HM Review

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Spirit 3D ARF

Here's a new aerobatic model, and it's almost ready to fly — with great looks and excellent flight performance.

Specifications

- Wingspan: 39 inches
- Area: 341 square inches
- Length: 31 inches
- Weight : 8.6 ounces
- RC: 4-channel, four servos
- ESC: 18-20A

ARF Kit Features

- PVC cowl
- Carbon fiber landing gear
- Covered in orange and purple lightweight film
- A20-28M Brushless Outrunner Motor
- Pushrods, horns and linkage
- Complete hardware pack
- Instruction manual

Maxford USA has recently introduced the Spirit 3D, a beautiful built-up park flyer aerobat with great looks and performance to match. The kit comes nicely packaged with most of the assembly already completed by the factory. My kit was factory covered in a high quality, transparent purple lightweight film. The job was professionally done, and no re-shrinking was needed before assembling the model. All the covering seams and edges came ironed down tightly, and stayed there without any help from me.

Assembly of the airframe components is pretty straightforward. You just need to hinge all the control surfaces with the hinges provided in the kit and ZAP Thin CA, then install the horizontal stabilizer and vertical fin to the fuselage with CA. Building goes really fast.

Easy access to ESC and battery is through hatch in chin compartment, just ahead of carbon fiber main gear.

Once the tail is finished and the control surfaces are hinged, you get to install your choice of micro servos. Maxford USA provided a set of micro servos, along with a micro receiver and their new ESC, and all these electronic components were a nice fit for my Spirit 3D, not just for dimension but for outstanding performance at the flying field.

The servos fit snugly in the factory cutouts in the fuselage and wing panels, then I installed the control horns. The model features factory-made linkages for the control surface, which is a nice touch that saves a lot of bench time and makes for a nice clean installation. The main landing gear legs are made of carbon fiber and have plenty of strength to withstand regular service on grass runways and even survive that occasional hard landing.

Micro receiver mounts under canopy for easy access. Note fine laser-cut woodwork with ample lightening holes cut wherever possible for weight savings. PVC wheel pants and cowl contribute to Spirit 3D's great appearance and low all-up weight.

In addition to their recommended electronics, I used Maxford's recommended brushless outrunner motor and brushless speed control. Maxford's motor is a 28mm x 32mm 1050KV outrunner. Shaft size is 3.175mm x 12mm and it weighs 1.6 ounces. On the recommended APC 9 x 4.7 EP propeller, the airplane has plenty of power for 3D and hovering, as well as all the pattern style flying so many of us still enjoy.

The two wing panels mount by sliding over a carbon fiber tube, and the panels are retained by two screws, one for each side of the wing. The canopy comes off the model easily for quick and easy access to the radio gear and removing the wing, although the Spirit 3D's small size makes it easy to transport the fully assembled model in just about anything bigger than a gold cart.

The battery nestles in a neat compartment with a spring latch on the underside of the motor box, just behind the firewall. I had plenty of room to mount the speed control and fit my LiPo pack in there, which helped me get the airplane to balance perfectly without having to add any weight to the nose or tail.

Factory recommended setup results in ample power for advanced 3D maneuvering.

It only took me a single evening to get my Spirit 3D from an in-the-box project to flightline ready. The completed model is very light, and the intelligently designed airframe offers plenty of surface throw for any style of flying you would want from a model like this.

Once I had the rates and expo programmed, it was off to the field for some flight tests. The day we set aside for our tests and pictures was windy, and I was worried that such a small and light model might be a little tricky to fly and land. My worries were in vain, because the model handled the wind like an old salt sails the sea.

I flew basic maneuvers to get a feel for the Spirit, then did some pattern style aerobatics. The airplane slow rolls on track, and stall turns very nicely with full rudder throw. 3D is equally good, with plenty of power to hover all day. The Spirit will hover right on the deck, with plenty of reserve power for pullout or bailing out of trouble.

I'm very impressed with Maxford USA's new Spirit 3D. It's also available in transparent orange, and Maxford has the whole brushless power package, as well as the correct onboard RC gear. **HM**

Takeoff is smooth from ROG or handlaunch. Maxford's Spirit 3D has the look and feel of a much larger airplane.