



X4-20

Getting Started Guide Introduction to Rack Mounting

Version 1.0 



Shenzhen DreamEagle Technology Co., Ltd.

To users

Dear user, thank you for using Dream Eagle Technology products.

In order to ensure safe and smooth use and installation, before using the F-series plant protection drone, we strongly recommend that you carefully read this quick start guide, Introduction to Rack Installation

And follow the rules mentioned in this guide.

Contact us

After-sales phone/WeChat : 13510524210/18038137087 manual consultation

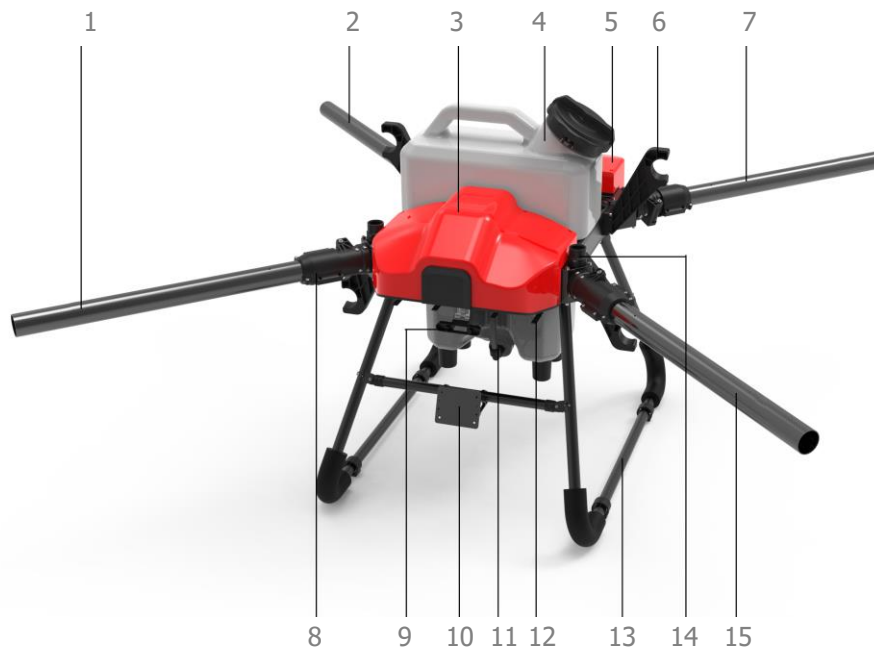
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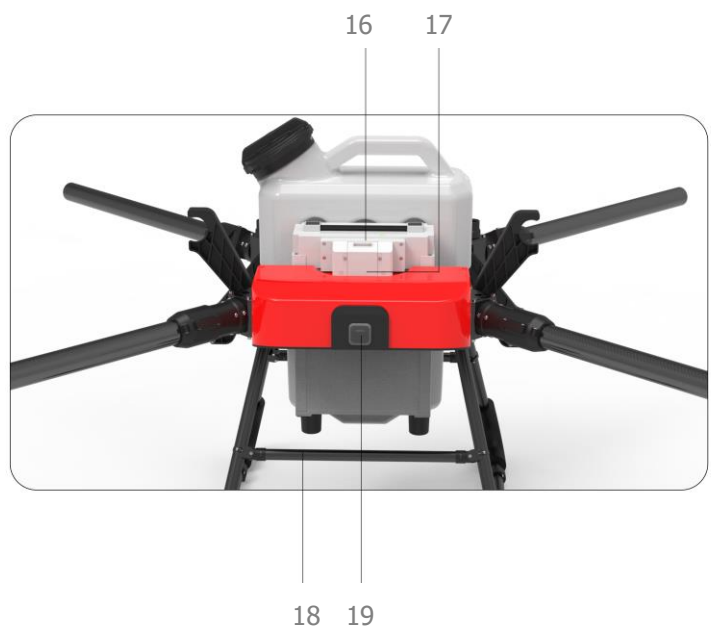
Meet the X4-20 Plant Protection UAV——Rack

The main structural components of the X4-20 plant protection drone are as follows (frame-battery non-standard configuration is for graphic reference only) :



- ① Arm No. 1, CCW
- ② Arm No. 4, CW
- ③ Frame head
- ④ 30L water tank
- ⑤ Frame tail
- ⑥ 40# Arm buckle
- ⑦ Arm No. 3, CCW
- ⑧ Arm base
- ⑨ Camera mount
- ⑩ Front tripod tie rod Obstacle avoidance and anti-ground radar installation position
- ⑪ Outlet
- ⑫ Water pump mount
- ⑬ landing gear
- ⑭ RTK mount
- ⑮ Arm No. 2, CW
- ⑯ power supply
- ⑰ power interface
- ⑱ Rear tripod (expandable rear obstacle avoidance)
- ⑲ Taillight

(Above) Figure 1. Front View Rack Module Structure Figure 1
(Below) Attached picture 2. Left view tail module structure Figure 2



* The X4-20 structure can be applied to the 40-diameter power. According to the difference in power purchase, the structure is different. It can be adjusted to six-axis 20L spraying (customization is required), and the spreading mode can be switched at the same time for corresponding operations;

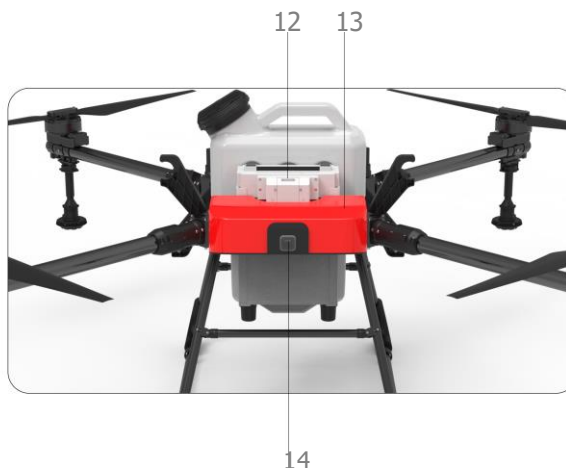
Meet the X4-20 Plant Protection UAV——The Whole Machine

The main structural components of the X4-20 plant protection UAV are as follows (the whole machine - non-standard battery is for graphic reference only):



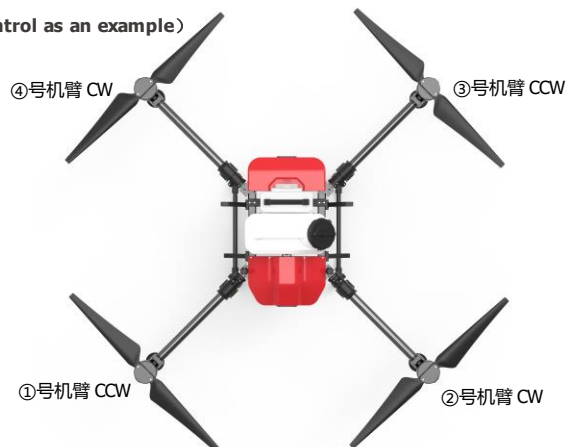
- ① Power systemX9 /X9 plus
- ② Frame tail
- ③ 30L water tank
- ④ Frame head
- ⑤ RTK
- ⑥ Nozzle (centrifugal nozzle/ fogging pressure nozzle can be installed)
- ⑦ Remote control antenna
- ⑧ landing gear
- ⑨ Front obstacle avoidance module + ground defense radar module
- ⑩ Camera
- ⑪ Water pump
- ⑫ Battery ⑬ Frame tail
- ⑭ Taillight

(Above) Figure 3. Front view of the whole machine module structure Figure 3
(Below) Attachment 4. Left view tail module structure Figure 4



X4-20 Plant Protection Drone - Power Installation Direction

(Taking JIYI flight control as an example)



* The example of JIYI flight control in the picture shows the arm turning, which varies depending on the installation position of the flight control arm;

X4-20 Plant Protection Drone - Rack Packaging List

Physical display of the rack packaging body and accessory package (the rack includes the content shown in the following figure);



Contents include: frame main body; machine arm; tripod; water tank; distribution board; radar installation kit + tripod rod; water pipe buckle; front camera mount and rear taillight mount; arm buckle; under the arm holder Cover plate; RTK mounting base; remote control antenna mounting base; battery buckle; arm mounting screws; wire

Note: The folding nut of the main body of the rack is put on during packaging, and it needs to be disassembled before installation; pay attention to the installation sequence when installing the rack, the rack is matched with the whole machine for wiring, and the order of installing modules needs to pay attention to the front and rear order; rack packing list details As shown below ↓ ;



机架主体+折叠螺母



脚 架



水泵套件



折叠座下盖板



机臂+水管扣



机臂卡扣L*2,R*2



摄像头安装座



遥控器天线座+RTK固定座



脚架拉杆+避障仿地雷达套件



20L快拆水箱



遮线罩



快拆水箱出水嘴

X4-40 Plant Protection UAV——Rack Installation Sequence

1. After receipt, the folding nut must be removed first before subsequent installation;



2. Tripod installation, first fix the tripod to facilitate the installation of subsequent components ;



3. Arm installation, pay attention to the installation direction of the arm;



Hole down Installing the arms in sequence Install the arm screws M5*60, The arm is installed

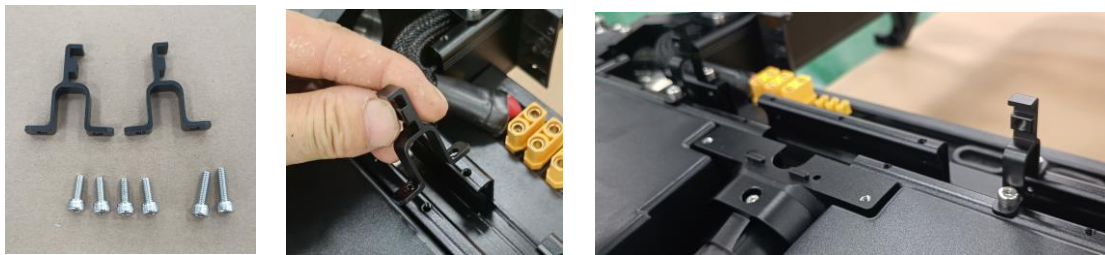
4. Arm nut and water pipe buckle installation;



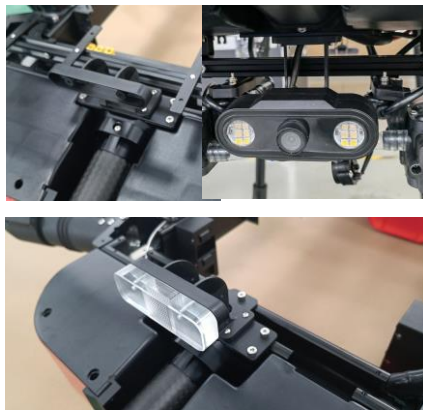
5. Machine arm buckle installation; divided into left L and right R, the nose is lower and the tail is upper;



6. The water pump fixing seat is installed; the screw package is attached with M4*10 screws for locking; the water pump kit can be used to fix the water pump first, confirm that the power supply and signal line of the water pump are connected well, and after the wiring sequence distribution inside the machine head is completed, install the water pump kit at last to avoid repeated disassembly Pack;



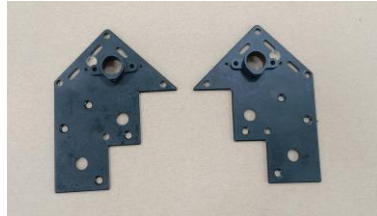
7. Install the front camera and rear taillight; note that you can install the camera/tail light on the fixing seat first, pay attention to the wiring and install it on the cover;



Note: When installing the front camera, fix the camera first, and then install it to the cover plate after the wiring is completed. Before installing the cover plate, you need to confirm the power and after the wiring of other modules is completed, lock it at last

Note: When installing the tail light, fix the tail light first, and then install it to the cover after the wiring is completed. Before installing the cover, you need to confirm the power and other modules. After the wiring is completed, the tail light needs to be extended first, and the tail light is fixed with screws, and finally lock the cover

8. Remote control antenna installation;

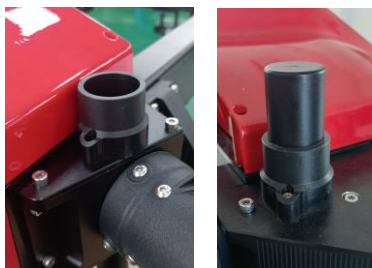


Note: To install the antenna seat of the remote control, first fix the antenna, and then install it on the cover. It is necessary to lead the antenna terminal inside the machine to the lower cover installation at both ends of the machine head in advance; (the antenna is fixed

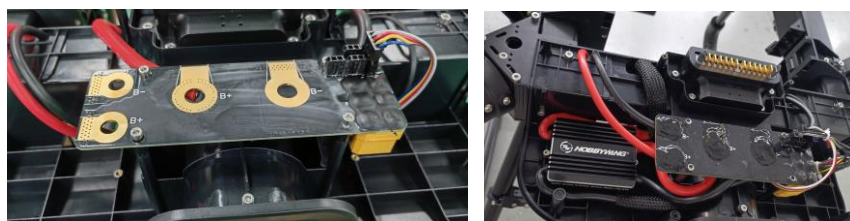
using the matching M3*6 screw,  **注意** The cover plate needs to be installed after all the internal wiring is completed, so as to avoid repeated disassembly and assembly;



9. RTK fixed base installation; RTK needs to be fixed on the matching mounting base first, then install the antenna connector and lock it on the installation position (M3*12), note that 3M double-sided tape can be used to fix the RTK antenna, or you can use an optional Cured glue for fixing; lead out the antenna connector end inside the machine head in advance;



10. Installation and use of the power distribution board at the rear of the machine; M3*10 screws are used to fix the middle with a gasket. Before fixing the power distribution board, ensure that the required soldering position has been completed, and the front and back soldering positions are covered with insulating material silicone;



Tail power signal interface, 2P is the power signal output, 4P is the signal extension interface, corresponding to the embedded 4P line, M3, M4, M5 correspond to CH3, CH4, CH5 of the extension line

Tail power distribution board power supply interface

11. The installation instructions of the tripod rod and the obstacle avoidance radar and the ground defense radar; first install the obstacle avoidance radar and the ground defense radar in advance, and then install them on the tripod;



12. GPS installation; there is a special GPS installation position inside the machine head, first remove the GPS installation platform plate, locate the GPS direction and lock it; the schematic diagram of the distribution of modules inside the case;



Remarks: The 2P line in the accessories package is the tail power signal line plug, and the original connector needs to be replaced; the 4P line can be used as a smart battery signal interface to distinguish the line sequence of L and H corresponding to the flight controller used;



The scattered parts of the rack assembly structure, in order to better assemble the whole machine, because the structure is adapted to various electronic accessories, the order of installation is different. There is no standard assembly plan, and a more reasonable assembly sequence is used as appropriate. For the electronic accessories you need to install. Machine installation

Specifications

X4-20 Plant protection platform

Dimensions : 1385*1385*763mm (Expand
Size) 770*790*775mm (Folded size)

Product wheelbase : 1810mm

Product weight : 18kg (without battery)
28kd (with battery)

Waterproof grade: whole machine IP67

Arm size: 37*40mm carbon fiber tube

Medicine box volume : 20L

Hover time: 25min with no load (@14S28000mAh
take off 28kg) Spray with full load and hover for
12min (@14S28000mAh takeoff 48kg)

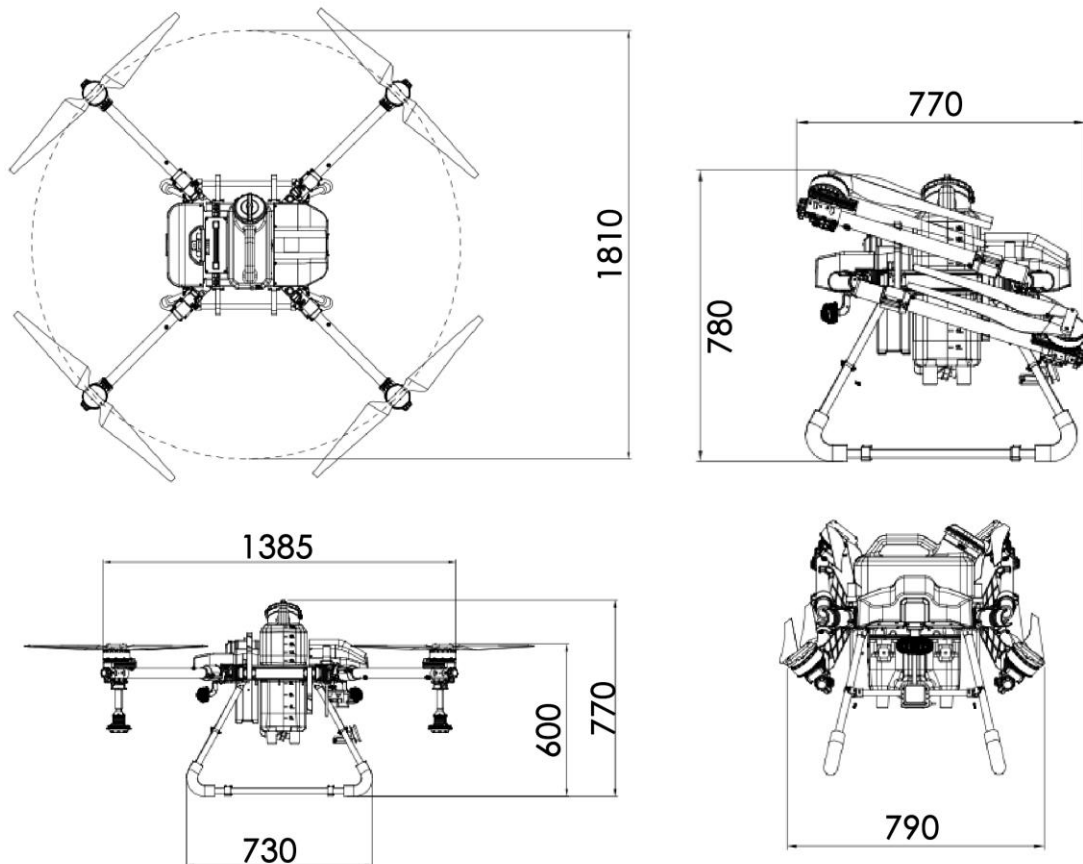
Spraying method: centrifugal spraying
system/aerosol pressure spraying + 5L water
pump*2

Spray : 3-8M

Flight control system: JYI K++v2 (optional
according to the flight control on the
market)

Power system: Haoying X9PLUS (according to the
power selection on the market)

Power Battery : 14S 28000mAh



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2. This product is not a toy. Using this aircraft has certain safety risks. It is not suitable for people under the age of 18 or has not obtained the UAV system operating license approved by Dream Eagle Technology (or approved by current laws, regulations, and policies) people use. Do not let children touch this product, please be careful when operating in scenes where children are present.
3. This product is a multi-rotor aircraft, belonging to Dream Eagle Technology X4 series agricultural plant protection drones. This series of drones is only suitable for the agricultural field. Before using this product, you should read the product "Product Manual" carefully. If the product is assembled according to the "Product Manual" and works normally, and other safety use data show that it is normal, it will provide you with safe and comfortable agricultural plant protection services.
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warn

Users need to read the complete "Product Manual" and obtain the UAV system approved by Dream Eagle Technology (or approved by current laws, regulations, and policies)

License to operate. Otherwise, you may cause serious injury to yourself or others, or result in product damage and property loss. Operation of this product requires

Strong security awareness. This product is not suitable for use by children. Do not use parts not provided or suggested by Dream Eagle Technology. Please strictly abide by the

Technical guidelines for installing and using the product ° __

Flight Safety Instructions

- Familiarize yourself with the flying environment, stay away from obstacles and crowds, and confirm whether there are unsafe factors.

- Do not fly when you are tired, drunk or in low spirits to avoid accidents.

- Keep away from heat sources, which may cause damage to electronic equipment or other components.

- Don't fly alone at the beginner stage, it is recommended to get help from experienced pilots before flying.

- Please fly within the safe take-off weight, and do not run the machine with overload to avoid danger.

- Before flying, you must check whether the equipment is normal and whether there is co-channel interference.

- Keep away from running machines, do not touch the rotating propeller with your body or other parts, and do not wear loose clothing when flying to avoid contact with remote

Injury caused by pulling on the controller or propeller.

- It is recommended to test run the aircraft without propellers, check whether the remote control equipment and motors are normal, and install the propellers after confirming that they are normal.

so as not to cause safety accidents.



梦之鹰科技 农业植保机结构领军者

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