

# Six Reasons to Buy Free Flight Aircraft

Published by eBay  
February 13, 2014

Free flight hobby aircraft are amazingly fun. Even though the pilots are stuck on the ground watching, there is a vicarious thrill in floating their planes over open fields, sending them soaring past clouds, and seeing which of their friends can ride thermals the longest. Here are six reasons why the free flight style is so popular.

## 1. Increased Maneuverability

The main alternative to free flight aircraft is the control-line style that many people are familiar with. Control-line planes are tethered to their operators on the ground by two thin, long wires that facilitate maneuvering. Free flight aircraft, on the other hand, soar completely unhindered. While both styles have long histories, there are many advantages to free flight. These aircraft are easy to launch, and they manage themselves while they are aloft; once they have been released, the operator doesn't have to do anything besides sit back and enjoy the show. Although relinquishing control can take some getting used to for pilots who have spent hours pouring their hearts and souls into constructing their planes, most people find this laid-back flight style more relaxing.

## 2. Freedom of Design

Unlike other kinds of aircraft, such as radio-controlled models, free flight planes have no external control. Competitors launch theirs with a simple upwards throw, and then they wait for them to come back down as they will. Because these planes are made to fly for a maximum amount of time without falling, they usually have significant design differences from other aircraft. There is no way for an operator to react to turbulence or other unstable air conditions, so each aircraft must be able to right itself and compensate for atmospheric variations. In most cases, this is accomplished by carefully placing the plane's center of gravity in relation to the furthest parts of the airframe. If a sudden gust pushes on a wing, the nose, or the rudder, the way they have been spaced around the center of gravity will allow the entire plane to rotate or shift gently until it finds a more stable position. All this tweaking may seem like a lot of work, but there are plenty of builder's resources to be found in forums and at competitions. Most pilots find that the need to change their designs leaves them with a lot of leeway to make striking custom modifications. Unlike radio-control (RC) and control-line planes, relatively few free flight models are copies of real-life aircraft. Creativity is key, and there are very few rules stopping people from doing whatever they please as long as their competition designs adhere to weight and overall size standards.

### **3. Friendly Competition**

The real objective of free flight aircraft derbies usually has nothing to do with speed. Although there are a few competitions that keep track of how fast pilots' craft fly, most are only concerned with how long they can stay aloft under their own power. This means that the competition culture is decidedly less stressful although just as dedicated. In order to get their planes to stay aloft for as long as they can, people work hard to make new modifications and engage in regular test runs. They hone tiny details like the pitch and depth of the wings, the body shape, and the size of the rudder. Other common modifications include doing everything possible to shave weight off of the already tiny support struts that comprise the airframe without making the plane too weak to handle sudden air currents. Competitions are generally friendly affairs where people trade tips and exchange design notes even as they are competing with each other. The rules of competition are usually simple; planes are only constrained to maximum wingspans, minimum weights, and the type or lack of power source used. Most well-known events adhere to the different free flight classifications established by the Swiss Fédération Aéronautique Internationale, but there are many unofficial classes and regional derbies that define their own rules. Annual competitions take place all over the world. There are also huge seasonal events and regular meet ups in many major cities. Those who cannot find a local event or club usually have no problem setting up something of their own. As long as they have an open field to throw, or slingshot launch their planes from and nice weather, things go quite smoothly.

### **4. More Hobby Oriented**

Learning to craft and evaluate free flight planes is a hobby that many people take years to master. Even though the principles can be approached in an uncomplicated, non-mathematical fashion, many pilots and enthusiasts are more than willing to devote extra effort to getting better at their craft. There are many different subclasses of free flight aircraft, like hand-launched or line-towed gliders, propeller craft that use either rubber bands, Methanol-fueled glow engines, electric motors, or CO<sub>2</sub>-powered engines, and indoor models. This variety means that people have a lot of options for how they build, fly, and compete. Even though many people simply buy free flight kits on eBay, it is usually not long before they are making their own modifications in order to achieve longer flight times and smoother performance. There's an infinite number of changes one can make to get a better flight out of the same basic plane. With many kits that use light materials, such as balsa wood, silk, heavyweight paper, plastic, foam, nylon filament, carbon fiber struts, fiberglass, Kevlar, or bamboo, these changes can be made easily using little more than a sharp hobby knife and some strong adhesive. There are few hurdles in the way of those who want to get into free flight aircraft, and the hobby usually promises many years of rewarding experiences. The fact that there is an abundant number of kits and pre-fabricated gliders that require little assembly allows novices to get a smart start on their own while avoiding many common aeronautical mistakes.

## **5. Free Flight Aircraft Are Also Fun Indoors**

Unlike control-line and RC aircraft that are strictly for outside use, many free flight models are designed for inside use. For instance, there are entire indoor competitions devoted to nothing but rubber-band-powered free flight. These inclusive community gatherings are commonly attended by high school science students, younger hobby enthusiasts, and their parents and teachers. Though the size and speed of control-line and RC craft make them pretty difficult to operate safely inside, small-scale free flight distance derbies can be set up in gyms, cafeterias, and other common spaces. Indoor free flight is great for days when the weather doesn't permit outdoor launches. The competitions also provide pilots with a unique opportunity to tinker with design changes on a smaller scale and see how they perform before applying them to larger outdoor craft.

## **6. The Sport Is As Interesting As the Hobby Craft**

Because free flight aircraft performance is dependent on the surrounding environment, a big part of the sport involves learning how to read the local atmospheric conditions. Flyers use everything at their disposal to find thermals, or heat-driven updrafts because they help planes get a bit more lift. Light Mylar wind streamers, soap bubbles, and tethered balloons that make the air currents a bit more obvious are all common sights at serious free flight aircraft championships. Operators train themselves too. For example, some hand-launched glider pilots practice their takeoffs repeatedly. Because these small aircraft are thrown from the ground, it is important to hone one's slinging skills.

## **Finding and Buying Free Flight Aircraft on eBay**

There are many different types of free flight airplane models on eBay. These range from pre-assembled flyers to bare-bones glider kits. Although it's easy to simply search for the phrase "free flight airplane" from any eBay page, many shoppers have better luck when they look for something more specific. To get started, move the mouse over Browse by Category, and then click on Toys & Hobbies. On the left side of the page, click Collector & Hobbyist Toys. This is a general category that changes from time to time, so it may show some current deals on free flight aircraft. If not, simply scroll the page down and hover over the Radio Control & Control Line entry on the left side of the page, then click on Control Line & Free Flight from the popup menu. To find a specific part, like a Cox motor for a powered free flight aircraft, enter the relevant term in the search bar and press Search. Find plans for vintage craft like the "Kloud King" model by searching for their brand name. eBay also has individual listings for tools and materials, such as balsa wood packs, carbon fiber struts, and Kevlar.

## **Conclusion**

There are tons of ways to build and fly free flight aircraft. Do not be hesitant about choosing a beginner model because it is nearly impossible to make mistakes. Low entry prices for basic kits and simple construction methods means that crashes and assembly errors are easy to learn from, and most setbacks don't keep pilots grounded for too long.