

# MULTIPLEX Easy Star



Until recently, my RC flying experience has been limited to the two and three channel V-tail park flyers that target first-time pilots. The EasyStar, being similar in design, is the perfect plane to take me up a notch. Like the V-tails, it features a pusher type propeller. For flight control, however, it utilizes an elevator and rudder set-up, providing a more immediate and accurate response to control input. These were all features that had me anxious for weather mild enough to safely flight-test the Multiplex EasyStar.

## AIRBORNE

A brisk hand-launch into the breeze was all it took to get the plane airborne. The kit's Permax 400 motor and Gunther prop provided enough power to allow an almost immediate climb skyward. Within the first minute of flight I discovered two things: first, the EasyStar was quite capable of performing loops – and second, subtle stick movement was a must. After giving my right thumb a quick lesson in finesse, I was able to re-gain complete control of the aircraft. By the time I had installed the third battery pack I was already comfortable behind the transmitter.

A more experienced RC pilot may find the speed of this foam flyer a bit on the mild side. But, from my perspective, it was enough to get the adrenaline pumping with speeds well beyond what I had previously experienced with the V-tail park flyers.

As the gentle breeze gave way to windier conditions I was still able to maintain stable flight more easily than I had expected. Although, as the battery voltage dropped during one particular flight, the wind had enabled a nearby tree to suck the plane right out of the sky (I would never admit pilot error). I had to access my climbing skills from my younger days in order to retrieve it.

The EasyStar also used the wind to its advantage. With enough blue sky beneath it I was able to cut the motor and soar for several minutes before having to power up to re-gain altitude. Once I completed my climb I was performing loops, stalls and banked turns...only

# Fun-filled Electric Trainer

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## SPECS

**PLANE:** Easy Star

**MANUFACTURER:** Multiplex

**DISTRIBUTOR:** Hitec RCD

**TYPE:** Park Flyer

**FOR:** Beginner to intermediate pilots

**FLYING WEIGHT:** 24.6 oz.

**LENGTH:** 35.5 in.

**WINGSPAN:** 54 in.

**WING AREA:** 380 sq. in.

**WING LOADING:** 9.3 oz./sq. ft.

**RADIO:** number of channels required: 3; flown with: Hitec Focus 3 SS transmitter, Hitec HAS-3MB micro receiver, Hitec HS-81 micro servos

**POWER SYSTEM:** Permax 400 6V motor, Gunther 4.9x4.3 (125mm x 110mm) prop, 10-amp speed control, Ballistic Batteries 7-cell 900 mAh NiMH battery, 1200mAh E-Tec Lithium Polymer

**FULL THROTTLE POWER:** 900mAh NiMH, 9.5 amps, 68 watts; 2.8 W/oz., 44.8 W/lb

**TOP RPM, NIMH:** 11,500

**DURATION, NIMH:** 6 minutes full power, 12 minutes casual flying

**FULL THROTTLE POWER:** 2400mAh Li-Poly, 10.9 amps, 80 watts; 3.25 W/oz. 52 W/lb

**TOP RPM, LI-POLY:** 12,200

**DURATION, LI-POLY:** 13 minutes full power, 25+ minutes casual flying

**PRICE:** Ready-to-fly (with radio, battery and speed control) – \$190; Kit (includes airframe and motor) – \$65

### COMPONENTS NEEDED TO COMPLETE:

**KIT:** 3-Channel radio system with 2 micro servos, speed control, flight battery, 8 AA batteries for transmitter, glue

## SUMMARY

"I'd love to fly an RC airplane." A phrase I've heard spoken by many people at one time or another—myself included. The multitude of new and existing park flyers has brought the opportunity for RC flight well within reach. The Multiplex EasyStar is a prime example of the type of plane that can get first time flyers off the ground. It combines easy-to-build foam construction with simple three-channel control. It's even capable of mild aerobatics when the new pilot is ready.

Flying with the 2S 2P 2400mAh E-Tec lithium pack added about half an ounce of weight but this was offset by a 10% increase in available power and a flight duration 2 ½ times greater.

PHOTOS BY GRANT L. GURSKY

## EASY STAR



this time they were intentional and controlled. I had earned my wings.

### ASSEMBLY

The EasyStar is available in kit form and also a RTF version. My plane arrived as a kit. It requires the assembly of eight foam components and installation of a separately purchased radio system. For this project I am using a Hitec Focus 3 SS AM single stick system with two Hitec HS-81 micro servos. Also from Hitec is the SP-1010 Speed Control to keep the prop spinning.



The author connects the NiMH battery.



The speed control's arming switch was mounted in the fuselage side.



The radio on-off switch.

The main fuselage is comprised of two pieces - a left and right half. Before combining these two sections, the motor and speed control must be installed. The speed control requires soldering to the motor. The motor is then glued with standard CA glue to the left half of the fuselage. The foam has channels pre-cut to accept the wiring. My wire was slightly shorter than the available grooves so,

using a hobby knife, I cut new ones. I found it helpful to use small pieces of tape to hold the wiring and speed control in place until the two halves could be joined.

Switch installation was not addressed in the instructions. I devised my own solution for the two switches I had to deal with. First was the on/off switch for the speed control and receiver. I mounted this switch underneath the canopy. I used my hobby knife to cut a recess into the two fuse halves, just big enough to hold the switch. A small amount of Shoo Goo® was used to secure it in place. Another groove was needed to channel these wires. The second switch is to arm the speed control—a nice safety feature that prevents the prop from spinning before the pilot is ready. I wanted this switch to be accessible so I mounted it on the outside of the aircraft. I fed the switch through a hole I had made in the fuselage and mounted it to a small scrap of lexan. This can then be glued to the outside of the fuselage with CA glue—I used Jet medium viscosity. I spent a few extra minutes carving the foam to mount the switch plate flush.

The two halves were then glued together with CA. (Some foam kits require the use of foam-friendly glues. The instructions state very clearly that those glues will not work).

Servos are mounted into pre-formed recesses on the outside of the fuselage. Control rods are fed through tubes that are glued into channels down the sides of the plane.

Rudder, elevator and wings are all that remained to complete construction. The rudder and elevator are glued to each other before being glued to the fuselage. The wings have foam strips that are glued in place and receive the removable fiberglass spar that connects the wings. The wings are not glued to each other to allow disassembly for transport and storing.

Coloring the canopy and applying decals

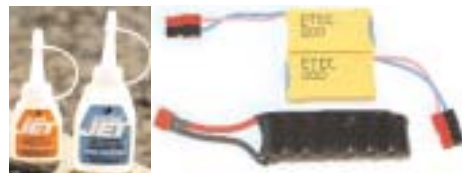
were the finishing touches. To personalize the plane even more I discovered that some permanent markers could be used to "paint" the EasyStar.

### TIPS FOR SUCCESS

If this is your first plane it's helpful to have an experienced pilot assist you if possible. At least until you become familiar with how the EasyStar responds to control stick input. Also consider joining the Academy of Model Aeronautics (AMA). They exist to help RC modelers succeed and offer insurance, RC club contact information and much more (contact information below).

For your first flights choose a day that is nothing more than breezy. And, don't try to practice close to the ground. The higher you fly, the more time you have to recover should something go wrong.

Make sure your plane is properly balanced according to the instruction manual. I



The fuselage was joined with medium Jet CA. Although the NiMH and Li-Poly packs are similar in size the Li-Poly battery provides over twice the run time and slightly more power. A Y-harness (not shown) was used to connect the E-Tec Li-Poly cells in parallel

had to add 2.5 ounces (which is equal to three AA batteries) to the nose of my EasyStar to achieve an appropriate CG (center of gravity). Flying with the E-Tec lithiums, I only needed to add 1.5 ounces.

### CONCLUSION

I like it! Plain & simple. The Multiplex EasyStar is a light aircraft that is easy to build and is capable of simple aerobatics that make flying it all that more enjoyable. It's made of a foam material that I found to be quite pliable and forgiving when the ground sneaks up on you. If you have ever found yourself uttering the words "I'd love to fly an RC airplane," then the EasyStar is a good place to start. 🌟

### Links

Academy of Model Aeronautics (AMA), [www.modelaircraft.org](http://www.modelaircraft.org), (765) 287-1256.

E-Tec, [www.aircraft-world.com](http://www.aircraft-world.com), 81 948 21 1045.

Hitec RCD USA, Inc. [www.hitecrcd.com](http://www.hitecrcd.com), (858) 748-6948.

Jet Glues, [www.jetglues.com](http://www.jetglues.com), (866) 538-4583.

For more information, please see our source guide on pg. 161.