

Chris Requested Green

Apex EVO V4 5-inch quad + DJI Goggles 3 | Prepared September 29, 2026



Cover illustration is AI-generated. Interior aircraft photos show the actual build.

Chris asked for green. The result: a custom manual FPV quad, paired DJI goggles, and a very green reason to check your disarm switch.

Frame / props	Apex EVO V4; Gemfan 5136 5.1-inch; props out
Motors / stack	EMAX ECO 2306 1900KV; Flywoo F722 Pro + 55A AM32 ESC
Control / navigation	ELRS receiver listed by builder as HappyModel RP1; SEQUIRE 181 / M100 GPS
Video / details	DJI O4 Pro; paired, brand-new Goggles 3; Flywoo O4 Narrow TPU camera guard; loud buzzer; custom green TPU, hardware and standoffs; large capacitor with side mount
Battery / tune	6S LiPo, XT60, 1300-1500 mAh. Superfly-based tune with adjusted multiplier.

Read before powering up

Remove all four props for binding, USB setup and motor checks. This is a powerful manual aircraft, not a toy. New pilots: Mike recommends around 100 hours of simulator practice. Know DISARM before ARM.

Use your existing compatible Pocket radio. Battery and transmitter are not part of the listed package unless separately arranged. Start with page 2 for radio binding, page 3 for video, and page 4 for prop orientation.

Bind your existing Pocket

ExpressLRS control link | All props OFF | USB disconnected during power cycling

First: select the correct radio model

Use a Pocket with 2.4 GHz ExpressLRS (or a compatible external 2.4 GHz ELRS module). A CC2500-only Pocket cannot bind to ELRS by itself. Select your established FPV model, throttle down, ARM off. Keep other quads unpowered.

The three-plug method

- 1. Turn the Pocket OFF.** Start with the quad battery unplugged and no USB cable connected. USB can keep the receiver powered and prevent a true power cycle.
- 2. Plug in #1:** connect the 6S pack, wait for the receiver LED to light, then disconnect within about two seconds. Let the LED go fully dark.
- 3. Plug in #2:** repeat the same short power-on, then disconnect and let the LED go dark.
- 4. Plug in #3:** connect the battery and **leave it connected**. Look for a double blink, pause, double blink on the receiver LED. That is bind mode.
- 5. Turn the Pocket ON.** Open **SYS > Tools > ExpressLRS**, scroll to **Bind** and select it. The receiver LED should become steady when connected. Check for telemetry / the connected indicator in the Lua script.

1st plug	ON briefly, then OFF
2nd plug	ON briefly, then OFF
3rd plug	ON and LEAVE ON - then select Bind on the Pocket

If it does not bind

ELRS receiver firmware **3.4 or newer** permits this method even with a stored binding identity. Older firmware with a binding phrase may refuse manual bind mode; use the same phrase on both devices or get help. Radio and receiver need compatible ELRS major versions, frequency band and regulatory settings. Do not flash a guessed receiver target.

Bound does not mean ready to fly

With props still off, check every stick and switch in Betaflight Receiver and Modes. Reusing a radio model is fine only if channel order, direction, ARM and mode assignments match this quad. A Model Match warning needs the intended model/receiver ID checked; do not randomly change your other aircraft models.

Receiver name is reproduced from the build specification. Read its actual label / firmware target before any update. Keep the O4 Pro cool with a small fan while the pack is connected.

Pair the DJI Goggles 3

Video link | Already paired for this package; repeat only if needed



Actual front camera and green TPU guard. The link button is on the O4 air unit inside the frame, not on the camera.

- 1. Power both devices.** Remove props. Connect the quad battery so the O4 Pro is powered. Turn on Goggles 3 with a short power-button press, then press and hold. USB alone is not the flight-power connection. Keep the air unit ventilated.
- 2. Select the product.** In the goggles menu open **Status**, then select the O4 Air Unit product using the product/switch control at the upper right. Keep the quad and goggles close together.
- 3. Press the quad's link button once.** Find the small **Link/Bind** button on the side of the powered O4 air unit. Its status light should change to blinking red. Do not press the flight controller's BOOT button.
- 4. Put the powered goggles in linking mode.** Hold their power button for **about 5 seconds, until they beep continuously**. Use the beeping as confirmation; do not stop after counting three beeps.
- 5. Wait for the picture.** Successful linking gives a solid-green air-unit status light, the goggles stop beeping, and the camera view appears. Confirm the picture belongs to this quad.

Another compatible quad? Same process

Power only the quad you want to link, select the correct supported product in Status, and repeat its air-unit/goggle linking procedure. You may need to link back when returning to Green. Video pairing does not bind your Pocket or configure its switches.

Picture but no flight data?

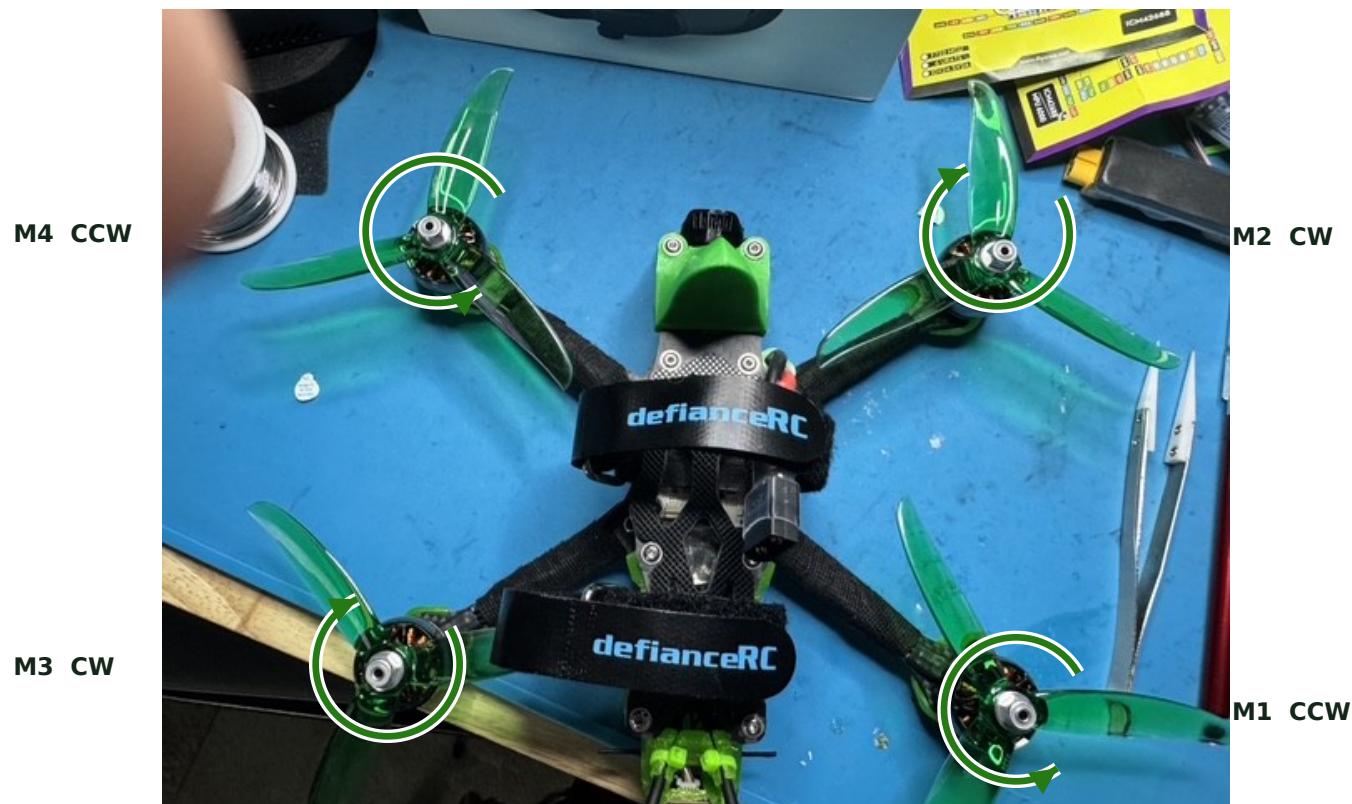
Confirm the Betaflight OSD appears (battery, warnings and other configured items). A camera image alone does not prove the radio, OSD or failsafe works. If linking fails, check product selection, device power, activation and compatible firmware before changing settings.

DJI reference: O4 Air Unit Series manual, section 3.4; Goggles 3 manual, Linking. Keep the goggles' lenses out of direct sunlight.

Props out: match all four

Viewed from ABOVE | Camera/front at the TOP | Disconnect the battery before fitting props

FRONT / CAMERA



Actual top-view photo with direction overlays. CW = clockwise; CCW = counterclockwise. Motor numbers shown are the standard Betaflight Quad X layout; verify the physical order in Motors.

Front left / M4	COUNTERCLOCKWISE
Front right / M2	CLOCKWISE
Rear left / M3	CLOCKWISE
Rear right / M1	COUNTERCLOCKWISE

Three things must agree

Motor rotation + prop handedness + Betaflight mixer. In Motors, verify the props-out / “Motor direction is reversed” setting and physically test each motor with props removed. That mixer setting alone does not reverse the ESCs.

Fit each Gemfan prop to the matching rotation. Its raised leading edge must lead into the airflow as it spins, producing downward thrust. Keep the intended top face up; do not flip a prop upside down to correct a direction mismatch. Snug the nuts with the correct tool, then check free rotation and wire clearance.

Flips at takeoff? DISARM immediately. Recheck prop placement, motor order/direction and flight-controller orientation. Do not try to fix a takeoff flip with more throttle.

Verify the setup in Betaflight

Props OFF throughout | Keep the existing Superfly tune and adjusted multiplier

Save first, then inspect

Connect the flight controller with a USB **data** cable and a compatible Betaflight app/configurator. Save a backup and a CLI **diff all** before changing anything. Do not reset, update firmware or load a new preset just because an update is available. The tune and wiring configuration are specific to this build.

Setup	Tilt the physical quad: the on-screen model must tilt the same way. If it does not, stop before any flight.
Receiver	Move one stick at a time: roll, pitch, yaw and throttle must follow correctly. Check centered controls, low throttle and switch channels. Keep the installed CRSF / UART configuration unless troubleshooting a verified problem.
Modes	Confirm ARM/DISARM first, then any ANGLE, BEEPER and GPS RESCUE assignments. Acro/Rate is generally active when no leveling mode is selected. Do not assume another quad's switch positions match.
Motors / failsafe	Verify physical motor order and props-out rotation. With props removed, check radio-loss behavior and arming warnings. A GPS module does not prove Rescue or its failsafe behavior is configured.

Your Pocket switch assignments

SA	ARM / DISARM
SB	ANGLE / HORIZON / ACRO
SC	GPS RESCUE
SD	BUZZER ON / OFF
SE	FLIP OVER AFTER CRASH (turtle mode)

Verify which physical switch position activates each function in Modes; these assignments do not specify up/down positions. Angle self-levels and limits tilt; Horizon self-levels near center but allows flips; Acro needs continuous pilot attitude control.

GPS Rescue: assigned to SC, verify before use

Let the SEQUIRE GPS acquire a fix under open sky, away from obstructions. Confirm satellite/fix data and a valid home point before using any recovery feature. Inspect Rescue altitude, minimum satellites, return behavior and throttle settings; use this aircraft's measured hover behavior, not a number copied from another quad.

Test a manually triggered Rescue only in a large safe area with enough height, a healthy control link and a clear way to cancel it. Do not test by intentionally switching off the radio in flight.

First pack and field checklist

6S XT60 LiPo, 1300-1500 mAh | Start gently; inspect after landing

Battery and normal power-up

Balance-charge a healthy **6S LiPo** on the correct charger setting; a standard full pack is 25.2 V (4.20 V/cell). Follow the battery maker's charge rate; 1C is 1.3 A for 1300 mAh or 1.5 A for 1500 mAh. Do not charge unattended or use a damaged, swollen or hot pack. Let packs cool; use the charger's storage mode when putting them away.

For normal flying: **Pocket on** with the intended model, throttle down and ARM off; **goggles on**; then connect the quad battery on level ground. The radio-off sequence on page 2 is for binding only. Secure the pack lengthwise with both straps and keep the XT60 lead and balance plug clear of the props.

Before every takeoff

Check: Inspect all four props/nuts, frame screws, motor bells, TPU, camera, GPS and antenna mounts. Check the side capacitor and its leads for damage or exposed conductors.

Check: Confirm the correct pack voltage, stable video, ELRS connection/telemetry, OSD and expected flight mode. Know ARM, DISARM and BEEPER by touch. Resolve all warnings.

Check: Verify GPS/home status if using Rescue. Use a clear flying area away from people, pets, roads and obstacles; use an appropriate visual observer and follow applicable flying rules.

First hover and shutdown

Face the quad away from you. Step back, arm and make a brief, controlled low hover. After roughly 20-30 seconds, land, disarm and unplug the quad. Check for loose parts, unusual vibration and excessive motor/ESC heat. If it shakes, flips or behaves unexpectedly, disarm immediately and return to prop-off checks.

Watch battery sag and warnings; land with a sensible reserve. Do not keep flying to a fixed timer or chase the lowest voltage. After landing: disarm, unplug the quad, then switch off goggles and radio. Never reach for an armed aircraft. After a crash, disconnect power and inspect before trying again.

Quick fixes

No stick response: check ELRS bind, selected model and Receiver tab.

No video: check O4 power, selected goggles product and linking.

Will not arm: read the arming warning; check throttle, ARM state and USB.

Lost in grass: use SD; a backup-battery buzzer is not assumed.

SE: Flip Over After Crash

Disarm first. Only if the area and props are clear, select SE turtle mode, arm with SA, and use a brief roll/pitch input to right the quad. Then disarm, turn SE off and return to normal mode before rearming. Stop if it is tangled or does not flip promptly; retrieve it instead of overheating motors.

References and help

Official instructions checked for this guide: [ExpressLRS binding](#); [ELRS Lua script](#); [DJI O4 manuals](#); [Goggles 3 manual](#); [Betaflight Motors](#); [RadioMaster Pocket](#). For this aircraft, ask Mike at fly-gear-swap.com.

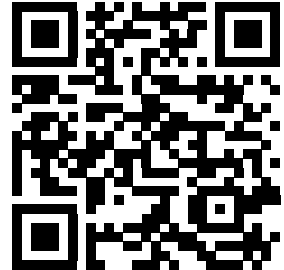
Your next flight starts here.

Free setup guides, practical help and custom FPV builds.

Find the guide for your drone

Choose your exact aircraft in the Drone Starter Guides library. Keep its setup instructions handy before your first flight, after shipping and whenever you revisit the configuration.

fly-gear-swap.com/guides/drone-starter-guides



Scan for starter guides

Learn the next skill

Browse free guides on radio binding, goggles, Betaflight and more.

fly-gear-swap.com/forum/resources

Need help with your aircraft?

Ask a setup question in the forum. Include your exact build, installed firmware and what you have already checked.

fly-gear-swap.com/forum

Ready for your next build?

Explore custom drones, real build photos and available gear.

fly-gear-swap.com

Use instructions for your exact aircraft and installed firmware.
Remove propellers before powered bench setup.