



Wing Dragon HL

Author: Bob Karasiewicz | Added: 7/19/2009



What a neat little airplane! Do you want an airplane that will fit, fully assembled, into the trunk of your car? That way you can fly whenever you might find the right place—lunch time, flying in a beautiful park; what's not to like? The Wing Dragon HL is a true Park Pilot airplane for any level pilot. Plus, its 2.4 GHz radio system ends the frequency interference problem making this airplane a true, fly-anywhere aircraft.

If you haven't heard yet, or know much about, the 2.4 GHz revolution taking over RC radio systems, read the Sport Aviator articles about 2.4 GHz in the Flight Tech Section. The main 2.4 GHz articles are "[2.4 GHz for the Common Pilot](#)"; "[Welcome Back – We Missed You-Part One](#)", "[Spread Spektrum - Are You Ready for Full Range?](#)" and "[2.4 GHz Radios](#)".

The Wing Dragon HL meets all the aircraft requirements of the Academy of Model Aeronautics' (AMA) Park Pilot Program. The aircraft weighs less than 2 pounds (the Program's upper weight limit) and has a level top speed under 60 mph (the Program's upper speed limit). For complete Park Pilot aircraft details, [follow this link](#).

The AMA Park Pilot Program offers non-AMA members the opportunity to become AMA members at a much reduced cost. Park Pilot membership includes a great magazine "Park Pilot", \$500,000 personal liability insurance, \$2.5 million liability insurance for the flying field owner ([see insurance details](#)) and membership in the world's largest sport aviation association – the AMA. For complete information and details about Park Pilot membership, just [click here](#).

Hobby Lobby International's Wing Dragon series has been one of the best, and most popular, low-cost, Ready-To-Fly (RTF) basic RC training systems available for several years now. The [3-Channel Wing Dragon](#) is reviewed in Sport Aviator's Park Pilot Aircraft Section as is the newer [4-Channel Wing Dragon](#). These airplanes already know how to fly and just need some first-flight trimming.

With an instructor by your side for the first flights, this airplane is ideal. This is an honest, easy to fly anywhere basic trainer. At just \$170 for a complete, RTF airplane, it is also one of the most cost-effective ways to learn to fly RC. Let's see, durable, easy to fly, great basic trainer, a complete RTF and low cost. Sounds like a perfect package if all lives up to the goals.

This airplane is ideal for all the above and, most importantly for me, this is a FUN airplane.

A real knock-about:

With the Wing Dragon HL, in just 30 steps you will have an airplane ready to fly. In fact, if you plug in the battery (included) into the charger (included), you will be able to fly right then and there.



Photo 1

You could “build” the Wing Dragon HL at the field.

The radio is also included! A 2.4 GHz system that is already installed!

Let’s do a ‘build’ (assembly?)

Step one—find the fuselage and landing gear.

Found em! The wheels are already attached to the landing gear.

Step two—insert the landing gear into the fuselage, they snap in place. Done.

The other steps are pretty much the same. This is a no-brainer to build.



Photo 2



Photo 3

I did have a slight problem in step 5 and 6. This is the step where you assemble the horizontal stabilizer and tail wheel assembly. The tail wheel assembly holds the stabilizer in place.

The hang up was the lack of holes in the horizontal stabilizer. I couldn’t push the thumbscrews through the horizontal stabilizer. This was easy to fix, just cut the holes in the pre-indented stabilizer.

I used a hobby razor knife but there are other knives might be just as good. Even a sharp, small kitchen knife will do. It might even be best to *hand drill* the holes using a drill bit. This was the only step that required something other than what came in the box



Photo 4

At this time the vertical stabilizer is also installed. The directions are a little unclear about this.

The vertical stabilizer is screwed onto the same thumbscrews that hold on the horizontal stabilizer and tail wheel assembly. Let *me* be clear about this. The tail wheel assembly, the horizontal stabilizer and the vertical stabilizer are all put on at the same time.



Photo 5

Photo 5 shows the pushrods connected. Do this now. This is step nine and ten. We are moving along fast. It takes almost as much time to read it as it does to do it.

Now, move on to the electric motor and propeller.



Photo 6

Put the backplate onto the motor shaft. Don't be afraid to push it onto the shaft. Look at photo 6 and the picture in the instruction booklet.



Photo 7

The backplate will go about one inch onto the motor shaft.



Photo 8

The propeller is assembled onto the motor/ backplate with the red dot facing the front of the airplane. Remember, this is a 'pusher' combination.

Next, the washer and nut is placed onto the shaft and tightened down with the included wrench.

This really does not need to be tightened with all the force you can apply. Just make it more than finger tight and less than tightening a lug on your car wheel (*Ed Note: A LOT less force than tightening a wheel lug. It is only a small output shaft, remember.*).

Snap on the spinner and that job is finished.



Photo 9

Now we are going to put the pilot in place. He has double stick foam on the bottom. Peel it off and stick the pilot to the thin plastic cabin floor. I happen to have a 'Goofy' Disney character that I will be replacing my pilot with. The idea is to have fun with this airplane. The pilot is hardly a vital aerodynamic necessity.

We'll be building the wing next—we're almost done.

Let's look at the following three pictures before we begin:



Photo 10



Photo 11

For some reason, my kit had a slight reversal of the wing joiner. I had to secure the plastic joiner to the top of the right wing panel. This is the right half of the wing looking at the airplane from the tail towards the front. Whichever way yours is, just be sure the motor cover portion of the plastic joiner is at the back of the wing. Try it before you take the cover's double sided tape off.



Photo 12

Just line up the two wing halves, dry (not glued) and make sure the thin trailing edge is toward the back and the motor cover portion of the plastic joiner is at the back. This is not a big deal. The wooden dihedral brace/joiner is put in the opposite wing (not glued). Assembled this way, the wing can be separated for storage or transportation.

Let's do the fun part now. Let's **fly this Wing Dragon HL.**



Photo 13

If you are a beginner, please get someone who knows how to fly. Best would be an instructor from an AMA chartered club. (Check Sport Aviator's Club Finder Section.) This applies to any airplane you might build.

Almost all airplanes need trimming on the first flight. This is what I mean by trimming:

You take the airplane off the first time and it just keeps going up and rolling to the right. You try to get it going straight but it is just too much for you and; well, let's call it an unplanned landing. (*Ed Note: Actually, it is an unplanned air/ ground interface.*)

Hobby Lobby stocks all the parts for the Wing Dragon HL, so it is not a total loss. It is so much easier to get an accomplished pilot to take the first flight. He (or she) will be able to control the path of the Wing Dragon HL and move the trim tabs to get the airplane to fly a straight and level track.

If you **MUST** fly it your self and you have no prior experience with model airplanes, then I can only advise you to keep the speed down. Don't raise the throttle any more than half way.

This applies to all airplanes. Definitely to the beginner type that are on the market now. This is in no way singling out Hobby Lobby. Hobby Lobby has some of the best beginner airplanes on the market and has had them for many decades. The Wing Dragon is one of the best. Still initial trim flights are important. First-time pilots do not need the problems associated with the airplane trying to dive and turn in one direction while the pilot is trying to climb and turn the other way.

Once the initial trimming is done, we can have some fun.



Photo 14

This is a picture just after a good hand launch. The Wing Dragon is climbing away at full throttle and going straight. Lower the throttle and you have a very nice straight and level flight. GENTLY move the stick to the right (or left) and apply a little up elevator and the Wing dragon HL will do a nice turn. Hopefully, you have picked a nice calm day (evenings about one hour before sunset are almost always calm) for your first flights.

The wing Dragon HL will handle wind up to about 10 MPH depending on your skill. With a good head wind an accomplished flyer will be able to stop the airplane in the air. Weather you are a beginner or an advance flyer, you can have fun with this little model.



Photo 15



Photo 16

The wing dragon HL will loop from level flight, it will roll—give yourself plenty of altitude—and even fly inverted for a short time.



Photo 17



Photo 18

The 7-cell, Nickel Metal Hydride (Ni-MH) battery pack has enough power for 10 minute flights at training speeds. This is more than enough flight time for training purposes. More aerobatic flights will last about 7 minutes and are fun to perform

If you are flying away from 120 VAC current, there are several options for charging the battery. You can buy extra batteries or you can get a field charger and recharge the battery off your car battery.

Hobby Lobby has several field (12 Volt) chargers in the \$30 to 40 range. There are plenty of others to choose from if you want to spend a little more.

I just thought I'd mention it again. Everything is included, radio (installed), battery, charger and tools needed for assembly. A hobby knife would make the tail go together easier but, nothing else is needed.



Photo 19

Photo Courtesy of Hobby Lobby

The Wing Dragon HL, with its modern 2.4 GHz radio system, is a very good way to get into RC flying with minimum hassle and expense. For more information, go to: http://www.hobby-lobby.com/wing_dragon_hl_rtf_trainer_airplane_15019_prd1.htm?pSearchQueryId=76571

If you would like to check out the Wing Dragon HL's instruction booklet, go to: <http://s3.amazonaws.com/hobbylobbypdf/at24gradio.pdf>

Specifications

Manufacturer: Hobby Lobby Intl.	Length: 34.5 in.
Cost: \$170.00	Wingspan: 42 in.
Radio: E-Fly 4-Channel	Wing Area: 367 sq. in.
Servos: 2, already installed	Wing Loading: 6.79 oz./sq. ft.
Engine: Brushless Outrunner	Weight: 17.3 oz..Airfoil: Flat-Bottomed

Special Airframe Features: Ready To Fly; 2.4 GHz Radio Sys. 3-Bladed Propeller, Extremely Quick Assembly.

Notable Positives

- Easy and fun to fly
- Good basic trainer performance
- Radio and motor installed
- Very quick assembly
- Excellent instruction booklet makes assembly very easy, even for beginners.

Notable Negatives

- Stabilizer needed tools to assemble
- Best in winds under 10 mph Usual for this type airplane)