

FPV DRONE PARTS LIST & BUILD CHECKLIST

Companion to fioparts.com/guides/how-to-build-an-fpv-drone - a 5" freestyle build; sizes scale for 3.5" and 7".

ON THE DRONE

- ☐ Frame - 5" freestyle, 4-6 mm arms, 30.5x30.5 mm stack mounting
- ☐ Motors x4 - 2207 / 2306 stator; 1700-1950KV for 6S, 2300-2750KV for 4S
- ☐ Flight controller - F405 or H743, enough UARTs for receiver + VTX + GPS
- ☐ 4-in-1 ESC - 45-65 A, BLHeli_32 or AM32 (usually bought as a stack with the FC)
- ☐ Video - analog camera + 5.8 GHz VTX + antenna, OR a digital air unit (DJI O4 / Walksnail)
- ☐ Receiver - ELRS 2.4 GHz (must match the radio)
- ☐ Propellers - 5" 3-blade, at least 3 sets (CW + CCW)
- ☐ Batteries x3-4 - 6S 1100-1550 mAh or 4S 1300-1550 mAh, XT60
- ☐ XT60 pigtail, 35 V 470-1000 uF low-ESR capacitor
- ☐ Battery strap + anti-slip pad, M3 hardware, zip ties, heat-shrink
- ☐ TPU mounts - camera, antenna, receiver

ON THE GROUND

- ☐ Radio transmitter - same protocol as the receiver (ELRS)
- ☐ FPV goggles - same video system as the drone (analog / DJI / Walksnail / HDZero)
- ☐ Balance charger, 1-6S, with a LiPo-safe bag
- ☐ Smoke stopper (fused XT60) for first power-up

TOOLS

- ☐ Soldering iron 60 W+ (chisel tip), solder, flux
- ☐ Hex drivers 1.5 / 2.0 / 2.5 mm, 8 mm nut driver or prop wrench
- ☐ Wire cutters, tweezers, threadlocker (blue), double-sided tape
- ☐ Multimeter, USB data cable

BUILD CHECKLIST

- ☐ Dry-fit everything; decide antenna exits and FC orientation
- ☐ Frame assembled, motors bolted (screw length checked), threadlocker applied
- ☐ ESC mounted on soft standoffs, arrow forward
- ☐ Motor wires soldered (3 per corner), XT60 + capacitor on the main pads, polarity checked twice
- ☐ FC stacked, ribbon cable seated
- ☐ Receiver on its own UART (TX->RX, RX->TX); VTX / air unit wired and on a UART
- ☐ Smoke test through the smoke stopper - no props, nothing warm
- ☐ Betaflight: firmware, ports, ESC protocol, receiver bound, modes, motor order + direction, OSD, failsafe
- ☐ Props on last - CW/CCW per the motor tab
- ☐ First flight: open field, angle mode, hip height; check motor temperatures after landing

Every part above ships pan-India from Gurugram with a GST invoice - fioparts.com. Build a matched kit at fioparts.com/customize