

Pete's R/C Fuselage Jig

Thanks for the purchase of my fuselage jig. I started making these for the pattern community due to a lack of jigs on the market. Primarily I make them for those people wanting to build a nice straight plane.

The standard jig comes with the following: Four 40" sections of strut, Eight stations consisting of eight crossbars and sixteen uprights

Hardware to put the jig together per station is included and consists of two short 1/4-20 bolts, two long 1/4-20 bolts, four fender washers, two wing nuts and two strut nuts. There is no hardware included for mounting the jig to your workbench.

The finished length of the jig is 80" and 19 1/2" wide. It's big and sturdy.

After unpacking I would suggest dividing the hardware into piles for each station and assembling the stations. Then you can move on to mounting the rails to your bench as you will need the stations for positively locating the rails.

To assemble the stations first take the short bolt and a fender washer and put them through the holes at the end of the cross bar and put a strut nut on the end of the bolt with the grooves facing UP.



Next take the long bolts and put them through the holes in the uprights and through the slot in the cross bar. Fasten with fender washer and wing nut. The fender washer is just big enough to span the groove. You will see that just making the wing nut finger tight will lock the upright in place. There is no need to over tighten it.



Now that this is done we can put the rails in position. I usually take the uprights off of two cross bars for this part of the set up. Get two pieces of rail and two crossbars and put the crossbars on either end of the rail



Set the edge of the crossbar flush with the end of the rail and put a carpenter's square on the assembly. Once square, tighten the bolts to hold it together and square. Mount this to your bench or whatever you intend to mount it to and then do the same with the other set of rails. Butting the ends of the rails up against one another and putting a straight edge down the side of both rails. When satisfied they are straight and square mount the second set of rails.

Now the fun begins. Leveling the stations. I usually do this with a four foot level, a torpedo level and some builder's shims. Set your stations up along the length of the jig where you need them and leave them loose. Now put a long level down the middle of them. If you have a short level that will only span two or three stations that is fine. Make sure all the stations are level with one another front to back and then put a torpedo level on the station to check level from side to side. Shim the stations as needed with the builder's shims and then tighten the stations down.

Here is the jig in action with a laser level to put a line down the center of a fuselage in Mike Hester's shop at Custom Airframes of America. Home of the Black Magic family of pattern planes. <http://customairframes.com/>



That's it. Go build. Any questions just drop me an e-mail at petesrc@comcast.net