

TWISTED HOBBYS / RC FACTORY – AIR TRUCK

Two in One – Race or Tow

Pylon Racer or Glider Tow plane take your pick! On 4s crazy fast, on 3s nice sport plane and glider tow vehicle.



First Impressions

Super crisp printing, very complete hardware pack and all packaged neat and orderly in a compact box.



Specifications

Wingspan: 41.5" / Length: 37.5" / AWW: 21-25 oz. (595g - 710g)



Actual build came in at 740g, a little over the high side of the factory spec.

What Else is Needed

2x CSP-D14M Servos (Twisted Hobbys)
2x CSP-D18M Servos (Twisted Hobbys)
1x CSP-2814-1050KV Motor (Twisted Hobbys)
1x CSP-45A ESC (Twisted Hobbys)
12x4.5 MR Prop
TX/RX 4 - 6 channel
3s or 4s 1300/1800mah batteries

Below are the items used for this build... Aura5 and a SRXL2 RX used. This is a nice combo for those wanting a little extra help on those windy-crosswindy days of flying, you also get some radio signal telemetry data with this setup as well.



Assembly - [Assembly Manual Link](#) / [Build Video Link](#)

You will need to have an assortment of tools something similar like shown below



Tools shown and listed are suggestions only. Depending on your building technique you may not need everything indicated – and/or – you may find that other tools available to yourself may be of benefit to your Build.

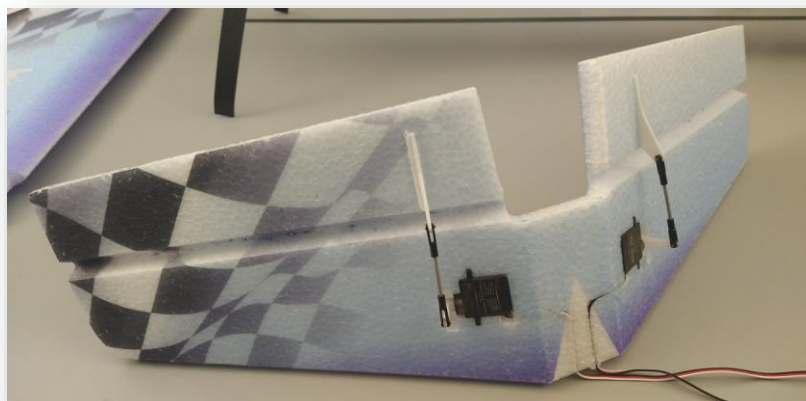
It is also recommended that you have a flat building surface, one that will accept stick pins and push pins. An Acoustic Ceiling panel from your local hardware store fits this bill nicely, and will lay flat on your work table. Over size / long push pins are available at your local craft store. These two items are by no means required, but will aid in the building process, and can be used for future projects

- **Motor Tool**
- **Small Drill Bits**
- **Tape Measure or Ruler**
- **Servo Tester**
- **Welders or Foam Tac Glue**
- **Hobby Knife w/new Blade**
- **Needle Nose Pliers**
- **Wire Cutters**
- **Low Temp Hot Glue Gun**
- **Course Sand Paper**
- **Scissors**
- **Small Phillips Screw Driver**
- **Thin and Medium CA**
- **CA Applicator Tips**
- **Activator**

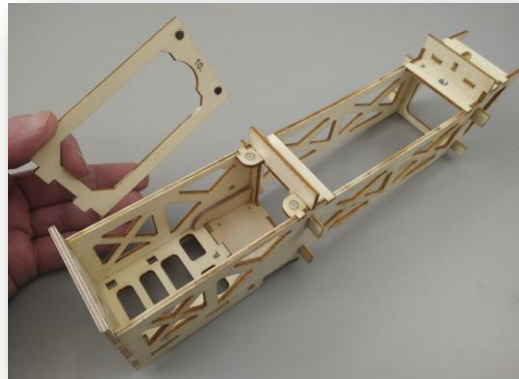
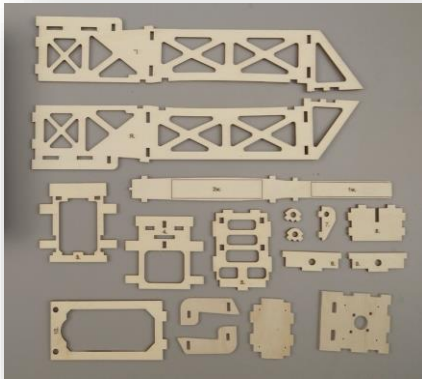
Unique Features

Lots of unique features on this airframe. For starters, it is a glider tow plane! Not every day that you see planes for glider tow. On top of that, if you are not interested in glider towing, It makes a really great club level pylon racer. Get all your buddies together at the field and have some foamie pylon racing fun.

One of the first things you notice when looking at the model, it is a V-Tail, this helps to provide clearance for the tow cable when doing the glider tow, and just looks different and fun. Nearly all modern radios have some pre-setup mixes for v-tails, so it is not hard at all to get the radio programing setup.



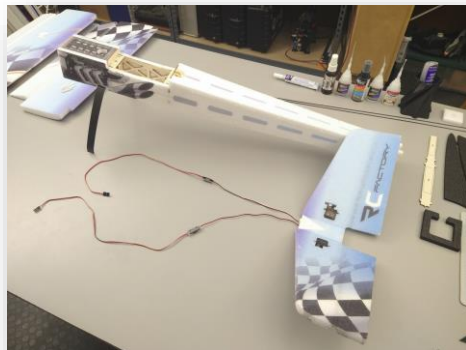
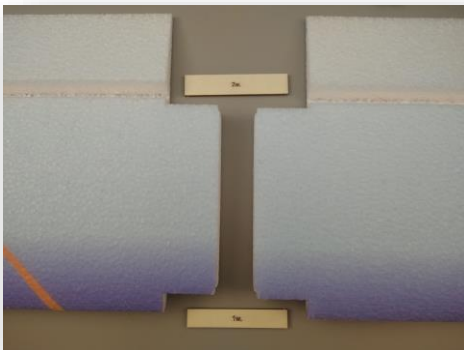
Another very unique and interesting thing on this plane is the fuselage construction. Typically, the RC Factory planes are profile fuselages, this plane has a box fuselage, similar to a traditional “Stik” style plane. There is a wood substructure that provides all the strength for the motor mount, battery compartment and wing mounting saddle. Included in this, is a very clever magnetic battery hatch cover for easy access.



Build Notes

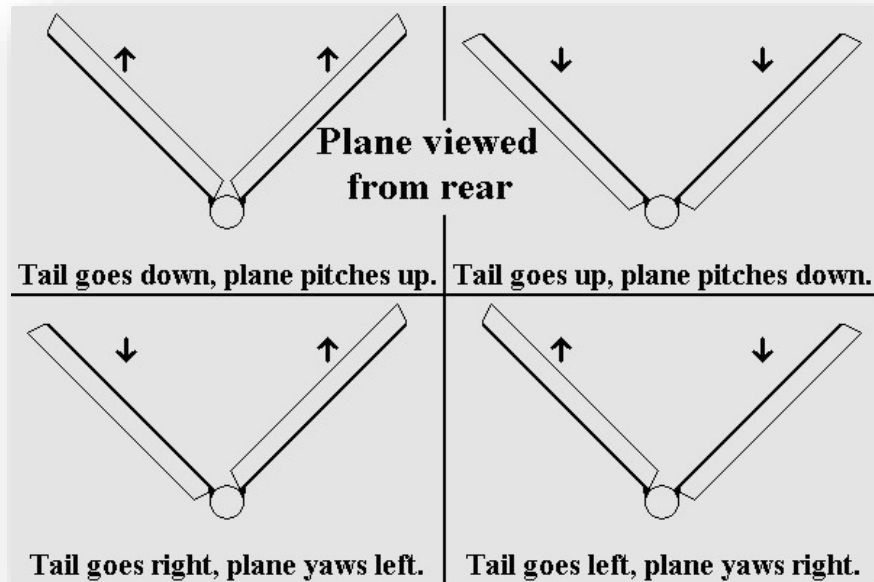
Nothing really difficult or tricky in this build for a modeler with some building skills. As with any build, make sure that that you pre-fit everything, and when ready to glue, confirm that things are square and true. It helps sometimes to look ahead a few steps in the manual if a current step is not clear. This particular manual was very well done, with just a few minor things to mention.

- In the steps 10 and 11, it shows the installation of the nut, but in some subsequent steps the nut is not shown installed, it should be.
- In steps 24 and 25, just make sure that you make the magnets flush with the mating surface.
- Step 47 shows a servo extension arm installed on the servo, if you are using the servos from the Twisted Hobbys power combo, this is not needed. If you are using another brand of servos, and the arms are not long enough, you will have to supply your own.
- Step 67 shows the wood doublers for the wing halves on both the front and back, the instructions only talk about the front one. Use the 1w for the leading edge and the 2w for the trailing edge.
- You will need servo lead extensions for the two tail servos

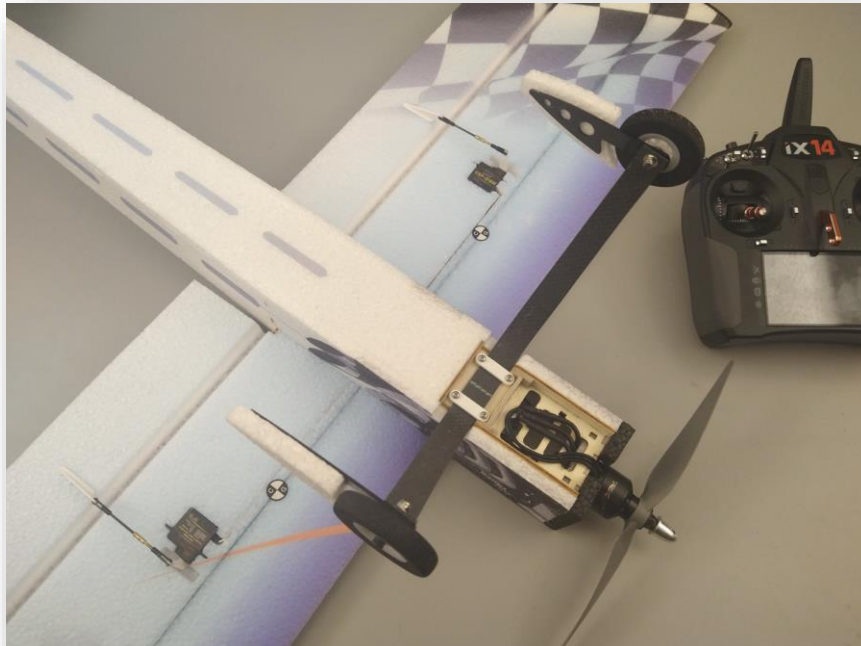


Setup and CG

This is a V-Tail plane, so you will need to make sure and use those menu options or setup procedures for you radio and/or flight controller. One thing that you will want to understand up front is how the V-Tail aerodynamics work. A diagram in the manual for this would have been nice, but it is easy to find something online like the picture below, use it to help with setting up the proper directional control.



There is a diagram in the back of the factory assembly manual for where to locate the Center of Gravity. It could be a little more clear, but if you zoom in a little on the picture you can see that it is calling for 70-75mm back from the leading edge. Which should be in the general area of the carbon wing spar rod.



Setup for control surface throws is not shown in the manual, this is not a 3D plane, so extreme throws are not needed, and in fact, for pylon racing you will want to have some low rates for smooth flying. You can use the numbers below for a starting point, but keep in mind that every pilot has their own preferences and adjusting to suit individual flying style is likely.

Race Throws

Ailerons: +/- 20 deg
Rudder: +/- 25 deg
Elevator: +/- 25 deg

Expo to suit

Tow Throws

Ailerons: +/- 25 deg
Rudder: +/- 30 deg
Elevator: +/- 30 deg

Expo to suit

In the Air

A very well-mannered sport plane, not super snappy on the controls, but not something that you would want for a sport plane, but if you are used to flying the Twisted Hobbys 3D foamies, you will notice right away that this is much more mild on the sticks. Experiment around a little with 3s and 4s batteries. 3s is plenty for every day flying and for towing. If you want to get a little more aggressive, throw in a 4s battery and prop down a little to a 11x6 or 10x6 prop. On my build I did notice at full throttle on 4s with an 11x6 prop, the plane started to want to roll a bit from the torque of the motor. Inverted flight is no problem with some push on the elevator stick, and surprisingly even though this is a v-tail you can still knife-edge and perform stall turns to some extent

Pros & Cons

Great sport plane and easy as a grab and go format. Wide flight envelope, and lots of different possibility for motor/prop/battery setups to suit your flying style and purpose for the aircraft. The only thing that I thought was a little bit of a draw back was the ground handling, without a traditional Rudder and only a skid for the tail wheel, control on the ground is very minimal. If you are going to pylon race this plane with your buddies at the field, you will want to make sure that you have some unique marking on your plane, so you don't get confused. There are four different schemes available, but only two are currently being carried by Twisted Hobbys.

Final Thoughts

If you are looking for something a little different, and want to dabble with towing a sail plane, this is a great choice, there is a matching sail plane if towing is your thing... a lot of fun and a great diversion from all the normal activities at the field.

Misc Links

[Air Truck webstore](#)

[Stigra Glider webstore](#)

[Video of Air Truck and Stigra](#)