



The large size of the MXP300 allows you to easily carry extra gear as well as provide a more stable platform for FPV flying.

XHOVER MXP300

A GREAT OPTION FOR FPV RACING OR AERIAL IMAGING

BY JASON BENSON PHOTOS BY JOHN REID

XHOVER HAS QUICKLY BECOME A HOUSEHOLD NAME in the first-person-view (FPV) quadcopter world, with hundreds of its designs out there being used and abused. The MXP300 is the latest in the XHover lineup, and it offers a larger platform for carrying extra gear, such as GPS or your GoPro camera. The MXP300 is constructed entirely of carbon fiber, so it has a beautiful woven finish and is all CNC-machined to specifications.

SPECIFICATIONS

NAME: MXP300
MANUFACTURER: XHover (xhover.com)
TYPE: FPV quadcopter
LENGTH: 280mm
MOTOR SPAN: 300mm
WEIGHT: 21.2 oz. without battery
MOTORS REQ'D: Four 2208 2000Kv or equivalent
RADIO REQ'D: 4-channel
PRICE: \$219.95 (kit), \$395.95 (DIY w/ electronics), \$449.95 (ARF)

GEAR USED

RADIO: Spektrum DX18-QQ transmitter, Spektrum single satellite receiver (spektrumrc.com), Naze Flip 32 FC (getfpv.com)
MOTOR: 4 x XHover XH2208 2000Kv racing
BATTERY: XHover 2200mAh 4S LiPo
PROPS: 4 x Gemfan 6045 (multitrotorsuperstore.com)

HIGHLIGHTS

- Quick build
- Well-thought-out Power Distribution Board
- Nice anodized pieces
- Complete hardware package
- Folding arms



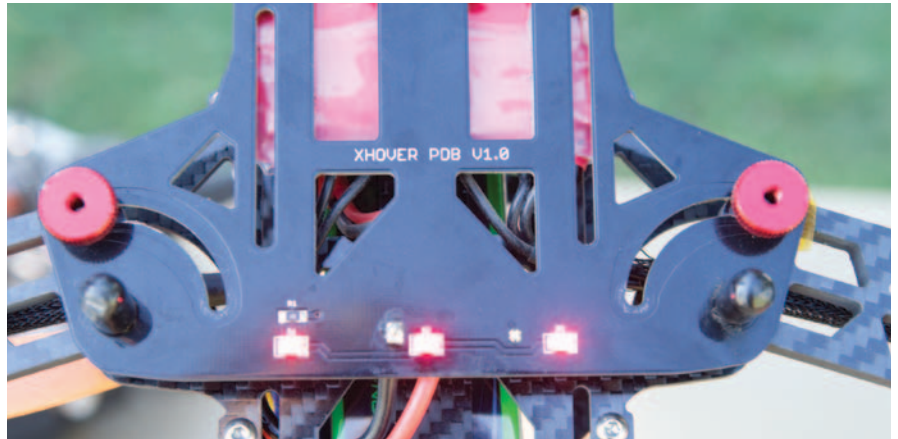
When you get your MXP300 kit, you will receive all of the hardware needed to finish your new bird. High-quality stainless button-head screws and anodized standoffs for the top and bottom plates add a nice touch of bling. Something unique on the MXP300 is the addition of folding arms. Also included in the hardware bag with the MXP300 are a set of four knurled red anodized thumbscrews, which make loosening the arms to be folded much easier without the use of tools. Finally, a set of aluminum hex standoffs with rubber caps act as landing feet on the bottom of the MXP300.

The MXP300 is very stable and extremely durable, which make it a great choice for a first-time FPV flier.

UNIQUE FEATURES

As mentioned earlier, the MXP300 folding arms make transportation easy using the available case, and they also limit the amount of space required to store your new model. I have also found that the arms will fold in a nasty crash, which I am sure aid in the preservation of the arms during impact. [Editor's note: Jason has firsthand experience with this!] Speaking of the arms, one of the signature items of the MXP line of quadcopters from XHover is a 6mm-thick arm. These things are stout! I fly with several guys that fly the XHover quads, and I have yet to see an arm break, even when impacting a 12x12 shade Ramada upright. For me, this speaks volumes to the amount of homework the XHover guys have done when designing their models.

All of the pieces of the MXP300 are well thought out, and they fit together flawlessly. There is no need to drill any additional holes in your new baby as XHover seems to have considered everyone in this design. Whether you



Above: The arms can be folded in rather quickly just by loosening the red knobs and folding the arms into the retracted positions.



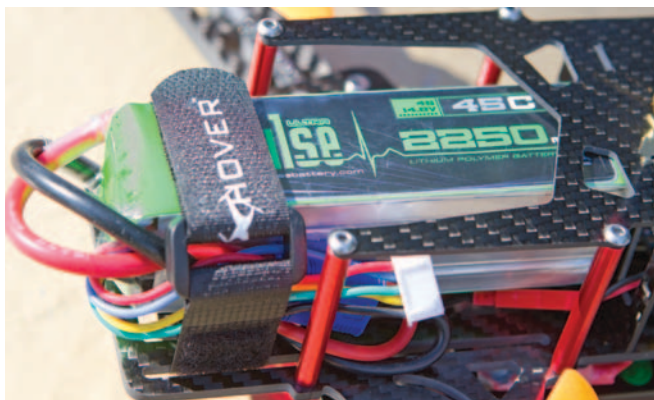
Left: The front shelf on the MXP300 allows for different camera mountings, including this GoPro Hero3+.

want to mount your FPV camera on top and a GoPro up front or you want to protect your FPV camera by moving it to the middle deck and strap a Mobius-style camera to the top deck, there are many different mounting options on this bird.

As mentioned previously, the carbon pieces of the MXP300 are clean and CNC-

mached, so there no rough edges and everything is ready for final assembly. All of the hardware included is the standard M3 metric thread. You will need only a 2.0mm and a 2.5mm screwdriver plus a pair of pliers or a small crescent wrench to complete the assembly.

I built the MXP300 exactly as it is designed to be built, even though there



The battery compartment is completely enclosed and allows for the battery to sit close to the center of gravity. This enables the MXP300 to maneuver rather well.



Because both the motors and arms are really stout, you can take a surprising number of direct hits before they need to be replaced.

FLIGHT TEST XHOVER MXP300

are no instructions included in the kit; however, you can see pictures on the company's website and some of the construction videos on YouTube. This makes assembling the MXP300 a no-brainer. The one thing that I always implement when building a quadcopter is protection of the motor wires. I use an expandable braided sleeve, which is often used in computers, to keep the wires from chafing on the sharp edges of the carbon fiber. The vibration that can be caused by a prop being dinged and out of balance can wreak havoc on any wires that might come in contact with a sharp edge.

IN THE AIR

The beauty of FPV quadcopters is that you can fly them almost anywhere. You don't need a runway or even a clear space. As a matter of fact, a small park with a good sprinkling of trees is heaven for this segment of the hobby. The group of guys I fly with like to gather under a shade structure at the local park and fly around us. This works great for the MXP300 (or, really, any FPV quadcopter). The landing feet on the 300 make flying off short grass easy; flying off concrete pads also works great.

GENERAL FLIGHT PERFORMANCE

Stability: With proper PID setup, the MXP300 is extremely stable. The 300mm frame is a little larger than smaller quads and makes for a more stable-than-average experience.



I HAVE HAD A GREAT TIME GETTING AERIAL FOOTAGE WITH MY GOPRO AS WELL AS JUST FREESTYLING AROUND THE LOCAL PARK. YOU REALLY CAN'T GO WRONG WITH THIS MODEL

Tracking: Tracking really isn't something that the quadcopter community worries about. The additional weight of the larger 300mm frame, however, makes a noticeable difference in how the model carries momentum and "grooves."

Aerobatics: The MXP300 is awesome for aerobatics. The recommended XHover motors with a 2200mAh 4S battery provide a lot of punch, and if you turn up the rates, you will quickly forget that you are flying a larger frame. Flips, inverted

stalls, large loops, Immelmann turns, split-Ss, spin cycles—you name it, the MXP will do it.

Glide and stall performance: This is another area that generally doesn't get brought up when discussing quadcopters. As mentioned previously, however, the extra weight of the MXP300 makes a noticeable difference when you are coming into a gap a little high and you want to cut the throttle to drop under the obstacle.

PILOT DEBRIEFING

This quad is an absolute blast to fly. I have had a great time getting aerial footage with my GoPro as well as just freestyling around the local park. You really can't go wrong with this model, and the extra room will make branching out and trying new components an easy venture.

BOTTOM LINE

If you have everything needed to build the MXP300, you could pretty easily build it in an afternoon. If you really take your time and think through everything, you could still easily complete it in a week of evenings. Construction and flying of the MXP300 is simple and straightforward. I wouldn't hesitate to give this model to even the newest FPV enthusiast to build. My one recommendation would be to take a little extra time and think through your assembly and component placement. Also, make sure to use blue Loctite on all screws to avoid loosening. †

Flying with goggles

When you first start flying with FPV goggles, be prepared to be frustrated because it will feel like you're learning to fly all over again. Daniel Sandoval (pictured left), expert FPV pilot and owner of XHover, says that, when he first started flying FPV two years ago in his backyard, he was ready to sell everything after his first flight. He is now one of the premier racing pilots. He recommends learning how to hover with and without FPV goggles to learn how high the actual quad is compared to what you see in the goggles. Your perspective will be off, at first, but after a few flights, you will get the hang of it.

One of the best learning tools is to have a calm person (emphasis on calm!) stand next to you as your spotter and tell you just how high you are flying. This worked for me and allowed me to understand that what I was seeing through the goggles was very different than reality. After about 10 flights, I started to feel comfortable and was able to navigate around the field and fly figure-8s without any assistance from my spotter. The key is to keep at it, and you will eventually learn how to handle your quad through FPV like an expert.

See you at the races!

