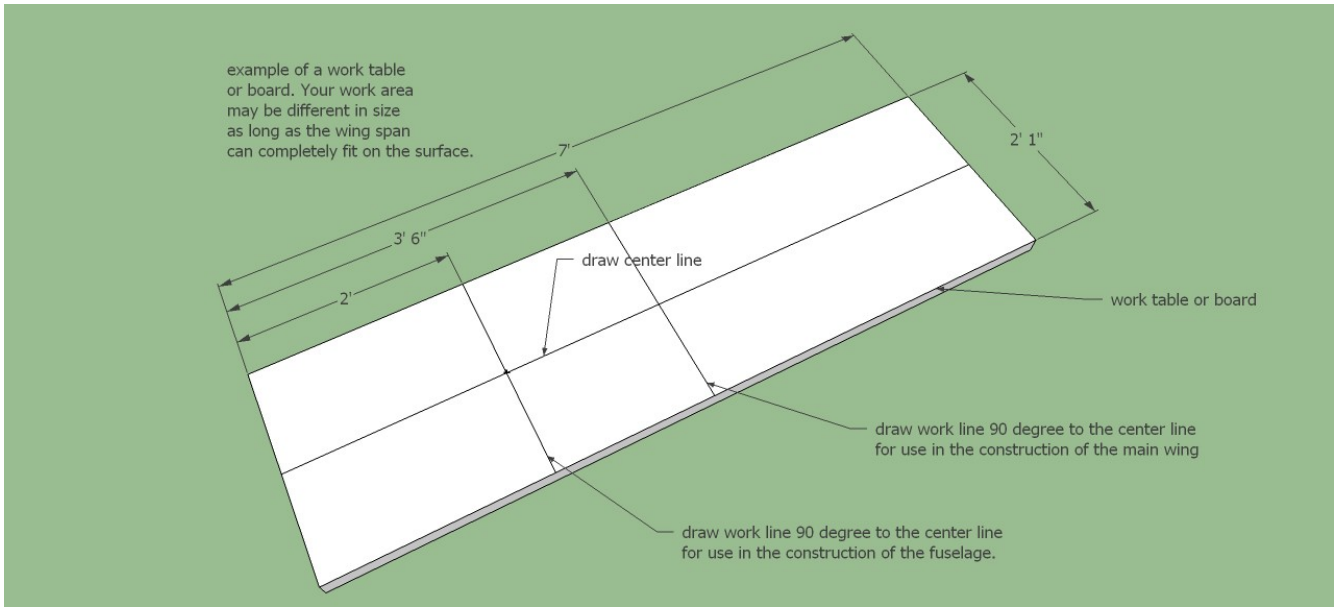
RCCD 2014 CLUB PROJECT

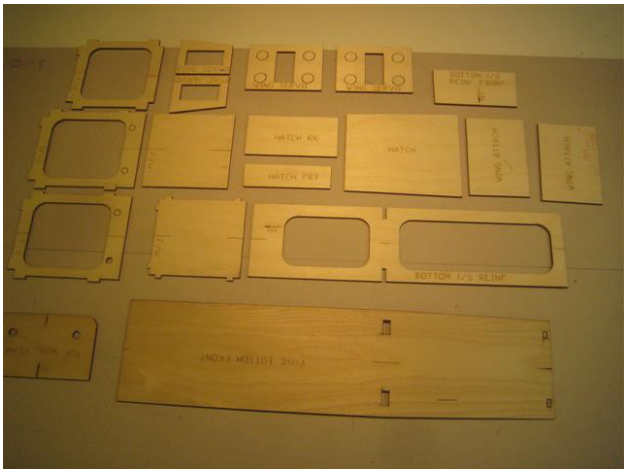
"STICK 2 IT"

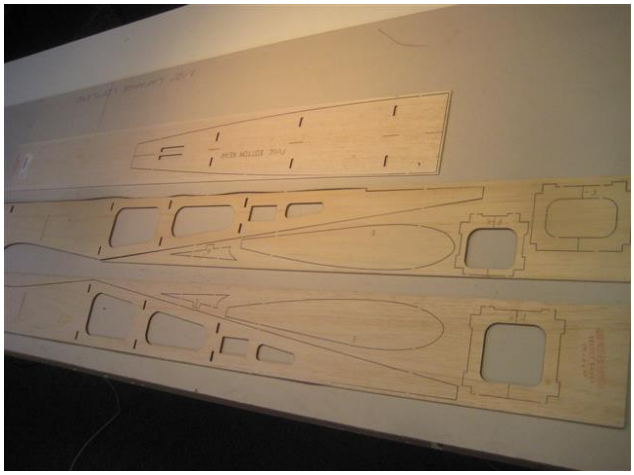
Fuselage Construction:

The fuselage is constructed without the use of a set of plans.
The fuselage will be constructed on your previously prepared work surface and by following these instructions and photos.



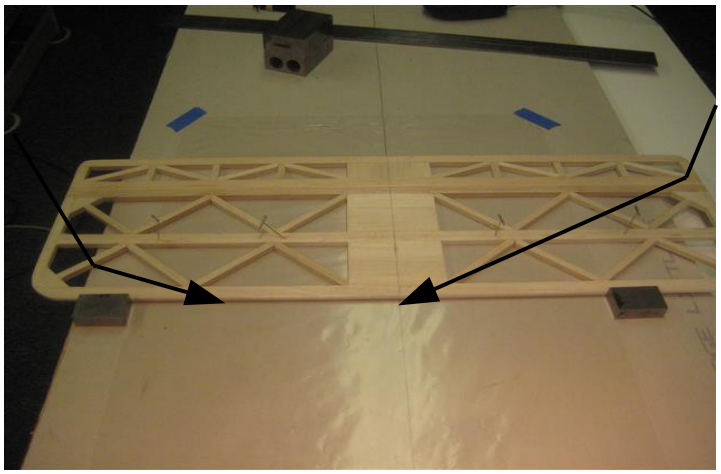
**All the fuselage laser cut parts should be segregated and organized.*





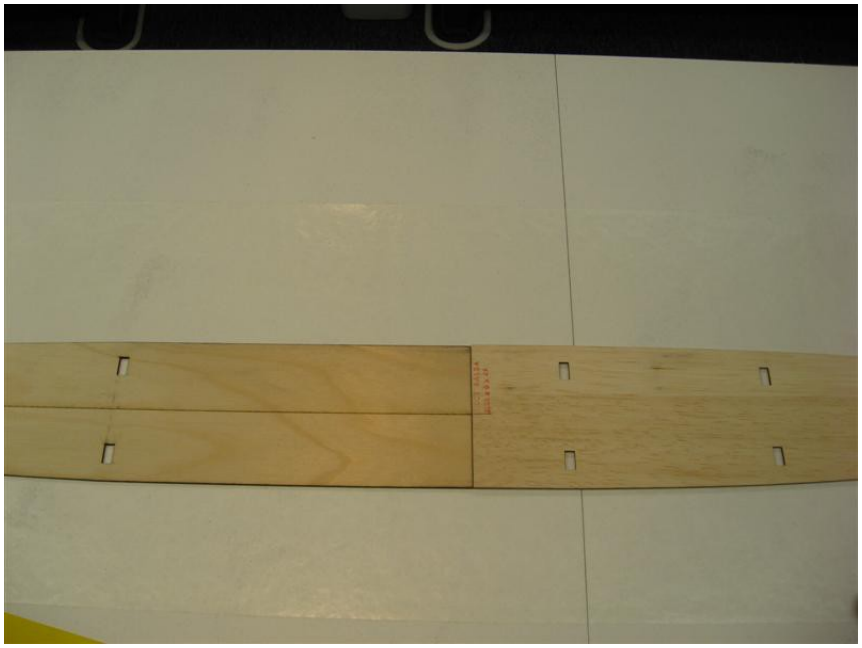
**Start the fuselage build by placing the previously built horizontal stabilizer on the work surface lining up its leading edge to the work line drawn on the work surface and its center line to the work surface center line. Keep the stab in location by pinning and/or blocking it to the build surface.*

Line up front edge of stab to work line on work surface

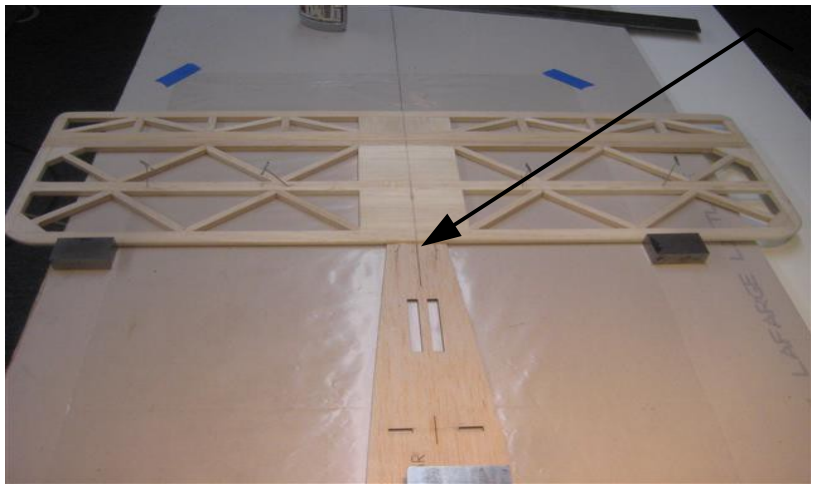


Line up stab center line to work surface center line

**The bottom fuselage panel assembly is made by gluing the rear edge of the 3/32" plywood front bottom fuselage panel to the front edge of the 3/32" balsa rear bottom fuselage panel, making sure the side edges line up.*



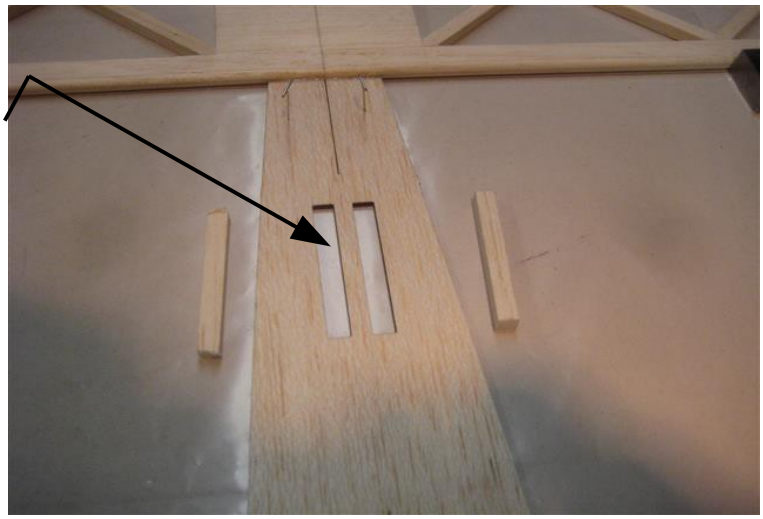
**The bottom fuselage panel assembly is positioned on the work surface by bumping up the rear edge of the bottom fuselage panel assembly to the front edge of the horizontal stab and lining up the center lines of both the stab and the bottom fuselage panel assembly. The center line on the front of the bottom fuselage panel assembly should be lined up to the main center line on the work surface. Keep the bottom fuselage panel assembly in location by gluing it to the stab and by pinning or blocking it to the build surface.*



Bump fuselage panel to front edge of horizontal stab, lining up the center lines and line up the center line on the front of the fuselage panel to the center line on the work Surface. Glue in place.

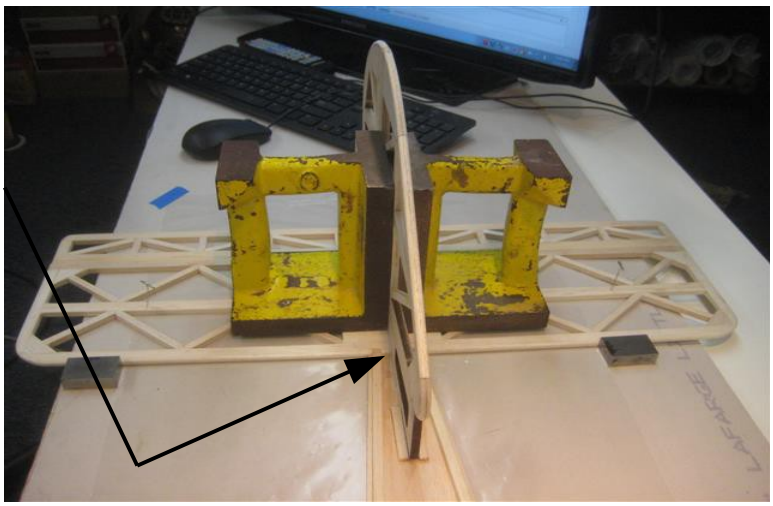
**Cut and glue two 1/4"x1/4" x 2" balsa Fin locating blocks in the two slots laser cut in the bottom fuselage panel assembly (near the rear of the bottom fuselage panel and spaced 1/4" apart concentric to the center line of the fuselage).*

Glue locating blocks in the slots of the bottom Fuselage panel..



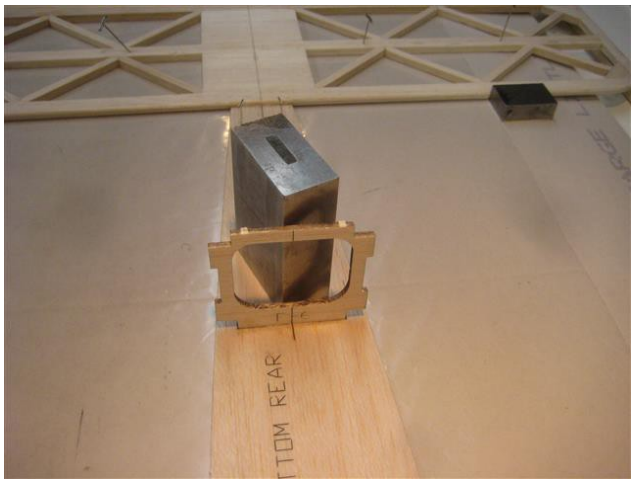
Fit and position the vertical fin on the center line of the horizontal stabilizer with the offset in the vert. fin against the front edge of the horizontal stab and between the two balsa locating blocks glued in the slots of the bottom fuselage panel assembly. Glue the vertical fin in position, making sure the fin is perfectly 90 degrees to the horizontal stabilizer. Block in place while glue dries.

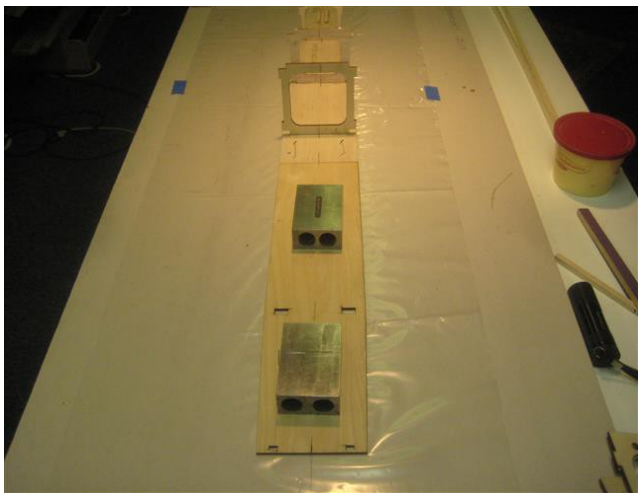
Bump the rear edge of the offset of the vert. fin against the front edge of the horizontal stab.



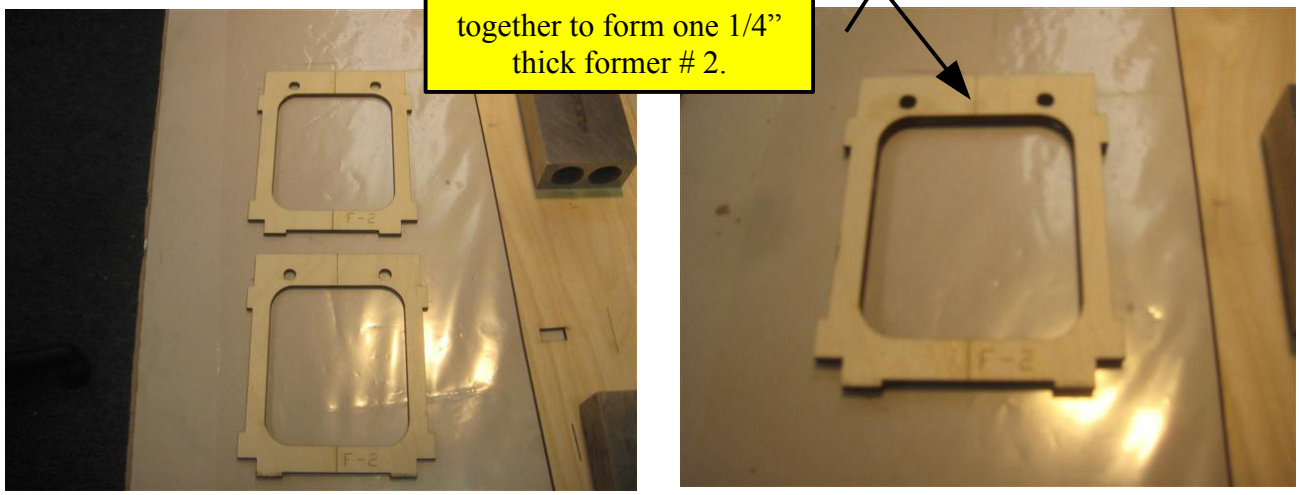
*NOTE: The fuselage formers have locating tabs that will position them in the proper location on the bottom panel and both side panels. The bottom panel and the side panels will have slots to accept the former tabs. This locating method will also add strength to the plane.

*Position and hold in place fuselage formers 6, 5, 4 in their corresponding locations on the fuselage bottom using the tabs and slots for location. Make sure the formers are held 90 degrees to the fuselage bottom and centered on the center line. Glue in place.

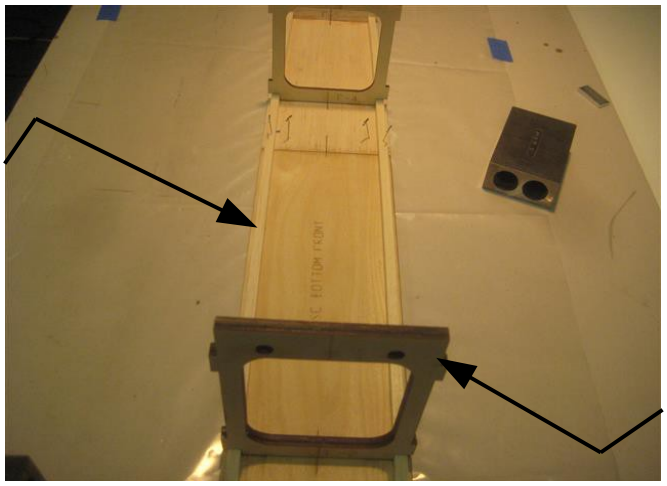




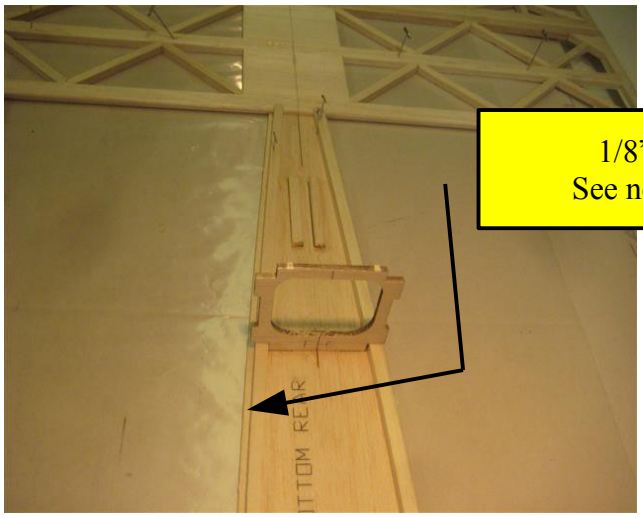
**Prepare former #2 by gluing two 1/8" laser cut plywood #2 formers together holding the periphery of the parts flush and lining up the 1/4" dia holes.*

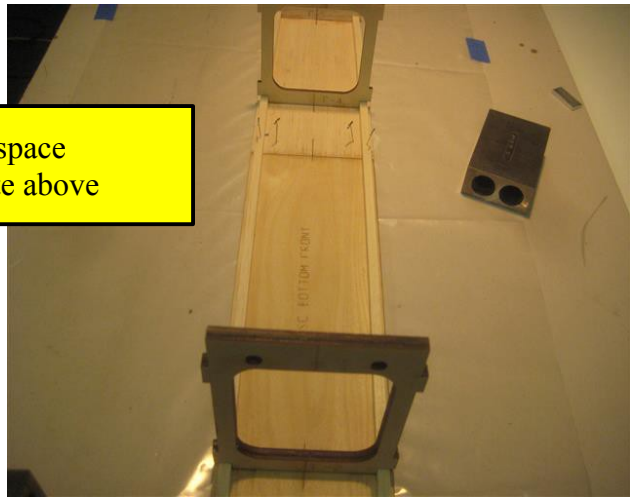


**Position and hold in place fuselage former #2 in its corresponding location on the fuselage bottom using the tabs and slots for location. Make sure the former is held 90 degrees to the fuselage bottom and centered on the center line. Glue in place.*

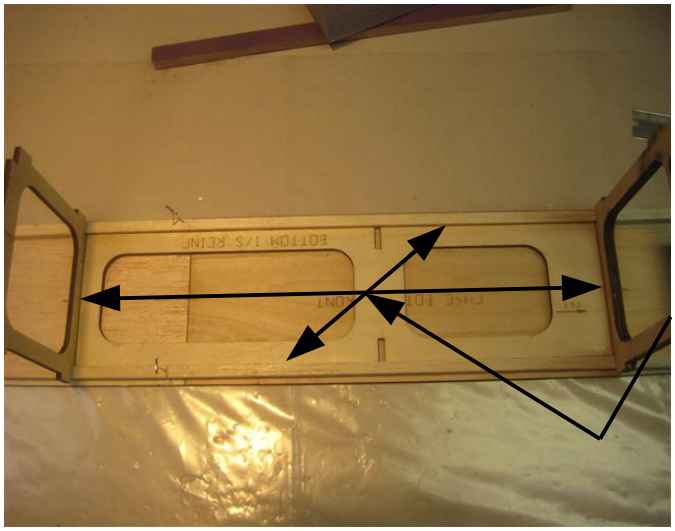


**Cut, fit 1/4"x1/4" balsa sticks on top of and along the side edges of the fuselage bottom from the horizontal stabilizer to the front face of the former #2. Make sure the sticks fit in the bottom corner slots of all the formers and are spaced 1/8" inboard of the edge of the fuselage bottom. Glue in place.*



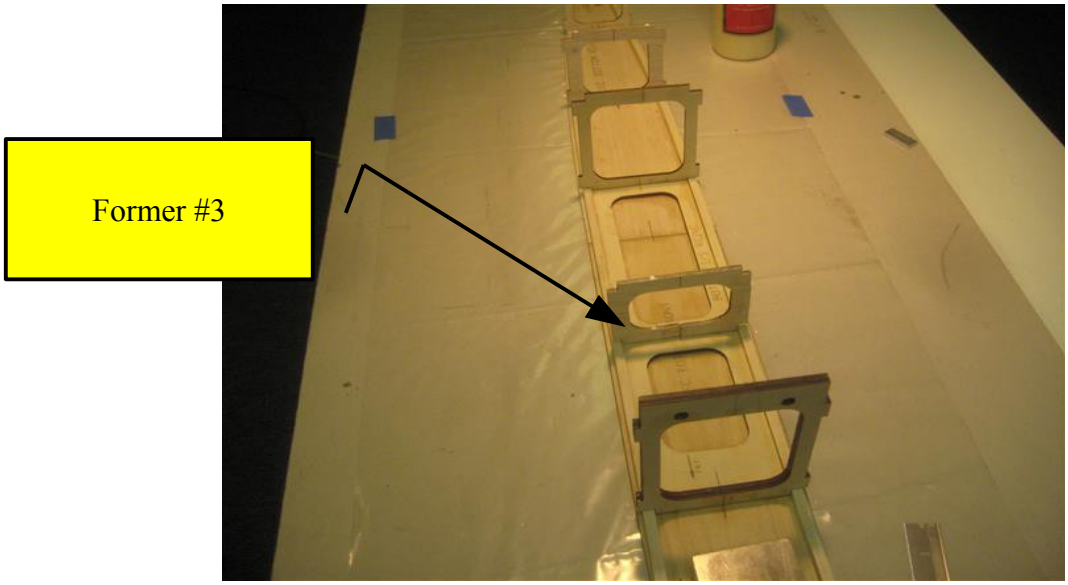


**Position the laser cut plywood bottom I/S reinforcement with the arrow facing forward and on top of the fuselage bottom between formers #4 and #2 and between the 1/4”x1/4” balsa sticks. Glue in place.*

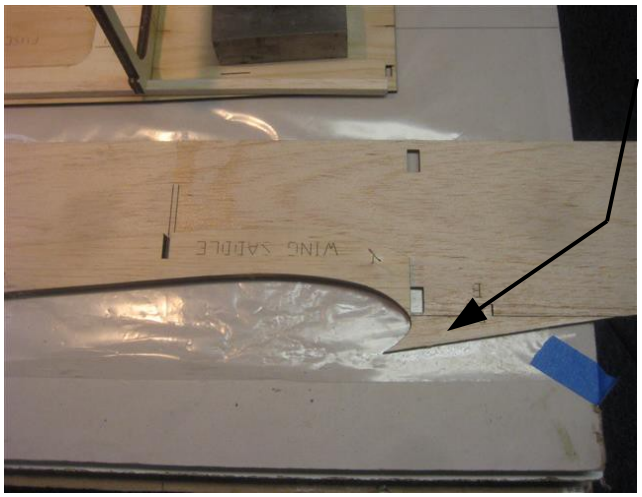


Bottom I/S reinforcement

**Position former #3 in place on and 90 degrees to the bottom I/s reinforcement using the tabs and slots for location. Glue in place.*

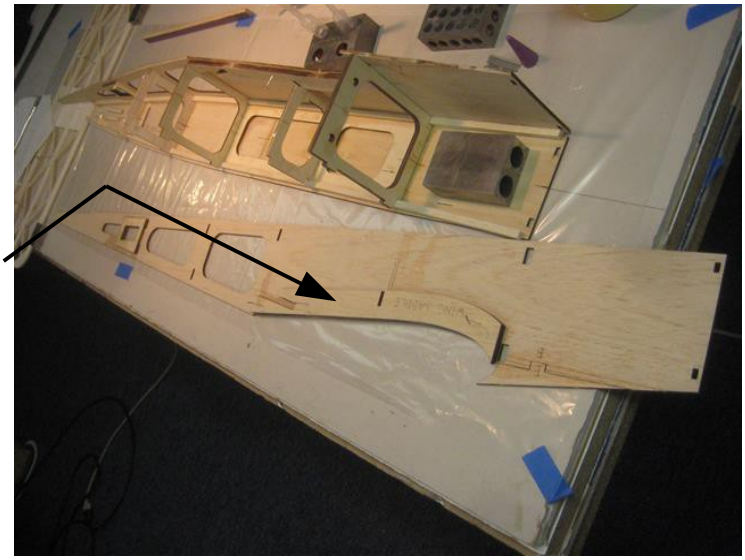


**Fit and glue in place the fuselage side extensions A & B to the upper forward edge of the fuselage sides. (right and left)*



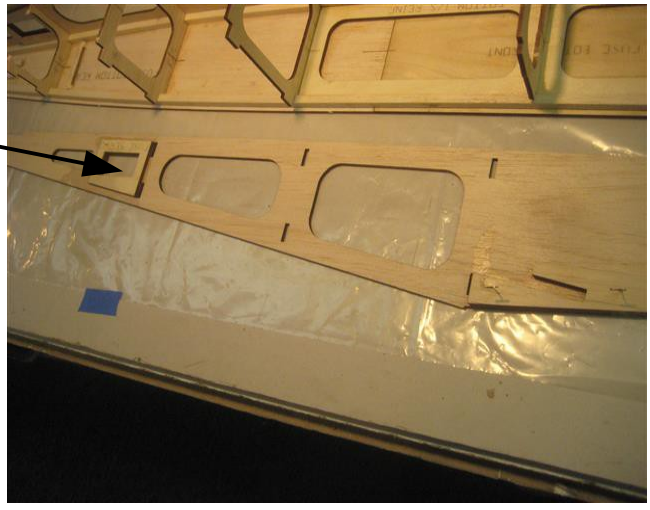
**Prepare the fuselage sides for assembly by gluing in place the Reinforcement Saddle to the fuselage sides. Line up the top edge of the saddle to the top fuselage side edge and position between the slots for formers F2 and F4. Make sure you are making a Right and Left hand or mirror image condition.*

Reinforcement saddle.



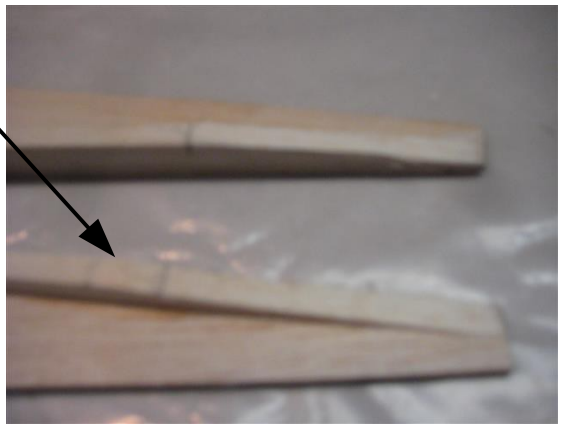
**Position the fuselage servo reinforcement on both right and left fuselage sides behind the slots for the former #6 and spaced 1/4" from the top and bottom edge. Glue in place.*

Fuselage servo reinforcement



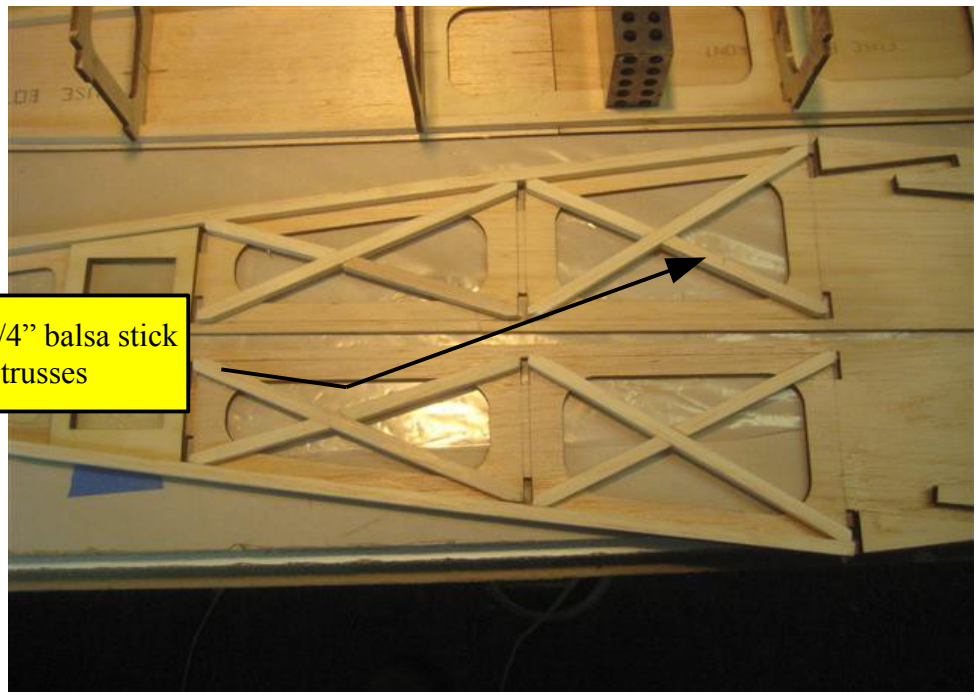
**Cut, fit 1/4"x1/4" balsa stick along the top edge of the fuselage sides from the front surface of former #4 to the rear end of the fuselage sides. Bevel the inside surface of the balsa stick that is against the rudder surface. Remove 1/4" at the rear end to zero stock removal 2-1/2" forward from the rear edge.*
Glue in place.

1/4"x1/4" basal sticks beveled at rear end



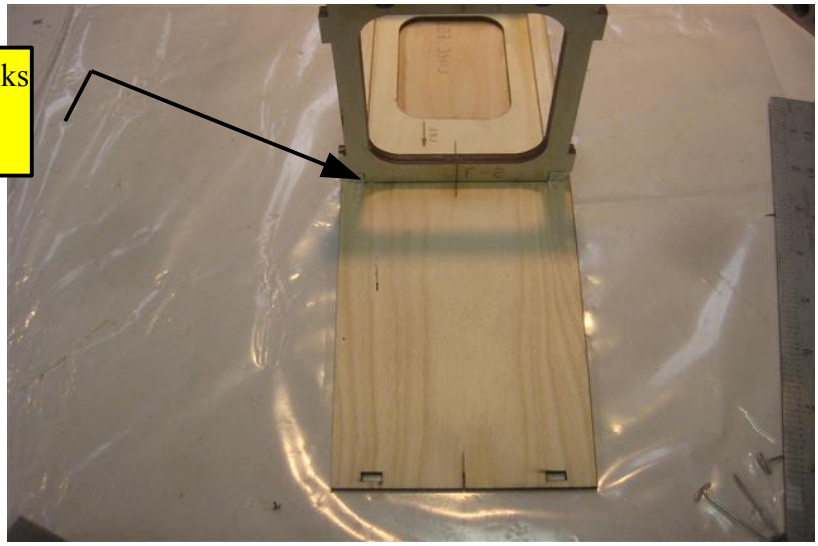
**Cut, fit and glue in place 1/4"x1/4" balsa sticks to form truss construction reinforcements between formers #6 and #5 and then between formers #5 and #4.*

1/4"x1/4" balsa stick trusses

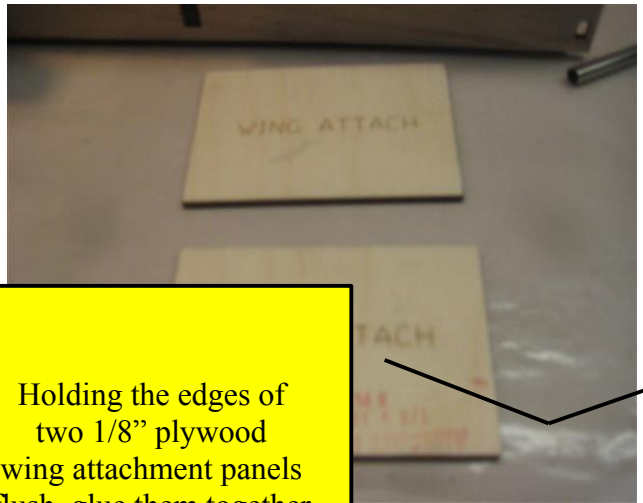


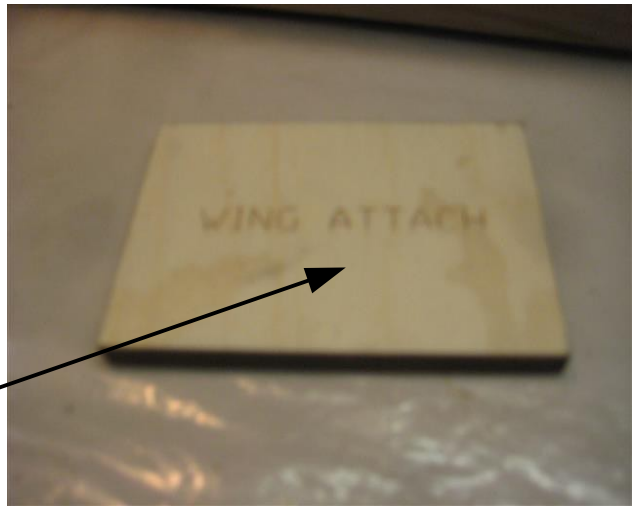
**Cut off the bottom 1/4"x1/4" balsa sticks flush with the front surface of former #2.*

Trim 1/4"x1/4" balsa sticks flush with the face of Former #2.



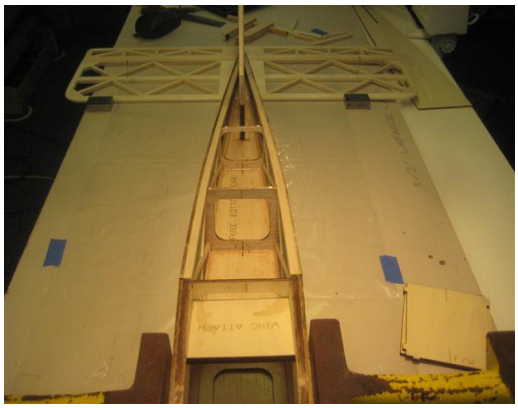
**Position and glue two 1/8" plywood laser cut wing attachment panels together holding the periphery flush.*

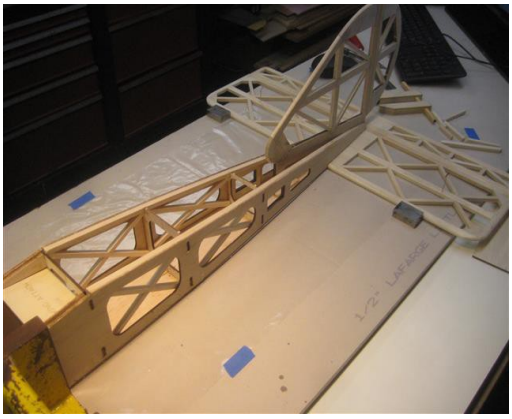


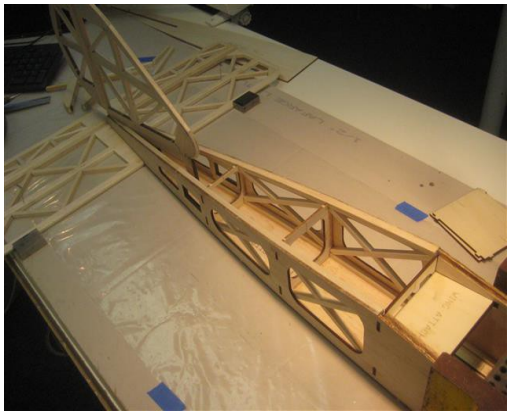


Holding the edges of two 1/8" plywood wing attachment panels flush, glue them together To form one 1/4" thick wing attachment panel.

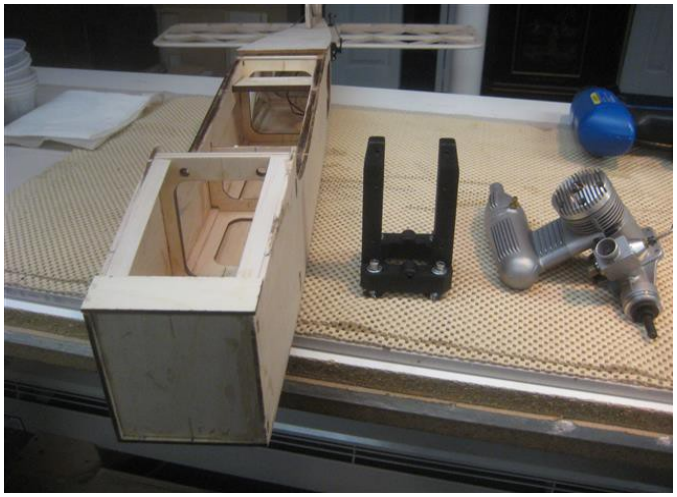
Position and clamp both (right and left) fuselage side assemblies in place making sure all the locating tabs and slots line up and the wing attachment panel is in place . When satisfied with all the alignment and position glue all joints starting from former # 2 rearward.



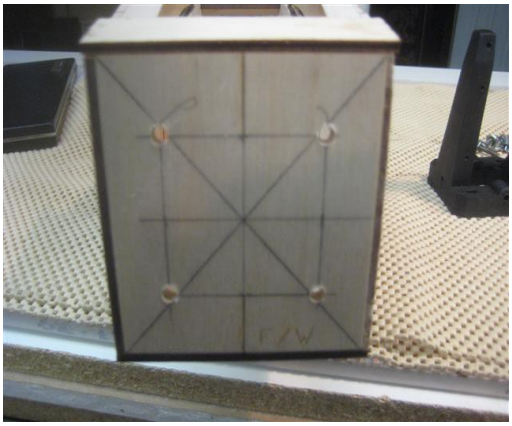




Prepare the fire walls for the engine and the engine mount you are going to use. The fire wall consists of two 1/8" laser cut plywood pieces that will be glued together holding the peripheries flush . Both of the firewall peripheries are the same except the rear firewall will have locating tabs that will fit into the slots of the fuselage sides and the fuselage bottom for location and strength. The following photos show a generic mounting. You may elect to use electric instead of fuel power. Use your discretion regarding your mounting.

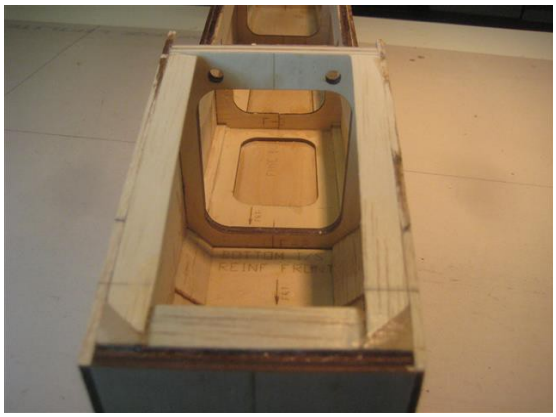


*Position the fire wall in place using the tabs and slots for location. Make sure you glue the fuselage sides to the fuselage bottom. Glue the forward firewall against the locating firewall. Epoxy in place.



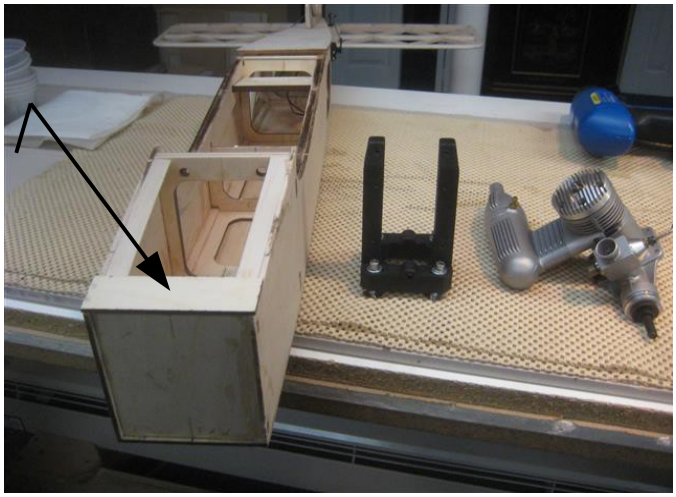
*Position and glue in place the bottom I/s reinf. Front.

**Cut and fit supplied balsa triangle sticks to all the corner joints in the front area between former # 2 and the firewall.*

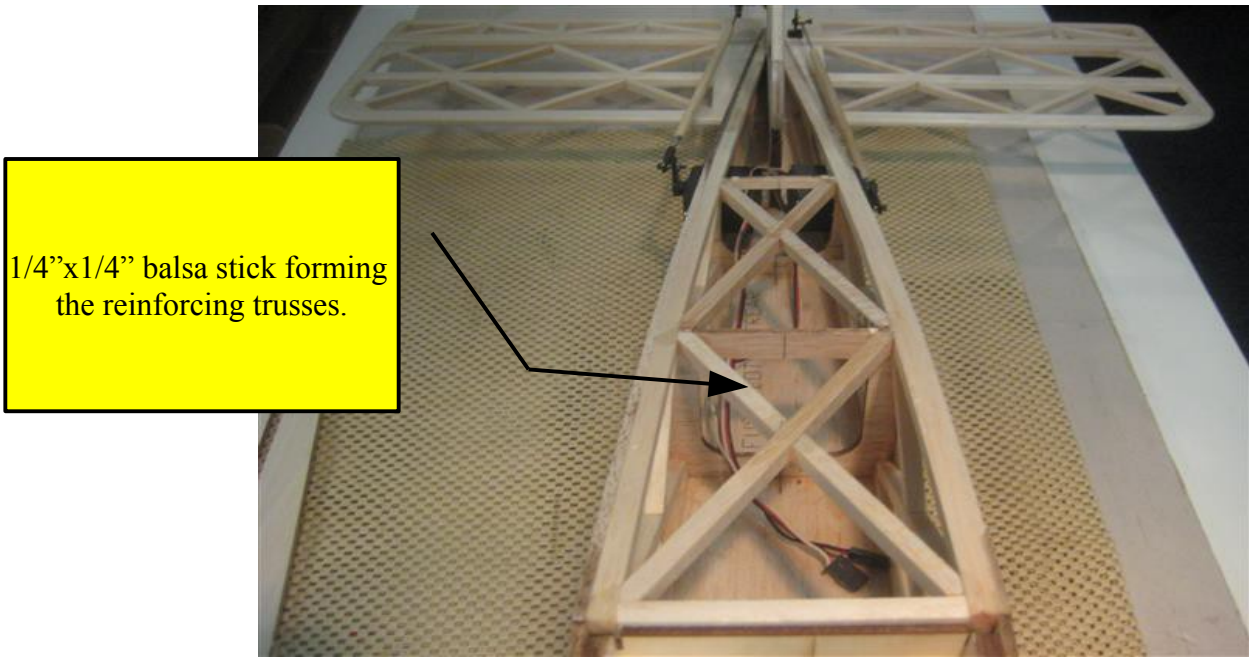


**position and glue in place the laser cut 1/8" plywood hatch front.*

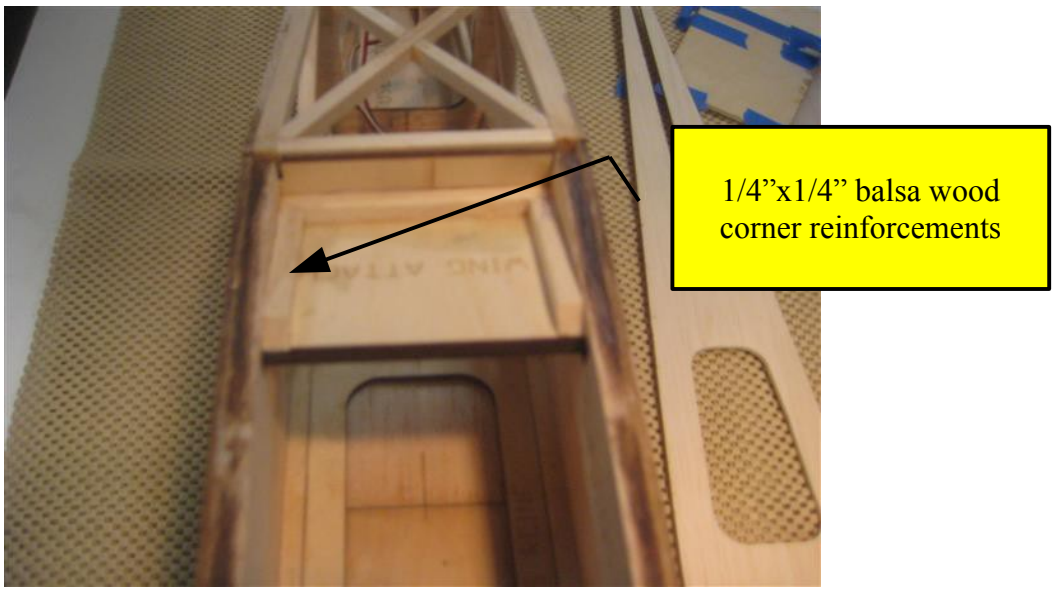
1/8" plywood hatch front



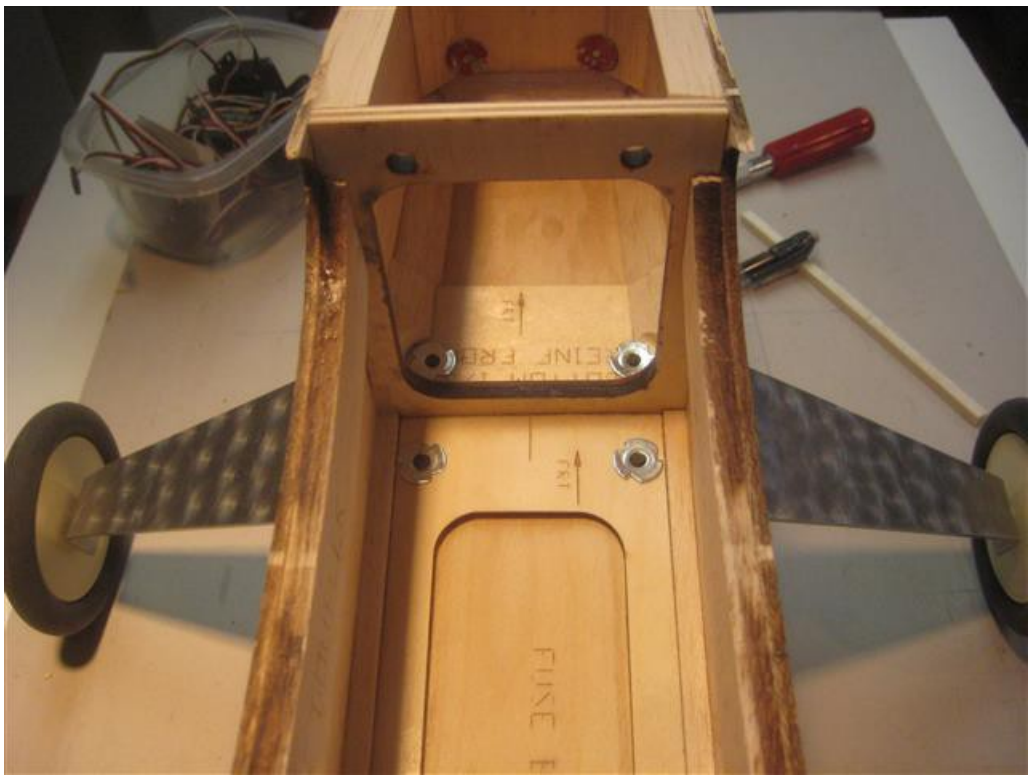
**Cut, fit and glue in place 1/4"x1/4" balsa sticks to form the top truss construction reinforcements between formers #6 and #5 and then between formers #5 and #4.*



**Cut, fit and glue in place 1/4"x1/4" balsa sticks to reinforce the wing mounting panel.*



**Mount the main landing gear so the axle is approx. 1" forward of the leading edge of the wing. Use blind nuts for mounting. Clear away any interference caused by the corner blocking.*



This is the point where the main wing is positioned and attached to the fuselage.

Refer to the "Assembling the main wing to the fuselage" section of the instructions.