

Quantum **Outlaw 180**

This little racer will have you trimming the trees

BY **CHRIS BARRETT** PHOTOS BY **JOHN REID**

The Outlaw 180 is the latest addition to the Quantum Outlaw Racing Series. This little drone comes almost ready to fly and features a full carbon-fiber frame. It is completely built and ready to plug into your receiver, giving you a great pro level racer right out of the box.



SPECIFICATIONS

Model: Outlaw 180

Manufacturer: Qunam

Distributor: HobbyKing (hobbyking.com)

Type: FPV racer

Size: 180mm

Weight: 20 oz.

Motors: Four Multistar 2204 2300Kv (included)

Battery: Venom FPV Drone Racing 50C 3S 1300mAh LiPo (venompower.com)

Speed controls: Four 20A Afro Race Spec (included)

Flight controller: CC3D using OpenPilot (openpilot.org) (included)

Radio: Futaba T8J w/ R2006GS (futabarc.com)

Price: \$167.25

WE LIKE

- + Great drone to get you into FPV racing
- + Prebuilt and ready to plug into your receiver
- + Easy to program and easy to fly
- + Has plenty of space for FPV gear



Above: The camera mount is simple, efficient, and already comes set up at the correct angle for racing. Below: The Multistar 2204 2300Kv brushless motors provide plenty of power and quick climbout for this dynamic little racer.



AERIAL RECAP

The basic settings that the manual recommends make the Outlaw 180 a very stable and easy-to-fly quad. If this is your first FPV racer (as it was mine), I definitely recommend starting with them. In this mode, the response was mellowed out a bit and didn't let you get too far ahead of yourself. Don't get me wrong—the Outlaw wasn't slow by any means; even with full stability and mellow settings, this thing still ripped when I flew it. That setting just tamed it down some and let me get a feel for how the Outlaw flies before getting too wild.

After adding the weight of the FPV gear, the quad slowed down a hair, but that was to be expected. I still ended up running the 4-inch props and didn't notice much performance loss. The controls were smooth and did exactly what I wanted the quad to do when I wanted, which made this Outlaw a lot of fun to fly.

Most of my flights were done with a Venom FPV Drone Racing 1300mAh LiPo and while running all the standard Fat Shark FPV gear. The Outlaw 180 easily made three- to five-minute flights.

HIGHLIGHTS

The only items needed to get this puppy off the ground are a battery, transmitter, and receiver. The quad comes prebuilt with four 20-amp Afro Race Spec speed controls and four Multistar 2204 2300Kv brushless motors all tied up on a single board with a CC3D flight controller. A small instruction manual gives you the full rundown on programming the flight controller, which uses OpenPilot. This sets you up with a stable, easy-to-fly setting to get you started.

The Outlaw doesn't come with any FPV gear, but as you can tell by the photos, FPV racing is exactly what it is built for. A camera-mount bracket is attached to the front, and the flight controller is attached separately under the frame, leaving plenty of space in the middle to accommodate your camera, receiver, and FPV transmitter.

The airframe comes standard with 5-inch props, and although they worked, the tight clearance was a little unnerving. You had to be very careful on component and wire placement and really keep an eye on the camera-mount bolts. There wasn't an issue when hovering or cruising around, but when you start doing some high-speed flying and pushing it, the front props could clip the bolts of the stock camera mount. I felt most comfortable running 4-inch props; these added more than enough clearance, put my mind at ease, and still had plenty of spunk for this little 180.

Power to Spare

With FPV drone racing building momentum, the need for better batteries is growing as well. And once you get hooked on FPV racing, you quickly realize that you will never have enough batteries.

That's where Venom has stepped in. Venom FPV Drone Racing batteries are designed to withstand the brutal demands of FPV racing. The 50C 3S 1300mAh LiPo that I used in this review is capable of 5C fast-charging, allowing you to charge five times faster than standard.

Also included with the battery is Venom's patented UNI 2.0 plug system. This allows you to connect the XT60 connector to the included Deans and EC3 adapters, giving you plenty of connectivity options without having to solder them. The Venom 50C 3S 1300mAh LiPo retails for \$24.99. venompower.com



The Venom batteries are light and powerful and a perfect fit for this speedy racer.

BOTTOM LINE

Overall, the Quantum Outlaw 180 is a solid little package. It is quick and easy to get ready, and it has plenty of space for FPV gear. That, combined with the performance, makes it a great drone to start racing FPV. 🚁