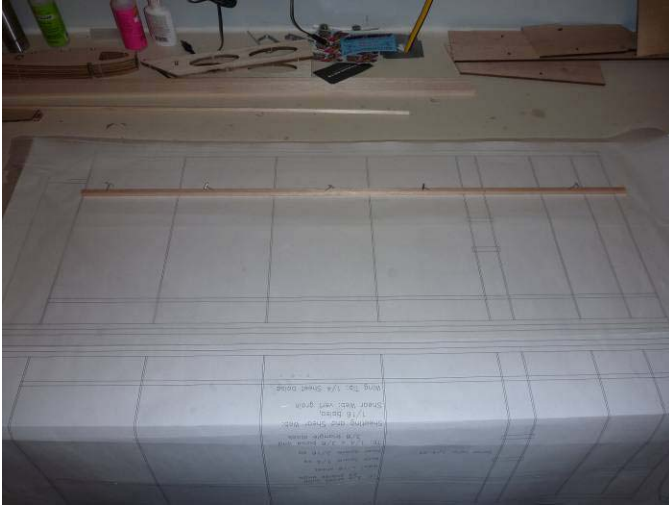


WING CONSTRUCTION



Place plans on flat surface and cover with wax paper or plastic.

Pin $\frac{1}{4}$ " square balsa spar down. Be sure to have a little extra at centre section of wing.

(Reference picture)



Fit all of the ribs in place on the lower spar. Do not glue at this time.

(Leave the centre rib out for a later step.)

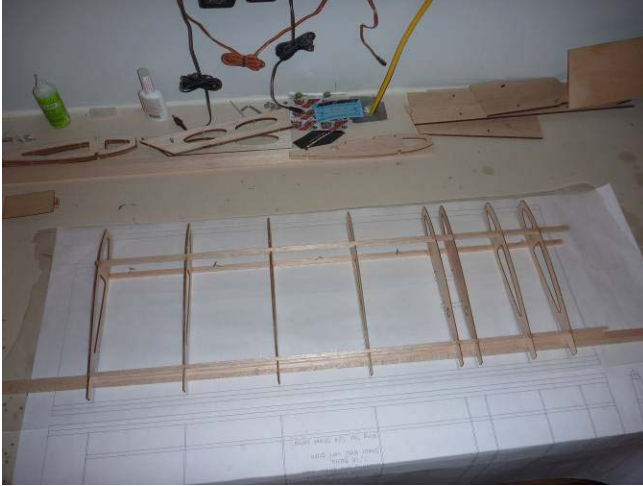
All of the ribs have a small burn hole near one of the cut outs for the main spar. This indicates the bottom of the rib.



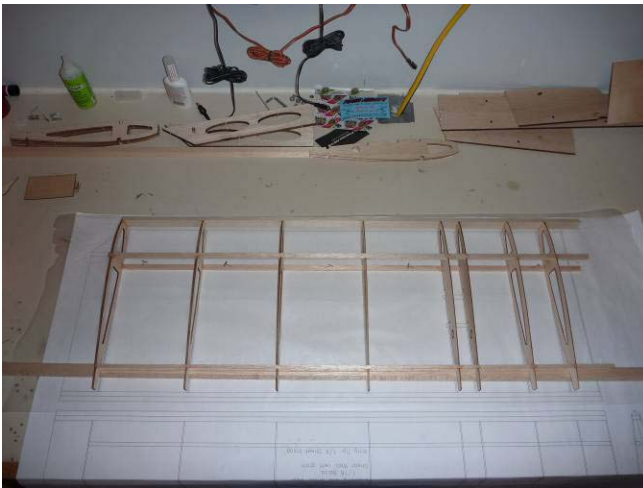
Insert the $\frac{3}{16}$ " square trailing edge spar.

It will be necessary to elevate the trailing edge spar so that the main spar will be flat on the building surface.

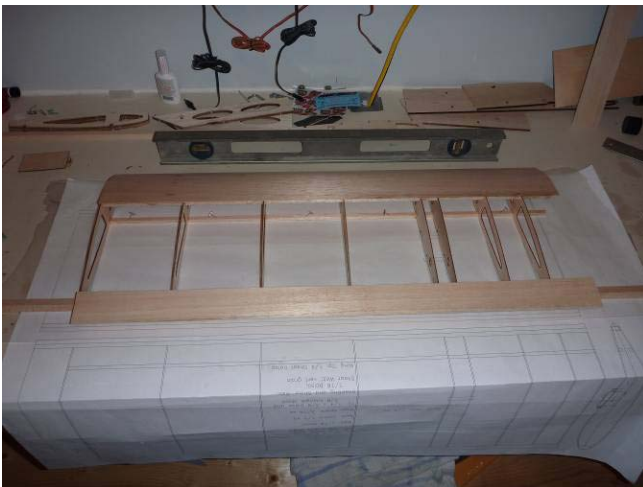
Used here is a scrap piece of $\frac{3}{8}$ " high balsa stick.



Insert the remaining main and trailing edge spars. Once all the ribs are square against the plans and 90degrees glue all ribs with thin CA.



Glue the supplied leading edge spar in place with thin CA.



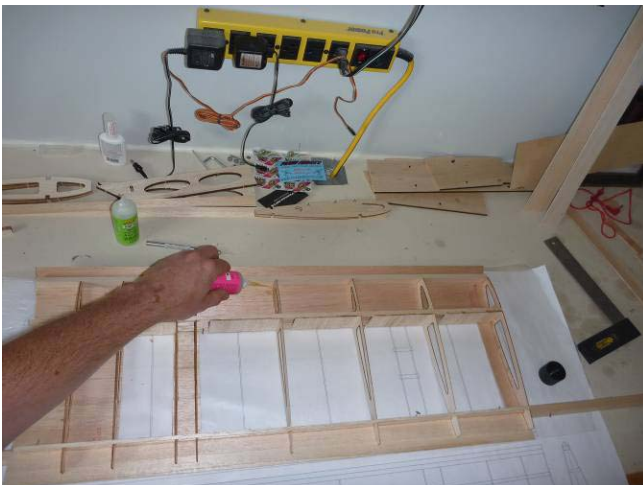
For the leading edge sheeting I used 4" 1/16" balsa. Line up the sheeting on the main spar to make sure a straight line all the way down the main spar. When satisfied apply medium CA along the main spar. Place sheeting along spar and wait until glue cures. Once glue has cured, apply medium CA along leading edge spar. Bend the sheeting over leading edge evenly and hold down until glue cures. For the trailing edge spar, make sure to extend the sheeting past the end of the ribs by 1/2" so it will accommodate the trailing edge spar in a later step.



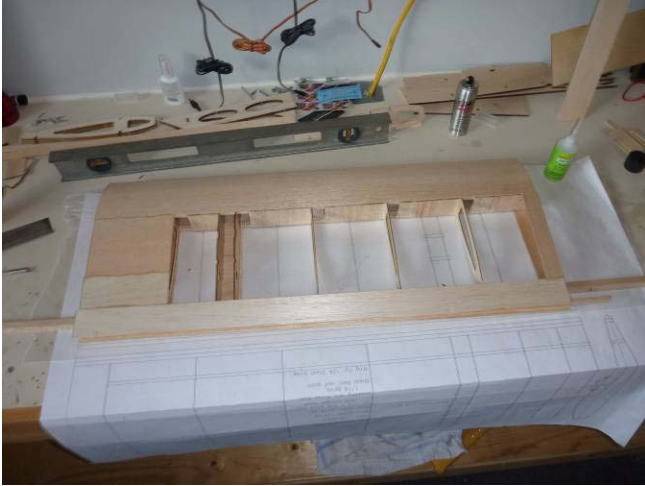
With the wing still pinned down glue in the supplied shear webbing in place. DO NOT FINISH ALL THE WAY ACROSS UNTIL A LATER STEP. (note picture)



Finish the rest of the sheeting on the top of the wing. The centre section, wing tip and the servo ribs. The wing tip sheeting is 1" across.



Now you can remove the pins and flip over the wing. Glue the leading edge ribs at this time with thin CA.



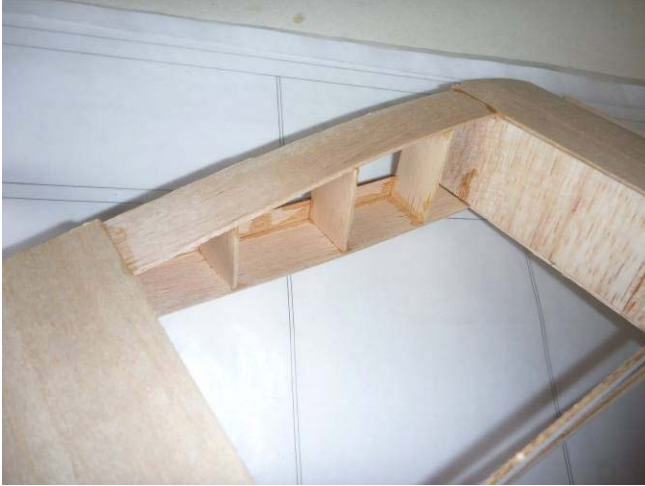
Pin down the wing again and finish the sheeting on the bottom of the wing.



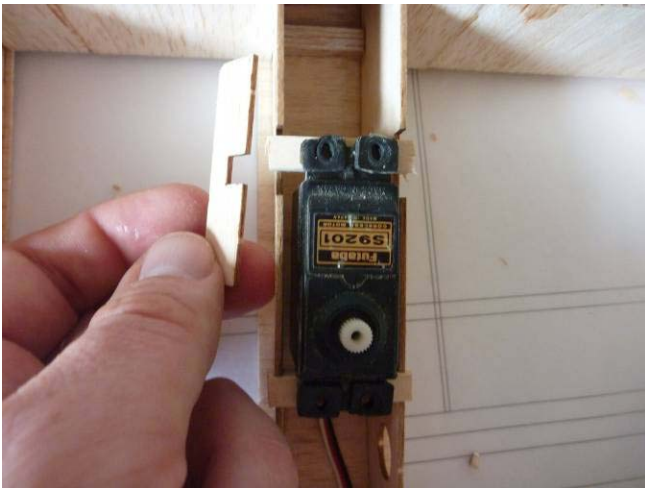
With the open spaces in the sheer webbing glue the bottom sheeting with thin CA.



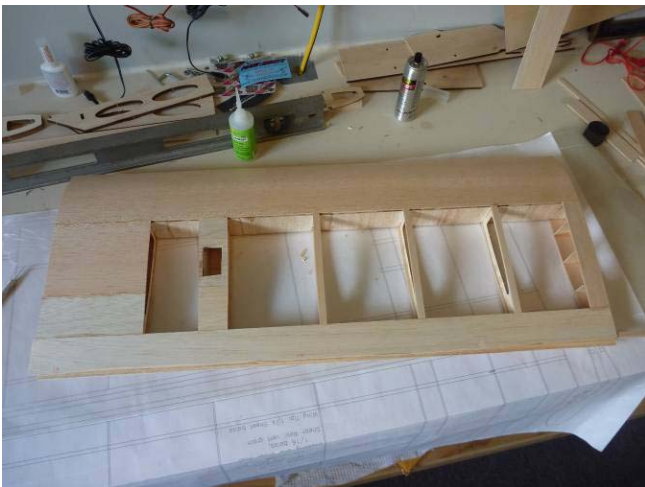
Finish off the sheer webbing at this time from rib to rib.



Cut out some vertical 1/16" sheeting to brace the wing tip sheeting.



Cut two 1/4" square spruce rails to accommodate the servo for the aileron. Fit the servo in place and insert the doubler to hold the forward servo rail in place. The doubler has a small hole burned in it. It fits closest to the leading edge of the wing.



Finish the sheeting over the servo ribs, and make cap stripping for the remaining ribs. The cap stripping is approximately 1/4" wide.



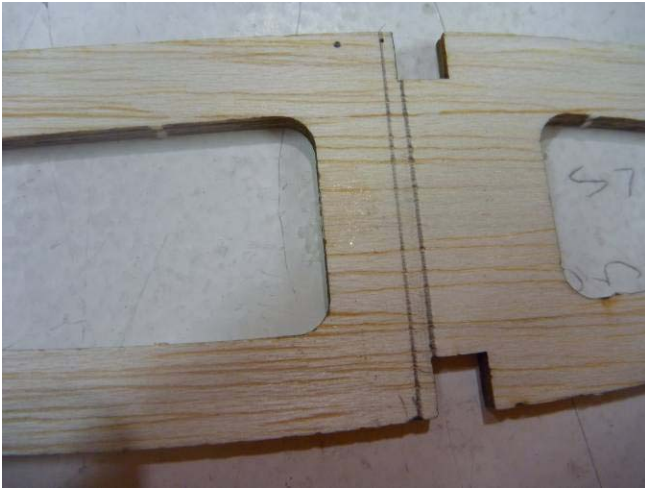
Slide the $\frac{1}{4}$ " X $\frac{3}{8}$ " trailing edge spar between the trailing edge sheeting. Press against the back of the ribs and glue in place. BE SURE TO EXTEND THE TRAILING EDGE SPAR TO ACCOMIDATE THE WING TIP PIECE.

Trim trailing edge sheeting off flush with trailing edge spar. Next glue the $\frac{3}{8}$ " tri-stock in place. (note the side profile of the rib on the wing plans)



Take the two remaining ribs and glue together with thin CA





It is going to be necessary to cut the centre rib to accommodate the wing joiner. Mark a line from the back of the $\frac{1}{4}$ " square cut outs. Then take the wing joiner and mark a second line back. Cut the two lines with a sharp exacto knife.
Note: The small burn hole will be cut off in this step. Be sure to mark both half's to indicate the bottom of the rib.





Take a ruler and measure from the rib to the edge of the sheeting. Note the measurement.

Then take the ruler on the outside of the wing and line up the measurement. Make a mark at 1.5".

Do this at four locations from the leading edge to the trailing edge.



Set your table saw to 1.5 degrees on the tilt.

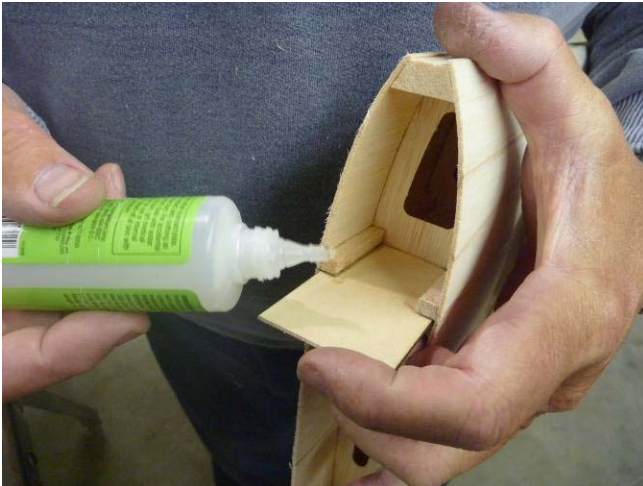


Take a piece of scrap 3/8" balsa and tape it to the trailing edge of the wing.
Now it's time to cut. Hold the wing firm against the gate and slowly cut.
You will have to cut one wing half right side up and the other upside down depending on which way your saw tilts.





With a knife trim a little balsa off the edges of the main, trailing, leading edge spars. This will make it easy to fit the rib in place.



Take the wing joiner and trial fit it with both wing half's. It may be necessary to trim some off either end of the joiner if the wing does not quite fit together. When satisfied with the fit glue in place on the aft side of the main spars with medium CA.



It is now time to fit the ribs in place that you glued together earlier.

Start with the wing half that has the wing joiner glued in. This may take a little finesse. An exacto knife works good lift up the sheeting if necessary.

Insert the rib in half way. When satisfied glue in place with thin CA.





Apply some 15 or 30 minute epoxy on the wing joiner and mating spars.

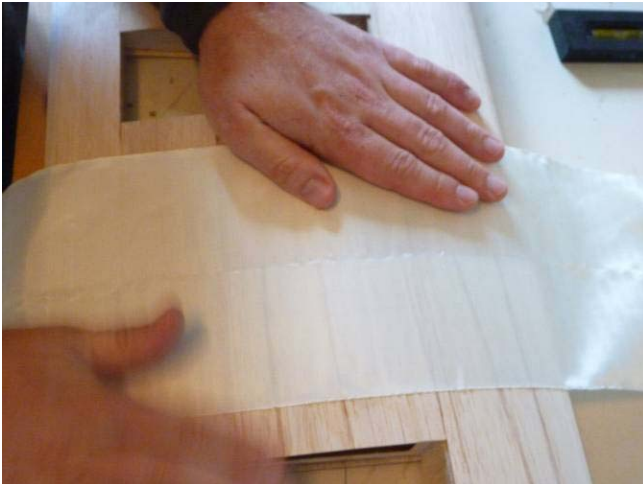


Slide the two wing half's together tightly and apply thin CA around the whole joint.



Install the wing tips. There are two triangle supports. The support that is slightly larger is glued on the upper half.

Next sand the whole wing. And shape the leading edge to a round finish with sand paper.



Now it is time to apply the fibreglass tape on the wing centre section.

Used here is Sonic-Tronics fibreglass tape 6" X 60". Part # 257

Mark 3" either side of the centre of the wing.

Cut the fibreglass to the right length with $\frac{1}{4}$ " overlap.

For ease of application spray some 3M Super 77 Spray Adhesive lightly on the fibreglass tape.

Take the fibreglass and apply it on the wing centre section.

Smooth out and get rid of all bubbles.



With thin CA saturate all of the fibreglass.



When CA has cured drill two 1/2" holes for the servo leads.
Sand the fibreglassed area smooth.

The final step will be to cover the wing in your choice of covering.