

1



Assemble the three wing assembly jigs as shown. They are built from 4 pcs, (2 gussets, a floor and a vertical support). These will be used along with 2 pcs of 1/8" piano wire not supplied. The end jigs should be clamped or screwed to your surface and should be square to one another. The ribs will be pushed up against these supports during the assembly process. And it is important that they remain square during the initial stages of assembly.

2



Layout your ribs from W-2 through W-10.

3



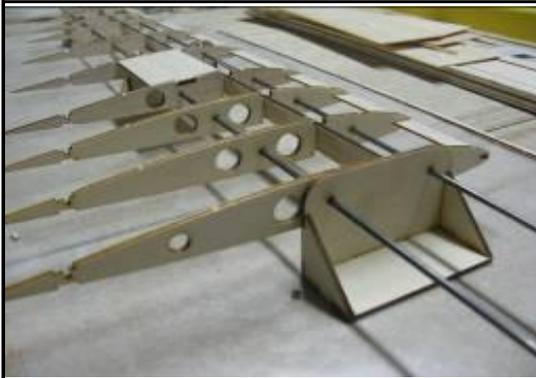
Slide your wings onto the 1/8" piano wire. NOTE makes sure before assembling the second panel you are building a left and right wing. Then install your leading edge alignment component W-12. lastly, install your balsa servo floor between W-5 and W-6. (THIS PIECE DOES HAVE A SPECIFIC ORIENTATION. THE FRONT EDGE SHOULD BE FLUSH WITH THE MAIN SPAR.)

4



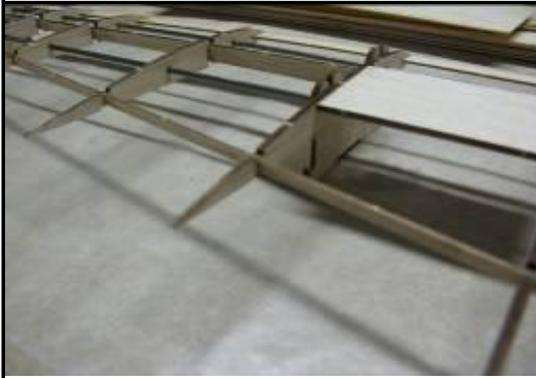
Another view of the assembly process.

5



Install W-13, vertical main spar. Insure that this component is fully seated prior to gluing. If not this will result in your main spruce spar protruding above the rib surface and make it difficult to sheet.

6



Install W-14, rear vertical spar. This component is fragile and care should be taken during its installation.

7



At this point you can remove your panel assembly from the piano wire jigs. Install your top and bottom main spruce spars (1/4" x 1/8" not supplied).

8



Install your top and bottom rear spruce spars (1/4" x 1/16" not supplied).

9



Install the bottom rear trailing edge sheeting. Note the ailerons cut-out is marked on this component and should be lined up relative to the W-8 and W-5 ribs. And the leading edge of the sheeting is lined up on the center of the spruce rear spar. Provided your table is flat you can achieve a nice straight wing by blocking up the leading edge and keeping the trailing edge flat and using CA to secure the ribs to the sheeting.

10



Install W-19 (two per panel, aileron end support) to the inside of both the W-8 and W-5 ribs. (the one in the picture is at the W-8 rib).

11



Next, lay one W-18 (aileron hinge line support) across the top of your ribs. Line up the leading edge of W-18 with the leading edge of the W-19 aileron support wedges. Mark the W-6 and W-7 ribs as they will be cut to allow W-18 to sit flush on the bottom sheeting.

12



Install the second W-18 component on top of the first. At this time you can install aileron control horn support (un-numbered but located on the 3/16" balsa sheet where the W-18's were removed).

13



Using a razor plane, trim the balsa support blocks just installed to match the contour of the wing.

14



NOTE: the bottom sheeting must be tapered to receive the top trailing edge sheeting. I used a combination of a razor plane and a T-Bar to sand this taper. Also the trailing edge per NMPRA rules cannot be any thinner than 1/16". Therefore, you should end up with the T.E. being the thickness of the upper sheeting.

15



This is a picture of a finished panel waiting to receive the upper rear sheeting.

16



Install the top rear trailing edge sheeting W-15. I use Gorilla glue along the inside of the trailing edge. My hope is that the foam will provide additional support to the T.E. And Sgment, (Ambroid, Testers or wood Glue) to attach the sheeting to the ribs.

17



Trim, the 1/4-20 T-Nuts to fit on the inside of the W-2 rib.

18



Install the trimmed 1/4-20 T-Nuts. Note: you may need to slightly countersink or bevel the inside edge to get the nuts to sit flush. CA or Epoxy in place.

19



Continue to sheet the upper surface of the wing using the 1/16" balsa components shown here.

20



Once the glue has dried, turn the wing over and install the cardboard joiner tube. This can be secured in place using CA on the outside. (NOTE: this is the hole closest to the leading edge. This tube is needed for the other panel and for the fuselage. Therefore be careful with the trimming of the tube.

21



Next cut approximately 3.5" of computer paper. This is to be used as the aileron servo wire guide tube.

22



Using a pencil or wooden dowel, roll the paper tightly as shown.

23



Now slide the whole thing into the wing panel and line up the end of the paper tube with the outside of the W-5 rib. CA in place and trim the outside edge.

24



Next finish sheeting the bottom of the wing as shown.

25



Install the 3/16" x 3/8" balsa leading edge.

26



Install the W-1 Root rib.

27



Using the supplied 1/8" wing tip as the foundation for the wing tip. Build up the tip using scrap balsa and glue the tip in place.

28



Install the 1/16" x 1/4" balsa cap strips (Not supplied) to the top and bottom of the wing.

29



Final sand and shape the wing. Fill as necessary.

30



Using the tick marks on the sheeting cut out the aileron as shown. I normally use an X-Acto knife to cut along the hinge line from the top and a Razor saw to cut the ends. I use 4 hinges for attaching this surface.

Now you are ready to cover the wings. Trial fit everything and clean up your loose ends before finishing the plane.

	<p>There are many ways to install the aileron servos. I have supplied one method, that was not available when I took these pictures. If you have any questions with this assembly process drop me a note.</p>
--	---