

H920 PLUS

USER MANUAL

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AERIAL IMAGING SOLUTION

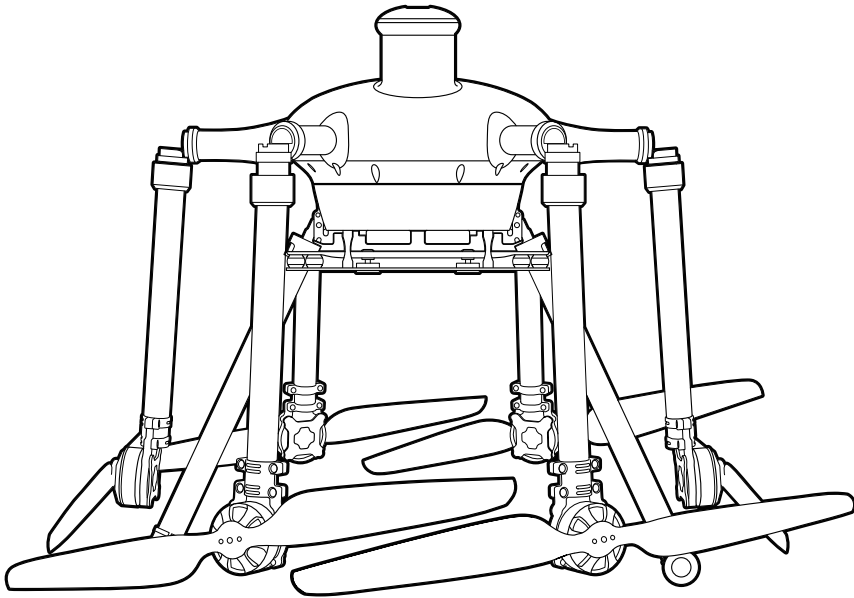
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AERIAL IMAGING SOLUTION

INTRODUCTION

H920 Plus

The H920 Plus is a professional multirotor aerial photography and videography platform. Its unique and innovative features make it possible to capture amazing photographs and video footage for a variety of uses. The modular aircraft platform is compatible with CGO4 Camera, a 3-Axis Stabilized Gimbal System.



SPECIFICATIONS

H920 Plus

Flight Time: 24 Minutes (H920 PLUS/3pcs 6S 4,000mAh LiPo)

Dimension: 31.4x36.2x18.1in (797x920x461mm)

Diagonal Length Without Rotor Blades: 36.2 in(920mm)

Propeller/Main Rotor Diameter: 17.3 in (440mm)

Take-off Weight with CGO4 and Batteries: 176.0 oz (4990g)

Battery: LiPo 6s 4000mAh 8C

Charger: 200W 2 x output AC-DC Balancing Charger

Transmitter: 16-channel 2.4GHz with 5.8GHz video downlink (included)

Flight Modes: Smart, Angle and Home Modes

Maximum Flying Height (Absolute altitude): 4000m (13123 ft)

Maximum Flying Height (Relative altitude): 122m(400 ft)

Maximum Rotation Rate: 100°/s

Maximum Roll Angle: 35°

Maximum Horizontal Speed (GPS ON): 40km/h

Radio Control Frequency Band: 2.4GHz

Operating Temperature Range: - 10°C to 50°C

ST16 PERSONAL GROUND STATION

Operating System: Android™

Number of Channels: 16

Control Transmission Distance/Range (Optimum Conditions): Up to 1 Mile (1.6km)

Video link Frequency Band: 5.8GHz WiFi

Video Transmission Distance/Range (Optimum Conditions):

FCC Compliance: Up to 0.9 mile (1.5km)

CE Compliance: Up to 0.9 mile (1.5km)

Flight Systems Telemetry Data On Screen Display (OSD): Yes

LED LCD Screen: 7"

Tactile (Vibrating) and Audible Feedback: Yes

Built-In Li-ion Battery Voltage / Capacity: 3.6V 8700mAh 31.32Wh Li-ion

NOTICES AND WARNINGS

IMPORTANT NOTE: All safety precautions and warnings, instructions, warranties and other collateral information is subject to change at the sole discretion of Yuneec. For the most up-to-date information please visit the corresponding product page at www.Yuneec.com or contact the nearest Yuneec office or authorized distributor.

The following special language terms are used throughout the product literature to indicate various levels of potential harm when operating this product:

NOTICE: Procedures, which if not properly followed, create a possibility of property damage and/or little to no possibility of injury.

CAUTION: Procedures, which if not properly followed, create the probability of property damage and/or a possibility of serious injury.

WARNING: Procedures, which if not properly followed, create the probability of property damage, collateral damage and/or serious injury or create a high probability of superficial injury.

WARNING: Read the ENTIRE quick start guide and instruction manual to become familiar with the features of the product before operating. Failure to operate the product correctly can result in damage to the product, property and/or cause serious injury.

WARNING: This is a sophisticated consumer product. It must be operated with caution and common sense, and requires some basic mechanical ability.

Failure to operate this product in a safe and responsible manner could result in damage to the product, property and/or cause serious injury. This product is not intended for use by children without direct adult supervision. Do not use with incompatible components or alter this product in any way outside of the instructions provided by Yuneec. The quick start guide and instruction manual contain instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings prior to assembly, setup and/or use in order to operate the product correctly and avoid damage or serious injury.

AGE RECOMMENDATION: NOT FOR CHILDREN UNDER 14 YEARS. THIS IS NOT A TOY.

GENERAL SAFETY PRECAUTIONS AND WARNINGS

WARNING: Failure to use this product in the intended manner as described in the quick start guide and instruction manual can result in damage to the product, property and/or cause serious injury. A Radio Controlled (RC) multirotor aircraft, APV platform, drone, etc. is not a toy! If misused, it can cause serious bodily harm and damage to property.

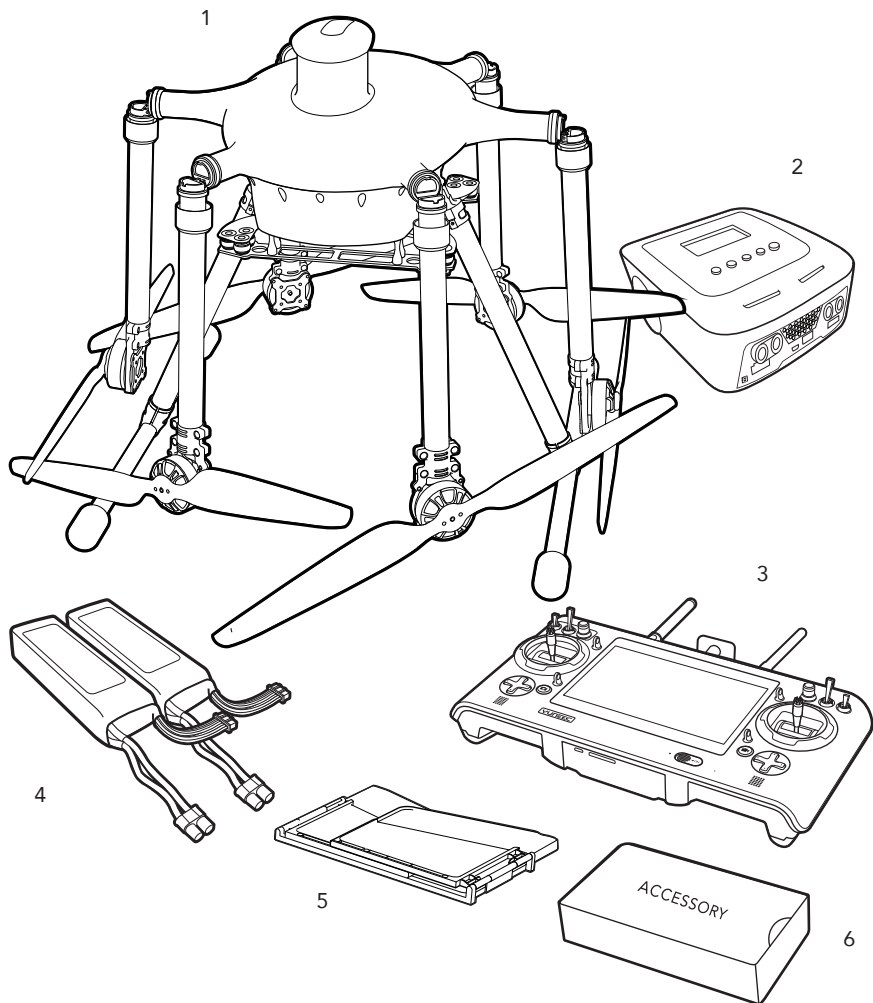
WARNING: As the user of this product you are solely and entirely responsible for operating it in a manner that does not endanger yourself and others or result in damage to the product or the property of others.

- Keep your hands, face and other parts of your body away from the spinning propellers/rotor blades and other moving parts at all times. Keep items that could impact or become entangled away from the propellers/rotor blades including debris, parts, tools, loose clothing, etc.
- Always operate your aircraft in open areas that are free from people, vehicles and other obstructions. Never fly near or above crowds, airports or buildings.
- To ensure proper operation and safe flight performance never attempt to operate your aircraft nearby buildings or other obstructions that do not offer a clear view of the sky and can restrict GPS reception.
- Do not attempt to operate your aircraft in areas with potential magnetic and/or radio interference including areas nearby broadcast towers, power transmission stations, high voltage power lines, electrical storms, etc.
- Always keep a safe distance in all directions around your aircraft to avoid collisions and/or injury. This aircraft is controlled by a radio signal subject to interference from many sources outside your control. Interference can cause momentary loss of control.
- To ensure proper and safe operation of the automatic landing function in Home Mode you must start the motors with the aircraft in a position that has at least 10 feet (approximately 3 meters) of clear and open space around it and achieve a proper GPS lock.
- Do not attempt to operate your aircraft with any worn and/or damaged components, parts, etc. (including, but not limited to, damaged propellers/rotor blades, old batteries, etc.).
- Never operate your aircraft in poor or severe weather conditions including heavy winds, precipitation, lightning, etc.
- Always operate your aircraft starting with a fully charged battery. Always land as soon as possible after the first level low voltage battery warning or land immediately after the second level low voltage battery warning (as indicated by the vibrations and audible alerts from the transmitter/personal ground station).
- Always operate your aircraft when the voltage of the battery in the transmitter/personal ground station is in a safe range (as indicated by the battery charge status icon on the screen of the transmitter/personal ground station).
- Always keep the aircraft in clear line of sight and under control, and keep the transmitter/personal ground station powered on while the aircraft is powered on.
- Always move the throttle control stick down fully and turn off the motors in the event the propellers/rotor blades come into contact with any objects.
- Always allow components and parts to cool after use before touching them and flying again.
- Always remove batteries after use and store/transport them per the corresponding guidelines.
- Avoid water exposure to all electronic components, parts, etc. not specifically designed and protected for use in water. Moisture causes damage to electronic components and parts.
- Never place any portion of the aircraft or any related accessories, components or parts in your mouth as doing so could cause serious injury or even death.
- Always keep chemicals, small parts and electronic components out of the reach of children.
- Carefully follow the instructions and warnings included with this aircraft and any related accessories, components or parts (including, but not limited to, chargers, rechargeable batteries, etc.).

CAUTION: The electronic speed controls (ESCs) installed in the H920 Plus are not compatible with any other product, and the H920 Plus is not compatible with any other ESCs. Use of any other ESCs in the H920 Plus will cause a crash, which may result in damage to the product, property and/or cause serious injury.

THE H920 PLUS RTF CONTENTS

The H920 PLUS RTF includes everything necessary to fly. Yuneec offers a variety of imaging products; there may be other enhancements available to suit a specific purpose.



1. H920 Plus RTF Airframe (4 sets of Propeller/Rotor Blade)
2. A10 Charger
3. ST16 Transmitter and Personal Ground Station
4. 4000mAh 6S 22.2V LiPo Battery (2pieces)
5. ST16 LCD Screen Sun Shade/Shield
6. ACCESSORY Box

DISCLAIMER

Yuneec Electric Aviation cannot be held liable for any damage, injury or for use of the product in violation with legal regulations, especially in the following circumstances:

Damage and/or injury as well violation of legal regulations resulting from a failure to comply with the operating instructions or the instructions at www.yuneec.com, product information, user manual and other legally binding information.

Damage and/or injury as well violation of legal regulations brought about by the influence of alcohol, drugs, medication or mother narcotics which may impact on the concentration of the user. The same applies to illnesses effecting the concentration of the user (dizziness, tiredness, nausea etc.) or other factors compromising mental and physical capabilities. Intentionally caused damage, injury or violation of legal regulations.

Any request for compensation caused by an accident resulting from use of the product.

Damage and/or injury as well as violation of legal regulations caused by use of the product in a no-fly zone, e.g. next to an airfield, above a motorway or a natural conservation area. Malfunction of the product caused by retrofitting or replacement with components which did not come from Yuneec Electric Aviation.

Damage and/or injury caused by the use of replica parts (non-original parts).

Damage and/or injury as well as violation of legal regulations caused by incorrect operation or misjudgment.

Damage and/or injury caused by damaged spare parts or not using original Yuneec Electric Aviation spare parts.

Damage and/or injury as well as violation of legal regulations caused by ignoring the low voltage battery warning.

Damage and/or injury caused by knowingly and negligibly flying with a damaged model or one which is unfit to fly, e.g. due to dirt, water penetration, coarse particles, oil or a model which has not been correctly or completely assembled or if the main components exhibit visible damage, defects or missing parts.

Damage and/or injury as well as violation of legal regulations caused by operating the model in a magnetic field (e.g. high voltage lines, electricity/transformer stations, radio towers, mobile phone masts etc.), a strong wireless signal environment, no-fly zones, poor visibility and in the event of vision impairments or other impacts on the pilot which are left unchecked etc...

Damage and/or injury brought about through a violation of the legal regulations for operating the model, in unsuitable weather conditions, e.g. rain, wind, snow, hail, storms, hurricanes etc.

Damage and/or injury as well as violation of legal regulations caused by force majeure, e.g. collision, fire, explosion, flooding, tsunami, landslide, avalanche, earthquake or other forces of nature.

Damage and/or injury as well as violation of legal regulations caused by the illegal or immoral use of the model, e.g. capturing videos or recording data which infringes upon/harms the privacy of other people.

Damage and/or injury as well as violation of legal regulations caused by incorrect use of the batteries, protection systems, chargers or aircraft.

Consequential damage caused by the incorrect operation of any kind of system components and accessory parts, especially memory cards, whereby image or video material from the camera can become defect.

Any non-compliance with legal obligations, personal injury, material damage and environmental damage caused by use and a failure to comply with the local laws and regulations.

Damage and/or injury as well as violation of legal regulations caused by hazardous use without sufficient practical experience.

Damage and/or injury as well as violation of legal regulations caused by flying in legally defined no-fly zones. Further losses which do not fall within the scope of use defined by Yuneec Electric Aviation as improper.

This product is designed for both professional use and personal, private use. The national and international laws and regulations in force as the time of take off must be adhered to.

LIPO BATTERY WARNINGS AND USAGE GUIDELINES

WARNING: Lithium Polymer (LiPo) batteries are significantly more volatile than alkaline, NiCd or NiMH batteries. All instructions and warnings must be followed exactly to prevent property damage and/or serious injury as the mishandling of LiPo batteries can result in fire. By handling, charging or using the included LiPo battery you assume all risks associated with LiPo batteries. If you do not agree with these conditions please return the complete product in new, unused condition to the place of purchase immediately.

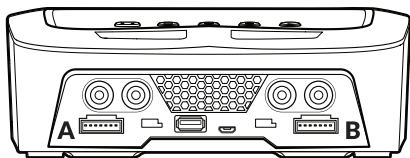
- You must always charge the LiPo battery in a safe, well-ventilated area away from flammable materials.
- Never charge the LiPo battery unattended at any time. When charging the battery you must always remain in constant observation to monitor the charging process and react immediately to any potential problems that may occur.
- After flying/discharging the LiPo battery you must allow it to cool to ambient/room temperature before recharging.
- To charge the LiPo battery you must use only the included charger or a suitably compatible LiPo battery charger. Failure to do so may result in a fire causing property damage and/or serious injury.
- If at any time the LiPo battery begins to balloon or swell, discontinue charging or discharging immediately. Quickly and safely disconnect the battery, then place it in a safe, open area away from flammable materials to observe it for at least 15 minutes. Continuing to charge or discharge a battery that has begun to balloon or swell can result in a fire. A battery that has ballooned or swollen even a small amount must be removed from service completely.
- Do not over-discharge the LiPo battery. Discharging the battery too low can cause damage to the battery resulting in reduced power, flight duration or failure of the battery entirely. LiPo cells should not be discharged to below 3.0V each under load.
- Store the LiPo battery at room temperature and in a dry area for best results.
- When charging, transporting or temporarily storing the LiPo battery the temperature range should be from approximately 40–120° F (5–49° C). Do not store the battery or aircraft in a hot garage, car or direct sunlight. If stored in a hot garage or car the battery can be damaged or even catch fire.
- Never leave batteries, chargers and power supplies unattended during use.
- Never attempt to charge low voltage, ballooned/swollen, damaged or wet batteries.
- Never allow children under 14 years of age to charge batteries.
- Never charge a battery if any of the wire leads have been damaged or shorted.
- Never attempt to disassemble the battery, charger or power supply.
- Never drop batteries, chargers or power supplies.
- Always inspect the battery, charger and power supply before charging.
- Always ensure correct polarity before connecting batteries, chargers and power supplies.
- Always disconnect the battery after charging.
- Always terminate all processes if the battery, charger or power supply malfunctions.

IMPORTANT NOTE: It's safer and better for the longevity of the battery to store it only partially charged for any length of time. Storing the battery approximately 50% charged is typically best, however, it will take some careful management of the charge time and the use of a volt meter to achieve this voltage. If you have the equipment and skills to achieve the 50% charge level for storage it is recommended. If not, simply be sure to not store the battery fully charged whenever possible.

In fact, as long as the battery will be stored at approximately room temperature and for no more than a few weeks before the next use, it may be best to store the battery in the discharged state after the last flight (as long as the battery was not over-discharged on the last flight).

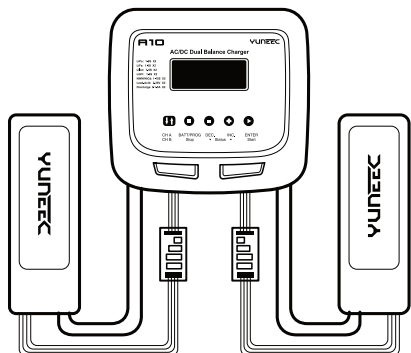
CHARGING THE LIPO FLIGHT BATTERY

Connecting to the power source : the A10 Dual Balance Charger comes with built in switching power supply. You can connect the AC power cord directly to the main AC socket (110 to 240V AC).



NOTICE: While the A10 is connected to a suitable 110 to 240V AC power source, the combined power output for Channel A and Channel B is 200W, capable of charging two 6-Cell (6S), 4,000mAh LiPo battery packs at 4.3A.

CONNECTING THE BATTERY



BUTTON DESCRIPTIONS

CH A / CH B: Used to switch from Channel A to B or Channel B to A.

BATT PROG / STOP: Used to stop the progress or go back to previous step/screen

DEC: Used to go through the menus and decrease the parameter value.

INC: Used to go through the menus and increase the parameter value.

ENTER / START: Used to enter parameter or store parameter on screen.

CHARGING

BATT/PROGRAM Select: Press INC and DEC to go through all the programs and press START/ENTER to enter LiPo BATT Program (for flight BATT) or Li-ion BATT Program (for proaction™).

Mode Select: Press INC and DEC to go through all the modes and press START/ENTER to enter LiPo Balance Charge Mode (for aircraft's flight battery), to enter Li-ion Balance Charge Mode (for ProAction ground handle).

Battery Setting: Press START/ENTER, the current value will start to blink, press INC and DEC to change the value and press START/ENTER to confirm your setting. For the H920 Plus battery, it is recommended to set 4A (no more than 8A). For ProAction™ battery, it is recommended to set 2A (no more than 3A).

At the same time, the battery cells number will start blinking, press INC and DEC to change the value and press START/ENTER to confirm your setting.

For the H920 Plus battery, 6S should be selected. For ProAction™, 4S should be selected.

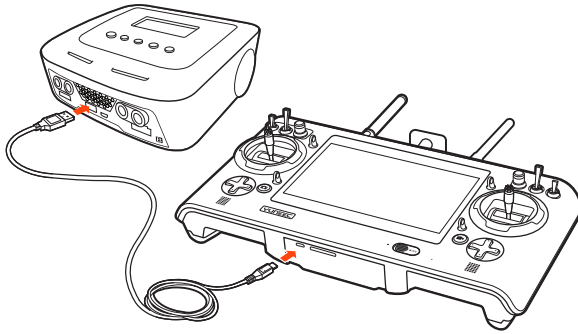
Program Start: Press and hold START/ENTER for 3 seconds to start the program. The charger is detecting the battery cell.

NOTICE: **R** shows the number of cells detected by the charger and **S** is the number of cells set by you at the previous screen. If both numbers are not identical, press STOP to go back to previous screen to recheck the number of cells of the battery pack before going ahead. If both numbers are identical, press START/ENTER to start charging process.

If the number of cells do not match after double checking the connection, please contact technical support.

CHARGING THE ST16'S LI-ION BATTERY

The ST16 battery is charged by using the supplied USB cable and inserting it into the USB port in the charger. It will take approximately five (5) hours to charge a fully discharged (not over-discharged) battery.



NOTICE: To check the charge status of the ST16, simply tap the screen 2 times.

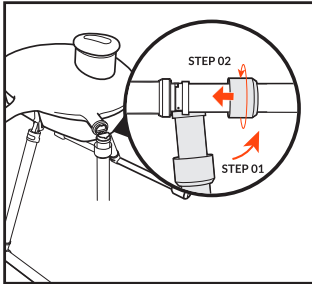
NOTICE: The AC plug type will vary depending on the region in which the product was imported/purchased (AU = Australian; EU = European; UK =United Kingdom; US = United States).

ASSEMBLING THE H920 Plus

INSTALLING THE MOTOR ARMS

Fold the motor arms upwards and secure them using the straight knurled nut cover located on the motor arms.

NOTICE: Do not over tighten the straight knurled nuts; It may cause deformation of the carbon-fiber arms.



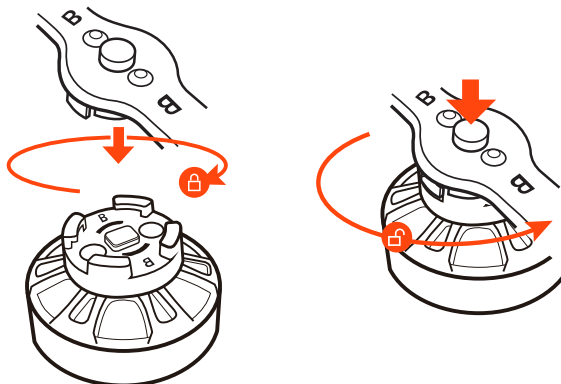
INSTALLING THE MOTOR ARMS

INSTALLING THE PROPELLERS

IMPORTANT NOTE: Always ensure propellers are installed properly. The motors are extremely powerful, and if the device is misused or propellers not properly secured, there is a risk of material damage, serious injury and even fatal injury.

Mount the propellers on the motors properly and note the 'A' and 'B' printed on the motor arms. This distinction between 'A' and 'B' refers to propeller 'A' and 'B'. Mount propeller 'A' on motor 'A' and propeller 'B' on motor 'B'. Press and rotate the propeller in the reverse direction the arrow indicates. When a click is heard, the propeller is successfully secured. After securing the propeller, hold the motor housing with one hand while attempting to turn the prop in both directions, to ensure and check for a complete lock.

NOTICE: To remove the propeller, press and hold the center button on the propeller and rotate the propeller in the direction the arrow indicates. The prop will rotate and can be unlocked/removed.



INSTALLING THE FLIGHT BATTERIES

After the flight batteries have been fully charged, they are ready to be installed in the H920 PLUS:

STEP 1) Open the battery compartment flap with the status LED mounted on it by carefully pulling the top edge of the door flap.

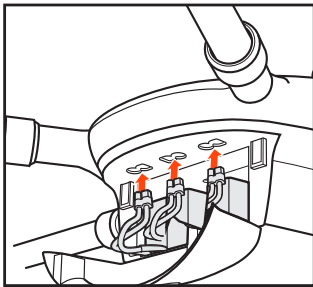
STEP 2) Slide the batteries into the compartment with the EC3 blue, polarity-protected connector leads / wires towards the downward side of the compartment.

WARNING: The aircraft may be launched with either two or three batteries. If utilizing two flight batteries, make sure the two batteries are placed evenly within the two sides to balance the aircraft's center of gravity. The voltage between each battery pack must be within 0.1V prior to connecting the batteries to the aircraft. Be sure to use the included battery voltage meter.

STEP 3) Connect the flight battery to the relevant socket above the respective battery on the H920 PLUS using the EC3 blue, polarity-protected connector.

NOTICE: The white socket is for battery charging, do not connect it to any port when installing the batteries. If the battery is not installed in the correct orientation it will not be possible to make a positive connection.

STEP 4) Fasten the battery belt, close the battery door and ensure the door is closed safely by the magnet.



INSTALLING THE FLIGHT BATTERIES

FLIGHT CONTROLS

The ST16 is equipped with 3 different flight modes which can be selected using the mode switch in the top right corner above the right joystick.



SMART MODE

If the Flight Mode selection switch is fully up, then the H920 Plus is in Smart Mode. Although we recommend learning how to fly as soon as possible in Angle Mode, Smart Mode is the best choice for low-time pilots when test flying.

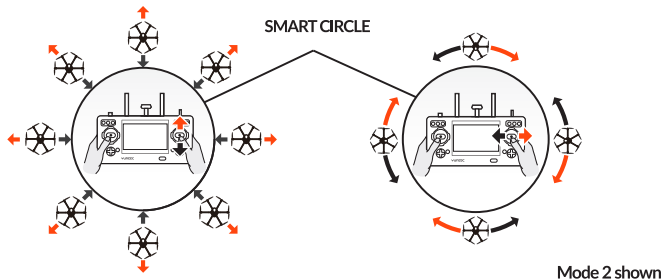
In Smart Mode, the H920 Plus always flies in the direction in which the right joystick (mode 2) is moved by the pilot, regardless of the direction in which the nose is pointing. So if you move the stick to the right, the H920 Plus will also move to the right regardless of the position of the nose, even if it is in the middle of turning. The mode can also be useful to pilots who have lost their bearings when flying in Angle Mode.

ADDITIONAL SMART MODE FEATURES:

SMART CIRCLE : In most cases the Smart Circle will keep the H920 Plus approx. 8m / 26 ft. away from you provided you are positioned 8 m /26 ft. behind the H920 Plus.

NOTICE: For optimal performance, aiming the Remote controller directly at the H920 Plus.

NOTICE: Make sure that the aircraft is in Angle mode and 26.2 feet away from the pilot, then switch to Smart mode.

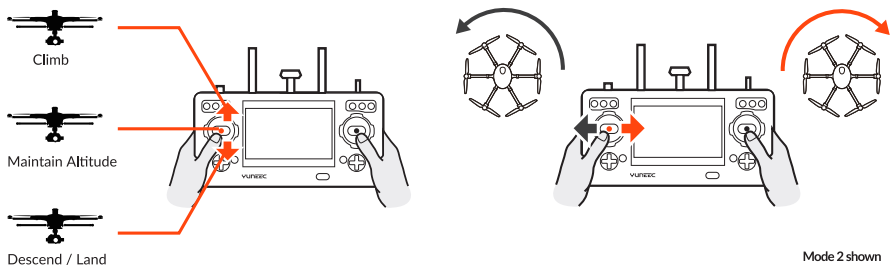


We recommend that you take your time learning how the H920 Plus responds to various control inputs while flying. In Smart Mode the H920 Plus will always move in the direction the right-hand control stick is pushed relative to the pilot and no matter which way the front/nose is pointed. In Angle (Pilot) Mode the H920 Plus will move in the direction the control stick is pushed relative to the front/nose of the aircraft (and the 'angle' of movement is determined by how far you push the stick away from the center position).

ANGLE MODE

If the Flight Mode selection switch is in the centre position, then the H920 Plus is in Angle Mode. Angle Mode is designed for pilots with a little experience (those who have already mastered Smart Mode), because in this mode the H920 Plus moves in line with the joystick, in the direction in which the nose is pointed.

To take off/launch, first start the motors in angle mode, then slowly raise the left-hand stick to slightly above the center position. The H920 PLUS will take off and climb slowly (push the stick further upward if the H920 doesn't take off). Release the stick to return to the center position when the H920 PLUS reaches the desired altitude. The H920 should hover in place.



EXTRA ANGLE MODE FEATURES:

POSITION FREELY AND RETAIN ALTITUDE

The H920 PLUS will hold its position automatically when GPS is enabled (if there is sufficient GPS signal) and it will retain the altitude level if the left stick is in the middle position.

WARNING: If the H920 PLUS has not been mastered in Angle Mode, accidents or “fly away” may result.

IMPORTANT NOTE: Accidental damage and “fly aways” are not covered by the warranty.

RETRACTING AND LOWERING THE RETRACTABLE LANDING GEAR

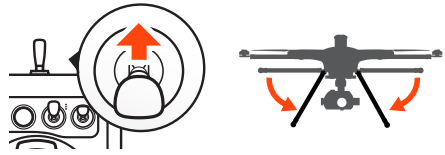
The H920 PLUS's landing gear is to keep it out of frame when a camera is attached. Landing gear may be retracted by switching up the Landing Gear Switch on the top right side of the ST16. Be certain to flip the switch to the downward position when landing.

IMPORTANT NOTE: Always put the landing gear in the down position before landing H920 Plus and before the flight height reaches 3m (10 feet).

IMPORTANT NOTE: The joystick with the two control sticks respond proportionately, that means that the further you move the control stick from the centered resting point in the middle in one direction, the stronger the response and the faster the change in course.

IMPORTANT NOTE: The maximum altitude is restricted to 122m/400' above the ground in Smart Mode and 122m/400'in Angle Mode. If at any time during the H920

PLUS is drifting out of/beyond control, release both control sticks. The H920 PLUS will automatically self-level and hold its position (with GPS on and a suitable GPS signal /lock) when both control sticks are centered. Home Mode may be activated so the H920 PLUS automatically returns to the home point and lands.



LANDING

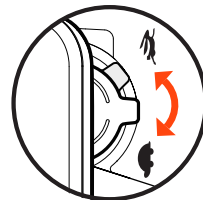
Position the H920 PLUS above the landing area. Slowly lower the left-hand stick below the center position. The H920 PLUS will slowly descend and land. After the H920 PLUS lands, depress and hold the START/STOP button for approximately two seconds to stop the motors. Alternatively, activate Home Mode and the H920 PLUS will automatically fly back to the home point and will land within 8m/26' diameter circle around the Ground Station.

WARNING: Always land as soon as possible after the first level low voltage battery warning, or land immediately after the second level low voltage battery warning. If at any time the Aircraft Battery Voltage shown on the screen is below 21.7V, land the H920 PLUS immediately.

AFTER LANDING — ALWAYS turn off the H920 PLUS BEFORE turning off the ST16. Then remove the battery(s) from the H920 PLUS and allow it to cool to ambient/room temperature before recharging.

CONTROL RATE SLIDER

The Proportional Control Rate Slider, located on the right side of the ST16 Ground Station, allows the overall climb/descend and directional control rates to be controlled. Use the slow (turtle) position for the lowest control rates (best for first-time pilots and required when flying between 5000 feet and 8000 feet Above Mean Sea Level), and use the high-speed (rabbit) position for the highest control rates (best for experienced pilots and can only be used when flying below 5000 feet MSL). Speed is variable between Slow and Fast modes.



HOME MODE

When the Flight Mode selection switch is in the bottom position, H920 PLUS will be in Home (also known as Return to Home) Mode.

In Home Mode, the GPS connectivity will in a straight line, return the H920 PLUS in the direction of the ST16's current location, and automatically land within 4-8m/13-26' of the pilot and ST16 Ground Station. This can be very helpful for beginning pilots who aren't quite ready to land H920 PLUS themselves.

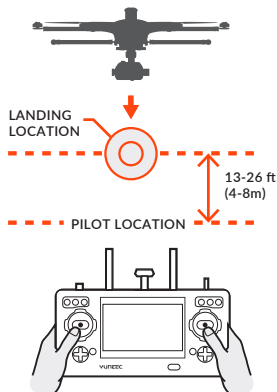
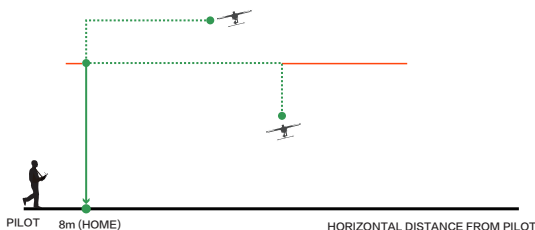
The Home Mode option is also helpful for pilots that lose orientation during flight. Activate Home Mode until H920 PLUS automatically moves toward the home position, and once the H920 PLUS' position is confirmed, put the orientation switch back to Angle (Pilot) Mode.

If H920 PLUS loses the link with the ST16 Ground Station, it will automatically enter Home Mode.

NOTICE: If the Ground Station signal is lost, H920 PLUS will automatically return to home point and hold its position (with a suitable GPS signal/lock) over the home position (except in instances of low battery, where it will land itself).

Before switching to Home Mode, press the Setting Calibration button on the right task column. Select Home Altitude and set a altitude as the desired altitude, and then Home Mode can be activated. The flight path is as follows:


1. When the flight altitude of the aircraft is lower than the desired altitude, it will climb to the desired altitude vertically first, then fly back at the current altitude and descends vertically within 13-26ft(4-8m) of the pilot until it automatically lands.
2. When the flight altitude of the aircraft is higher than the desired altitude, it will fly back at the current altitude, then descend vertically within 13-26ft (4-8m) of the pilot until it lands automatically.



ADDITIONAL FUNCTIONS:

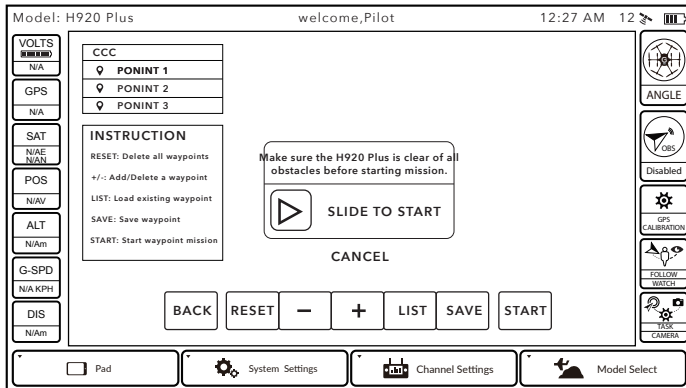
TASK MODES

Tap the TASK/CAMERA icon, the background of 'TASK' will become orange, then the menu opens another interface displaying functions: WAYPOINT, CCC (Curve Cable Cam), Journey, POI (Point of Interest), ORBIT ME and TAKE OFF.

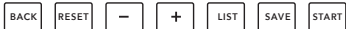
 **CCC:** (Curve Cable Cam) Curve Cable Cam allows creation of a flight route/mission for H920 PLUS to fly. Once the pilot sets the points, H920 PLUS will fly the set coordinates while remembering the heading.

If the PAN mode of the gimbal camera is switched to Follow and Follow Pan Controllable modes, the gimbal TILT angle will be adjusted as the same as the angle what the gimbal camera is at each waypoint after the pilot set the waypoints automatically and continuously. When the PAN mode is switched to the Global Mode, the PAN and TILT angle can be controlled by aileron and elevator stick.

NOTICE: The direct distance between every two waypoints should be more than 16 ft./5 meters.



Tap the CCC to enter the Curve Cable Cam function.



BACK: Tap BACK to return to the previous interface.

RESET: Tap RESET to delete all the points created during the flight.

- : Tap '-' to delete the last point created during the flight.

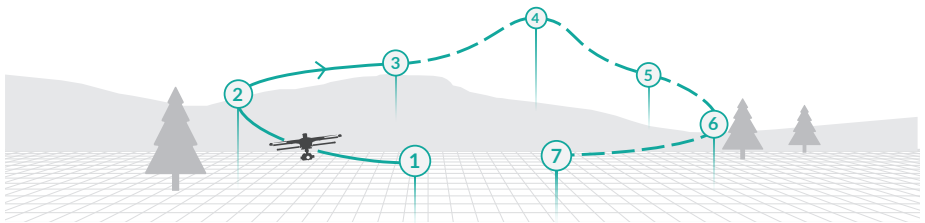
+ : Tap '+' to create a new point recording the current flying position.

LIST: Tap LIST and all previous missions/routes saved will be shown on a list. Delete any saved mission/route by sliding the chosen one to the left.

SAVE: Tap SAVE and the current mission/route will be saved.

START: Tap START, and slide the icon. H920 PLUS will fly back to waypoint 1 automatically.

[▶]: When the pilot tap the [▶], the icon will become [▶] and the CCC function will be paused. When tapped again, the [▶] will become [▶], the copter will continue the CCC function. Exit the function by tapping EXIT icon or switching flight mode.



If the pilot set 7 waypoints as shown, when the copter arrives at the Waypoint 1, slowly raise the throttle stick, the copter will fly along the waypoints from 1 to 7 in order. If the pilot slowly lower the throttle stick, the copter will fly along the waypoints from 7 to 1 in order.

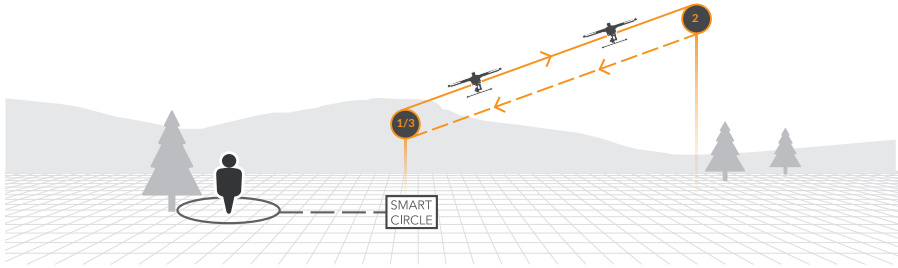


JOUR: The Journey function enables the H920 PLUS to capture perfect aerial self-shots, or a fly to/from scenic shot with perfect motion. When enabled, the H920 will fly away, up, and return.

Tap JOUR to enter the journey function.

START: Select JOUR and set the distance, then slide the slider. H920 PLUS will fly up and out to take a photo or video.

BACK: Tap BACK to return to the previous interface.



After sliding the icon, the remote control interface will display EXIT and []. Tap the [], the icon will become []. Then the journey function will be paused. When tapped again, the [] will become [], the H920 PLUS will continue the Journey function. Exit the function by tapping EXIT icon or switching flight mode.

NOTICE: When the Journey function is activated, the Journey distance may be set by the pilot.

NOTICE: The gimbal camera cannot be controlled when journey function is activated and will remain the previous angle set before. Depending on the camera tilt, the H920 PLUS will fly up and out to take the perfect self-shot, or "selfie".

NOTICE: The journey route is the reverse direction to which the gimbal camera is facing.



ORBIT ME: When Orbit Me is enabled, H920 Plus flies a circular path around the pilot. Press ORBIT to enter the ORBIT ME function.

START: Press START, and slide the icon, push the aileron stick to the right or left. The H920 PLUS will fly around the pilot/ST16 with the distance between the start point and the pilot as the radius.

BACK: Tap BACK to return to the previous interface.

[]: When the pilot tap the [], the icon will become [] and the ORBIT ME function will be paused. When tapped again, the [] will become [], the copter will continue the ORBIT ME function. Exit the function by tapping EXIT icon or switching flight mode.

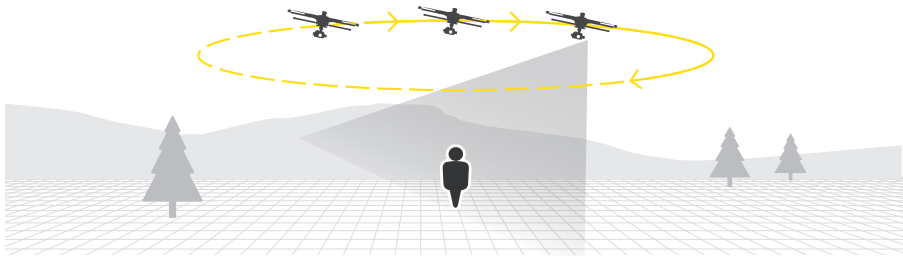
NOTICE: You can increase/decrease radius by apply forward/back on right stick.

You also can trim the gimbal pan position by adjusting pan control knob on ST16 under Follow or Follow controllable mode in Pan direction..

NOTICE: The tilt direction of gimbal camera can be adjusted by the camera tilt control knob.

NOTICE: If the aircraft flies too close to the pilot, it will automatically enlarge the distance and then begin to orbit.

NOTICE: Adjust the Throttle Control joystick to change the height of the aircraft, adjust the Aileron Control joystick to change the orbit direction of the aircraft.





POI: Point of Interest allows the pilot to select a subject to be orbited and have H920 PLUS autonomously orbit that subject.





CENTER: Press CENTER to set the current flight position of H920 Plus as the center of a circle.

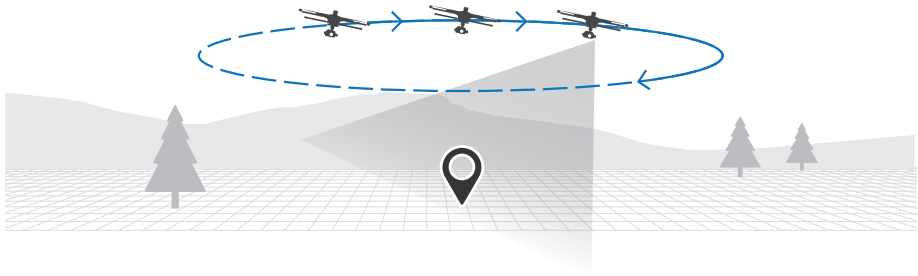
START: Press START, and slide the icon, push the aileron stick to the right or left, H920 Plus will fly around the circle center with distance between the Start point and the center point as the radius.

BACK: Tap BACK to return to the previous interface.

NOTICE: Radius may be increased/decreased by pushing forward/backward on right stick.

NOTICE: Adjust the Throttle Control joystick to change the height of the aircraft, adjust the Aileron Control joystick to change the orbit direction of the aircraft.

[] When the pilot tap the [], the icon will become [] and the POI function will be paused. When tapped again, the [] will become [], the copter will continue the POI function. Exit the function by tapping the EXIT icon or switching flight mode.





TAKE OFF

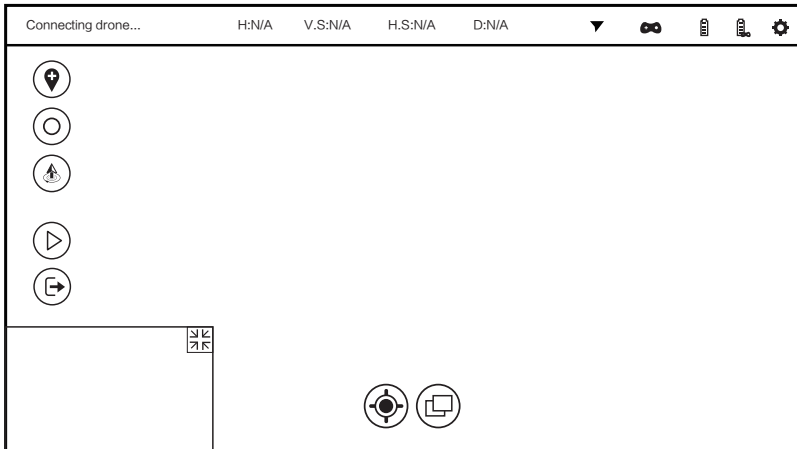
When there is suitable GPS signal for both the aircraft and ST16, and the aircraft is in Angle or Smart (chosen 'Follow') mode, the function of taking off the aircraft by one slide can be activated with the aircraft flat on the ground.

STEP 1) Press TASK/CAMERA, select TAKE OFF;

STEP 2) Slide the sliding block from left to right, the aircraft will climb vertically and begin to hover until it reaches about 6.6 feet high.



NOTICE: When the aircraft is in Home mode, the TAKE OFF function won't be activated; When the aircraft is in Angle or Smart (chosen 'Follow') mode, the TAKE OFF function won't be activated if the distance between the pilot and aircraft is less than 16.4 feet.



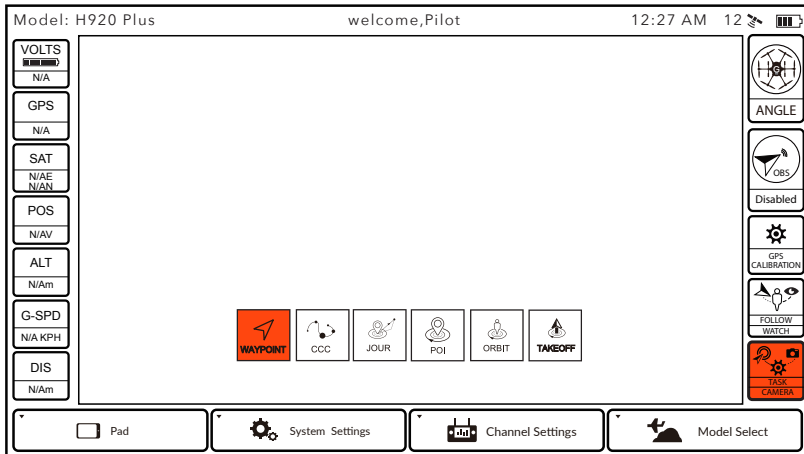


WAYPOINT

Waypoints are an intelligent function, including mission/route-planning function, geo-fence function and takeoff/point-to-land function. A waypoint defines a specific location and behavior at a specific point in time, allowing for intelligent auto-functions during flight.

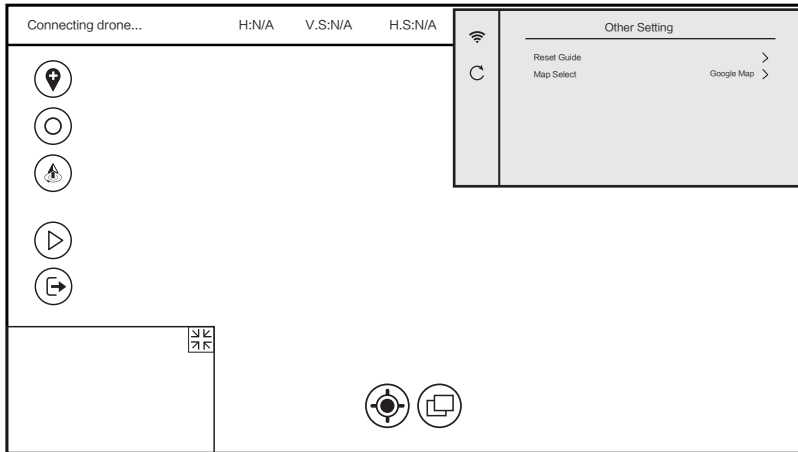
STEP 1) Select TASK/CAMERA in Angle mode, select "WAYPOINT."

STEP 2) Choose "OK" to accept any pop up warnings/alerts, and to access the waypoint interface.



MAP PREPARATION

The map will match with the ST16's menu-selected language (if English is selected, the map will be Google Map automatically). The settings icon [⚙] may also be tapped on the right top corner of the screen, and then tap the icon [C] to switch the map manually. To download maps, follow the steps below:



STEP 1) Power on the ST16, and then lock GPS signal (For a better connection, we recommend you go outdoors).

STEP 2) Tap the setting icon [⚙] on the right top corner, then select Wi-Fi icon [📶] and connect to available network.

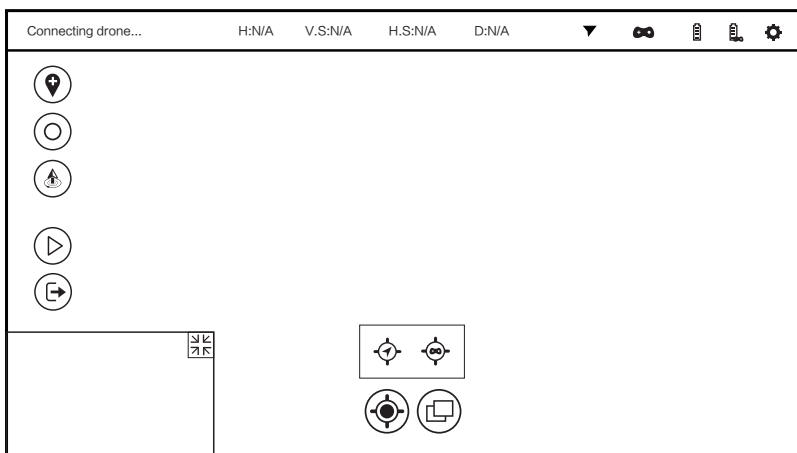
STEP 3) The map will be downloaded automatically based on location.

NOTICE: The aircraft [🛩] or the ST16 [🚁] can be selected as the center of the location by tapping the icon [📍] on the screen.




There are two displaying modes of Google map : Overlay/Normal and Satellite. Tap the map icon [🗺] select the mode.

NOTICE: Some areas are unable to display satellite maps due to map sampling/availability from provider.

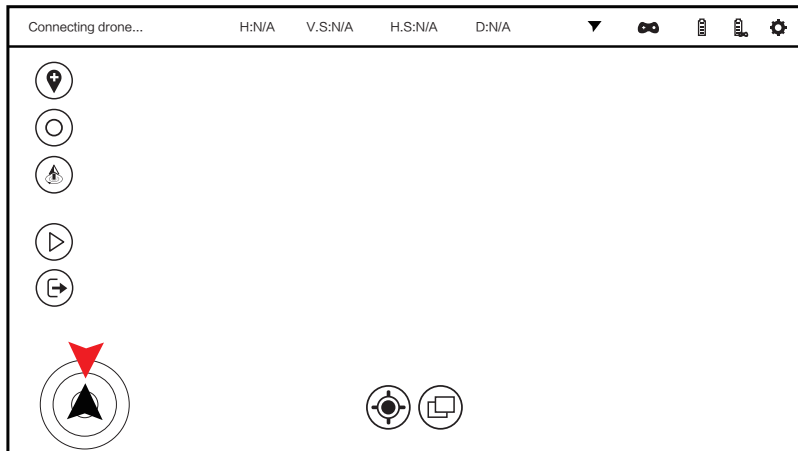
After the map is downloaded, tap the setting icon [⚙] on the right top corner, and tap the Wi-Fi [📶] again. Connect the ST16 to the Wi-Fi of CGO4 (Password is 1234567890). Preparation work on the ground is now complete.



SWITCH BETWEEN FOOTAGE AND MAP

Tap the footage on the left bottom corner on the screen. The display will switch to the main screen and the map will shrink. Tap the map again, the display will switch to the main screen. Tap the icon [], the footage or map will become an icon [], which shows the direction of aircraft's nose and camera lens. Tap [] again, it will become footage or map again.

NOTICE: If there is no gimbal camera, the display screen will only indicate the direction of H920 PLUS nose.



ROUTE-PLANNING FUNCTION


NOTICE: Make sure that no obstacle is within route.

NOTICE: We recommend that the planned route should be higher than 16.4 feet. In case of emergency, switch to any other mode can stop the route-planning task.

ADDING WAYPOINTS

A. Drawing Line

STEP 1) Press the icon [], the waypoint setting column will appear.

STEP 2) Press the icon [] in the setting column and it will turn green, which means it is chosen successfully.

STEP 3) Draw a route on the map.

B. Pointing

Tap the icon [] on the ST16 screen directly to add waypoints.

C. Inserting

Press and hold any point to insert or edit a waypoint. The waypoint properties may be edited.

NOTICE: If a waypoint requires adjustment, press and hold the waypoint and drag it to the desired location.

OPERATING WAYPOINT FUNCTION

STEP 1) Press and hold the Start/Stop button to start the motors.

STEP 2) Press [▶] icon and then slide the pop up sliding block. The H920 PLUS will automatically fly along the mission route as pre-set. Press the [⏸] and slide the sliding block; flight will be paused.

NOTICE: After the mission is set, press the icon [📍]. Input the route name and press 'YES'. After the 'Save Success' message appears, the mission has been successfully saved. If the pilot needs any previously saved mission, press the icon [📍] and select the desired mission.

STEP 3) Press the icon [⏸], to exit the task. Another way to quickly exit the task is through switching into flight mode.

NOTICE: If the H920 PLUS indicates a first level low voltage battery warning during the waypoint task, waypoint tasks will be automatically ignored, and no other waypoint task may be set.

OPERATION FOR A SINGLE WAYPOINT MISSION

After the mission route is set using the map, the system will automatically display several mission waypoints. Press any waypoint on the mission, or any figure on the top left of the screen. The mission may be configured for a single waypoint. Settings for single waypoint:

1. Relative altitude (minimum altitude is 16.4 ft./5m, default altitude is 65.6 ft./ 20m)
2. Speed (range from .9Kmh/0.06 mph to 30Kmh/18.6 mph, default speed is 14.3Kmh/8.9 mph)
3. Settings for Gimbal Control in Pan and Tilt Directions

Different Conditions for the Gimbal Control				
Condition	Pan for Way Point Global Settings	Tilt for Way Point Global Settings	Pan for Single Waypoint	Tilt for Single Waypoint
A	Follow Airline	Manual, Custom	None	Manual, Custom
B	Manual	Manual, Custom	None	Manual, Custom
C	Custom	Focus POI, Manual, Custom	Focus POI, Custom	Focus POI, Manual, Custom

1) Pan

Follow Airline: The pan direction of the gimbal will follow airline/mission line. It will move per the direction of the H920 PLUS nose.

Manual: Switch S2 controls Pan Mode of the gimbal and Knob K1 controls Pan direction of the gimbal.

Custom: In global setting, when pan mode is in custom, it will offer two choices in single waypoint pan mode.

NOTICE: Pan controlling operation is identical to pan controlling the camera gimbal in Angle mode.

1. When a POI/Point of Interest is set, all waypoints will point to the POI in pan direction. The custom value will be the angle that the waypoint point to the POI in pan direction. All single waypoints in pan mode will point to the POI automatically.
2. When no POI is set, all single waypoint in pan mode will be custom value by default.
3. Custom value in pan direction: The value shows the angle that gimbal points to the north in pan direction. When the value shows 0°, it means the gimbal pan direction points to the north. The angle ranges from 0° to 359°. When the angle is larger, the gimbal pan direction will rotate more in clockwise direction. The custom value will remain the last setting angle.

2) Tilt

Point to the POI (only when the Custom Waypoint gimbal pan mode is selected in Global Settings): The gimbal will tilt and automatically point the camera lens to the POI.

Manual: The operation identical to the gimbal tilt control in angle mode. The left slider on the ST16 controls gimbal tilt angle. The control range operates from 0° to -90°.

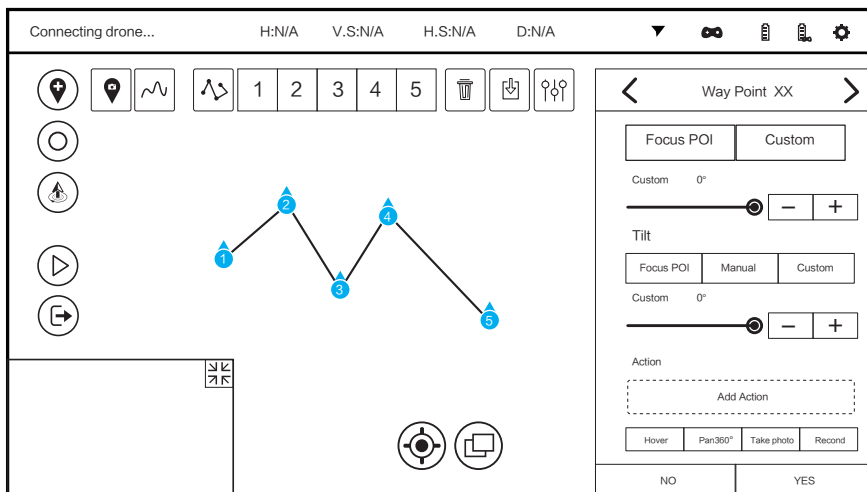
Custom: At each waypoint, the tilt angle ranges from -90° to 0°. The custom angle will record the last angle setting.

NOTICE: When single waypoint focuses POI in pan and tilt modes, the camera will point to the POI automatically. The pilot can also switch to custom mode to trim the angle to adjust the frame composition.

NOTICE: If a waypoint global setting or POI are not set, the pan and tilt modes of waypoints both show custom values by default. The default custom value of single waypoint in pan and tilt modes is 0°.

4. Add action

Multiple actions can be added to any waypoint, including Hover, Pan 360°, or Record/ Take Photo. Each single point may a maximum of five (5) points.



ADDING WAYPOINT ACTIONS:

STEP 1) Select any action below " Add Action ". The selected action will display in blue.

STEP 2) Press "Add Action" in the blue frame, and the new added action will appear in the Action column.

NOTICE: Slide the added action to the left to delete the action. Press and hold any added action, and it can be moved to change its order of execution.

Hover: Choose "Hover," and select "Add Action" to add a Hover action. When the aircraft reaches the assigned waypoint, the aircraft will begin to hover/loiter. The hover time may be manually set from 1s to 120s.

Pan 360°: Press "Pan 360°" and select "Add Action." When the H920 PLUS arrives at the selected waypoint, the camera will record while rotating 360° in the selected pan direction.


NOTICE: When operating Pan 360°, regardless of the gimbal tilt mode, the gimbal tilt angle will be the tilt custom value of the single waypoint.

Take Photo: Select "Take photo", and then select "Add Action." When the H920 PLUS reaches the selected waypoint, the camera will take a photo.


Record: Choose "Record," and then select "Add Action." When the aircraft reaches the selected waypoint, the camera will begin to record video. The record time is manually set within a range of 1s to 60s.


STEP 3) After all settings are completed, choose "YES." Settings will be saved.

IMPORTANT NOTE: The system does not save any setting by default. Choose "OK" to save settings. [<>] may be used to advance to set the last or next waypoint and save the settings in proper order to set continuous flight actions.

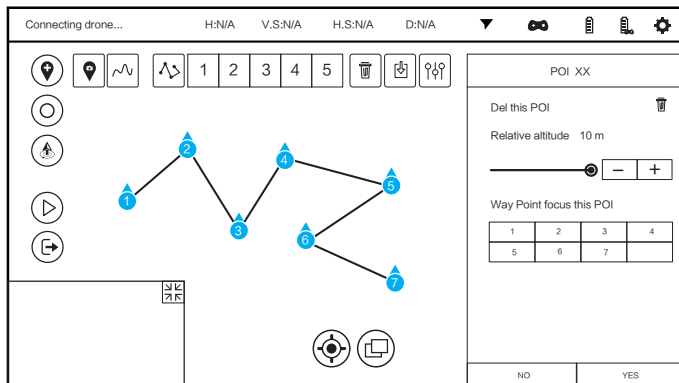
Select DELETE button [] to simultaneously delete all waypoints. Individual waypoints may be deleted by selecting the desired waypoint and choosing the DELETE button. Only the chosen waypoint will be deleted. If there are no waypoints, the delete button will not function.

POINT OF INTEREST (POI)

Multiple points of interest may be set prior to launching the H920 PLUS. The gimbal/camera lens will point to the POI. If a waypoint is set to focus on different POI, the previous setting will be applied to the POI. Press [] and then tap the display screen to set the POI.

Tap the setting menu and the display will show as indicated below: Tap the delete icon [] and the POI will be deleted.

Relative altitude: Set altitude of the POI.




NOTICE: Press and hold the POI icon until it changes state. The icon may then be moved to another position.

NOTICE: Waypoints may be set to focus on POI in the menu setting for a single waypoint, and in the Waypoint focus of the POI setting menu. The two menu selections affect each other.


NOTICE: When the altitude of the POI is higher than the H920 PLUS waypoint, the camera lens cannot tilt upward. If the lens is set to focus the POI in an upward-tilt direction, the camera is only able to face straight ahead. Reset the altitude of the H920 PLUS in this instance.

IMPORTANT NOTE: The ST16 will not save any setting by default. Press “YES” to save settings.

MISSION/ROUTE-PLANNING RECORD

If any saved mission is to be recalled, press the icon [] and select the desired mission. The mission/route will show on the map.

OPERATION FOR ALL WAYPOINTS

To simultaneously control and set parameters all waypoints, press [] to set up for waypoints.

1. Airline Type: Straight, Curve
2. Relative altitude (minimum altitude is 16.4 feet; default altitude is 65.6 feet)
3. Speed (range from 0.06 mph to 18.6 mph, default speed is 8.9 mph)
4. Settings for pan and tilt directions of the gimbal on the waypoint:

Global settings:

1) Global setting for pan and tilt mode before adding waypoints: Both pan and tilt modes of all single waypoints will change to global pan and tilt modes per global setting.

2) Global setting for pan mode: pan modes of all single waypoints will change to global pan modes per global setting.

3) Global setting for tilt mode: Any global setting for tilt mode will only affect the waypoints added after the setting. The pilot can set for single waypoint to make trim adjustment after the global setting.

NOTICE: Only when the global gimbal pan mode is switched, both pan and tilt modes of all single waypoints will be changed.

5. Choose an action after task completed:

Back (Return and hover over the home point)

Land (land at the last waypoint)

None(Return to the previous waypoint and point the H920 PLUS tail to pilot, and then hover/loiter)

Cycle (Return to the first waypoint straightly and fly along waypoints one by one and cycle)

IMPORTANT NOTE: The pilot should set relative altitude and speed for all waypoints first, then create the mission/route. The operation for all waypoints will be valid and stored. If the mission/route is created prior to setting altitude and speed, the mission parameters will not be stored.

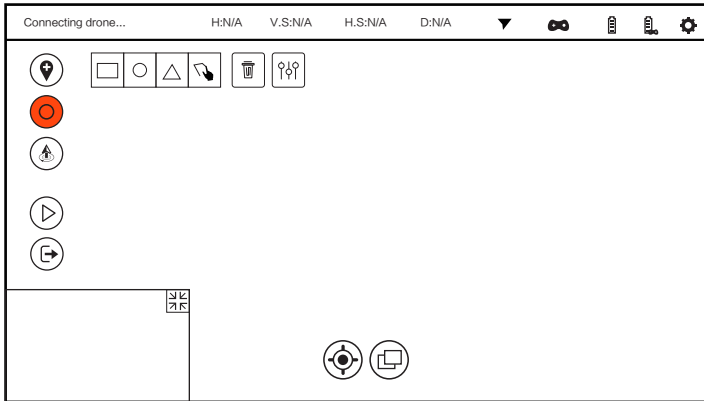
NOTICE: Changing the altitude and speed of a single waypoint won't affect altitude and speed in global settings. The aircraft will recall the final settings in a single waypoint.


NOTICE: The ST16 will not save any setting by default. Choose “YES” to save all settings.

NOTICE: The pilot will not be able to use joysticks to adjust the H920 PLUS landing point when the aircraft is operating in a Point-to-Land task. Joysticks are disabled during this task.

GEO-FENCE FUNCTION


The geo-fence is a user-determined, virtual barrier that will keep the aircraft flying within a selected area. If inertia causes the H920 to fly beyond the geo-fence, it will automatically return to a point within the fence area. The Geo-fence may be enabled:



Select the fence icon [], and the task setting column will appear.

There are square, circle and triangle fences by default. Select a shape, tap the screen, and a geo-fence of corresponding shape will display on the map.

Tap the screen at the center of the desired geo-fence. Press and hold the central blue point indicator, and the entire fence may be moved. Slide the right sliding block, and the proportion of the fence may be changed.

Select the [] icon and a custom-shape geo-fence may be set. Touch all desired on the map, and the system will automatically link them to form the geo-fence.


NOTICE: Currently, 20 points are limited to a maximum of 20 points. All points should be set in order.


NOTICE: When using a default geo-fence, press and hold any vertex to adjust its shape.

After setting/creating the geo-fence, switch to Angle mode. Press start, and then slide the sliding block. The geo-fence function is now activated.

NOTICE: If the H920 PLUS launches/takes off outside of the geo-fence after the geo-fence function is activated, once flown inside the geo-fence, it won't fly beyond the pre-set fence line.


NOTICE: Ensure that geo-fence lines do not cross; otherwise the fence point will not be successfully recorded.

Select the icon [] to delete the geo-fence.


Select the icon [] to set the altitude of geo-fence.

NOTICE:The geo-fence function may only be activated by tapping the screen and sliding the slider. There is no pause for geo-fence function.




NOTICE: When setting the altitude of the geo-fence, it is strongly recommended to set the altitude higher than the H920 PLUS's current altitude. The altitude of the geo-fence should be more than 2m/6.6' for safe operation of the H920 PLUS.



NOTICE: The geo-fence task will not automatically disable when the battery voltage is low. By selecting the [] icon and slide to confirm will disable geo-fence function.


NOTICE: If the ST16 is in Smart Mode after the geo-fence is activated, the H920 PLUS can fly beyond the geo-fence lines. When flying within the geo-fence in Home mode, the H920 PLUS will be allowed to fly back to home point when the home point is out of the geo-fence. The H920 PLUS is still within the geo-fence function. This means that if the pilot switches the ST16 from Home Mode to Angle mode while the H920 PLUS is inside the geo-fence, the aircraft will not fly beyond the geo-fence line.

NOTICE: Exit the geo-fence function by tapping the exit icon [] and sliding the sliding block.

TAKEOFF/POINT-TO-LAND

Press and hold the start/stop button until the propellers begin to spin. Press the [] icon and slide the sliding block. The aircraft will climb to the altitude of 5m/16.4 feet and hover/loiter. The [] icon will become a Point-to-Land [] icon. Select and tap on the screen at the desired landing point.

NOTICE: When the altitude of the aircraft is lower than 10m/32.8', it will climb to 10m/32.8' vertically first, then fly to the point at 10m/32.8 and descend vertically within 4-8m/13-26' of the point until it lands automatically. When the flight altitude of the aircraft is higher than 10m/32.8 feet, it will fly to the point at the current altitude, then descend vertically within 4-8m/13-26' of the point until it lands automatically. The icon [] will display over the map. Tap the start icon [] and slide the sliding block. The H920 PLUS will execute the point-to-land function.

NOTICE:The pilot may exit the point-to-land function by switching modes or choosing [] , and then sliding the sliding block.

NOTICE: Joysticks are disabled when the aircraft is executing the Point-to-Land task.

NOTICE: Prior to exiting the waypoint interface, ensure no task is waiting to be executed. Press the return button on the controller and slide the sliding block to exit the waypoint interface.

ATTACHING CGO4 GIMBAL CAMERA TO MULTICOPTER

NOTICE: Remove the fixed foam pad from the CG04 gimbal camera before proceeding.

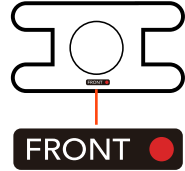
STEP 1: First unscrew 4 screws to remove CGO4 from the Proaction. Insert the gimbal connection cord to the inner side of gimbal damping plate (relative to the direction of H920 Plus power connection port).

STEP 2: Mount the gimbal thumb screws and lock washers (4 pcs) to the gimbal and rotate the screws until they're secured into the gimbal damping plate.

NOTICE: The front of the gimbal should be installed in the direction of the nose of H920 Plus.

NOTICE: Use the dedicated lock washers when rotating the screws.

STEP 3: Connect the gimbal power cord to H920 Plus gimbal connection port.



LED STATUS INDICATION

LED STATUS INDICATIONS DURING STARTUP

- The Aircraft is in "Bind" Mode
Blinks orange very rapidly (10 times per second)



- Initialization failed
Pulses red (3 times per second)



- The Aircraft is in a No-Fly Zone *
Flashes red and white rapidly (5 times per second)



Please see the instruction manual for more information regarding no-fly zones

LED STATUS INDICATIONS BEFORE/DURING FLIGHT

- The Aircraft is in Angle Mode without GPS lock
Blinks purple (3 times per second) then off (for 1 second)



- The Aircraft is in Smart Mode without GPS lock
Blinks green (3 times per second) then off (for 1 second)



- The Aircraft is in Angle Mode with GPS lock
Glow solid purple



- The Aircraft is in Smart Mode with GPS lock
Glow solid green



- The Aircraft is in Home Mode
Blinks red rapidly (5 times per second)



- First Level low Voltage Battery Warning
Flashes red, green and blue every 3 seconds



- Second Level low Voltage Battery Warning
Flashes red, green and blue continuously



- GPS Disabled
Flashes purple (1 flash per second)



- ST16 with GPS lock
Blinks white every three seconds



- Enter Task function
Blink green and purple slowly (1 time per second)



LED STATUS INDICATIONS FOR CALIBRATION MODES

- Compass Calibration Mode Entered
Blinks red and green slowly (2 times per second)



- Compass Calibration Started
Blinks red and green rapidly (5 times per second)



- Accelerometer Calibration Mode Entered
Blinks red, green and blue slowly (1 time per second)



- Accelerometer Calibration Mode Started
Blinks red, green and blue rapidly (3 times per second)



- Calibration failed
Glow solid white

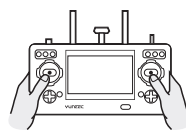
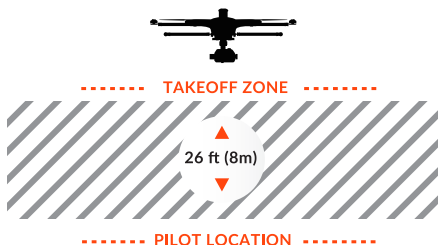
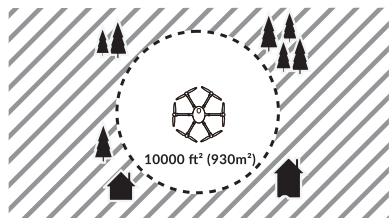


PREPARING TO FLY

WARNING: Always operate the H920 PLUS in open areas (approximately 10,000 square feet/930 square meters or more) that are free from people, vehicles, trees and other obstructions. Never fly near or above crowds, airports or buildings. Obey local regulations at all times.

Never attempt to operate H920 PLUS nearby tall buildings/obstructions that do not offer a clear view of the sky (a minimum clearance of 33m/100').

Be sure to place the H920 PLUS on a level and stable surface before powering ON the ST16 Ground Station and the H920 PLUS Aircraft.



Mode 2 shown

Step back approximately 26 ft (8 m) behind the H920 Plus

FLYING

POWERING ON/OFF

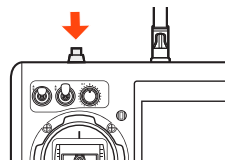
NOTICE: ALWAYS turn on the ST16 and allow it to boot up prior to powering the H920 PLUS (and ALWAYS turn off/power down the H920 PLUS prior to turning off the ST16). If the main LED status indicator flashes yellow, the compass calibration procedure will need to be executed. If the main LED status indicator is flashing blue, double check that the ST16 is powered on and set to the correct model memory. If the main LED status indicator is still flashing blue, re-bind the aircraft to the ST16.



STARTING/STOPPING THE MOTORS

Step back approximately 26 feet (8 meters) behind the H920 Plus. Press and hold the START/STOP button for about 3 seconds to start, and about 2 seconds to stop the motors.

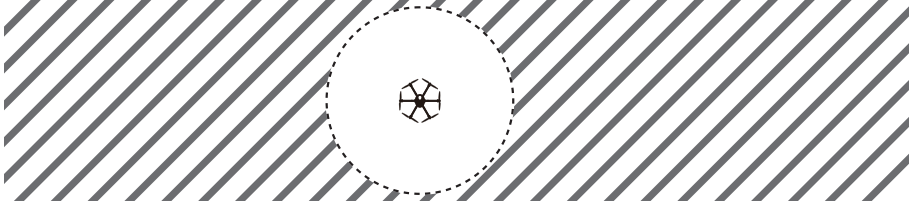
NOTICE: If the motors can't be started in such cases of compass error, insufficient GPS signal with GPS on, or in home mode, start the motors in angle mode.



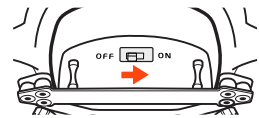
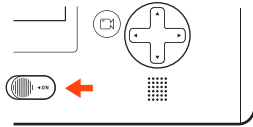
COMPASS CALIBRATION

CAUTION: Do not calibrate the compass in parking garages, close to buildings or near roads with a metal core. For optimum performance, only calibrate H920 Plus in open spaces, far away from power lines and other metal structures or concrete buildings.

NOTICE: Be sure to perform the compass calibration procedure at least 11 ft./3.3m away from the nearest cell phone or other electronic devices to ensure proper calibration.



STEP 1) Power on the ST16 Ground Station first and then the aircraft, and make sure they are connected correctly. If they are not connected correctly, the telemetry data will not display on the screen.

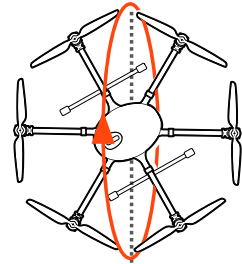
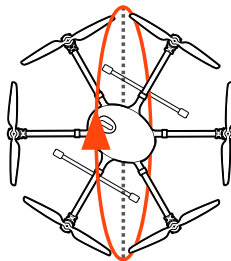
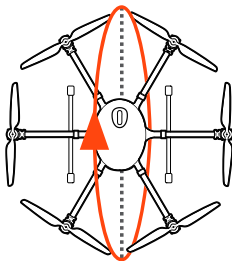


STEP 2) Tap the GPS CALIBRATION icon on the ST16 screen and choose COMPASS.

STEP 3) For best results, remove propellers if installed. Lift H920 PLUS airframe straight and level. When one beep is heard, turn the aircraft forward as shown by the red arrow above until two beeps are heard.

STEP 4) Turn the aircraft 60° to the left and then turn it forward as shown by the red arrow above until you hear three beeps.

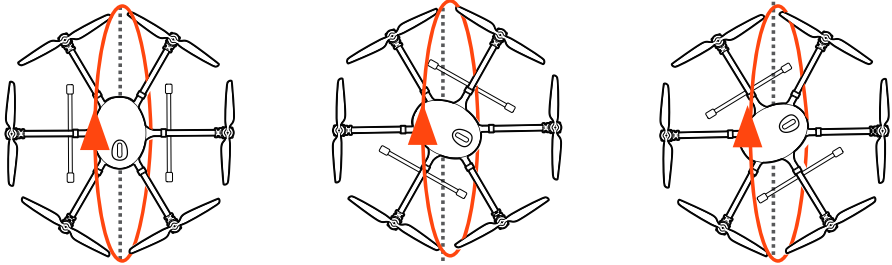
STEP 5) Turn the aircraft 60° to the left again and then turn it forward as shown by the red arrow above until you hear four beeps.



STEP 6) Turn the aircraft 60° to the left again and then turn it forward as shown by the red arrow above until you hear five beeps.

STEP 7) Turn the aircraft 60° to the left again and then turn it forward as shown by the red arrow above until you hear six beeps.

STEP 8) Turn the aircraft 60° to the left again and then turn it forward as shown by the red arrow above until you hear the acknowledgement tone.



If the calibration has been successful, an acknowledgement tone will sound (the same tone heard when the H920 PLUS aircraft is powered on), and the H920 PLUS will restart.

IMPORTANT NOTE: If calibration has failed, the Main LED Status Indicator will be solid white the calibration process must be repeated. If the calibration continues to fail, either the calibration location is unsuitable or the compass is defective. Move to a clear location. If the compass fails in multiple locations, refer to a Yuneec service center.

BINDING (SINGLE MODE)

The H920 PLUS and ST16 have already been bound before leaving our factory, so there is no need to bind the aircraft to the ST16 if no gimbal is used. If the CGO4 gimbal is to be attached to the aircraft, only CGO4 needs to be bound to the ST16. If both the CGO4 gimbal and the aircraft need to be bound to the ST16, the steps below can be followed:

STEP 1) Power on the ST 16 Ground Station and power on the on the H920 PLUS aircraft. Wait for the initialization to completes.

STEP 2) Tilt the H920 PLUS toward the nose twice (45°) until the Main LED indicator blinks orange rapidly.

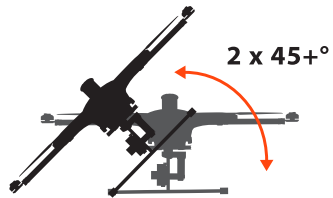
STEP 3) On the ST16, open the system settings menu and tap the 'Refresh' button.

STEP 4) Select the 'SR24_XXXXX' receiver listed in the column under 'Model', and YUNXXXXX Wi-Fi listed in the column under 'camera' on the ST16 Ground Station. Select 'Bind' and then enter the password '1234567890' to connect to Wi-Fi. Choose 'OK' after the connection has been established. Select CGO4 to complete the camera binding process.

STEP 5) Tap the 'Back' button to return to the main screen and two long beeps confirm the connection. The camera video will display on the ST16 screen.

NOTICE: Copying a model may also be used to bind a new aircraft. Long press the original model icon and choose 'Copy' from the sub-menu. Repeat the above steps.

NOTICE: If an error message is displayed in camera mode, tap "OK" to enter camera mode. Select CGO4, and select the return button to return to the control interface.



CAMERA CONTROLS (SINGLE MODE)

GIMBAL CAMERA TILT CONTROL

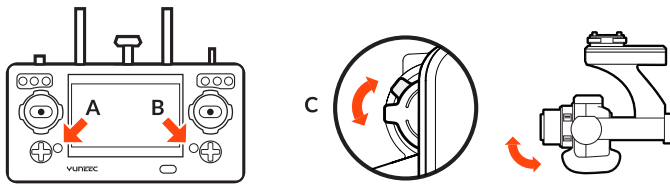
There is a gimbal tilt mode switch on ST16 labelled "S1." When the switch is in up/middle position, the CGO4 (or other gimbal system) gimbal camera is in Angle Mode. Use the slider (C) on the under-left side of the ST16 to set the tilt position of the gimbal camera. When the S1 is in the bottom position, the gimbal camera is in Velocity Mode. When the slider (C) is in the middle position, it means the velocity rate is 0 for the CGO4, disabling tilt. When the slider (C) is above the middle position, the CGO4 will enable upward tilt/angle. When the slider (C) is below the middle position, the CGO4 will enable downward tilt. The distance between the slider(C) and the middle position determines the tilt speed, the further distance, the faster the tilt speed.

CAUTION: Video recording must be stopped to take still photos. It will take approximately 1-2 seconds to capture a still photo and before another image may be taken.

CAUTION: ALWAYS stop recording video before powering down H920 PLUS to avoid loss of video data.

NOTICE: Only when in Velocity mode may the gimbal camera be tilted upwards (Maximum angle-15°).

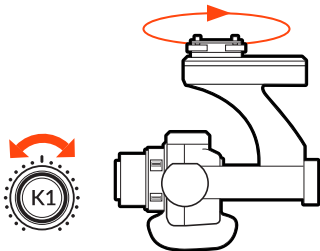
Button A = Take Still Photo
Button B = Start/Stop Recording Video



GIMBAL CAMERA PAN CONTROL

The gimbal pan mode switch on ST16 (S2) enables the Follow Mode. When the switch position is UP, the gimbal camera is in Follow Mode. The pan control of the gimbal camera is disabled when the switch position is UP. The gimbal camera will adjust its pan direction per the aircraft's movements.

When the switch is in the middle position, the gimbal camera is in Follow Pan Controllable Mode, the gimbal camera will adjust its pan direction per the aircraft's movements. Use the Pan Control Knob to set the pan position of the gimbal camera. When the switch position is down, the gimbal camera is in Global Mode. The pan direction of the gimbal camera will be fixed regardless of the aircraft's movements. Use the Pan Control Knob to set the pan position of the gimbal camera.



Any information above might be changed due to the software update. For the latest documents, please check the official website.

CERTIFICATION INFORMATION

FCC STATEMENT:

This equipment has been tested and found to comply with the limits for Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However,

there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help.

NCC WARNING STATEMENT

Without permission, any company, firm or user shall not alter the frequency, increase the power, or change the characteristics and functions of the original design of the certified lower power frequency electric machinery. The application of low power frequency electric machineries shall not affect the navigation safety nor interfere a legal communication, if an interference is found, the service will be suspended until improvement is made and the interference no longer exists.

RF EXPOSURE WARNING

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

IC RADIATION EXPOSURE STATEMENT FOR CANADA

This device complies with Industry Canada license-exempt RSS standard(s).

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This equipment complies with IC RSS-102 radiation exposure limit set forth for an uncontrolled environment.

Cet équipement respecte les limites d'exposition aux rayonnements IC définies pour un environnement non contrôlé