



## Getting Started – Equipment Recommendations

Welcome New Pilots!,

Signal Seekers RC Club is proud to be one of the oldest and most active RC clubs in Michigan. As such, we are pleased to have the opportunity to train many new pilots and introduce them to this great hobby. Many of our students ask for recommendation on a good first (or second) plane. Here are some aspects to look out for in a “beginner” plane, based on the experience of our training team:

### THINGS TO LOOK FOR

- High Wing (wing mounted on the top of the fuselage, or even on a pylon.)
- Dihedral (a wing that forms a shallow “V” when looking at the plane from the front or back, or a wing that swoops up at the ends.)
- Asymmetrical Airfoil (a wing that is more flat on the bottom and curved on the top.)
- Low Wing Loading (wings that have a large surface area in relation to the size of the plane.)
- Traditional design (not a delta wing, high performance or experimental design.)
- Propeller driven (with a prop in the front of the plane.)

### THINGS TO AVOID

- Low wing (mounted on the bottom of the fuselage) or mid-wing (mounted on the sides of the fuselage.)
- No dihedral (a wing that is completely flat.)
- Symmetrical airfoil (where the curve is the same on the top and the bottom.)
- High wing loading (wings that are “skinny” front-to-back.)
- Delta wings or other high-performance designs.

- Propeller mounted on the back of the plane, or on a pylon above the plane.
- Electric Ducted Fan (EDF) powered planes (like a jet.)
- Warbirds or other “scale models” which are designed to look authentic (sacrificing flyability.)

## LANDING GEAR

The choice of “tricycle gear” or a “tail dragger” is a matter of personal preference. Tricycle gear aircraft are easier to take off without flopping forward (in my opinion) and tail draggers are easier to land (in my opinion.)

## BEGINNER PLANES

All that being said, here are some good recommendations for a first plane:

- Planes built specifically for training – Parkzone / Hobbyzone Apprentice (tail dragger) or Parkzone / Hobbyzone Aeroscout (tri-cycle.)
- High-Wing Models - Hobbyzone Champ, Parkzone Cubs (Carbon, Carbon Z or Sport Cub), FMS Super Cub, Ranger or Kingfisher

## INTERMEDIATE PLANES

Here are more recommendations for a second plane:

- Tricycles – Parkzone T-28 Trojan, FMS Cessna 182, Hobbyzone Arrows Trekker
- Tail Draggers - Parkzone Sportix, Timber (Super, Turbo or Night), Ultra (or Slow Ultra) Stick, Decathlon or Draco, FMS Beaver or Maule, Hobbyzone Arrows Bigfoot

## SOARING

If you are interested in soaring / gliding, the Parkzone Radian or Radian XL (if you can find it) is a good option. “Full House” flat wing gliders like the Radian Pro are definitely not for beginners.

## BUILD CONFIGURATIONS

Note that most types of airplanes come in different build configurations:

- RTF (Ready-To-Fly) - These aircraft come complete with everything you need to get started right out of the box, including a radio and batteries. Typically, these will be smaller aircraft with lower-capacity batteries.
- RTF Basic (Ready-To-Fly Basic) – These aircraft come with everything you need excluding batteries and chargers. This has become more popular lately due to the increasing issues with shipping lithium polymer batteries.
- BNF (Bind-N-Fly) – These aircraft come with everything you need except for a transmitter. With BNF products, you can use the transmitter of your choice and bind it to the receiver included in the model. These models usually include both battery and charger.
- BNF Basic (Bind-N-Fly Basic) – These aircraft include the servos, a motor, an Electronic Speed Control (ESC) and a receiver. You will need to add a Spektrum transmitter of your choice, a battery, and a charger.
- PNP (Plug-N-Play) – These aircraft come with everything you need except for a transmitter, receiver, battery and charger. The aircraft comes with servos, a motor and an ESC.
- ARF (Almost-Ready-To-Fly) – These aircraft needs some additional "need to complete" items before you can start flying (normally listed on the box) such as servos, a motor, a receiver, batteries, switches, extension leads, glue etc... and must be assembled prior to flying.
- Kit – This is the rawest form of a model. These are sheets of balsa that have been either laser cut or die cut into parts to be able to make a model. Kits generally come with all the balsa components and a plan. Items that are needed to complete but are not limited to are typically glue, covering materials, spinner, servos, motor/engine, batteries, switches, extension leads etc. You will also require building tools such as a hobby knife, sandpaper, flat building board, pliers, screwdrivers, covering iron etc.

For beginners, we strongly recommend starting with a RTF, unless you already have a radio. Speaking of which...

## RADIO EQUIPMENT MANUFACTURERS

There are many great radio equipment manufacturers. Some of our favorites are Spectrum, Futaba, Hitec and Radiomaster. Much of this boils down to personal preference, but we generally stick to DSMX “Spread Spectrum” at the field (which allows us to fly without worrying about interference between radios.) Although many manufacturers provide compatibility with DSMX, it’s easiest for new flyers to start with Spektrum radio equipment in order to ensure compatibility with our existing training fleet and equipment.

### RADIOS (TRANSMITTERS)

If you have a little more disposable income, I recommend getting a BNF and selecting your own radio. RTF aircraft usually come with very basic radios (like a Spektrum DXe or DXs) and these radios are very limited in their capabilities. A more reasonable radio that will accommodate your first year or two of flying would be a DX6e, NX7e, NX8+ or DX9. A DX6e or DX9 can also be occasionally found for a reasonable price online or on the used radios shelf at Nankin. Please note that if you buy a used radio, you should confirm with the seller that it is no longer registered under their name at Spektrum, as you can only update firmware on radios that are registered to YOUR account. It IS possible to “deregister” a radio by contacting Customer Service, but it’s easier to just ask them to remove it from their account before selling it.

### RECEIVERS

- Spektrum AS3X – This is electronic stabilization that is built into the receiver. This is a great feature, especially if you can purchase it already in the aircraft (as it will be pre-programmed for that airframe.) This is highly recommended for beginner planes, as it makes them much easier to fly, especially on windy days.
- Spektrum SAFE – This is a great feature when you are learning to fly on your own, but it gets in the way when you are learning to fly with a trainer, as Spektrum (intentionally) makes SAFE very difficult to disable (and it often uses buttons on the transmitter that we need for other things.) If you purchase a model with SAFE, please consider either a more advanced radio (so we have the tools to disable it) or the purchase of a receiver (that can be installed in the aircraft in place of the stock receiver) that allows SAFE to be disabled (such as an AR630+ or the excellent AR637T+.

### LIPO BATTERIES

- LiPo batteries – Please read up on the care and feeding of LiPo batteries. They are not like any other batteries, in that they must be stored and charged properly at all times, or they could be “self-damaged” just sitting in storage, suffer degradation in performance or even (as has happened to some of our club members) catch fire while charging. Youtube is your friend. Here are a couple handy references:
  - The Drone Girl: <https://www.thedronegirl.com/2015/02/07/lipo-battery/>
  - Joshua Bardwell: <https://www.youtube.com/watch?v=n3urBpFIBgY>

#### OTHER HELPFUL RESOURCES

- RC Groups - <https://www.rcgroups.com>
- Flying Giants - <https://www.flyinggiants.com>

#### CONCLUSION

Collectively we have roughly 1,500 years of experience among our club members. Do not hesitate to ask questions, and we will do our best to guide you. This is a fun and extremely educational hobby, and your fellow club members are here to help you make the most of it. Also, Nankin Hobby in Farmington, Ypsilanti and Southgate have been a long-time supporter of our club, have a lot of knowledge, and will generally price-match what you can find online. Support your local hobby shop!

See you at the field!

The Signal Seekers Training Team