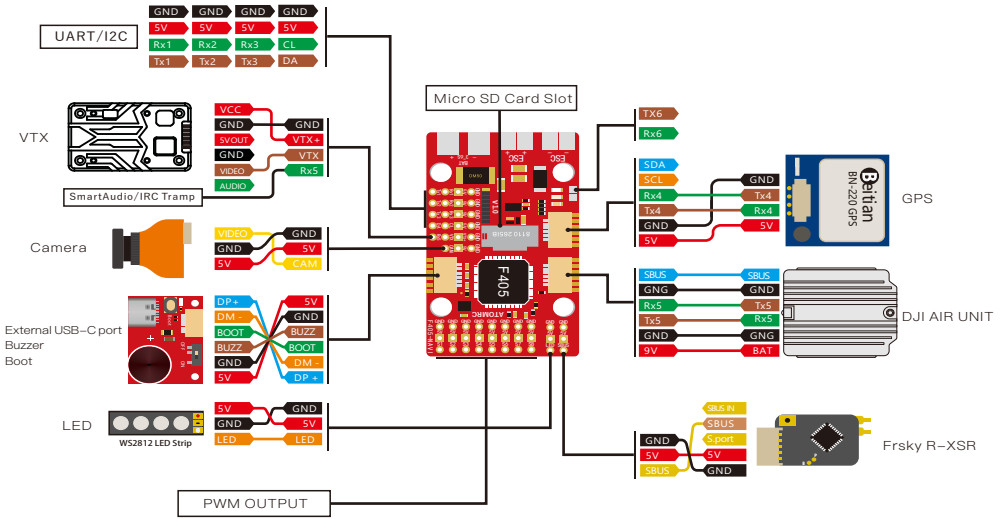


Latest cli settings, please go to download page of atomrc.com
make sure firmware version is matched with the cli settings,
reset the flight controller first, then load the cli settings.

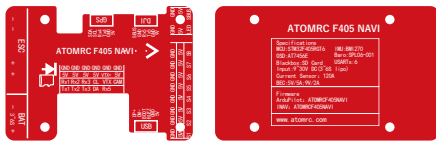
最新CLI配置文件, 请到官网下载
请先确认飞控固件版本与CLI一致后, 先恢复默认, 再导入CLI配置

6

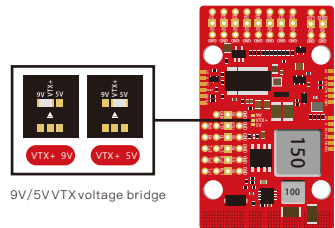
ATOMRC F405 NAVI Wiring Diagram/飞控接线图



Rx2 and SBUS不能同时使用!
 如使用大功率动力配置, 建议安装滤波电容!
 Rx2 and SBUS cant use same time, SBUS is on inverted Rx2
 If using how power device, suggest solder the capacitor.



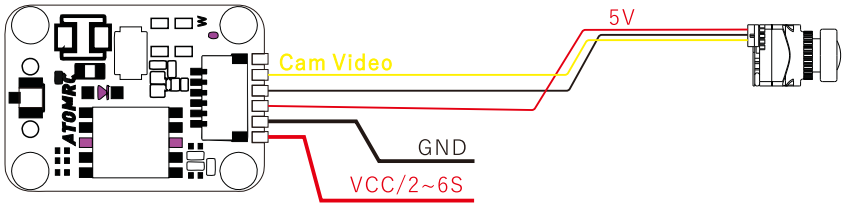
Mounting size: 30mmX24mm*Φ3mm



SIZE: 50mmX30mmX12mm

Tx800 VTX User manual/TX800图传说明书

ATOMRC Tx800 VTX Wiring Diagram/TX800图传接线图



VTX Setting/图传设置

1. Hold button 3 seconds into setting mode.
2. In setting mode, short press the button to change band.
3. Then hold button 3 seconds into CH setting mode, short press button to change CH.
4. Hold button 3 second to get into Power setting mode, there is short bar on LED, short press to switch power, 1 bar means 25mW, 2 bar means 200mW, 3 bar means 500mW.

1. 长按设置按键三秒，进入波段设置模式。
2. 在设置模式下，短按按键切换波段。
3. 再次长按按键三秒钟，进入频道切换模式，短按按键切换频道。
4. 再次长按按键三秒钟，进入切换功率模式，短按按键切换功率，数码管一条为100mw，两条为400mw，三条为800mw。

Band	Channel							
	1	2	3	4	5	6	7	8
Band A	5865	5845	5825	5805	5785	5765	5745	5725
Band B	5733	5752	5771	5790	5809	5828	5847	5866
Band E	5705	5685	5665	5645	5885	5905	5925	5945
Airwave/FS	5740	5760	5780	5800	5820	5840	5860	5880
Race Band	5658	5695	5732	5769	5806	5843	5880	5917
L Band	5362	5399	5436	5473	5510	5547	5584	5621

Voltage input/电压输入范围: 2~6S Lipo Power/功率: 100/200/800mw Switchable

Power consumption/功耗: 9V 1.1A Frequency/频率: 5.3~5.9Ghz

ESC Information/电调说明

Throttle calibration /电调油门校准

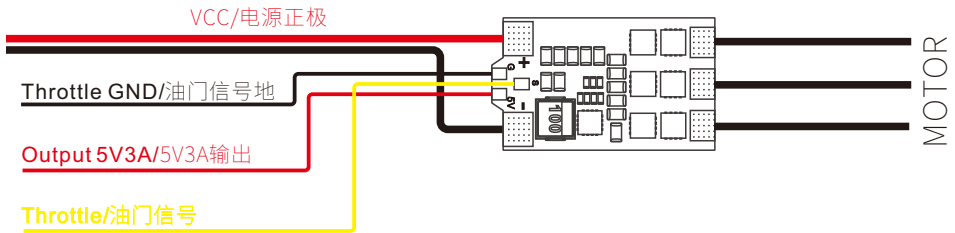
1.The ESC included with the model has a safe start.If the motor battery is connected to the ESC and the throttle stick is not in the low throttle or off position,the motor will not start untill the throttle stick is moved to the low throttle or off position.

2.Power on the ESC(The ESC must connect to the motor and Receiver). The motor will emit a series of beeps, after the beeps, set the the throttle stick the the minimum, the motor will emit a series beep again. now the ESC calibration is done.

1.电调具有安全启动保护功能,当电机、电池连接电调后,电调信号未处于最低位置,电调油门输出不会启动。

2.电调油门校准:请先拆卸螺旋桨,将油门摇杆移动到最高位置后通电,当哔哔声结束后,迅速将油门摇杆移动到最低位置,哔哔声音结束,油门校准成功。

ATOMRC Exceed BLS 30A 2~4S ESC Wiring Diagram



Voltage input/电压输入范围: 2~4S Lipo

Max Current/最大电流: 35A

Output/输出: Built in 5V 3A BEC/内置5V 3A BEC

Size/尺寸: 29.5*17.5mm

Please download the latest user manual at www.atomrc.com

