

# MODEL AVIATION IS AFFORDABLE TO EVERYONE

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One of the most frequent questions I receive involves the cost of equipment needed to begin the journey into the world of flying model aircraft. Based on experience, I can confidently state that due to the technology revolution, and with proper information and planning, radio control model aviation is affordable to almost anyone, and is certainly more affordable than it has been at any other time!

The information provided here will assist you in making an informed first purchase into the world of model aviation, and will furnish you with the tools anyone can use to make it possible, including those on a tight budget.

## **CHOOSING YOUR AIRPLANE AND NECESSARY EQUIPMENT**

If you are just beginning your journey into radio control model aviation, you most likely have questions as to what kind of airplane you should purchase. As far as the airplane's configuration, a high-wing aircraft with low wing-loading (the ratio of wing area to the weight of the aircraft) is always recommended for a beginner as it is more forgiving and will permit you to fly at lower speeds. This is especially important during the landing phase, because the loss of lift due to a slower airspeed can cause a stall, result in a crash, and ruin your day of flying.

A second factor to consider is the plane's power-plant—that is whether it is powered by an electric motor, an internal combustion engine, or even a turbine. My recommendation is unequivocally that an electric powered motor is the way to go. I base that on the ease with which an electric motor can be operated, the motor's virtual lack of any maintenance requirements, and the cost of the equipment needed to operate it.

The third factor I consider when recommending an excellent trainer aircraft is the material used in its construction. The two primary construction materials used in the hobby are foam, or a balsa wood frame covered by some type of lightweight material or fabric. Since this is a trainer aircraft and will likely take a beating, I highly recommend a foam aircraft since they can be easily repaired with hot glue, and should any part be damaged beyond repair, a replacement part can easily be purchased from a retailer at minimal cost. A further benefit of aircraft constructed of foam is that most are relatively inexpensive, can be assembled without special modeling skills, and can be ready to fly within a matter of minutes. An additional benefit of a foam-constructed trainer aircraft is that a number of them come in a format known as 'ready-to-fly basic.' A ready-to-fly basic aircraft is a complete package of everything you will need to get the plane into the air, except for the battery and charger. This includes the plane with all the necessary electronic components, including the motor, already installed, the transmitter, and the receiver. Purchasing a ready-to-fly basic aircraft will save you money because it will provide you with reliable equipment that won't break the bank, and it will prevent you from having to understand and choose from the various formats used on the different brands of radio transmitters and receivers.

To summarize my thoughts, a beginner should look for a ready-to-fly, electric-powered, foam, high-wing trainer aircraft as the most versatile and cost effective choice. With that said, let's look at the features of the four planes I recommend that meet this criteria, and most importantly, their prices...

### **HOBBYZONE AEROSCOUT S2**



The AeroScout S2 is one of the most popular trainer aircraft due to its low cost and excellent flight performance. It has a wingspan of 43-inches and is powered by a 2250Kv electric motor that drives a pusher propeller. It has a tricycle landing gear with large tires, making ground handling on a grass airstrip very good. With a total cost of \$268.99, including tax, this is the

least expensive of the four planes. Don't be fooled by its low cost though, it is not toy-like and is just as capable as any of the other three planes listed below.

### **HOBBYZONE APPRENTICE S2**

The Apprentice S2 is a popular trainer aircraft due to its typical configuration and excellent flight performance. With a wingspan of 47-inches, it is slightly larger than the AeroScout S2, and is powered by a 1300Kv electric motor that drives a standard propeller. It has a tricycle landing gear that makes ground handling on a grass airstrip easier. Its cost, including tax, is \$333.03, making it the second in terms of price of the four planes listed. Like the AeroScout, it is a very capable student platform.



### **HOBBYZONE CARBON CUB S2**



The Carbon Cub S2 is a popular trainer aircraft due to its stable flight performance and stunning and highly visible yellow color scheme. With a wingspan of 51-inches, it is powered by a 960Kv electric motor driving a standard propeller. It has a conventional landing gear with large tundra-tires that makes ground handling on a grass airstrip easier than most aircraft with a tail wheel.

Including tax, you can own one for \$375.73, making it third in the range of prices for the four recommended planes.

### **E-FLITE APPRENTICE STS**

The Apprentice STS is the official trainer aircraft of the Academy of Model Aeronautics, the largest aeromodeling organization in the world. It is an excellent trainer due to its large size and stable flight characteristics. With a wingspan of 59-inches, it is the largest of the four planes I recommend, and is powered by a 840Kv electric motor that drives a standard propeller. Like its smaller cousin the Apprentice S2, it has a tricycle landing gear that makes ground handling easier on a grass airstrip. This is the most costly of the four listed aircraft, however at \$426.97, including tax, it remains within the budget of most beginners.



### **COMMON FEATURES OF ALL FOUR AIRCRAFT**

All four of the aircraft I recommend are constructed of EPO foam and powered by a three-cell lithium-polymer battery. In addition, all have fully functional foam-molded control surfaces (ailerons, elevator, and rudder) as well as an electronic speed controller for the throttle. The rudder controls on all four are linked to the plane's landing gear to permit maneuvering on the ground while taxiing. All four are also very versatile as a set of floats may be purchased as an option and fitted to the plane to provide you with the excitement of waterborne operations once you have mastered the skills necessary to takeoff and land from the ground.



Each plane's Spektrum receiver is installed and programmed with a 6-axis gyroscope that assists in stabilizing its flight characteristics, even in windy conditions. The receiver is also programmed with three flight modes, known as SAFE, that can be controlled using the transmitter to accommodate the experience-level of the pilot. In the beginner mode, roll, pitch, and yaw is limited to prevent the pilot from over-controlling the aircraft into an unsafe attitude. The intermediate mode is similar, except that the ability to maneuver is less restricted than that of the beginner mode. The advanced mode provides the pilot with full control of the aircraft, permitting any maneuver, including rolls, loops, and inverted flight. Each receiver also features a fail-safe that, by simply releasing the controls on the transmitter, will return the aircraft to level flight should the pilot lose control or become disoriented.

The Spektrum DXs transmitter, unlike most lower-end transmitters, is sturdy and has the feel of a much higher-end model. It provides good control and can be paired to an instructor's transmitter wirelessly. This setup is known as a 'Buddy-Box' and will permit an instructor to easily take control of a student's plane should the need arise to assist the student, or to prevent a crash. It communicates with the receiver using a spread-spectrum frequency of 2.4GHz. This is currently the best technology available, as it permits many aircraft to fly simultaneously without the fear or danger of electronic interference.



The Spektrum S100 charger receives power through a USB-C cable that can be connected to an AC power supply typically used for cellphones. The power supply is not included with the charger, so you will have to use one you already own. With an output of 100-Watts, it is adequate to charge the 3-cell battery used to power the aircraft, although it may take a little longer than more expensive chargers. I recommend this charger, in the interest of keeping cost to a minimum, and the fact that it can be easily taken to the field to recharge batteries using your car's accessory outlet.

## **SELECTING YOUR AIRPLANE**

Well, there you have it. Four excellent trainer aircraft, ranging in an out-the-door price from \$268.99 to \$426.97. Based on those prices, I think you will agree, that this is definitely an affordable hobby—especially when you realize that the cost is no more than that of a video game system.

You will now have to decide which aircraft you are interested in purchasing. To make it a bit easier, I assure you that there is no bad choice with any of these four. Choosing one simply boils down to the amount of money you wish to spend, and sometimes, which aircraft is more visually appealing to you. Should you have any questions about any of them, or need more information, members of our club will be happy to assist in answering your questions and offering their advice.

## **SELECTING A RETAILER**

Generally, a locally owned and operated hobby shop is the best source from which to make purchases. Not only are you able to examine products before making purchases, you receive the benefit of the hobby shop owner's knowledge and experience. Hobby shop owners also work to take care of the needs of their customers, since their success in a niche-market with a very limited pool of clientele is dependent on them doing so.

Unfortunately, on the Outer Banks, we have no local hobby shops or retailers who carry a line of radio control aircraft and products. Because of that, you will need to make your purchases online and have

them shipped to you. However, do not lose hope. I have found and will discuss ways that will make your experience into making your purchases both pleasant, and most importantly, affordable.

Before going any further, a word of caution. You need to understand that the prices offered by all retailers for identical products are literally the same, with a few minor exceptions. With that said, be aware that there are a number of scam websites currently operating that list incredibly low prices. Steer clear of any that claim they will sell you a normally priced \$500 airplane for \$80, because it won't happen. The old adage "If it sounds too good to be true, it is" applies, and any money you spend will most likely result in a loss that you will not be able to recover.

Therefore, it is in your best interests to select a reputable online retailer that provides quality products at fair prices, warranty service, and excellent customer service.

### **INTRODUCING HORIZON HOBBY**

I have purchased products from many online retailers over the years, and all generally do a great job. However, Horizon Hobby stands out as my preferred retailer because of the availability of quality products they offer, fair pricing, frequent sale discounts on products, lightening-fast order fulfillment, stellar warranty support, and knowledgeable and friendly customer service. In addition, they help make the hobby affordable to almost everyone through their creative approach with their payment options and rewarding customers for their loyalty. Continue reading, and you will see what I mean.



### **HORIZON HOBBY LOYALTY REWARDS**



Horizon Hobby® RC Club  
**STANDARD**

Who doesn't love to pay less for a product? With Horizon Hobby's RC Club, customers are able to do just that. The *Standard* club is 100-percent FREE to join, and rewards you for each purchase by crediting your account with 5 points for every \$1 you spend. When you accumulate 2,000 points, you can redeem them for \$5 off your purchase. It's that simple, but it gets even better. There is no limit to the amount of points you can accumulate, and they do not expire. In addition, Horizon

Hobby also frequently offers specials where the number of points you earn for each dollar spent is doubled, tripled, and even quadrupled. As a *Standard* RC club member, you will also receive free shipping on all orders that total \$99 or more. Lastly, you can also earn bonus points by submitting product reviews, and by following Horizon Hobby on Facebook, YouTube, and Instagram. With proper planning, and sometimes a bit of patience, you can literally accumulate enough points to pay for a complete airplane or that new transmitter you wanted, without spending a single cent!

### **THE NEXT LEVEL OF REWARDS INCLUDES MUCH MORE**

Once you have decided to get serious about radio control aviation, I recommend you consider taking your RC Club loyalty rewards to the next level by purchasing an *Elite* membership. The *Elite* membership costs \$129.99 per year (\$97.49 if you register as a veteran), however this cost is worth every cent as you will receive a plethora of products and services that far exceed the actual cost of becoming a member. The *Elite* membership begins with the same benefits you receive with a *Standard* membership except that you receive 20 points, rather than 5 points, for every \$1 you spend.



Horizon Hobby® RC Club  
**ELITE**

This allows you to accumulate points much faster to use towards future purchases, however that is just the first of the increased benefits you will receive as an *Elite* member. Some of the other benefits include FREE two-day shipping on ALL orders (like Amazon Prime on steroids), a FREE digital

download of their *RealFlight*<sup>®</sup> flight simulator software (the best flight simulator around, and valued at \$100), a \$30 credit to your account on your birthday, a subscription to their informative bi-annual *Transmitter* magazine, and a 30-percent discount on their clothing items. The cost of *Elite* membership pays for itself between the flight simulator software and the \$30 birthday credit alone.

The most important feature of becoming an *Elite* member is what Horizon Hobby refers to as 'Elite Account Management.' This term does little justice to its actual benefits to you, as it is an innovative online retailer version that establishes and develops the same kind of relationship you would have with a local hobby shop staff. Once you become an *Elite* member, you will begin to receive a few phone calls each month from your Horizon Hobby personal sales and technical representative. My representative, Michael, informs me of current and upcoming sales and promotions, inquires as to how my products are performing, takes care of any concerns I raise, and provides any technical assistance I require. Should I need warranty support or technical assistance at anytime during normal business hours, I have a direct line to Horizon Hobby to discuss my issue with Michael, or if he is not available, one of the other *Elite* member representatives, Joe or Nick. That type of support and business relationship alone is well worth the cost of membership.

To get a better idea as to the benefits of the Horizon Hobby RC Club rewards programs, take a look at the chart below that compares the *Standard* and *Elite* rewards programs.



Horizon Hobby<sup>®</sup> RC Club  
**STANDARD**



Horizon Hobby<sup>®</sup> RC Club  
**ELITE**

Membership Cost Per Year	FREE	\$129.99 <sup>1</sup>
Loyalty Points Earned <sup>2</sup>	5 points / \$1.00 Spent	20 points / \$1.00 Spent
Free Shipping <sup>3</sup>	Standard on Orders \$99+	All Orders <sup>4</sup>
Biannual Issue of <i>Transmitter</i> Magazine	Digital Copy	Mailed Copy
Birthday Coupon (Emailed)		\$30
\$5 Coupon For Writing Product Reviews <sup>5</sup>	★	★
Bonus Points On Select Products	★	★
Elite Account Management		★
10% Off Parts Under \$50		★
50% Off Signature Event Passes		★
30% Off Fan Gear Discount		★
30% Off One Item Coupon Code (one time use)		★
RealFlight Evolution Steam Digital Download <sup>6</sup>		★
Annual Swag Package		★

1. Veterans receive a 25-percent discount on annual membership cost when verified with ID.me.
2. For every 2,000 points you earn, you receive a \$5 credit to your account that you can redeem.
3. Shipping benefits for U.S. domestic orders only.
4. Free shipping on contiguous U.S. orders only.
5. Limit of 10 reviews.
6. Flight simulator software, product code RFL2001D, valued at \$99.99.

## PLACING YOUR ORDER WITH HORIZON HOBBY


Hopefully, by this point I have convinced you that purchasing your first radio control plane is affordable, and that with the benefits provided by Horizon Hobby, they will be your retailer of choice. If so, it is now time to act and place your order.


Before beginning the ordering process, you must first create an online account with Horizon Hobby. You do so by going to their customer sign-in page and selecting the link marked [Create an Account](#).


Enter the required information, and then press the 'CREATE ACCOUNT' button. After doing so, you will be automatically taken to your account summary dashboard.


Next, on the right-hand side of your account dashboard under the 'RC Club Rewards' heading, depress the 'ENROLL NOW' button. When you have done this, you will now be enrolled in the Horizon Hobby RC Club as a *Standard* member, and will begin to earn reward credits for your purchases. The next step is to click the 'View' text link on the same line that reads 'RC Club Rewards.' This will take you to a page displaying your status as a *Standard* club member and show your current rewards balance of 100 points that you received for simply becoming a *Standard* club member. Scroll down the page to the section entitled 'How to Earn Rewards' to see the ways for you to earn points as an RC club member. Before leaving this page, if you have a Facebook, Instagram, or YouTube account, click on the appropriate links to follow Horizon Hobby on these platforms. For each of these that you follow, you will receive an additional 150 points. If you follow all three, you will now have a total of 550 points and will be well on your way to earning your first \$5 reward toward future purchases.

At this point, you will now select the airplane you wish to purchase. To assist you further, I have provided links to the necessary products you should add to your cart for your choice of any of the four planes I recommended. Choose your plane, and add the items I have listed.

<b><u>HobbyZone AeroScout S2</u></b>	<b><u>Add to Cart</u></b>	<b><u>Amount</u></b>
AeroScout S2 1.1m RTF Basic with SAFE	<a href="#">HBZ380001</a>	\$199.99
11.1V 2200mAh 3S 30C Smart LiPo Battery: IC3	<a href="#">SPMX22003S30</a>	\$26.99
S100 USB-C Smart Charger 100W	<a href="#">SPMXC2090</a>	\$24.99
	Sub Total	\$251.97
	Tax	\$17.01
	Economy/SmartPost	Free
	<b>Grand Total</b>	<b>\$268.99</b>

<b><u>HobbyZone Apprentice S2</u></b>	<b><u>Add to Cart</u></b>	<b><u>Amount</u></b>
Apprentice S2 1.2m RTF Basic with SAFE	<a href="#">HBZ310001</a>	\$259.99
11.1V 2200mAh 3S 30C Smart LiPo Battery: IC3	<a href="#">SPMX22003S30</a>	\$26.99
S100 USB-C Smart Charger 100W	<a href="#">SPMXC2090</a>	\$24.99
	Sub Total	\$311.97
	Tax	\$21.06
	Economy/SmartPost	Free
	<b>Grand Total</b>	<b>\$333.03</b>

<b><u>HobbyZone Carbon Cub S2</u></b> Carbon Cub S2 1.3m RTF Basic 11.1V 2200mAh 3S 30C Smart LiPo Battery: IC3 S100 USB-C Smart Charger 100W	<b><u>Add to Cart</u></b> <a href="#">HBZ320001</a> <a href="#">SPMX22003S30</a> <a href="#">SPMXC2090</a>	<b><u>Amount</u></b> \$299.99 \$26.99 \$24.99
	Sub Total Tax Economy/SmartPost <b>Grand Total</b>	\$351.97 \$23.76 Free <b>\$375.73</b>

<b><u>E-flite Apprentice STS</u></b> Apprentice STS 1.5m RTF Basic Smart Trainer with SAFE 11.1V 3200mAh 3S 30C Smart LiPo Battery: IC3 S100 USB-C Smart Charger 100W	<b><u>Add to Cart</u></b> <a href="#">EFL370001</a> <a href="#">SPMX32003S30</a> <a href="#">SPMXC2090</a>	<b><u>Amount</u></b> \$329.99 \$44.99 \$24.99
	Sub Total Tax Economy/SmartPost <b>Grand Total</b>	\$399.97 \$27.00 Free <b>\$426.97</b>





Once you have added the necessary items for the airplane you want, go to your shopping cart. Your shopping cart should show these items, and the subtotal of the order, not including shipping and tax. Check that subtotal and compare it to the sub-total amount I have indicated for the plane you are purchasing. This amount, as of the date of this article, should match EXACTLY, but be aware that prices may change at some point in the future.


Once everything is correct, depress the 'CHECKOUT' button and you will be taken to the next step.

You should now be on a page, entitled '1. Shipping.' Ensure the 'Ship to Home' toggle is selected, then enter the required shipping information. To save this address, check the box marked 'Add to Address Book' and this will save you time on future orders. Scroll down to the heading 'Select Shipping Method' and select 'Economy/SmartPost' to receive free shipping. I do not recommend you choose any paid shipping option because Horizon Hobby ships their orders very quickly and you will receive your order just as fast with their free shipping option. Now, press the 'CONTINUE TO PAYMENT' button.

You should now be on a page, entitled '2. Payment.' Ensure that the name and billing address on the credit card you are using matches the information that has been populated from the shipping information you provided in the last step. If it is different, remove the check-mark from the box labeled 'Billing Address is the same as Shipping Address' then enter the correct information. Next, scroll down to 'Payment Information.' At this point, you have two payment options:

1. You may pay for the entire order now by entering your credit card information and pressing the 'CONTINUE TO ORDER REVIEW' button, or;





2. Pay using your PayPal account if you have one by selecting the PayPal toggle button, using the PayPal interface, and pressing the 'CONTINUE TO ORDER REVIEW' button on their interface. If qualified, PayPal will offer you the ability to use



their 'Pay in 4' option to pay 25-percent today, and the balance in three equal interest-free payments over the next three months.

Regardless of which payment option you choose, you will now be on a page with a heading of 'Checkout.' Before proceeding any further, take a minute to review the information on this page to ensure all information is correct, including the addresses, products, and order total.

Once everything is correct, press the 'SUBMIT ORDER' to place the order. The interface will respond by thanking you, then emailing you a confirmation that your order has been successfully placed.

### **ORDER FULFILMENT**



Horizon Hobby uses FedEx to transport their shipments and is timely in processing your order and getting it shipped within 24-hours of receipt on a normal business day. Orders received on weekends and other non-business days do not begin to be processed until the next business day. Once your order has shipped, you will receive an email letting you know, and providing the information necessary for you to track its progress and expected delivery date. Should you lose or fail to receive shipping notification, you may always check on the status of your order by viewing it on the order history section on your Horizon Hobby account dashboard.

### **HORIZON HOBBY CUSTOMER SUPPORT**

Upon receiving your order, you should inspect it for obvious damage or defects and contact Horizon Hobby customer support immediately by email or preferably using the chat feature on their website during normal business hours. Horizon Hobby unfortunately does not have telephone support, except for its *Elite* RC Club members. Be aware that email support can take from three to five business days for you to receive a response. Should you need to email support, you may do so at [Contact Us](#).

### **PRODUCT REGISTRATION**

Although Horizon Hobby maintains a record of all your purchases and will provide excellent and fair warranty service, I highly encourage you to register certain products, specifically airplanes, receivers, and transmitters. This is especially important for receivers and transmitters, as they have serial numbers, and without being registered you will be unable to obtain or install firmware updates. Spektrum transmitters and receivers may be registered on the Spektrum registration portal at [Register Spektrum Product](#). You should also take the time to register your E-flite and HobbyZone airplanes. You may do so on Horizon Hobby's website at [Register Product](#). The registration of products other than airplanes, transmitters, and receivers is unsupported and not necessary since Horizon Hobby has a record of these purchases to provide warranty support.

### **CONCLUSION**

Well, there you have it. A great deal of information about what planes I recommend for a beginner, how to make your purchases more manageable and affordable, and how you can also save money as you begin your journey into the world of radio control model aviation. I hope that you found this information helpful, and will use it in making well-informed purchase decisions. In closing, from my home near the location of the first powered flight in 1903, I wish you many safe and happy landings.

**Disclaimer:** The preceding article is provided for informational purposes to assist those interested in radio control model aviation. The opinions expressed are those of the author, and does not constitute an endorsement of any products, services, or entities mentioned within, by Dare County Radio Control Flyers. Any and all information provided is also subject to change, without notice.