

Getting Started in Flying R/C Model Airplanes

"I've been flying radio controlled model airplanes for about three years now. I find that when I am at the field, I'm relaxed and alert. When I have a plane in the air, I'm focused directly on controlling the plane safely, and there isn't room for much else inside my head. When I'm not at the field, I miss the challenge and can't wait until the weather cooperates, the plane is repaired, or whatever barrier is keeping me from flying is removed so that I can get back out there and get my fix!" (quote from un-named RC flyer)

It all has to start somewhere, though, doesn't it? You're reading this page because you are interested in learning to fly your own model airplane and Google, Yahoo, or some other search engine dropped you on this site. For the impatient, here's a list of what you need in order to get started in R/C Airplanes with the Flying Pilgrims (other clubs' requirements may differ):

1. AMA Membership
2. Flying Pilgrims Club Membership
3. Model Airplane
4. Radio System
5. A bunch of little stuff

That's it!? Well, sort of. That fifth item is pretty ambiguous I suppose. It's going to take a few minutes to explain what's *really* necessary. I'll put another, more complete, list at the end of this page.

Credentials

First, the necessary credentials. The AMA Card is paramount. By joining the Academy of Model Aeronautics, you are benefitting from a national organization which actively supports model aircraft. The AMA publishes a monthly magazine called *Model Aviation* and your membership fee includes a subscription. One of the key benefits is that all AMA members automatically have liability coverage in the event of an accident involving their model. The cost of an AMA membership is typically \$75.00 per year. You can apply for membership online at the AMA web site.

Flying Pilgrims club membership is also very important. There are provisions for flying at our field as a "guest" or visiting pilot for large events, but if you are interested in learning to fly, a Club Membership is a must. This enables you to work with an instructor any time one is available (and they're always available on Wednesday evenings during the flying season). Your dues go toward club events, field maintenance, future field arrangements, and other club-related expenses. The first-time cost is \$125, which includes a \$50 initiation fee plus first-year dues of \$75. Each subsequent year is \$75 for membership renewal. Memberships are handled by the club treasurer. You can make arrangements to pay your dues by contacting him directly (treasurer1@flyingpilgrims.com) or attend a regular membership meeting and pay your dues in person.

Airplane

The credentials were easy and straightforward. Selecting an airplane/radio combination can be daunting. If you have zero flying

experience with model airplanes, you should select what are commonly referred to as "Trainer" aircraft. Most trainer planes have a few things in common: High wing, plenty of dihedral, nose wheel, and .40(ci) size "glow" engine. These characteristics make sense once you've been flying for a while. The high wing and generous dihedral (The V-shape that the wings make when you look at the plane from the front) keep the airplane stable while in the air. Trainers have little tendency to roll and, if you take your hands off the controls of a well-trimmed plane, will usually return to straight-and-level flight. The nose wheel makes the airplane easier to control on the ground (the alternative is a tail-wheel), and protects the propeller in the event of a less-than-perfect landing. The engine size is perhaps the least important of these elements. Most trainer planes use a .40 two-cycle glow engine because they are inexpensive and provide sufficient power for the beginning pilot without overwhelming speed. A trainer plane is usually not very aerobatic, and is used to teach the basic elements of flying -- take-offs, landings, and basic airborne maneuvers.

Here are some suggested airplanes that meet the above characteristics:

- SIG Kadet Seniorita Sport Kit
- Hobbico SuperStar 40
- Great Planes PT-40 MKII

All of the planes above are available in kit or ARF (Almost Ready to Fly) form. You pay more for an ARF, but will be ready for your first flying lesson more quickly.

Radio System

Again, I wish I could tell you *exactly* what to get without fail, but that's not the case with radio systems, either. The most popular brand at the Flying Pilgrims field is Futaba. Often, that is enough to encourage newcomers to go with Futaba. This makes sense in many ways, including having the benefit of more experienced pilots' assistance when it comes to setting the system up and using it to fly your first plane.

I *can* tell you that purchasing a four-channel radio is sufficient for flying a trainer plane, and will probably continue to suffice for your first few models. One thing I did not know about when I got my first radio was "dual rates." This feature would have saved me a lot on the learning curve, so I would recommend getting a radio that supports them if you can afford it. Essentially, there are switches on your radio which allow you to reduce the sensitivity of your control sticks so that you don't over-control your plane. Most beginners have a tendency to push the control stick all the way over, even for small airborne maneuvers, when only a gentle touch is typically required. Unfortunately, most of the inexpensive 4-channel radios do not come equipped with this feature.

Most radios have a "trainer" switch built into them. This feature allows two radios to be connected (via something called a buddy cord). The instructor holds one radio and the student controls the airplane with the other. This setup allows the student complete control of the aircraft with the comfort that if anything goes wrong, the instructor can immediately take control and (hopefully) avoid any damage to the plane.

When selecting a radio system, you'll need to know how many servos your airplane requires, since most systems are available

with several servo options. You will also receive both a receiver and transmitter.

Here are some suggested radios:

- Futaba 4YF 4-Channel 2.4
- Spektrum DX6

Combos

Most beginning flyers don't have the experience to select each component individually. Several of the major manufacturers have recognized that, and are producing "complete combination" kits which are designed to ease you into the hobby with a minimum of research and cost. Such combination kits include an Almost Ready to Fly trainer airplane and a radio system. Most of the components are already installed, and all you have to do is finish the assembly (usually mounting the wings, fin, and stabilizer), attach the control surfaces to the servos, charge the batteries, and fuel up. This reduces the amount of time between when you purchase the model and your first flight.

I would recommend that for the raw beginner, choosing an R/C Combo is the best way to go. Generally speaking, the components are built well, and are sufficient to learn the basics. The biggest down-side to purchasing a beginner's combo (in my opinion) is that you may outgrow the transmitter relatively quickly, opting for a more advanced radio. This is probably acceptable to most beginners, since radio prices advance pretty quickly with more and more features.

Fortunately, there are several good combination packages available today:

- Hobbico Nexstar
- E-Flite Apprentice S 15e

Other Stuff

When I was getting ready for my first flight, it was surprising how many *little* things there were to get before that first takeoff. Here is a list of necessities:

- Extra propellers that fit your engine
- Fuel
- Fuel Pump
- Chicken Stick (a wooden dowel to spin the propeller instead of your fingers)
- Hold-back (our field rules require the plane to be secured)
- Clean up supplies (Many modelers use paper towels and 409 cleaner)
- Extra fuel tubing
- Extra rubber bands (for models that mount the wings using them)
- Glow Starter

Adding up the Costs

Flying model airplanes isn't the cheapest hobby. Just like almost any other, though, you can make it as expensive as you like. Expect to spend around \$600 for your first flight. Here is the breakdown (note: Prices are approximations):

Item	Cost (\$)
AMA Membership (1yr)	75.00
Club Initiation Fee	50.00
Club Membership (1yr)	75.00
Model Airplane/Radio Combination	350.00
2 propellers	6.00
Fuel (gallon)	14.00
Glow Starter	13.00
Hold Back	12.00
Total	595.00

Saving Money

Holy Smokes! \$600 to take that first flight! I'd rather bird watch!

When you *are* ready to take the plunge, you can certainly build your own airplane. All of the planes listed above are available as kits, and you can shave a few pennies here and there, if you are willing to spend the time building the model and installing the components yourself.

Another way to save a few dollars is to check out the online swap shops and auctions. Often you will be able to find a good deal on a trainer airplane that someone has outgrown. Radios, engines, and other components are all available online. See the Flying Pilgrims (<http://flyingpilgrims.com/fp/>) website for some pointers to sites.



Location: Flying Pilgrims RC club field
2171 Ridge Road
Superior Township, Mi. 48198
Field is located southwest of Canton & north of Ypsilanti