# MEGATECH FREEDOM FLYER RTF

## SPECS

**MODEL:**
Freedom Flyer RTF

**MANUFACTURER:**
Megatech

**TYPE:**
electric park-flyer trainer

**SMALLEST FLYING AREA:**
park or baseball diamond (experienced pilots)

**IDEAL FOR:**
beginner or sport pilots

**WINGSPAN:**
33.5 in.

**WING AREA:**
167 sq. in.

**READY-TO-FLY WEIGHT:**
19 oz.

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

**FLIGHT DURATION:**
5 to 7 min.

**PRICE:**
$139.99

## YOU NEED

- A small screwdriver
- 8 AA batteries for the transmitter

The Megatech Freedom Flyer is an attractive electric-powered model that could serve as a first model for a beginner or a sport model for a more experienced pilot. The kit is complete; it includes everything needed to fly the model except AA batteries for the transmitter. Its high-wing Cessna looks and tricycle landing gear are attractive on the ground and in the air.

## SCOREBOARD

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|---|---|
| ⊕ | Very complete kit.<br>Fast, easy assembly.<br>Easy, stable-flying plane. |
| ⊖ | Battery connectors make intermittent connections (see "Tip").<br>Manual omits instructions on installing the nose gear. |


## SMOOTH FLYER WITH CESSNA LOOKS

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## OPENING THE BOX

The plane's components come with a n icely colored finish and have been carefully shoehorned into a protective, molded-Styrofoam container at the factory. The kit includes all the required parts and two instruction manuals—one written and another on a compact disc (a PC is required to view the latter). There is even a spare propeller (although I didn't damage the first one).

## ASSEMBLY

▸ **WING** The wing arrives completely assembled and ready to be rubber-banded to the fuselage. It includes a plastic reinforcement for strength during high-G maneuvers such as loops and dive pullouts.

▸ **FUSELAGE** The tricky part of setting up the RC system has been done at the factory. The motor, electronic speed control (ESC), receiver, servo and pushrods all come installed. All you have to do is push the nose and main landing gear into molded slots in the fuselage!

▸ **TAIL FEATHERS** The Freedom Flyer arrives with its vertical tail feathers installed. The horizontal tail is prehinged and ready for assembly. You use four tiny sheet-metal screws to secure it to the fuselage and then hook up the pushrods. That's it!

▸ **POWER SYSTEM** The power system uses a conventional ESC that's hard-wired to the flight motor. Everything is installed and ready to go. One important safety feature is that the ESC will not power the motor until it is armed by pressing a button on the fuselage. I had a slight problem with the connectors from the airborne battery to the ESC; see the "Tip" for a description of how I solved it.

## GEAR

**DRIVE SYSTEM INSTALLED**
Direct-drive 380 motor

**RADIO SYSTEM INCLUDED**
Megatech 4-channel FM 27MHz radio; 4-channel micro-receiver, 2 9g servos; pushbutton-armed ESC

**BATTERY INCLUDED**
900mAh, 7-cell NiMH

## RADIO GEAR AND FINAL ASSEMBLY

The kit includes a transmitter with its reversing switches properly set for this model. All you have to do is make sure that the controls are at their neutral positions before flying. You might need to give the clevises a turn or two before you snap them onto the control horns. Since I felt the control surfaces were fairly small, I used the inner holes, but a beginner might want to use the middle or outer holes for less response to stick movement.

This model assembles fast and is ready for flight within 5 minutes. All you have to do is insert the stabilizer into the fuselage and secure it with several tiny screws. Then you slide the nose and main landing gear into their slots (the instruction manual omits this step) and push them onto the motor drive shaft. After the transmitter batteries have been loaded and the airborne battery is charged with the supplied "wall-wart" AC charger, you'll be ready to plug in the flight battery, rubber-band the wing into place, adjust the trims and go fly!

## FEATURES

This is a very complete kit that contains just about everything you'll need, including an instructional video CD that's viewable on any PC. The fuselage is made of hollow plastic; the wings and tail are made of expanded foam with added stiffeners. All airborne components are factory-installed and require only pushrod hookups at the tail. The plane features tricycle landing gear (no steering capability) and comes with colorful decals applied.

## TIP

The battery contacts in the connectors were not making good contact, so I used a T-pin to squeeze the female contacts together slightly and spread the male pins slightly apart. This made them work much better and prevented the prop jumps that occurred intermittently.

## FINAL THOUGHTS

I had a lot of fun with this model. It will do a nice ROG (rise off the ground) takeoff from a baseball diamond, even though the landing gear is not steerable. At reduced power, it cruises through the sky looking like a miniature Cessna. Flight times were between 6 and 8 minutes—plenty of time to have some fun and even do some touch-and-go's and aerobatics. Loops and wingovers were easy (the wing flexes noticeably during loops), but the roll rate wasn't enough for good rolls. This is a fun and attractive little electric! ⊙

**See the Source Guide on page XX for manufacturers' contact information.**

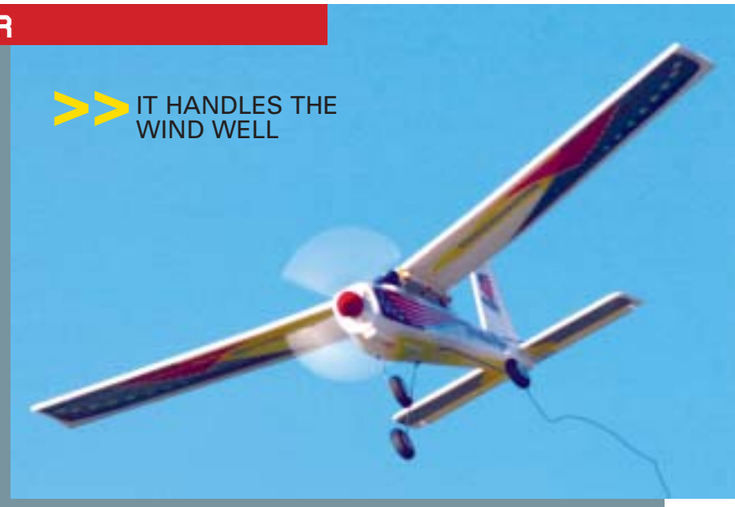
## IN THE AIR

This is a smooth-flying, scale-looking ship. Even with its relatively fast flight speed, its stable flying attributes make it suitable for beginners. I flew it in a football field and had no trouble staying away from fences and trees. Takeoffs can be by hand-launch or ROG (rising off the ground); landings are fun on the tricycle gear (although the plane will nose over in grass if you don't land just right).

**CLIMB PERFORMANCE** On a full charge, the 7-cell, 900mAh battery provides enough power for the Freedom Flyer to accelerate well from takeoff. There is more than enough power to ROG; I did so several times off the rough dirt on a baseball diamond. Even though the landing gear is not steerable, the Freedom Flyer tracks well on the ground. I recommend keeping the climb relatively shallow to maintain airspeed. After a few minutes of flying, you'll notice the power level reduction, but the model still flies quickly and smoothly.

**FLIGHT STABILITY** The Freedom Flyer is quite a stable flyer, and it will eventually enter a shallow spiral if left alone for 30 to 45 seconds (a long time to let go of the sticks!). If you reduce throttle and slowly feed in elevator, the Freedom Flyer will eventually stall and the wing will drop, but relaxing the elevator brings the plane back to normal flight immediately. It will not stall with moderate control inputs at reasonable power levels. Controls maintain effectiveness even at low speeds, and I never felt that the plane needed more control travel. The Freedom Flyer maintains a steady, smooth tracking unless you really horse around with the sticks.

**PILOT RECOMMENDATIONS** I recommend that beginner pilots have an assistant on hand to give the plane a straight-ahead hand-launch for the first flight; these 4 to 5 feet of initial altitude provide a little margin in case the trims are off or the pilot over-controls the plane. When the pilot has more experience, ROGs are easily done as long as the battery is adequately charged. When doing a ROG, be sure to keep the plane's climb angle relatively low so airspeed is maintained. On landings, feed in power, and flare just above the ground to prevent the nose gear from touching down before the main gear does. If the plane lands on the nose gear, it will nose over, but if this happens, most likely only the pilot's ego will be damaged.



>> IT HANDLES THE WIND WELL

Because of the plane's relatively high wing loading, its cruise speed is pretty fast; for a small aircraft, it handles the wind well. The Freedom Flyer can cope with 10 to 15mph winds easily, but I don't recommend flying in such winds until the pilot is proficient.

**PERFORMANCE HIGHLIGHT** The Freedom Flyer is moderately aerobatic, but the pilot must remember that it is a rudder-elevator plane (no ailerons). It will perform loops easily, although the thin wing flexes noticeably on the bottom of the loop. Rudder rolls are not very rapid and are not recommended. Inverted flight is possible but requires continuous corrections because of the high wing and its dihedral trying to turn the plane right-side up. With flight times between 6 and 8 minutes, there is substantial stick time per battery charge. I did not attempt to glide the model other than reducing the throttle to idle during landing.

The best thing about the Freedom Flyer is its scale appearance along with its smooth, steady flight characteristics. If you want a nice-looking, smooth-flying ARF, the Freedom Flyer could be the way to go. It would be an ideal gift for the friend or relative who is interested in learning to fly, especially if an experienced pilot is available to assist with early flights and help instill confidence in the beginner.