

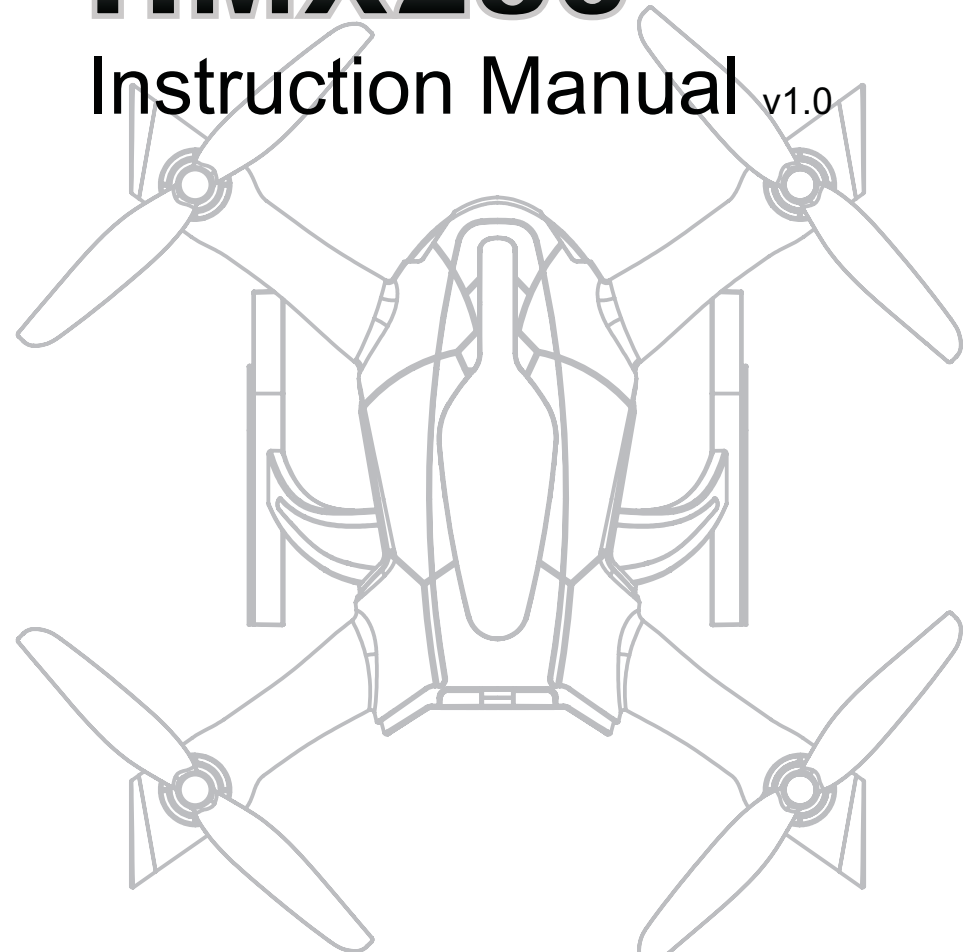
**HiSKY®**  
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**HiSKY®**

**HMX280**

Instruction Manual v1.0



- Thank you for purchasing our HiSKY-brand products
- Read this manual carefully before use



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## Foreword

Dear Customers:

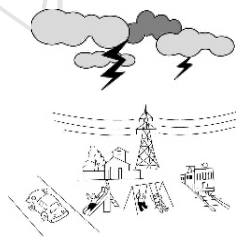
Thanks for purchasing a HiSKY radio control aircraft product. In order to quickly and safely master the operation of the HMX120, please read the manual carefully and then keep it properly for future consultation and reference.

## Declaration

HMX280 quadcopter has potential danger. Please operate it in the open spaces away from people. Improper assembly, damage of the air frame, mal-performance of the radio, mal-operation will result in injury or damage to the product, people unexpectedly. The pilot should operate the model in a safe manner and know the responsibility he/she needs to take after if any failure of following the manner.

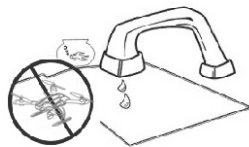
### A. Keep away from obstacles and people

HMX280 quadcopter can fly at uncertain speed, which poses potential dangers. Please keep your HMX280 away from people, high buildings, high-tension lines, etc., and avoid operating in rain, storms, thunder and lightning.



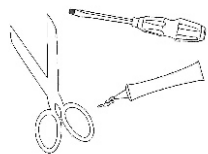
### B. Keep away from Humidity

HMX280 should be kept away from humidity and vapor because its complex and precise electronic components and mechanical parts may be damaged.



### C. Proper operation and maintenance

Please use HiSKY original parts to upgrade, modify or maintain your HMX280 within the range or functions permitted. It is forbidden to use it against of the safety laws or regulations.



### D. Avoid Flying alone

At the beginning of learning about radio-controlled flight, there are some difficulties to overcome. Please avoid flying alone. Invite experienced pilots to guide you (two of the most effective methods to practice are via a PC flight simulator and/or under the supervision of a skilled pilot).



### E. Safe operation

Please fly your HMX280 according to your physical status and flight skills. Fatigue, listlessness and mis-operation will increase the possibilities of accidental hazard.



### F. Away from highly spinning parts

Please keep pilot, people and objects away from the spinning blades of high main rotors and tail rotors.



### G. Protect from heat

HMX280 quadcopter is made from metal, fiber, plastic and electronic components, etc. Please keep away from heat and sunshine in order to avoid distortion and damage caused by high temperatures.



### F. Age Recommendation

Not for children under 14 years, This is not a toy.

## Caution before Flight

A. Ensure the battery packs both transmitter and receiver are fully charged.

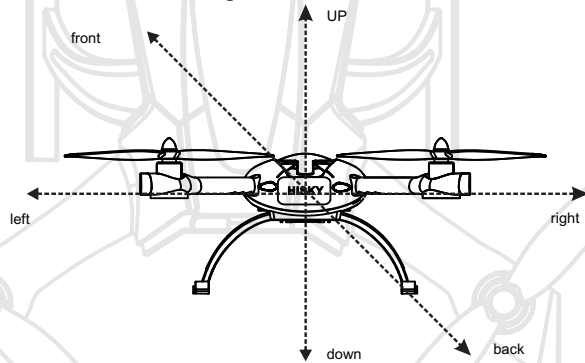
B. Ensure the throttle stick of your transmitter stay at the lowest position before operation.

C. Please strictly obey the order of turn on and turn off before operation. When starting your flight, please turn on your transmitter first, and connect the power cable of your HMX280 last. When finishing your flight, please disconnect the power cable of your HMX280 first and turn off your transmitter last. Please cultivate a correct habit of turn on and turn off.

D. Continuous shakes and fierce movement may cause the disconnect of the battery and result in the lose control of the model. Please ensure the fastened connection of battery and motors before flight.

## 1. Definition of Flight Direction

HiSKY defines the directions of HMX280 in order not to cause confusion in the following descriptions. That is to say, the tail of HMX280 is facing the pilot, and its head facing forward (front of the pilot). The left hand of pilot is the left side of HMX280, while the right hand of pilot is the right side of HMX280. Its head is to the front and its tail is to the back. The direction in which main body of HMX280 is facing up, and its skids are facing down.



### Components

Airframe	HiSKY HMX280Talon
Motors	4x Brushless Outrunner Motor, 1300Kv
Propeller	4x6*3 Propeller
ESCs	4x 12-Amp Brushless ESC
Battery	1350mAh 3S 11.1V 25C Li-Po Battery
Charger	3S/2S DC Li-Po Balancing Charger
Transmitter(No this item in BNF version)	X-6S

### Specifications

Length	350mm
Height	120mm
Rotor Diameter	18mm
Flying Weight	416g
Flight time	7-10mins
Suggested load	150g
Max tension	1300g

## 2.Box of Contents



**HiSKY**

Contents	Quantity
HiSKY HMX280 airframe	1
rotors	8
1350mAh 3S 11.1V 25C Li-po Battery	1
3S 2S Li-po Battery Charger	1
Landing Gear Screws	4
Screwdriver	1
Charging Wire	1
X-6S transmitter( No this item in BNF version)	1
Bullet Head	4
Landing Gear	1
Manual	1



### 3.Instruction for Charger

#### 3.1 Instruction for Charger:

Please ensure there is no heat-emission ,curve ,transformation,impale and damage before charging. It is suitable for charging 3S 11.1V and 2S 7.4V Li-ion batteries and Li-po batteries.

#### 3.2 Charging Procedure(see the following steps):

- 1)Connect the charger to 220V AC power.
- 2)Connect the charger wire.
- 3)Take the battery from the battery bay in the airframe, connect the balance joint of the battery with the 3S charging port on the charger.
- 4)It is charging when the indication LED become red. If the LED turn green,the battery is full charged.
- 5)Disconnect the battery with the charger when finished charging.
- 6)The time to charge the battery full is 60 minutes.  
(Caution: Only the designated Charger can be allowed to charge for HMX280 battery. The use of other charger may cause the injury and damage to the people and property.)



Step 1

Connect the power wire of the charger at the back of the charger.



Step 2

Connect the battery joint with the 3S port on the charger.



Step 3

Plug the other side of the power wire into the power socket, there will be on three red LED lights. It is the status of charging.



Step 4

When finish the charging, the LED lights turn green. Take out the battery, then you can enjoy the flight.

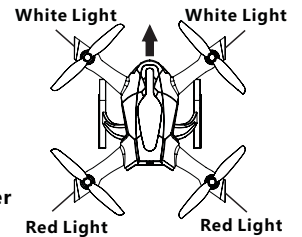
### 4.Low-voltage Protection of the Battery

Low-voltage Protection has set in HMX280 system. The default parameters are as following.

**Class 1 Low-voltage Protection:**10.5V-10.8V When the voltage of the battery reach in this range, the red rear decoration lights are flashing slowly,which is reminding the low voltage.

**Class 2 Low-voltage Protection:** 9.6V-9.8V When the voltage of the battery reach in this range, the quadcopter will land slowly in the position flying. Please change the battery or charge for the battery.

( REMINDER: Please fly with the battery correctly. Overcharging or over-discharging the battery will cut down its service life. )



### 5.Install of Landing Gear

#### 5.1 Installation Procedure of the Landing Gear(see the following):



Step1

Put the land gear on the groove of the airframe, please make left to the left side, right to the right side



Step2

Fasten the landing gear with two screws



Step3

Make the antenna pass through the landing gear and fasten the copper bush in the inner side.



Step4

Finish the installation.

## 6. Install the rotors

### 6.1 Installation Procedure of the motors

- 1) Unscrew the bullet head with screwdriver;
- 2) Install the clockwise rotors to M2 and M4 motors;
- 3) Install the counter-clockwise rotors to M1 and M3 motors.



Step1

Unscrew the bullet head on the motors with the cross screwdriver



Step2

Don't mistake the up or down side of the rotor as down or up side. (The side with 2 dots besides the hole is the up side, while 4 dots is the down side.)



Step3

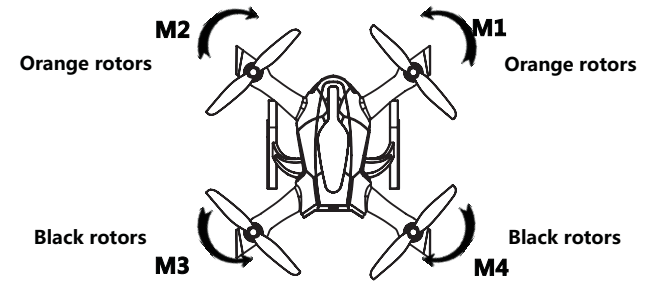
Fasten the bullet head with the screwdriver



Step4

Do the other three rotors same as the above 3 steps

( see the above picture) Rotors of M1 and M2 are orange. M1 is counter-clockwise rotor, while M2 is clockwise rotor. Rotors of M3 and M4 are black. M3 is counter-clockwise rotor. M4 is clockwise rotor.



M1 and M3 rotors are counter-clockwise. The direction of leading edge is counter-clockwise, (see the following picture)



M2 and M4 rotors are clockwise. The direction of leading edge is clockwise, (see the following picture)



### \*Note:

The quad cannot fly if place the wrong rotors at the motors. Please ensure the rotors of clockwise and counter-clockwise are loaded accordingly.

## 7.Preparation for flight and Unlock the motors

### 7.1 Mode choice of Transmitter:

1) Please choose Fixed Wing Mode to fly the quadcopter with X-6S and H-6 transmitters

### 7.2 Steps of Flight:

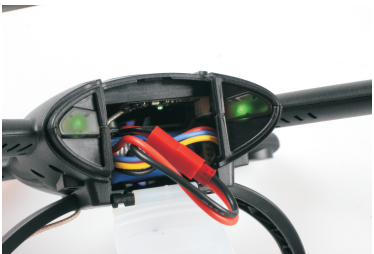
- 1) Install the battery. Open the battery bay of the quad and place the battery into the battery bay.
- 2) Pull the throttle stick of the transmitter to the lowest position and turn on the transmitter. Connect the battery joint with that of the main board in the airframe and close the battery cover.
- 3) Bind the model with the transmitter.
- 4) After the binding, the signal light will Bind the model with the transmitter and make sure the distance of them within 10cm.



Step 1  
turn on the transmitter first



Step 2  
connect the battery of the model with the main board.



Step 3  
succeeding the binding, the signal light on the airframe turn flash in green slowly.



Step 4  
You can fly the quad after close the battery back hatch.

**Notice:** Please follow the order" turn on the transmitter first and then connect the battery of the model" .

### 7.3 Unlock the motors



Push the aileron stick left side down for 2-3S and release then unlock the motors

### 7.4 Lock the motors



Push the aileron stick right side down for 2-3S and release then Lock the motors (When lock the motors, the green signal light will flash more slowly.)

### 7.5 Notice:

- 1) Please follow the order" turn on the transmitter first and then connect the battery of the model" .After turn on the transmitter, then connect the battery of the quadcopter with the main board in 10s.The light of signal will change from flash to ever green in 1-3s.Then the binding succeeds.
- 2) Fail to connect the battery in 10s, please disconnect the battery ,turn off the transmitter and repeat the step above.

Trouble shooting: a flashing receiver light after connecting the battery:

Possible causes	Solutions
Fail the binding	Turn transmitter off and then on and reconnect the battery, rebind
The throttle stick of transmitter is not at the lowest position	Pull down the throttle stick to the lowest position and rebinding.
The transmitter battery is low and empty	Replace transmitter battery and rebinding.
The HMX280 battery is low and empty	Replace the HMX280 battery and rebind
No function of receiver and transmitter	Replace receiver or transmitter and rebind



## 8. Selection of Flight mode

### 8.1 3-axis flight mode

Pull down the fifth channel of the transmitter to the 3-axis flight mode. In this mode, the flight control system has no restriction to the flight poses and angles.

### 8.2 6-axis flight mode

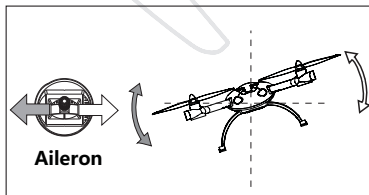
Pull up the fifth channel of the transmitter to the 6-axis flight mode. In this mode, the flight control system auto-correct the flight pose when the model out of control.



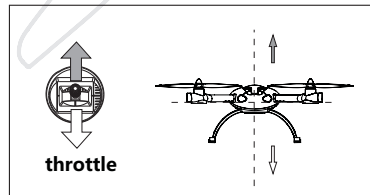
(see left picture) There is a GYRO SENS button at the right up side of the transmitter which can switch between "0" and "1". "0" is for 6-axis flight mode, while "1" is for 3-axis.

## 9. Flight Control Diagram

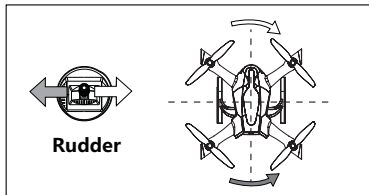
### 9.1 Flight in Normal Status



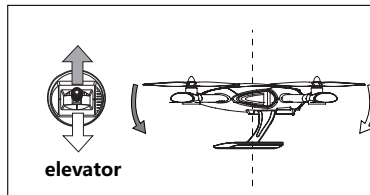
1) When the stick of Aileron turn left or right, the quad will turn left or right accordingly.



2) When the stick of throttle turn up or down, the quad will turn up or down accordingly.



3) When the stick of rudder turn left or right, the head of quad will turn left or right accordingly.



4) When the stick of elevator turn up or down, the quad will be forward or backward accordingly.

### 9.2 Practice Flips:

HMX280 can do excited stunt actions, such as forward and backward, rolling right and left:

- 1) Find a spacious ground with soft grass to practice.
- 2) Select roll flight mode(3-axis mode)
- 3) It is advised the beginners increase the servo distance of ELEV and AILE of the transmitter to 100%-110%. It can be adjusted according to personal skill. The default setting is 100%
- 4) It is a must to practice with the throttle of the transmitter. When the HMX280 quadcopter change from normal flight to stunt flight, the throttle stick needs to pull down slowly. When the model exchanges from stunt flight to normal, the throttle stick needs to pull up accordingly. Please adjust it according to personal skill.

## 10. End the flight



Step 1: Push the aileron stick to the right side down



Step 2: Disconnect the battery

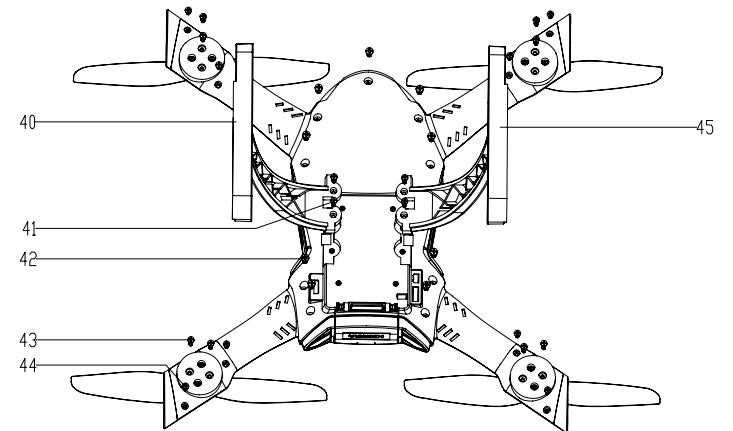
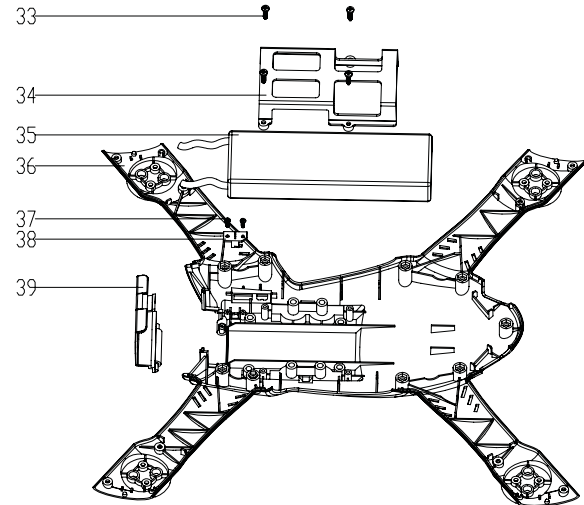
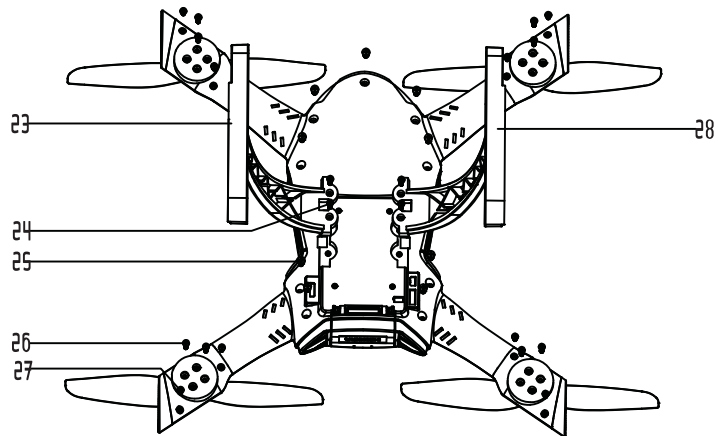
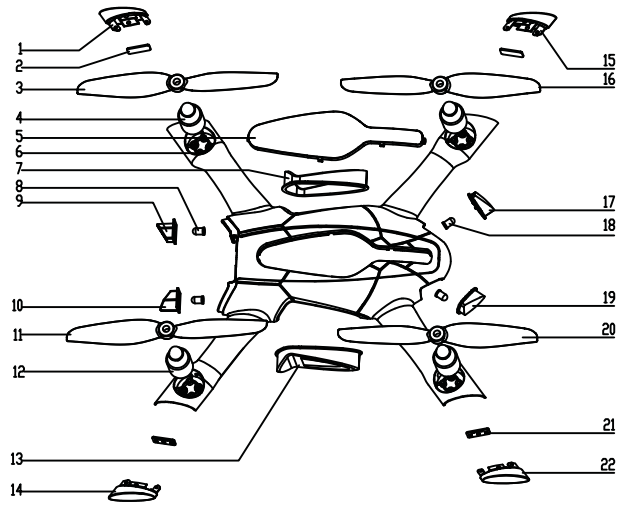


Step 3: turn off the transmitter



Step 4: Take out the battery of the quad

## 11.Exploded View

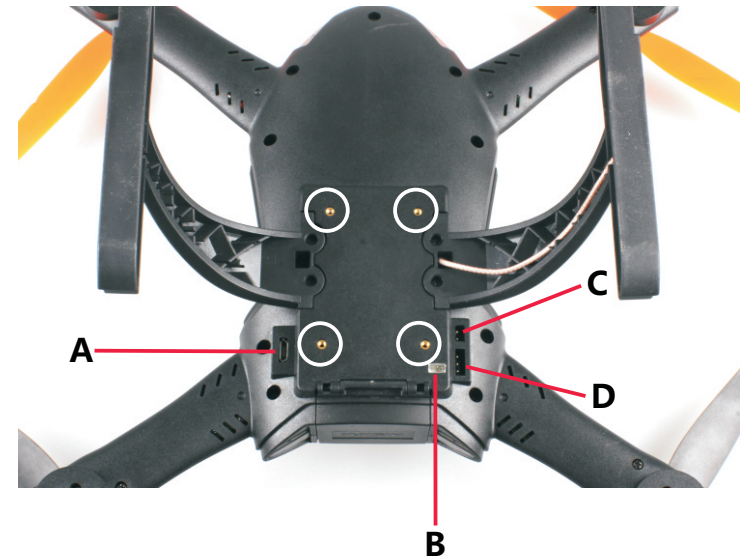


## 10.1 Parts of HMX280

No.	Name	Amount
1	HMX280 left rear leg decoration light piece	1
2	HMX280 semi-finished red-light	2
3	HMX280 counter-clockwise rotor (black)	1
4	Counter-clockwise motors(with M4 caps)	2
5	HMX280 Upper cover decoration piece	1
6	HMX280 Upper cover	1
7	HMX280 left finger position decoration piece	1
8	Luminous diode (white to white, super bright)	2
9	HMX280 left rear light	1
10	HMX280 right rear light	1
11	HMX280 clockwise rotor(black)	1
12	Clockwise motors(with M4 caps)	2
13	HMX280 right finger position decoration piece	1
14	HMX280 right rear leg decoration light piece	1
15	HMX280 left front leg decoration light piece	1
16	HMX280 clockwise rotor(orange)	1
17	HMX280 left front light	1
18	Luminous diode (white to red, super bright)	2
19	HMX280 right front light	1
20	HMX280 counter-clockwise rotor (orange)	1
21	HMX280 semi-finished white-light	2
22	HMX280 right front leg decoration light piece	1
23	Tapping screws 2.0*8	6
24	HMX280-CC3D Main Board (semi-finished)	1
25	HMX280-ESCs	4

No.	Name	Amount
26	Machine screws 2.0*5	8
27	HMX280-CC3D USB (semi-finished)	1
28	XY1001 receiving board (semi-finished)	1
29	Machine screws 2.0*8	2
30	Tapping screws 2.0*8	4
31	HMX280-CC3D power socket (semi-finished)	1
32	Tapping screws 1.5*3	4
33	Tapping Screws 2.0*8	4
34	HMX280 battery bay	1
35	1350mAh 11.1V 25C battery	1
36	HMX280 Down Cover	1
37	Tapping screws 1.5*5	2
38	HMX280-CC3D satellite receiver board(semi-finished)	1
39	HMX280 battery hatch	1
40	HMX280 right tripod	1
41	machine screws	4
42	Tapping screws	9
43	machine screws	8
44	Tapping screws	8
45	HMX280left tripod	1

## 12.HMX280 Data Ports



There are four ports at the bottom of the airframe(see the above picture):

Serial number	Data Ports
A	USB Port
B	DSMX/II satellite receiver port
C	11.1V battery port
D	Gimbal control port

(The four screw holes marked with white circles in the picture are left for gimbals.)