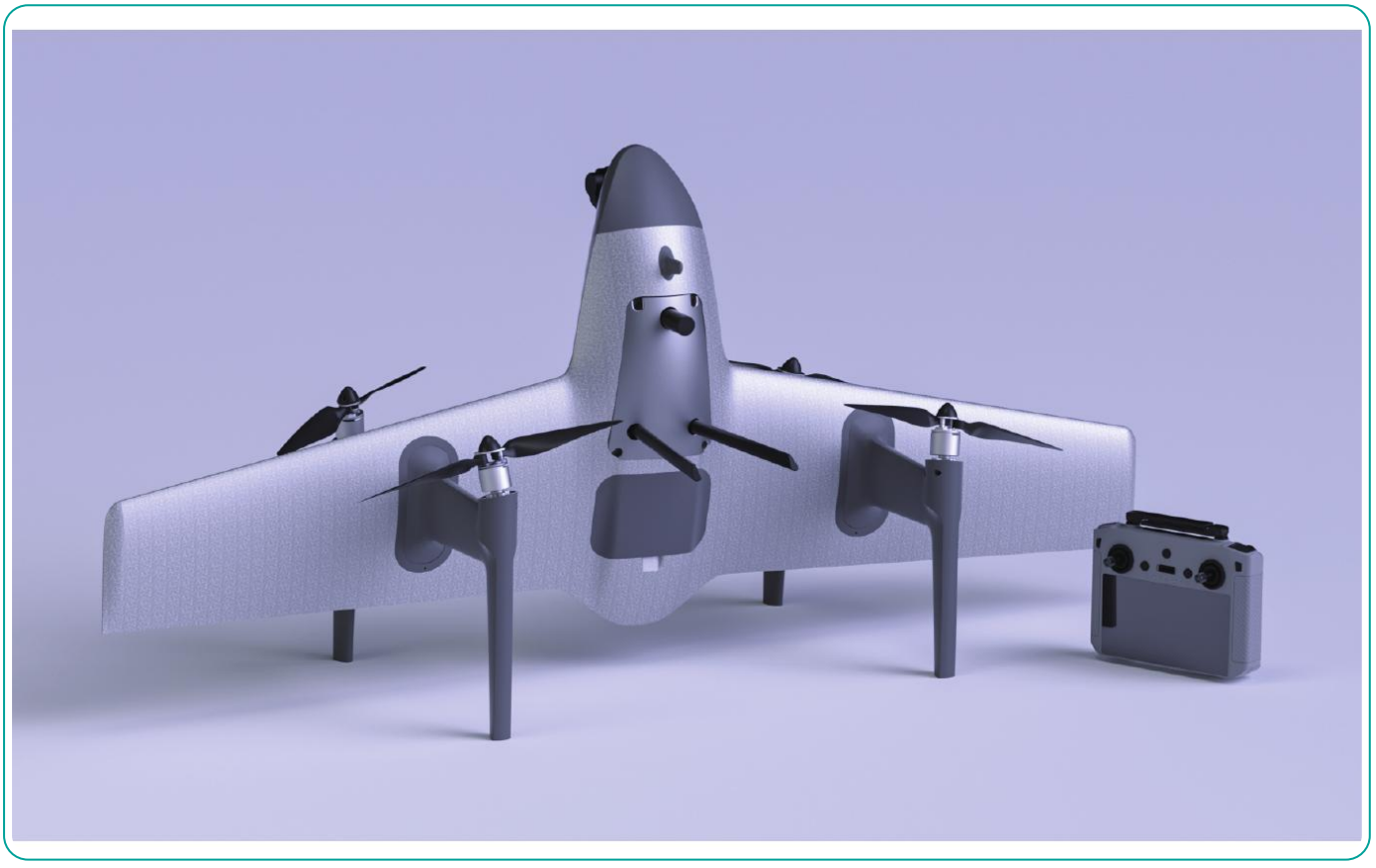
100drone™
PRO DRONES FPV PARTS DIY SOLUTIONS

SWAN VOYAGER

USER MANUAL

ASSEMBLY · CALIBRATION · FLIGHT

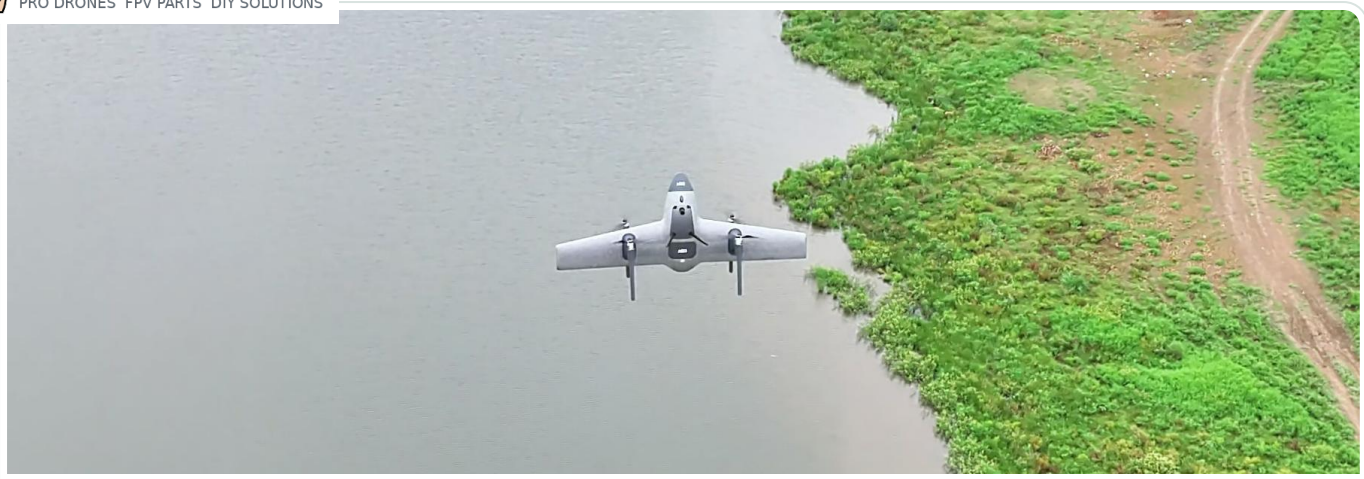


Start with correct assembly for safer calibration and flight.

For initial assembly, device calibration, basic multirotor flight, and fixed-wing practice.

VERSION 2026

Read all safety information before operation



Assemble First, Then Calibrate, Then Fly

Complete each stage in order

Do not proceed until the previous stage passes inspection.

01

MECHANICAL ASSEMBLY

Secure the arms, wings, screws, and antennas.

02

DEVICE CALIBRATION

Verify connection, compass, and airspeed calibration.

03

SAFE FLIGHT

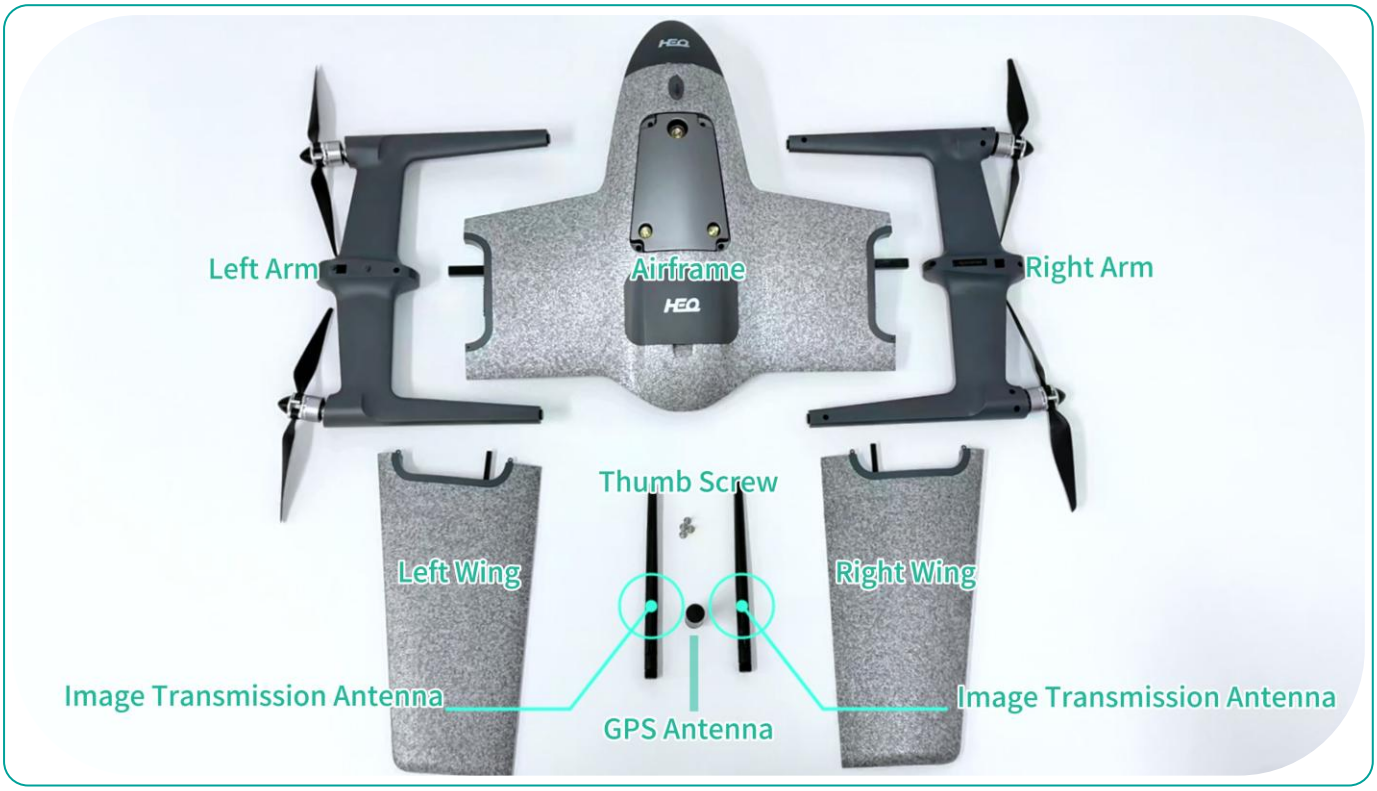
Fly only when regulations, weather, battery, and visual conditions are satisfied.

STOP

Stop and inspect if you feel resistance or notice noise, warnings, loss of control, vibration, or uncertain direction.

Assembly Overview and Parts

Keep aircraft powered off. Match all parts to the left/right markings.



PARTS LIST

AIRFRAME	Aircraft body × 1 · Left arm × 1 · Right arm × 1
WINGS	Left wing × 1 · Right wing × 1
FASTENERS & ANTENNAS	Thumb screws × 4 · Video transmission antennas × 2 · GPS antenna × 1

NOTICE Align connectors before insertion. If resistance is strong, stop; never angle, twist, or force a part.

Install the Left and Right Arms

Install one side at a time. Insert each arm straight along its connector.



01 Stabilize the aircraft Hold the body steady with the side port visible and keep clear of propellers.

02 Align the first arm Keep the arm connector and aircraft socket in a straight line.

03 Insert smoothly Push straight in until the connector is fully seated.

04 Install the other arm Repeat the same process on the other side.

05 Check symmetry and gaps Both sides should align with no visible gaps, tilt, or looseness.

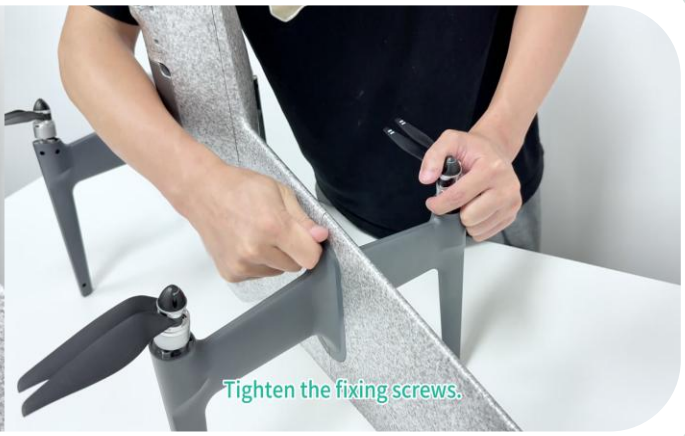
KEY ACTION If the arm will not insert, remove it and check connector orientation. Never force it.

Install Wings and Thumb Screws









01 Check left/right markings Match each wing to the correct side of the aircraft.

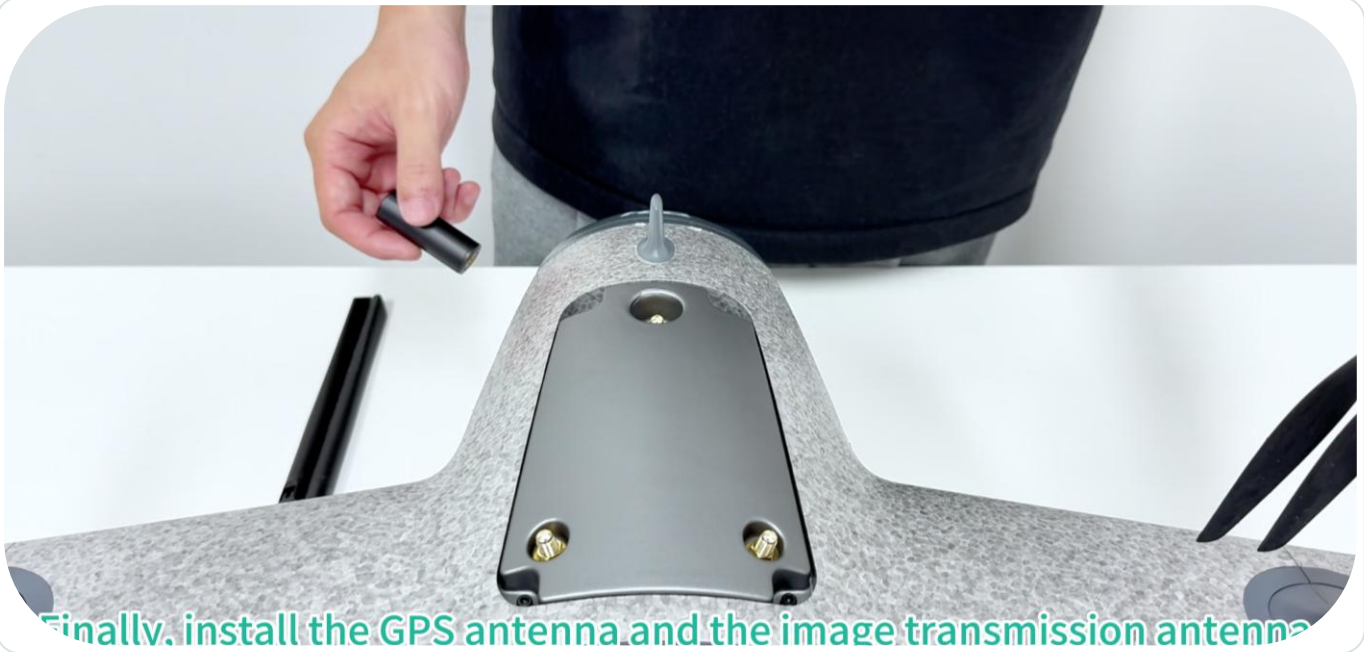
02 Align and insert the wing root Keep the wing oriented correctly and push until fully seated.

03 Insert screws vertically Install one thumb screw on each side.

04 Hand-tighten clockwise Tighten securely; check for looseness.

CAUTION If orientation is wrong, recheck the markings. Do not overtighten; threads or foam may be damaged.

Install GPS and Video Antennas





01 Check the ports Ensure the center GPS port and both video antenna ports are clean.

02 Align the GPS antenna Set it squarely on the threads and hand-tighten clockwise.

03 Install both video antennas Align each antenna with its port and tighten clockwise.

04 Recheck All three antennas must be straight, fully seated, and secure.

WAIT | Do not power on the aircraft until all three antennas are securely installed.

Final Assembly Check

Inspect front and rear. Continue only after all items pass.



- ☐ Both arms are fully inserted with no visible gaps, tilt, or looseness.
- ☐ Both wings face the correct direction, are fully seated, and are symmetrical.
- ☐ Both thumb screws are tight.
- ☐ One GPS antenna and two video transmission antennas are secure.
- ☐ No tools, packaging, or debris remain in the propeller area.

NEXT | When all items pass, continue to Part 2: Device Calibration.

Calibration Setup and Workflow

Use open, level ground away from metal and magnetic interference.

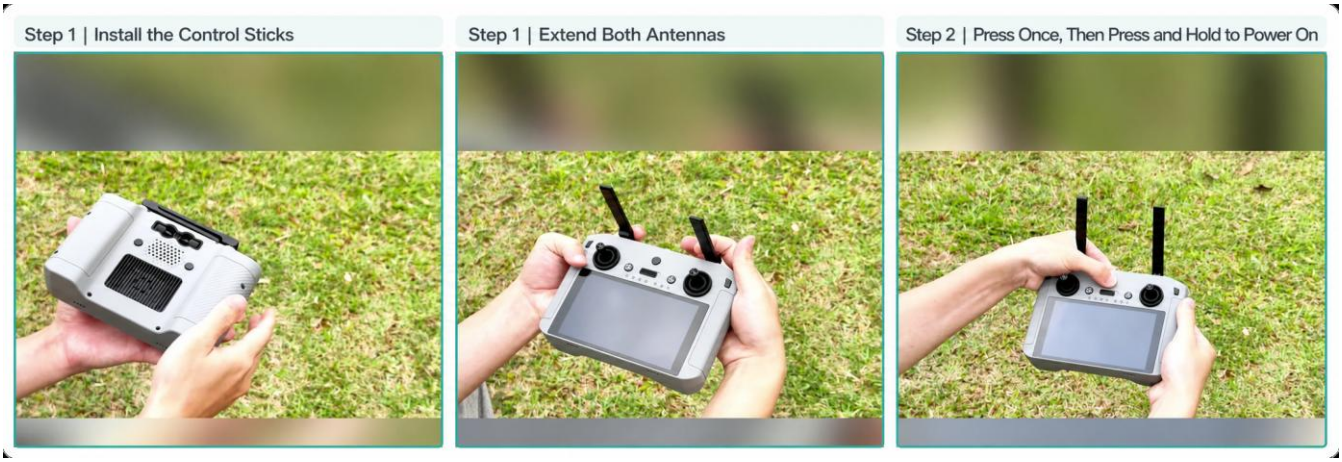


01	02	03	04
POWER ON	COMPASS	AIRSPEED	FINAL CHECK

- ☐ Assembly is complete; battery level is sufficient.
- ☐ Keep away from metal objects and strong magnetic sources.
- ☐ Secure the controller and aircraft; keep clear of propellers.
- ☐ Follow the yellow icon and example orientation on screen.

Power On the Controller

Install sticks, raise antennas, then power on correctly.



01 Install the sticks Screw both control sticks into their sockets until hand-tight.

02 Raise the antennas Fold both top antennas upward.

03 Press Power once Press and release immediately.

04 Press again and hold Hold until the screen turns on and startup begins.

POWER ON Press once, then press again and hold. A single short or long press may not start the controller.

Install Battery and Check Gimbal

The gimbal moves automatically after power-on. Keep the aircraft steady.



01 Open the battery compartment Ensure no debris is inside.

02 Insert the battery Slide it fully into place in the correct orientation.

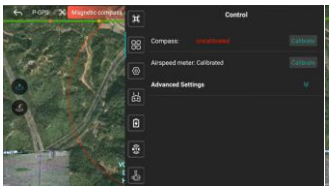
03 Wait for gimbal self-test Keep the aircraft still until the gimbal moves and returns to its normal position.

04 Close the cover Close it after self-test and verify that it sits flush.

CAUTION | Do not touch the camera or restrain the gimbal during self-test.

Complete Compass Calibration

Live camera video



Start calibration

Open settings



Follow instruction





START CALIBRATION

01 Confirm connection Wait for the controller to show live camera video.

02 Open Settings Tap Settings at the upper right, then open Controls.

03 Start compass calibration Tap Calibrate next to Compass.

04 Identify the current orientation Find which of the three orientation icons is yellow.

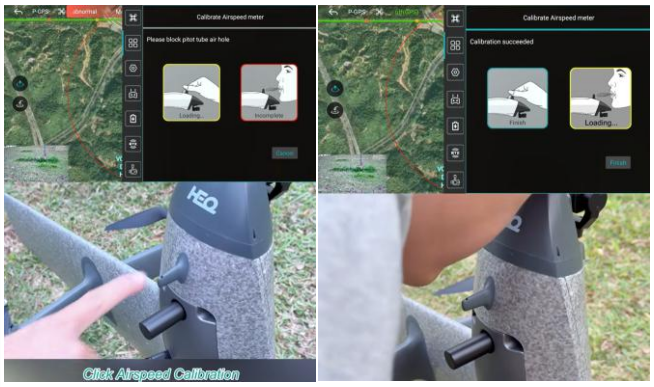
COMPLETE THREE ORIENTATIONS

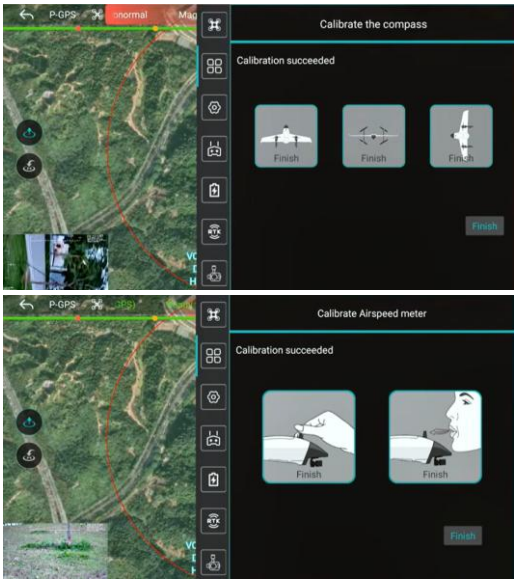
01 Hold as shown Match the yellow icon and demonstration.

02 Rotate slowly 2-3 turns Continue until the current icon turns green.

03 Complete the remaining orientations Calibration is complete when all three icons are green.

Calibrate the Airspeed Sensor





CALIBRATION STEPS

01 Open airspeed calibration Return to Controls and tap Calibrate next to Airspeed Sensor.

02 Pinch the airspeed tube Hold it when the first icon turns yellow, until it turns green.

03 Blow into the tube opening When the second icon is yellow, provide one steady airflow.

04 Confirm completion Both icons turn green and the screen shows Complete.

FINAL CHECK

- ☐ Controller and aircraft are connected; live video is normal.
- ☐ Compass and airspeed indicators show complete.
- ☐ Battery cover is secure; no calibration warning appears.
- ☐ No people, tools, or debris are near the propellers.

Pre-Flight Safety Check

SAFETY Fly only in open areas permitted by local regulations, in good weather, and within visual line of sight.

CHECK BEFORE TAKEOFF

- ☐ Weather is stable, visibility is good, and the takeoff area is level and clear of people and obstacles.
- ☐ Wings, arms, landing gear, propellers, and gimbal are secure, with no cracks, looseness, or debris.
- ☐ Aircraft and controller batteries are sufficient, and the aircraft battery is fully locked.
- ☐ Controller, video transmission, and positioning are normal; confirm the home point and RTH altitude.
- ☐ Beginners should start in multirotor mode and practice at low speed and altitude.
- ☐ This manual uses default channel settings; follow the controller's current settings if changed.

ORDER Gimbal → multirotor hover → yaw and translation → landing. Practice fixed-wing flight after proficiency.

Control the Gimbal View

Confirm gimbal direction on the ground before takeoff.



01 Use the lower dials The dials control gimbal movement.

02 Know the two dials The left dial controls pitch; the right dial controls yaw.

03 Recenter the gimbal Press the black button on the right side of the controller.

PRACTICE | Use small dial movements; confirm image direction before further adjustment.

Unlock, Take Off, and Rotate

Point the tail toward you, use small dial movements, and keep a safe distance.



01 Unlock the aircraft Confirm the area is clear, then hold the left stick fully down-right until the rotors start.

02 Take off slowly Push the left stick up; at a safe height, center it to hover.

03 Rotate counterclockwise Move the left stick left.

04 Rotate clockwise Move the left stick right.

TIP | If direction is uncertain, center the sticks, hover, and confirm the nose direction before continuing.

Move, Land, and Stop Motors





LANDING | Land slowly; stop only after touchdown.

HORIZONTAL MOVEMENT

1. Right stick left: move left
2. Right stick right: move right
3. Right stick forward: move forward
4. Right stick backward: move backward

MANUAL LANDING

1. Move above a safe landing area
2. Pull the left stick down to descend slowly
3. Confirm the landing gear fully touches the ground
4. Hold the left stick down until the motors stop

DANGER | Do not approach, touch, or move the aircraft until the rotors stop. Then power off and remove the battery.

Switch to Fixed-Wing Mode

Fixed-wing mode requires sufficient speed, altitude, and turning space. Beginners must not attempt it low or in confined areas.



01 Remain in multirotor mode Climb above 50 m and verify clear airspace and turning room ahead.

02 Check status Verify link, battery, positioning, and flight warnings.

03 Switch modes Press the illustrated mode-switch button on the controller.

04 Observe carefully After entering fixed-wing mode, confirm response with small inputs.

ALTITUDE | Follow the source video: switch only after climbing above 50 m.

Fixed-Wing Controls

Fixed-wing pitch control is counterintuitive. Memorize it before operating.



01 Fly left Move the right stick left.

02 Fly right Move the right stick right.

03 Descend Push the right stick up.

04 Climb Pull the right stick down.

05 Control speed Move the left stick down to decelerate and up to accelerate. Avoid abrupt large inputs.

REMEMBER Fixed-wing mode: right stick up = descend; down = climb. Verify with small inputs at altitude.

Speed and Return-to-Home



BEFORE RTH

01 Check RTH conditions Verify the route, RTH altitude, battery, wind, and obstacles.

02 Start Return-to-Home Press the illustrated RTH button and continue monitoring flight status.

03 Maintain pilot judgment RTH is an aid; retain manual control when required.

AFTER LANDING

- ☐ Aircraft is level, fully landed, and all rotors have stopped.
- ☐ Power off aircraft and controller, then remove the battery.
- ☐ Inspect airframe, propellers, gear, and gimbal for damage.
- ☐ Check battery for swelling, overheating, or damage.
- ☐ Record warnings, control loss, or abnormal vibration before the next flight.

Common Troubleshooting

Secure the aircraft. If the issue persists, stop and contact support.

	RECOMMENDED ACTION
Controller will not power on	Check battery level. Press Power once, then press again and hold.
No live video	Confirm the controller and aircraft are on, the battery is fully seated, and wait for connection.
Compass calibration fails	Move away from vehicles, manhole covers, and metal objects. Rotate slowly and recalibrate.
No airspeed reading change	Pinch the airspeed tube again, or blow steadily into the tube opening.
Aircraft will not unlock	Check the control link, positioning, battery, geofence restrictions, and warnings; resolve issues and retry.
Direction is unclear	Center the sticks and hover. Confirm the nose direction before continuing.
Fixed-wing pitch is confusing	Maintain altitude. Remember: push up to descend, pull down to climb; verify with small inputs.
RTH conditions are inadequate	Do not rely blindly on RTH. Assess battery, wind, distance, altitude, and obstacles.

STOP Do not fly after structural damage, battery damage, persistent warnings, loss of control, or abnormal vibration.