

Preparation for Flight

Note: see the "Materials Required for Completion" section above for recommended motor, battery, prop, and speed control.

- Check for proper balance. The acceptable balance range is on or up to $\frac{1}{2}$ inch behind the bottom spar.
- Ensure that prop is secure, speed controller is "off", and radio is "off", and battery is out of plane.
- Mount wing with rubber bands, making sure to connect the "quick disconnects" together prior to attachment.
- Make sure your jumper wire has the proper polarity going to the speed controller. Reversed plugs usually mean blown out controllers! Plug a freshly charged battery into the jumper.
- Secure plane from moving, then turn on radio and speed controller switch. Test motor for proper rotation and make sure that control movements are in their proper direction.

Note: Beware of the propeller! Just because it's a little electric does not mean that the prop can't give you a nasty cut!

Note: Always turn your radio transmitter on first and off last. Electronic speed controls have a nasty habit of listening to radio noise and deciding to turn the motor on, especially near peak chargers. It is also possible to "swamp" your controller when your radio is too close to the receiver. Always be cautious of the prop!

The first thing you should always do when you go to pick up a plane after a flight is disconnect the battery pack. Safety first!

- Double check all final cable connections
- Check control throws:
 - a) Elevator: +/- 1/4" beginner, +/- 3/8" to 1/2" advanced
 - b) Rudder: +/- 3/8" beginner, +/- 1/2" to 3/4" advanced
- Glide test your plane for initial trim settings. Throw it straight ahead without the motor on. Glide should be relatively flat and smooth. If the plane climbs suddenly, then stalls, add down trim and check to make sure that the fuselage is straight. If the plane noses in, add up trim and check to make sure that the fuselage is straight.

Did I mention to check to see if the fuselage is straight?

- Launching your plane:

The Push-E Cat is hand launched into the wind and belly landed when you are done. First, find a suitable flying site with plenty of room with as little to run into as possible. Get to a spot where you have a clear path to fly your plane after launch and get some altitude.

Grasp the Push-E Cat fuselage on the bottom under the cabin area with your throwing hand. Using your other hand (which should be holding the transmitter) give the motor full power. Throw the Push-E Cat straight ahead (never up).
- The Push-E Cat is a gentle and predictable flyer. Hand launches are uneventful, followed by a smooth, gradual climbout (about 13 degrees). Controls are always responsive, even at stall, due to the pusher configuration. This also lets the Push-E Cat do the prettiest stall turns

Speaking of stalls, these are always a gentle mush, straight ahead with no tendency to fall off to either side. This is a result of the tip washout.

Because of its glider planform and airfoil, you can climb to altitude and glide in order to increase your flight times. The Push-E is a little draggy though, so thermal hunting in light lift can be rough. Flight times of 20+ minutes with 1400AE battery packs are common.

Climb out and go for it!

Push-E Cat Specifications	
Wing Span	58"
Wing Area	384 Square inches (2.66 Square feet)
Flying Weight	25 to 29 Ounces
Wing Loading	9.4 to 10.9 oz per square foot
Watts	70 (estimated)
Watts/pound	47 (approximate)
Controls	Rudder/elevator/throttle
Power System	7.2V Speed 400 Motor on 8 KR-1400AE cells with 6x4 prop or 6.0V Speed 400 Motor on 7 KR-1400AE cells with 5.5x4.5 prop

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