Choosing Your First Radio Control (RC) Model Plane and equipment

Making your Purchase

It might surprise you to learn that prices have come down considerably over recent years making the hobby more affordable. However, world politics can have an adverse effect on prices. Virtually all aero modelling supplies and kits come from overseas countries. No longer do newcomers have to learn to build before they can fly. Models of today are usually Almost Ready to Fly (ARF) which means that they are pre-built and require only simple assembly or Plug and Play (PNP) which means you just add the radio and batteries. Radios are incredibly sophisticated and cheaper than ever before.

The best model to start with is a fixed wing aircraft. We do not teach students to fly pure gliders (IE without a motor) and we do not teach helicopter flying or drone flying. You will see experienced HMAC Members flying these models and you can certainly graduate onto these types once you have reached the basic Bronze Wings standard.

Electric Power or Glow Power

In recent years, electric powered models have become dominant at HMAC and you have been using the electric powered Apprentice in your training. Electric power is clean and simple but flight times are usually less than 10 minutes. Batteries and dedicated safe chargers are expensive. You will need at least three battery packs. Batteries need replacing regularly.

Glow power is more traditional but the engine is noisy, oily and smelly and can be difficult to start and run. Glow fuel with nitro added is expensive. Both Electric and Glow motors drive propellers which can cut you. A well set up Glow motor with a good size tank can stay in the air for 15-20 minutes.

But the choice is yours. Many of our members have both types of power plant but to limit initial expense we would recommend one or the other for a first purchase. Whichever you choose you will require some extra equipment at the field depending on the power source.

IC Flight kit	**Electric flight kit**
12 V battery (lead acid or similar)	Multi chemistry type Battery charger with built in balancer
Glow plug battery or power panel	Battery capacity checker
Glow plug lead and adaptor	
12v Electric starter	There are many different types of connectors. It is a good idea to settle on one or two types, e.g. one for small currents and a larger one for higher currents. This facilitates the interchange of batteries between models.
Spare glow plugs	
Container of fuel	
Fuel pump (manual or electric)	Soldering iron and solder at home
Glow plug spanner	
Selection of adhesives for field repairs	Selection of adhesives for field repairs.
Various tools e.g. screwdrivers, long nose pliers, medical forceps (for fishing out servo leads), small adjustable spanner, hobby knife.	Various tools e.g. screwdrivers, long nose pliers, medical forceps (for fishing out servo leads), small adjustable spanner, hobby knife.

Recommended Radio systems

Having reached Bronze Wing standard you should have an idea of what types of model you may like to fly in the future as this determines the number of channels you will need. Nearly all transmitters (even the entry level ones) are computer transmitters. The radio systems require both a transmitter and receiver. The following table sets out the number of servos/channels required in a few types of model.

	Simple Sport Model	Sports/Scale model with flaps and retracts	Electric Glider
	With SAFE system	Dual ail, dual flap, dual elevator, retracts	Dual ail, Dual flaps
Aileron	1	2	2
Flaps		2	2
Elevator	1	2	1
Rudder	1	1	1
Throttle	1	1	1
Stability Channel or retract	1	1	
Total	5	9	7

So if you intend to stick with simple sports models then we would suggest a 6 channel system would be quite adequate.

If you intend to go onto more complex models we would suggest an 8 or 9 channel transmitter. It is better to pay a bit more initially for a transmitter that will not have to be replaced in a year or two. Voice and telemetry capability, while not essential, are very desirable characteristics.

HMAC runs several courses a year on how to program computer radios. It is a very good idea to attend one of these courses before purchasing a transmitter.

The Spectrum transmitters from our Sponsor Model flight are excellent transmitters and Model Flight provides local technical support. In addition many of the Bind and Fly models come installed with Spectrum receivers so if you are interested in those types of model then Spectrum is a good way to go. But there are other high quality brands including Futaba, FrSky, Hitech, Jeti and Multiplex so do some research before purchasing.

Manufacturer	**Model**	**Channels**	**Trainer System**	**Comments**	
Spektrum	DX6	6	Yes	Voice system Telemetry Better than basic. Comes with receiver. Good value $$$	
Spektrum	DX8e	8	Yes	More advanced. Telemetry but no Voice. Good value $$$	
Spektrum	DX9	9	Yes	Voice Superior radio with many options. More expensive but still very good value. $$$$	

Choosing your first aircraft

You have learnt to fly on the Eflite Apprentice S electric aircraft. This is a relatively light model with a flying weight of about 1.3 kg. The inbuilt stability system allows this model to fly in relatively strong winds despite its low weight. It is also relatively fragile and not suited to high load aerobatic manoeuvres. So while it is a great model to learn on a more robust model is more suitable to progress your flying.

There are many suitable models both ARF and Kit models that would make a great first model. HMAC recommends that your first model should have the following characteristics.

- Have a high wing to give it inbuilt stability
- Be of reasonable size with a wing span of about 1.5 m or greater to help with visibility
- Have a strong undercarriage with reasonable size wheels to cope with the cracks on our strip
- Be capable of basic aerobatic manoeuvres like loops and rolls.
- Be heavier than 2 kg if you wish to use the model to go for Silver wings. Remember the Bronze and Silver wings flight tests are the same the only difference being the weight of the model.
- Not essential but preferable to have a disarming switch installed if electric powered.

There are a many suitable models to choose from at your friendly local Hobby Shop .

The best place to buy your model and RC equipment is at a local Hobby Shop specialising in RC Aircraft. A list of shops is at the end of this article. Feel free to search Australian RC Magazines and interstate suppliers if you wish but it is a lot simpler and safer to buy locally. Do not be tempted to buy cheap models from overseas or even EBay. There will most likely be no back up or after sales support if you do. The local Hobby Shop will sell only approved radio systems and Australian Consumer laws apply. HMAC Instructors will inspect your model and its RC installation for safety before the first flight.

Aircraft suitable for beginners.

There are many suitable ARF kits in RC Hobby Shops that could equally well suit your requirements. Use this short list as a guide and discuss your preferences at the Hobby Shop.

Aircraft	Description	Power	Comments	Cost
Timber	Medium High Wing. RTF	Electric	Sophisticated advanced fun model with oversize tyres. Includes flaps, floats for water and lights SAFE Selectable and AS3X stability receiver. Less than 2 kg	Moderate but BNF so no extra cost
Valiant	Medium Classic era model	Electric	Classic Lines. Attractive model with flaps, SAFE and AS3X stability. Quite aerobatic. Less than 2 kg	Moderate but BNF so no extra cost
Eflite Maule	1.5 m high wing scale model with flaps	Electric	Scale model. Attractive model with flaps, SAFE and AS3X stability. Quite aerobatic.1.8 kg weight. Large wheels. Less than 2 kg	Moderate but BNF so no extra cost
Boomerang 40	Medium size, high wing. Looks a bit like a Cessna. ARF but conventional Balsa and Ply construction with plastic covering. Requires purchase and installation of radio and motor	Glow .46 or electric equivalent. Conversion mounts included.	Attractive, excellent safe flyer. Tricycle or tail dragger wheels. Very popular. Requires motor and all electrics in addition to radio. Over 2 kg so can be used to qualify for Silver Wings.	Cheap kit price but similar to BNF models after sourcing servos and motor.
Phoenix Models Classic 40	1.4 m high wing aerobatic trainer	Glow .46 or electric equivalent	Fully aerobatic Requires motor and all electrics in addition to radio. Good model to practice on for higher Wings Level achievements as over 2 kg	Cheap kit price but similar to BNF models after sourcing servos and motor.
Aeroflighte Hustler mk 3	1.5 m wingspan	Glow .46 or electric equivalent	This is sold in kit form so the model has to be built. Will take some time to put together. Fully aerobatic Requires motor and all electrics in addition to radio. Good model to practice on for higher Wings Level achievements as over 2 kg	Cheap kit price but similar to BNF models after sourcing servos and motor

Local Hobby Shops for RC Planes

1. *Model Flight*: 130 Goodwood Rd Goodwood – modelflight.com.au
2. *Model Mania*: 4/201 Main South Rd Morphett Vale – Ph (08) 8382 4957
3. *Hobby Habit*: 144 Daws Road Melrose Park -hobbyhabit.com.au
4. *Supercheap Hobbies:* Shop 3, 2 Old Coach Rd Aldinga Beach – supercheaphobbies.com.au