

HOBBY
LOBBY

Busy Bee



PHOTOS BY TOM ATWOOD AND JASON CARTER

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Fresh off the heels of last month's TB-20 review, we go into another aileron trainer from Hobby Lobby, the Busy Bee. With an overall length of over 42 inches, the Busy Bee is over a foot longer than the TB-20. In fact, the Busy Bee is larger in every way. With 372 square inches of wing area, the Bee has 116 more square inches than the TB-20. If my instinct is correct, a larger plane, with more wing area enclosed in a high-wing, pusher-style plane, should make for a very forgiving aileron trainer. Let's find out.

CONSTRUCTION

The Busy Bee's main wing and fuse is constructed of molded bead foam while the tail feathers are made from smooth molded foam. Spring steel nose gear is installed from the factory, as is all radio gear. To get airborne, you will need to charge the included 2S 1800mAh Li-Poly battery, then install the 8x6 propeller, main landing gear, tail feathers, and main wing. It takes about two hours to charge the battery with the kit charger, so you have plenty of time to assemble the Busy Bee.

Installing the wing is a little challenging, but only because the rest of the job is so complete. The receiver is located in the bottom of the fuse, so you'll need to thread the aileron servo lead down to the receiver with the wing sitting high on the fuselage. This is tricky if you are trying to hold everything in the air. An extra set of hands helps here, as does simply laying the components in the grass while you run the cable.

SPECS

PLANE: Hobby Lobby Busy Bee**MANUFACTURER:** Hobby Lobby**DISTRIBUTOR:** Hobby Lobby**TYPE:** Outdoor electric park flyer**FOR:** Intermediate pilots**WINGSPAN:** 44 1/8 in.**WING AREA:** 372 sq. in.**WEIGHT:** 23 oz.**WING LOADING:** 8.9 oz./sq. ft.**LENGTH:** 42.75 in.**RADIO:** 4 channels required; flown with included 72MHz Mode 2 radio gear with neck strap**POWER SYSTEM:** TowerPro 2408-21 brushless motor, 18A ESC, Starmax 2S 1800mAh Li-Poly battery**FULL THROTTLE POWER:** 9.9 amps, 73.3 watts, 3.19 W/oz., 61.7 W/lb.**TOP RPM:** 7,760**DURATION:** 10+ minutes**MINIMAL FLYING AREA:** Baseball or football field**PRICE:** \$182**COMPONENTS NEEDED TO COMPLETE:** Eight AA batteries for transmitter

SUMMARY

The Hobby Lobby Busy Bee makes a good aileron trainer for enthusiasts who have grown accustomed to flying with rudder and elevator or a V-tail. Foam construction means you can make repairs quickly at the field. Priced at less than \$200, the Busy Bee provides you with a complete ready to fly four channel aircraft with 72MHz radio, brushless motor, ESC, and Li-Poly battery.



Step up to ailerons with this distinctive trainer



AIRBORNE

One of our local flight areas is a soccer field where the thick, lush grass of late spring prevented a ground takeoff. Instead, we throttled up and gave the Busy Bee a firm toss into the wind. The Busy Bee climbed and handled well for a plane of this size, despite the breeze. The large profile of the fuse caused the Busy Bee to be pushed around by gusts. This isn't a problem since the Busy Bee is a fairly stable and forgiving aircraft. If the Busy Bee stalls the recovery is gentle and uneventful. Since we found ourselves to be fighting the wind more than actually flying the Busy Bee we decided to hold off on flying until conditions were a bit more favorable.

Our second trip to the soccer fields netted better flying conditions and much more fun from the Busy Bee. In the calmer winds, we managed to get a feel for how well the Busy Bee performs. We still hand-launched the plane, but once at altitude and comfortable with the plane we passed the transmitter amongst our crew and took turns performing various maneuvers for the camera. The Busy Bee was easy to bring in close, very stable and predictable. With a slight bit of elevator and a little throttle the Busy Bee would creep through the air without stalling. We also took the Busy Bee up high and put it through some loops and rolls, which it handled just fine.

Since then, I have had the Busy Bee out in near calm conditions, and flown from a smooth surface. I taxied into the middle of the paved runway, lined up, and rolled into the throttle. The Busy Bee lifted off and climbed high over the vacant lot behind my neighborhood that was serving as my private airstrip. Without much wind to push the plane around, aileron inputs were much more precise and I started to really settle into a groove. As I continued to make laps around the lot, several neighborhood kids came to watch the Busy Bee in action. I made several low passes then brought the Busy Bee around for landing. Even in calm winds, the Busy Bee wants to float in the air—simply throttling back and allowing the plane to descend didn't bring it down fast enough. With a touch of down elevator, I made my final approach and eased off the elevator just prior to touchdown. The stable tricycle landing gear with steerable nose wheel make it easy to keep the Busy Bee aimed down the runway on rollout with a few touches of rudder. The landing was smooth and uneventful, much to the displeasure of a couple of kids that seemed to want to see a good crash. Not today, kids!



The Busy Bee comes with a compact and powerful brushless motor already installed. The aileron servo lead needs to be threaded through the fuselage ahead of the motor as you install the wing.

TIPS FOR SUCCESS

Check incidence on the horizontal stab. Our review plane was assembled following the instructions using the pre-existing holes in the stab. The result was that our stab wasn't square to the fuse or aligned with the main wing. It is a simple manner to realign it though.

After suffering from a ground-induced structural failure (A.K.A. crash) during a windy launch, the wing needed repair. The wing has carbon fiber tube spars, but they are joined in the middle by a soft wire joiner only a few inches long. We repaired the wing by installing a 1/8-inch music wire joiner that was approximately six inches long and epoxied it in place with five-minute epoxy while rejoining the wing panels. We also added a 1/2-inch-wide strip of fiberglass tape across the top of the assembled wing for further reinforcement. Since the spar is on the bottom of the wing, adding the tape at the outset may have prevented the initial break.

Pay attention to the throttle setting. There is no need for full throttle if you are training, and all the controls become more sensitive as you fly faster. It also noticeably shortens the available duration. The Busy Bee has a throttle-related handling quirk, due to the general layout. With the high motor thrust line, and all the parasite drag below, increasing the throttle would cause the nose to drop slightly. This effect is entirely predictable, and it was easy to compensate for it with a little backpressure on the elevator.

CONCLUSION

Hobby Lobby's Busy Bee is a great aileron trainer in calm conditions. With the large forward profile of the fuse, it seems to be affected more than other designs when the wind breezes up. Fortunately for those who may be considering a plane like the Busy Bee to polish their skills, the Bee is a very forgiving plane with a gentle stall. When you factor in the forgiving flight characteristics and the fact that it comes with 72MHz radio gear, a brushless motor/ESC combo and a Li-Poly battery and charger that can all be used in other aircraft down the road, the Busy Bee is a great trainer that offers a lot of bang for the buck. 🍯

Links

Hobby Lobby International, Inc., www.hobby-lobby.com, (615) 373-1444

For more information, please see our source guide on pg. 177.