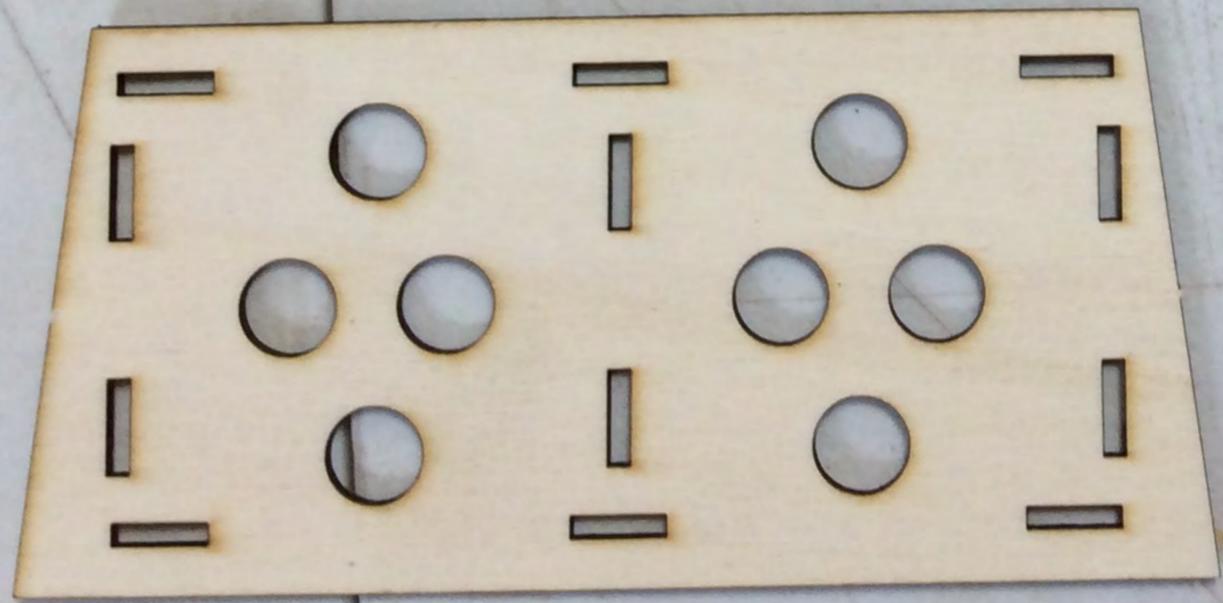
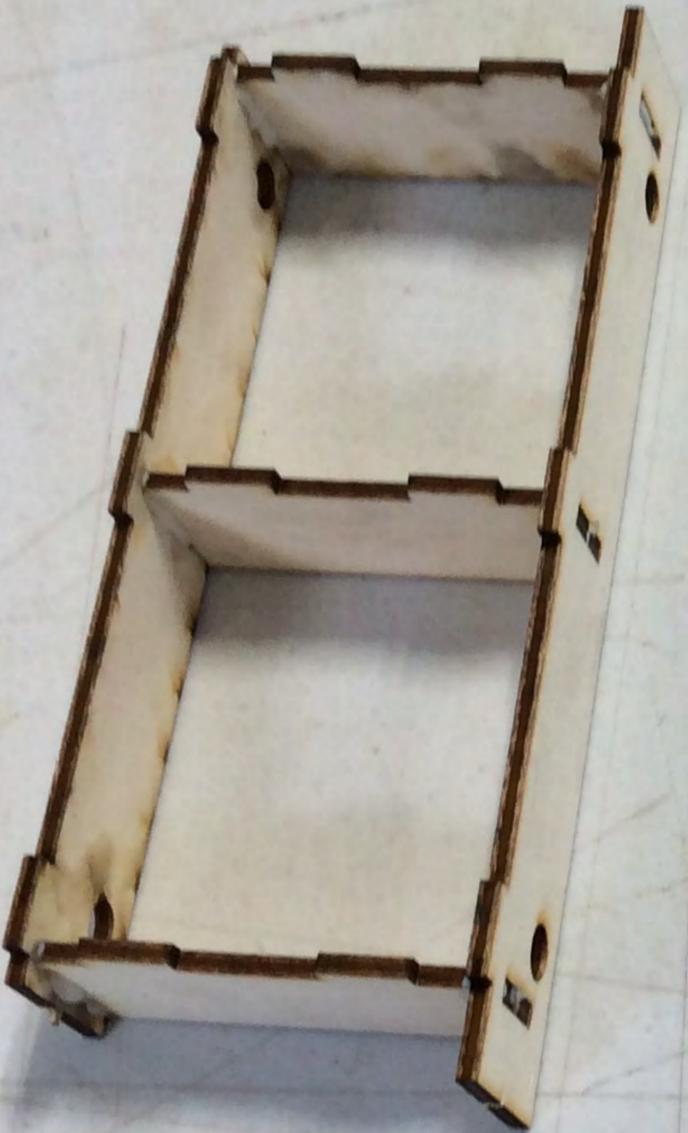
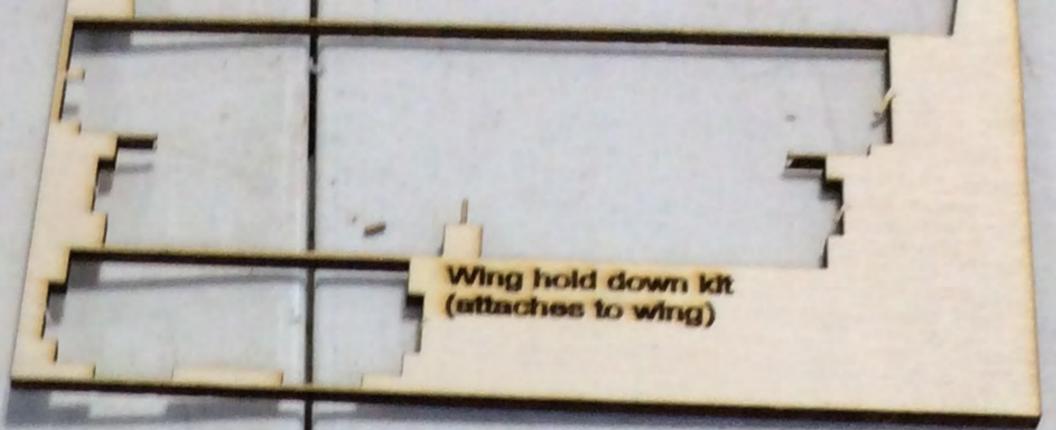
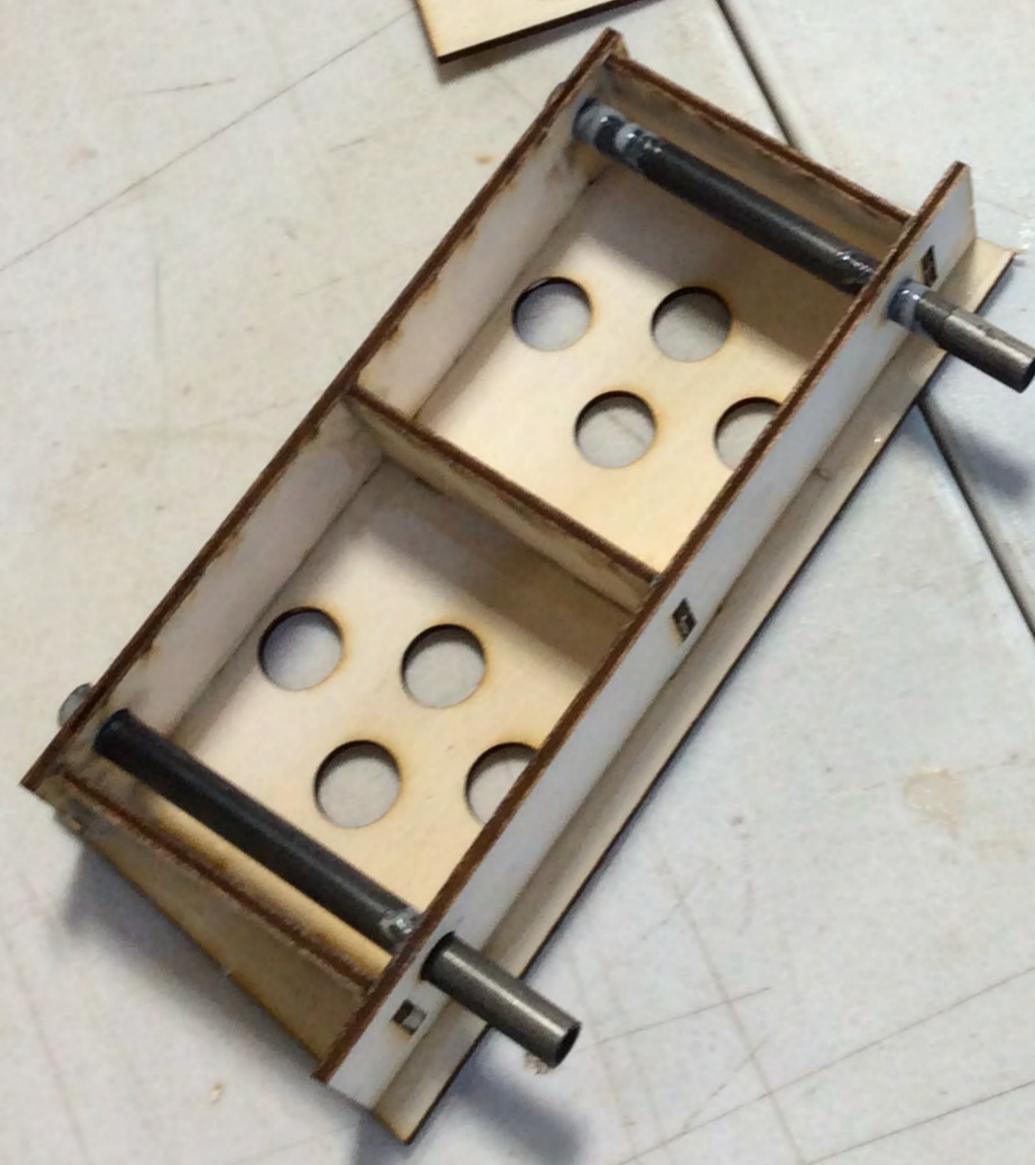
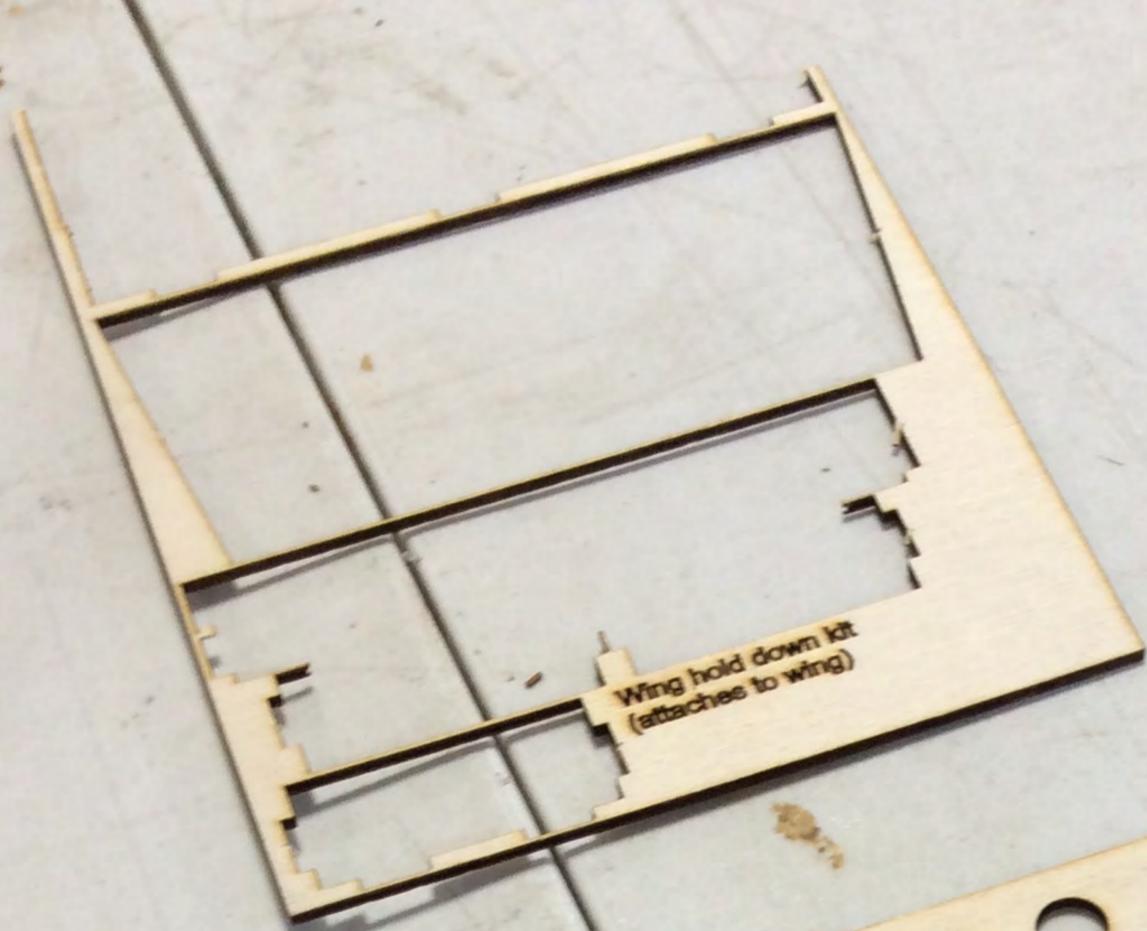


Norman

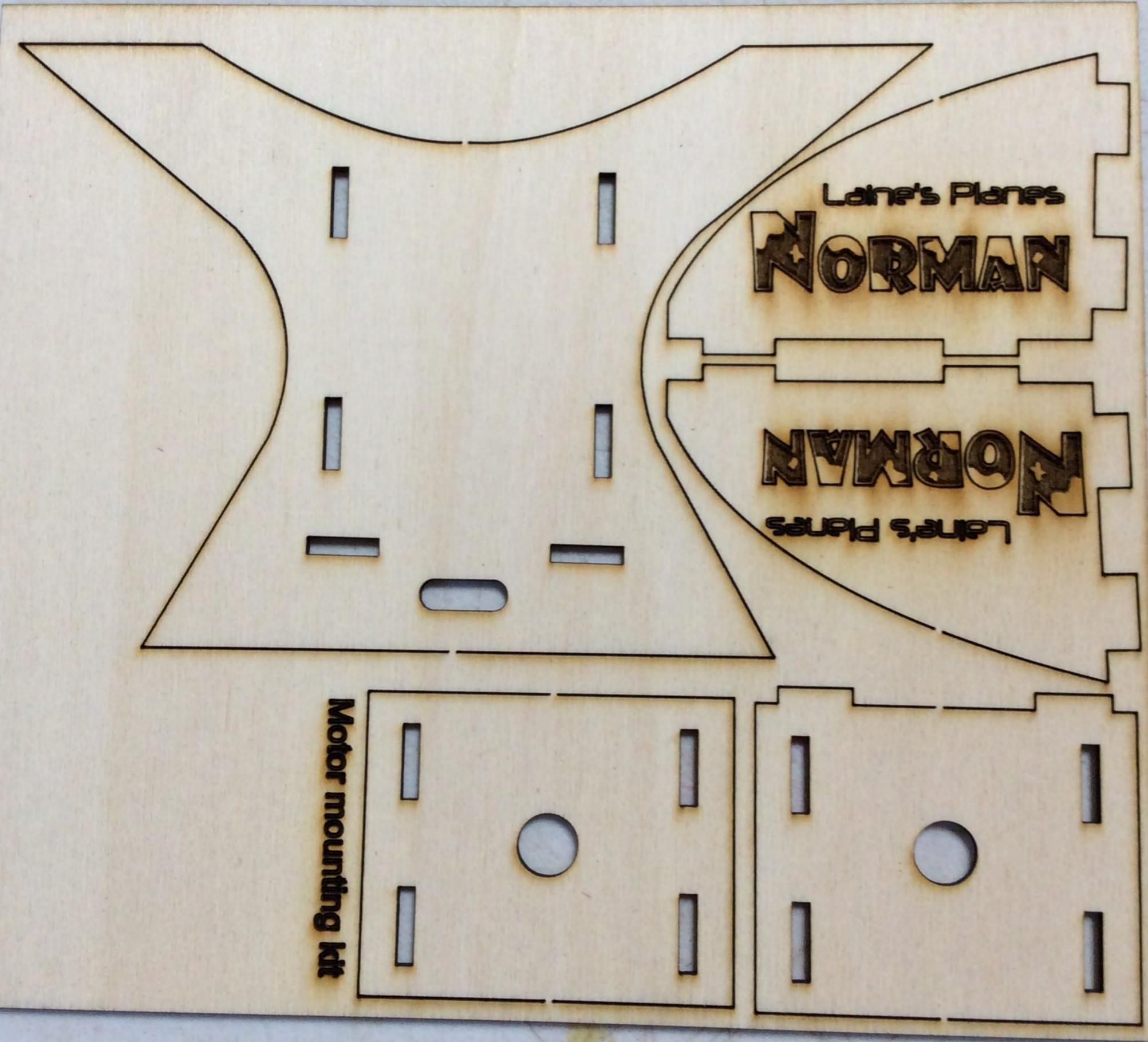




I like to use Titebond wood glue for all of the wood parts.



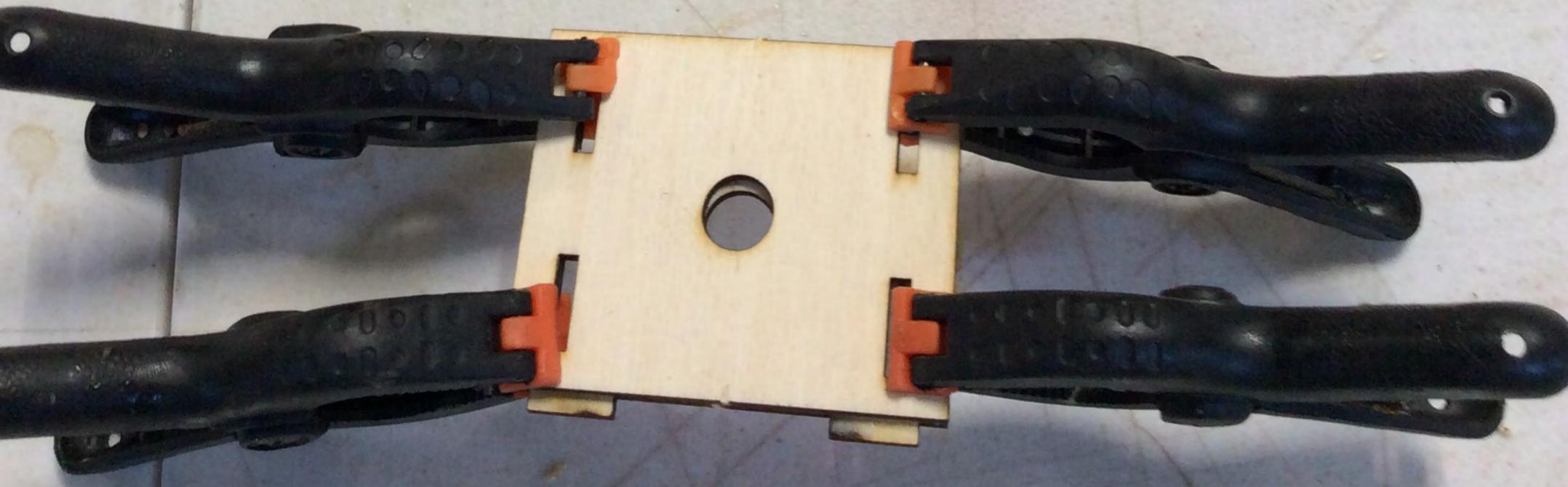
See, told ya I use Titebond.



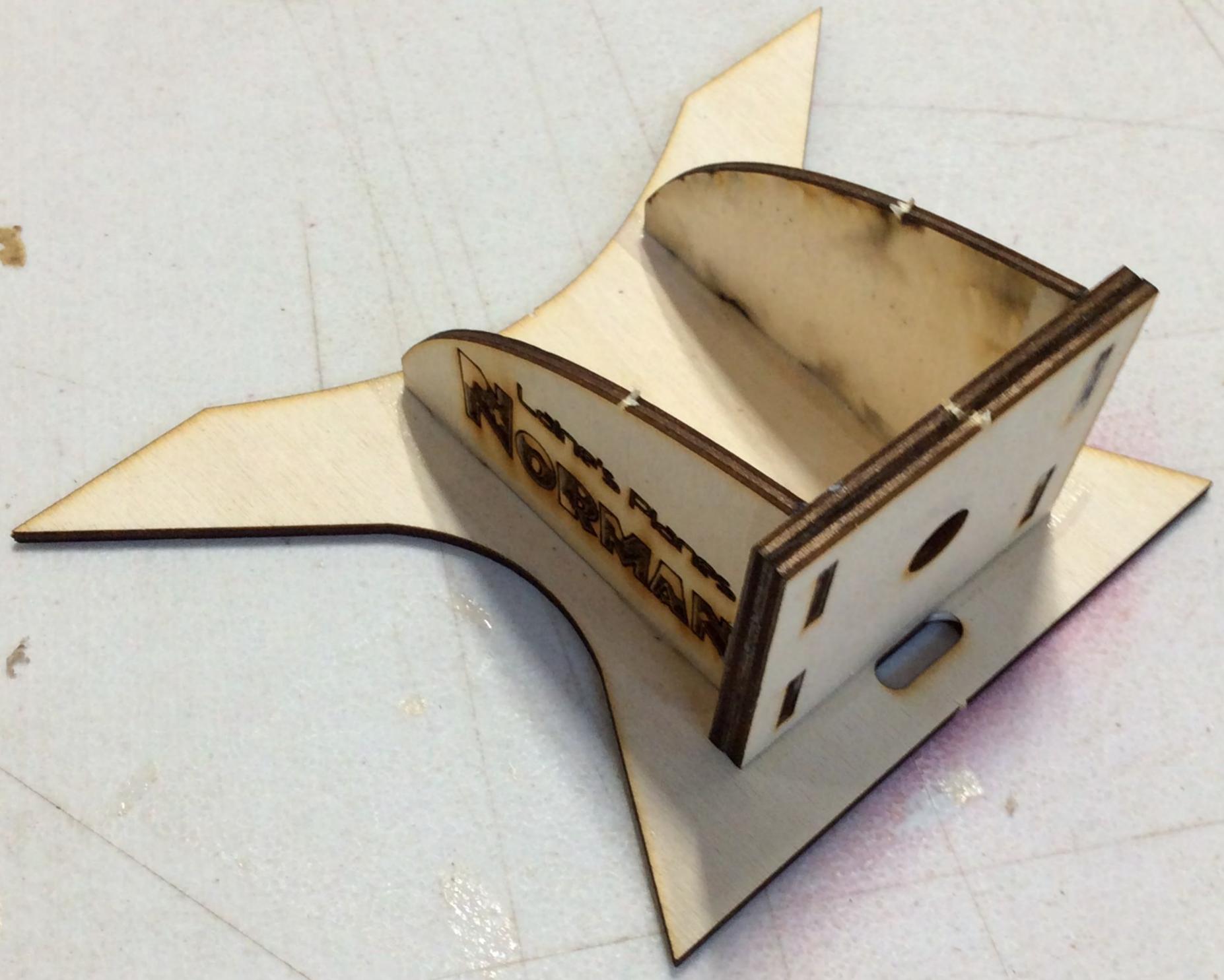
Laine's Planes
NORMAN

NORMAN
Laine's Planes

Motor mounting kit

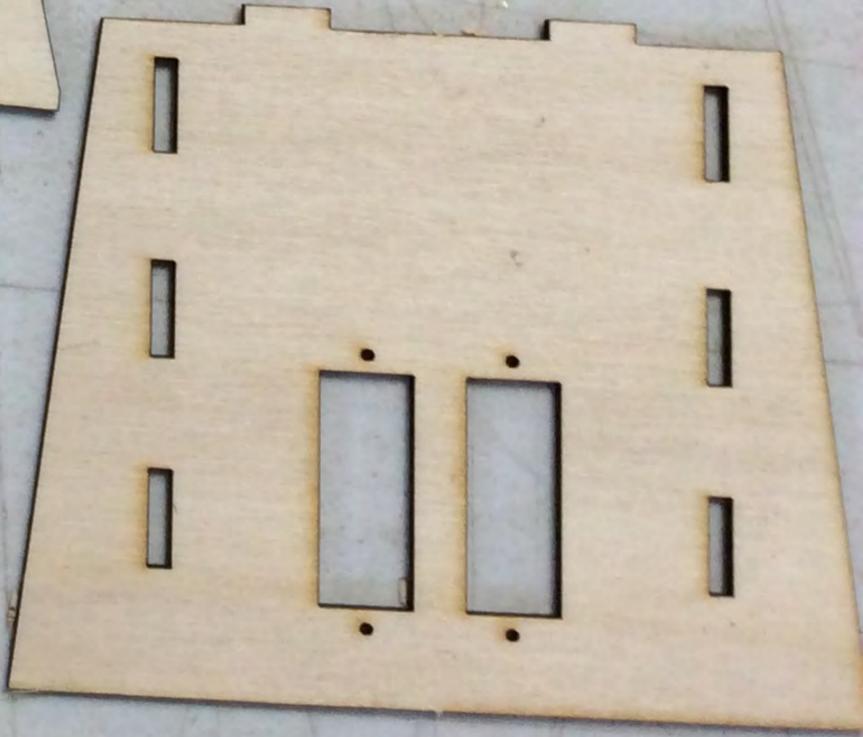
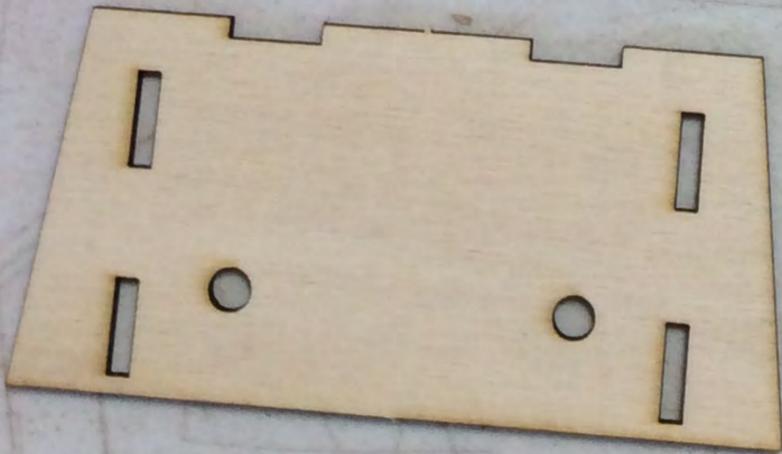
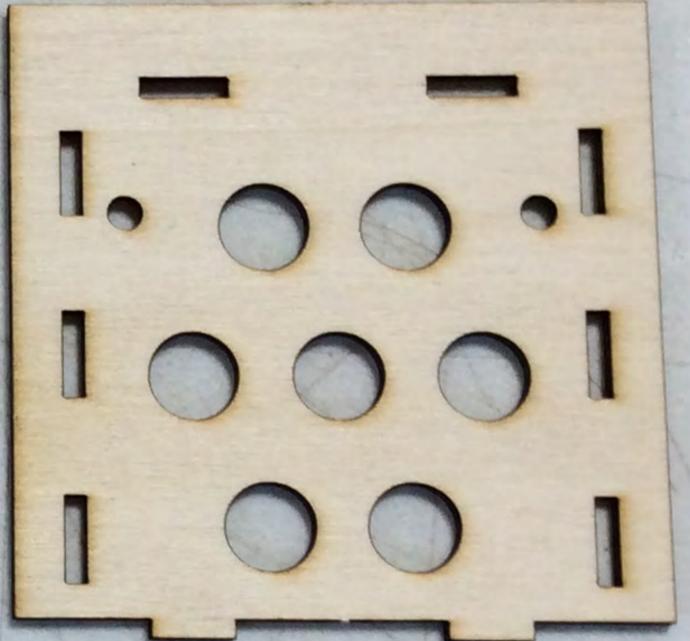


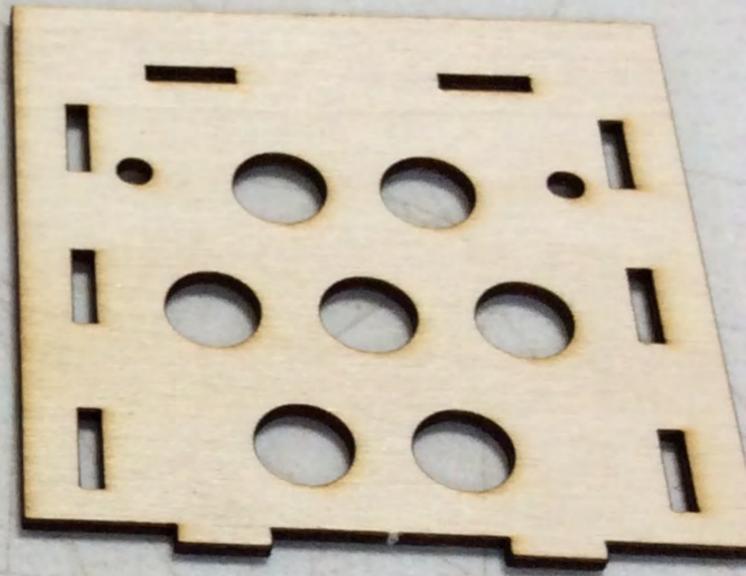
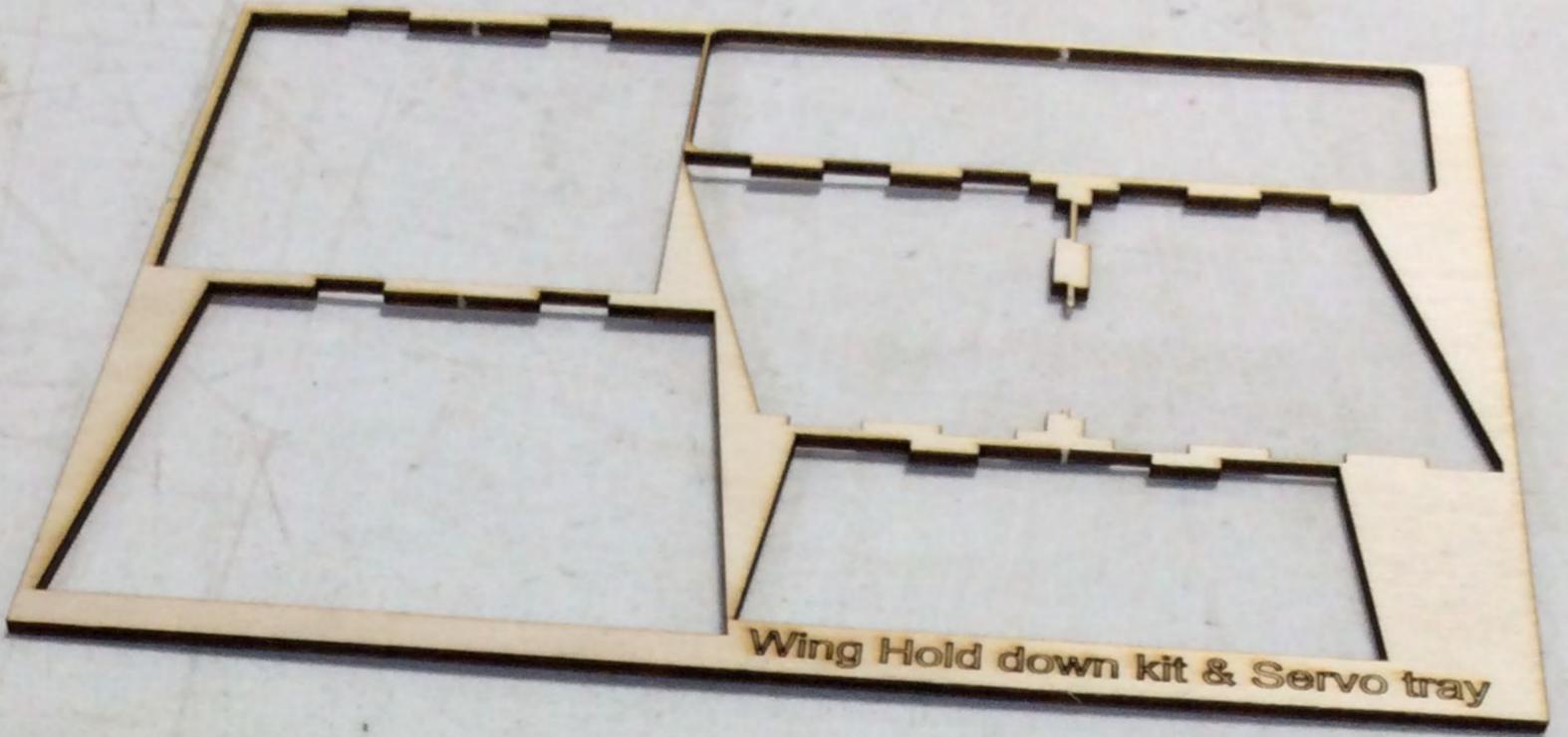


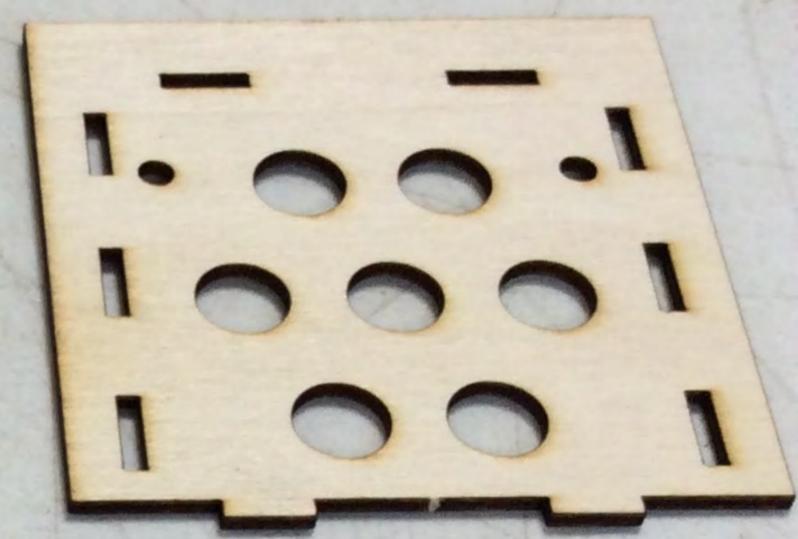


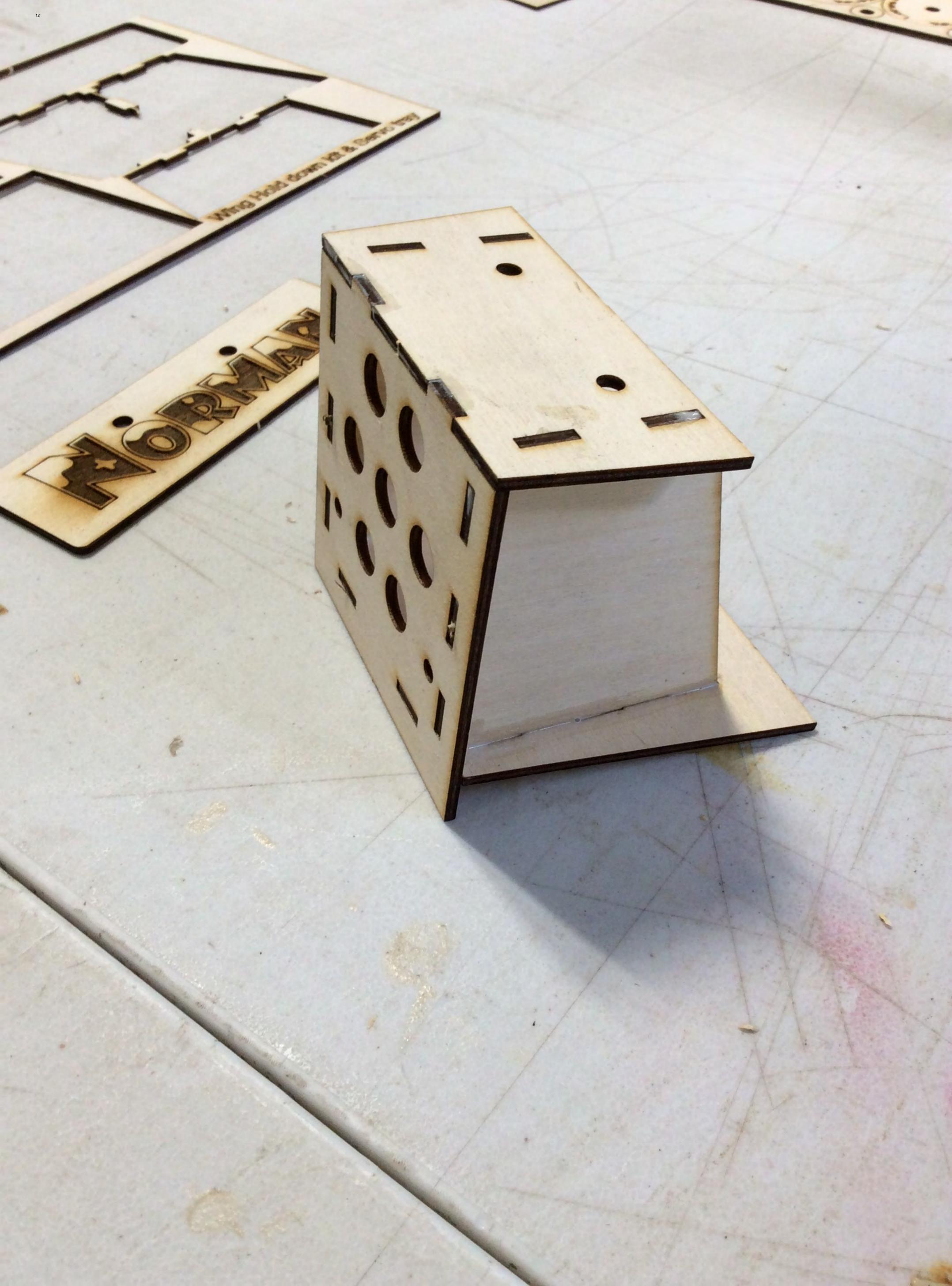


Wing Hold down kit & Servo tray



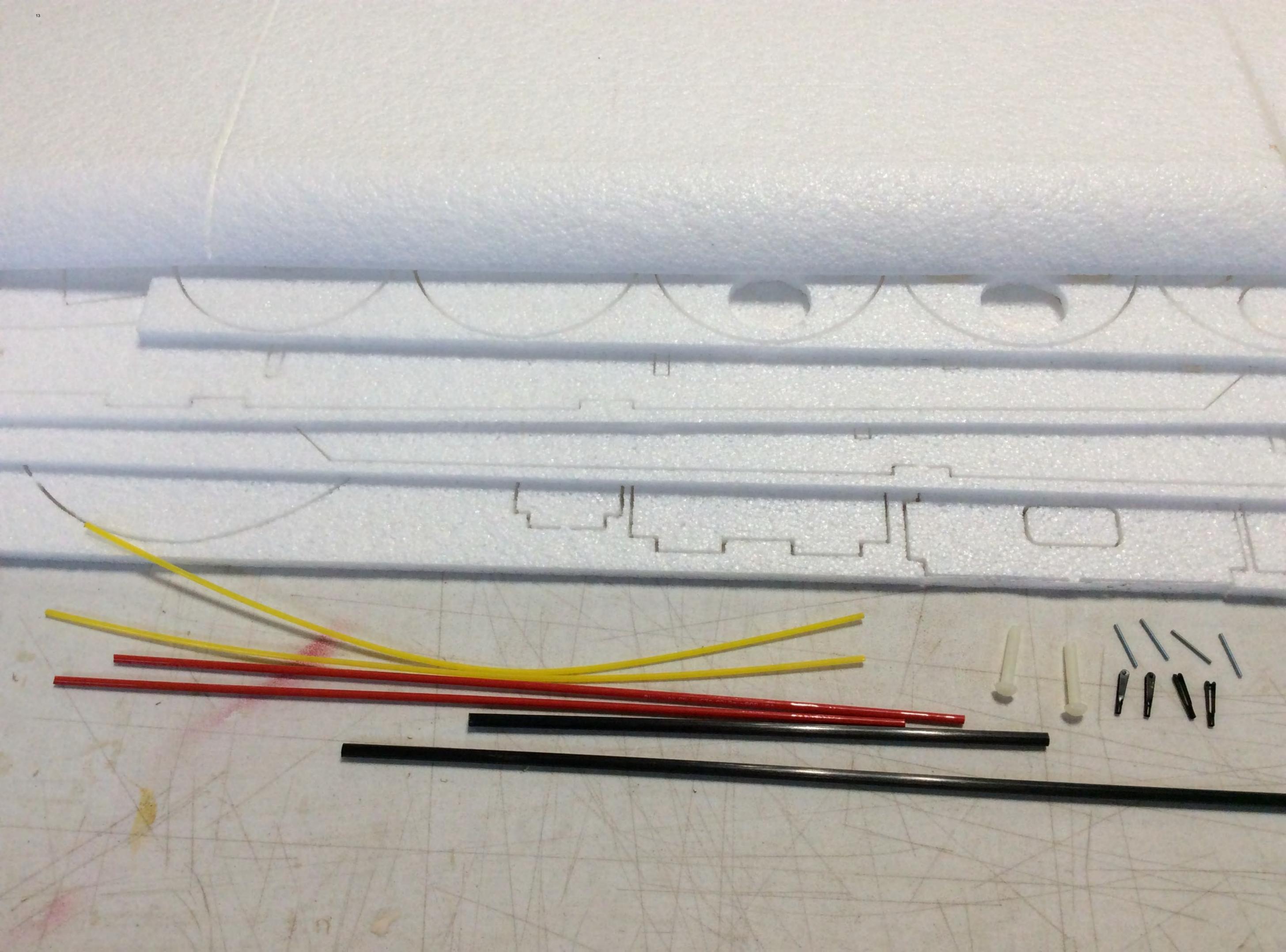






Who Has Got To Be There

NORMAN

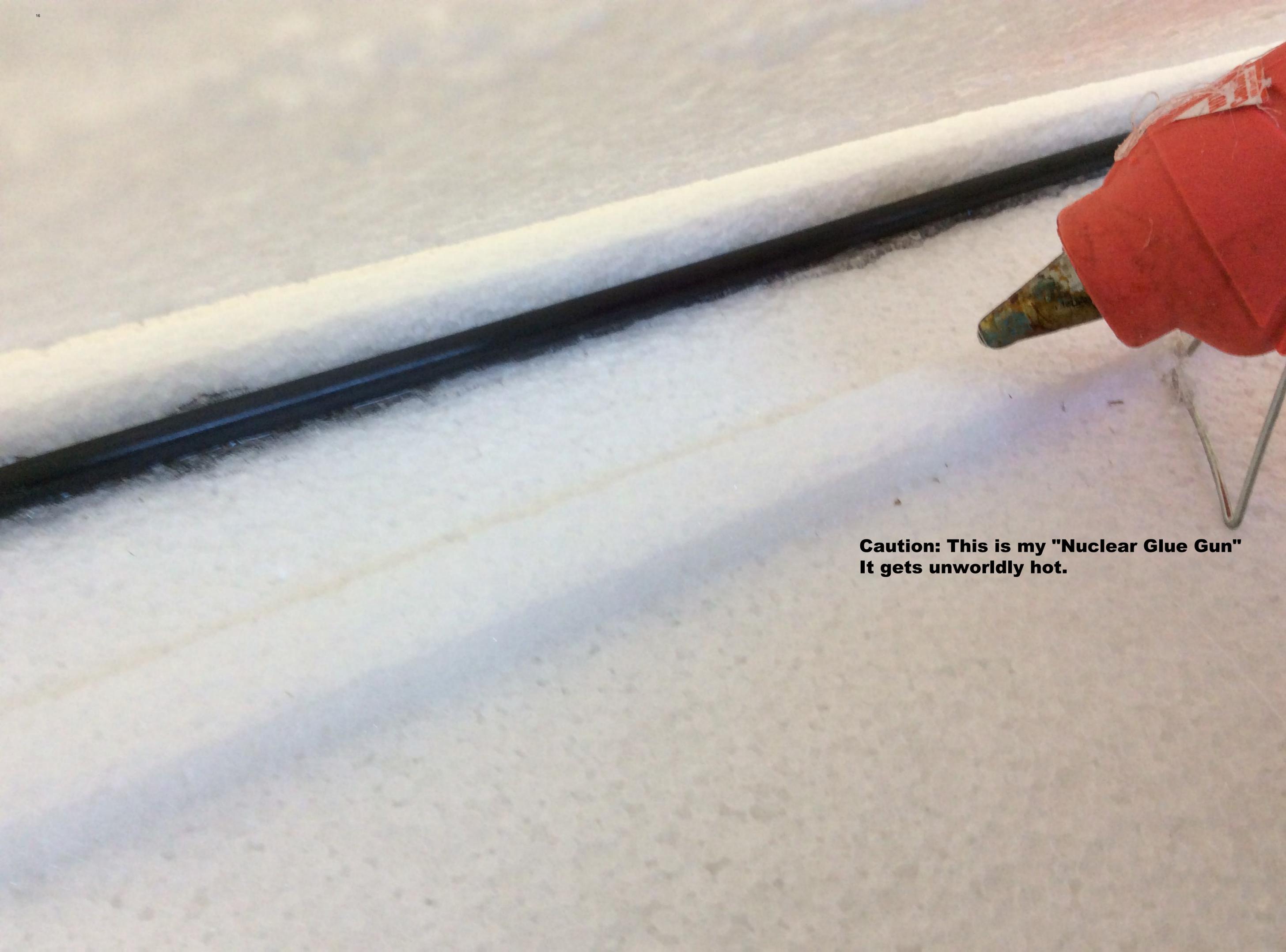


Remove foam parts from inside wing core.

**Chocolate on your wing
from your grandson is
optional but adds to
Norman character.**



Glue 26" Carbon tube to the back of the foam "spar" inside of the wing.



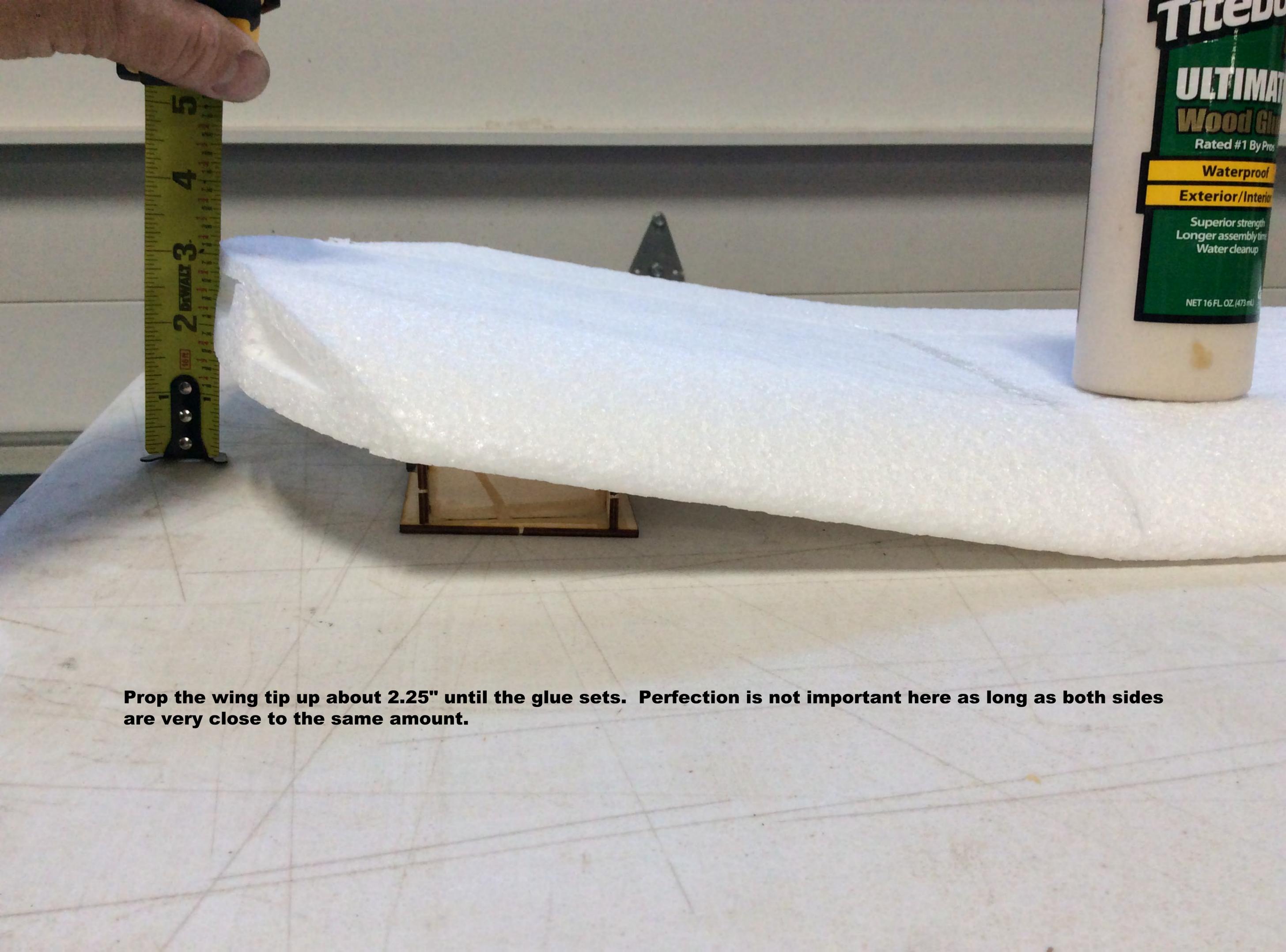
**Caution: This is my "Nuclear Glue Gun"
It gets unworldly hot.**

Add glue to the tops of the foam "spars" inside the wing and to the trailing edge to glue the wing shut.

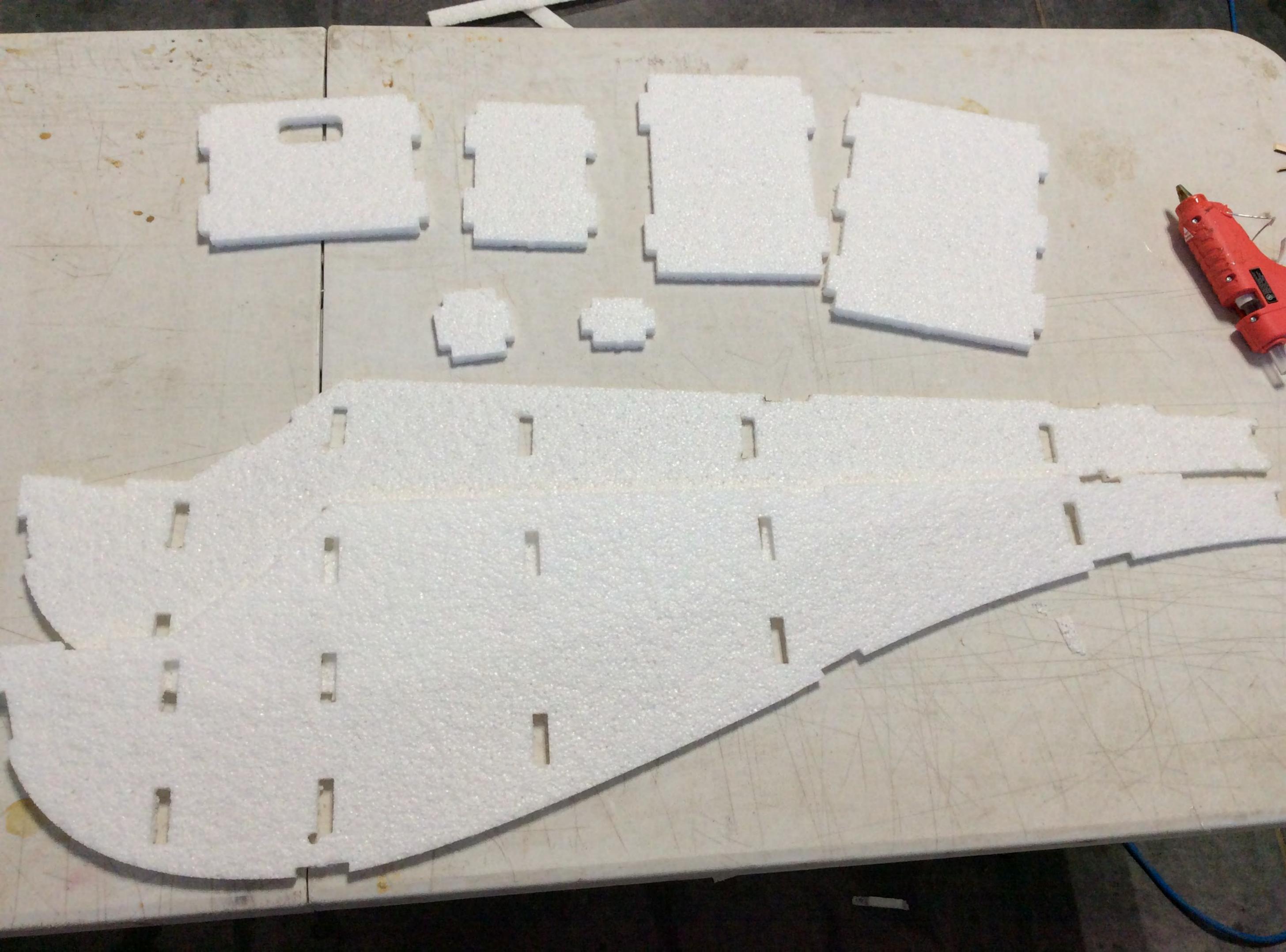




Put a healthy dose of hot glue into the poly-hedral seam. Then lift the tip to close the gap.



Prop the wing tip up about 2.25" until the glue sets. Perfection is not important here as long as both sides are very close to the same amount.



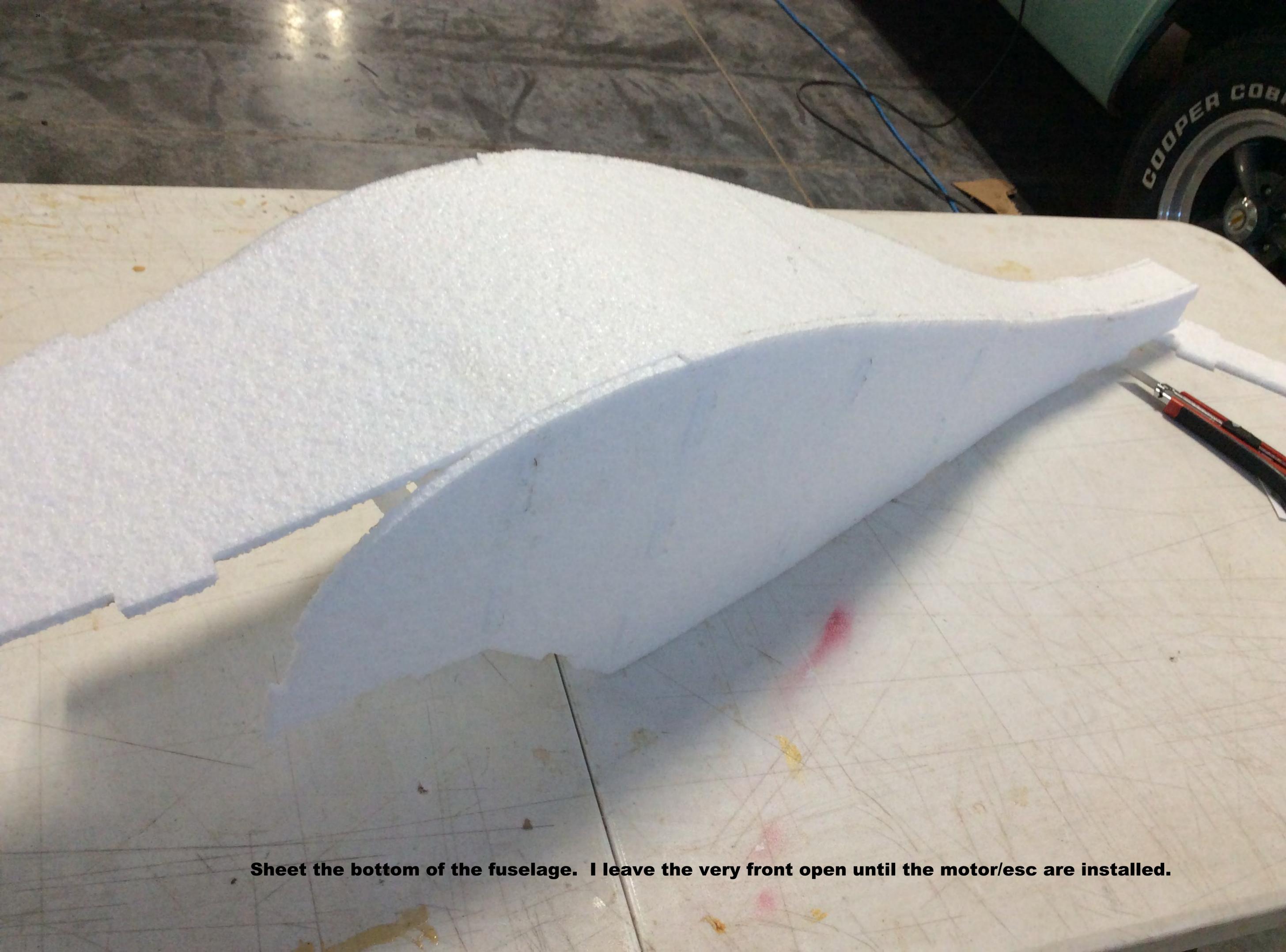


Get your fuselage bulkheads glued in in this order. I leave the last one out one until the end of the build.

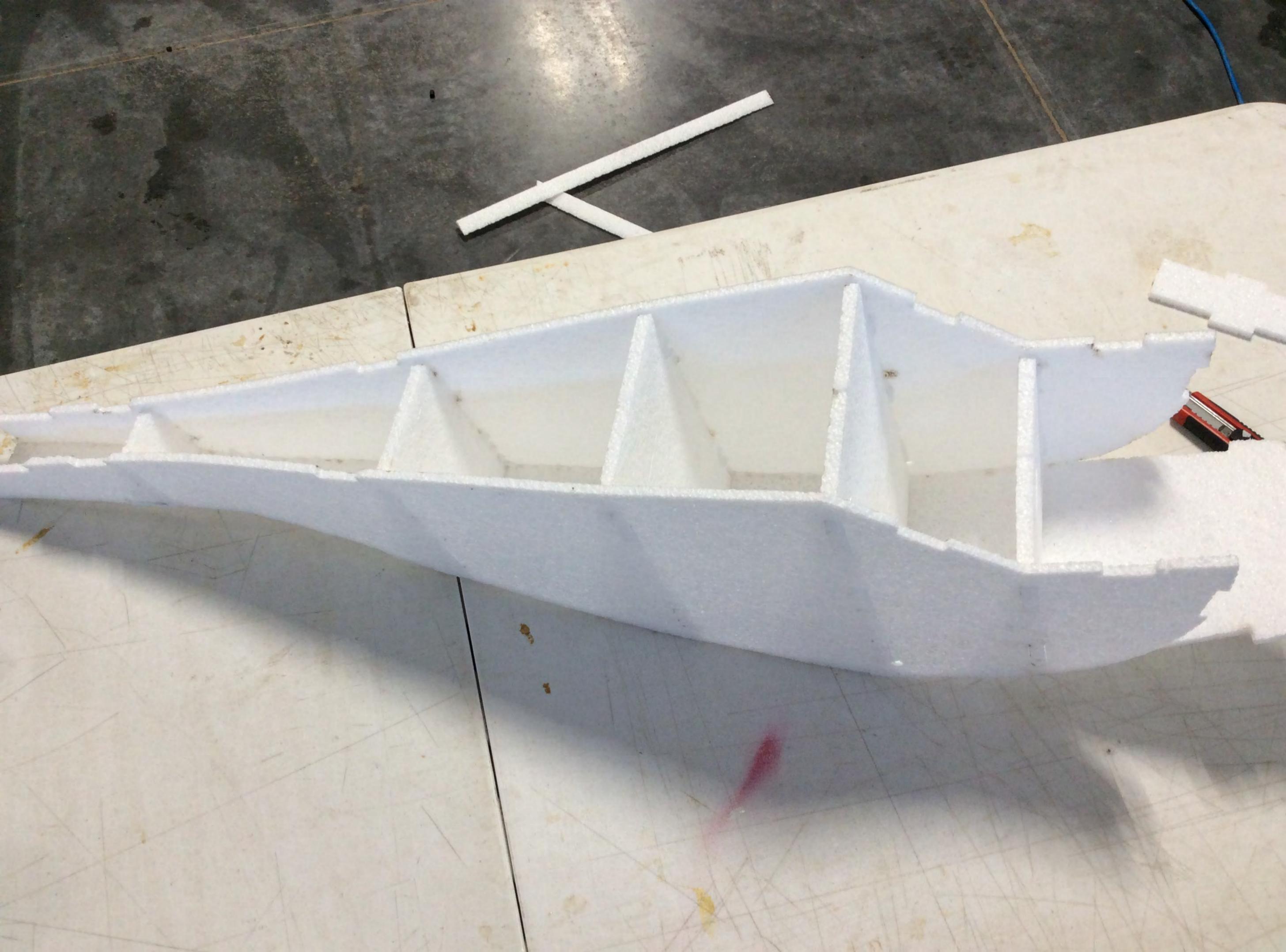
Glue the other fuselage side on.



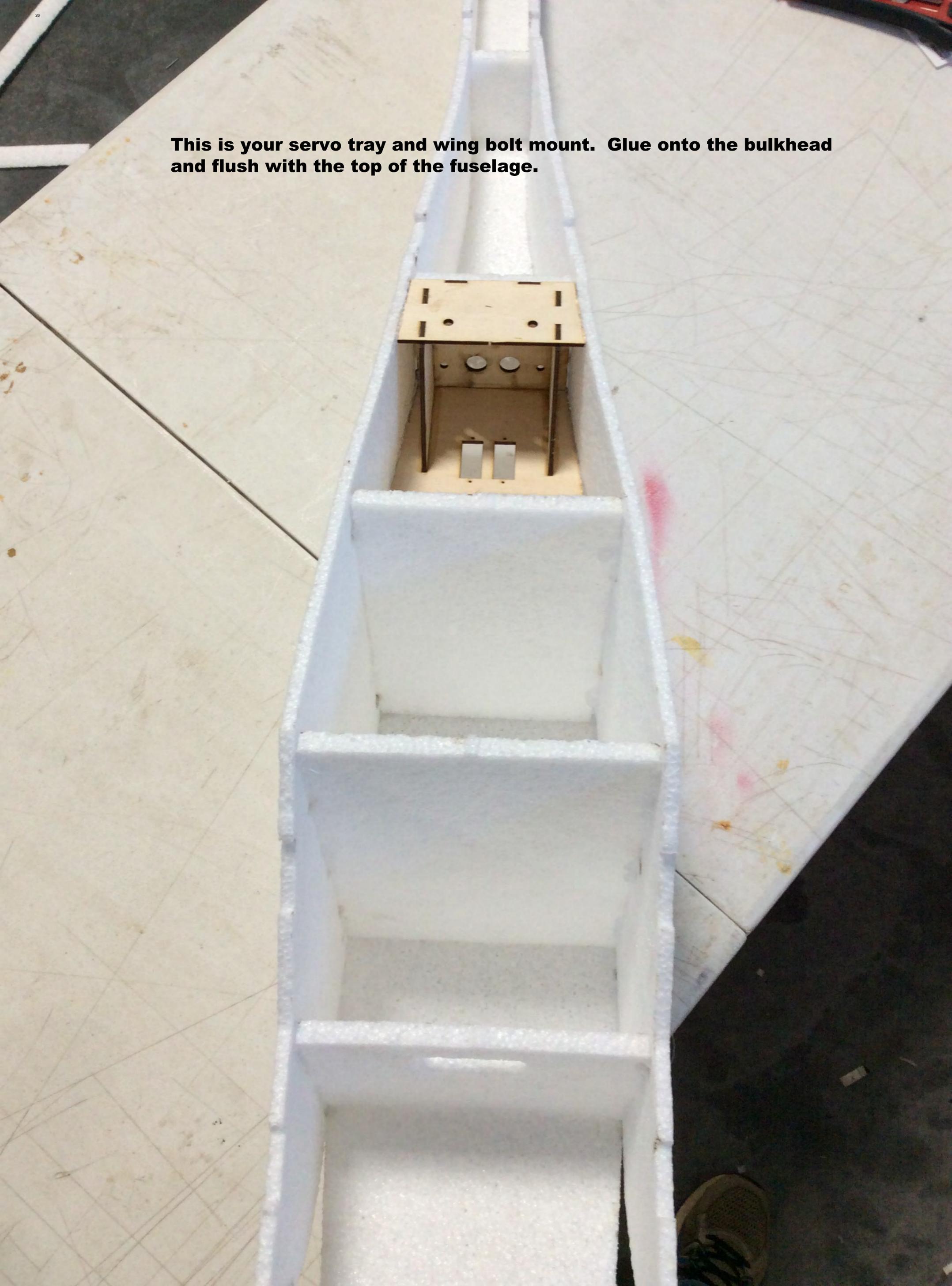
You should trim the tops of the bulkheads so the top and bottom sheeting will lay flat. Test fit the sheeting to get the right amount. You still want the bulkhead to glue to the sheeting. So try not to go too short.

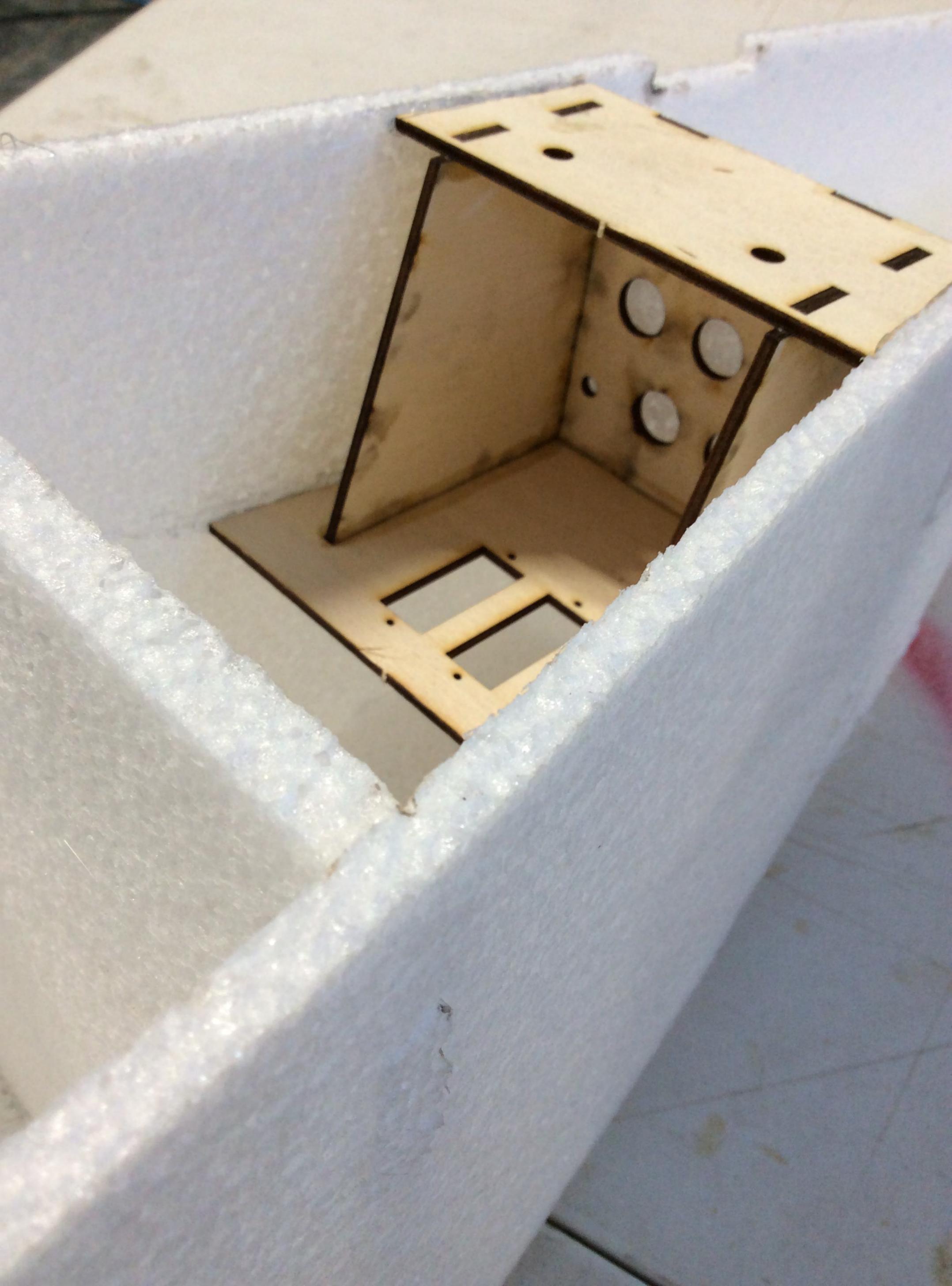


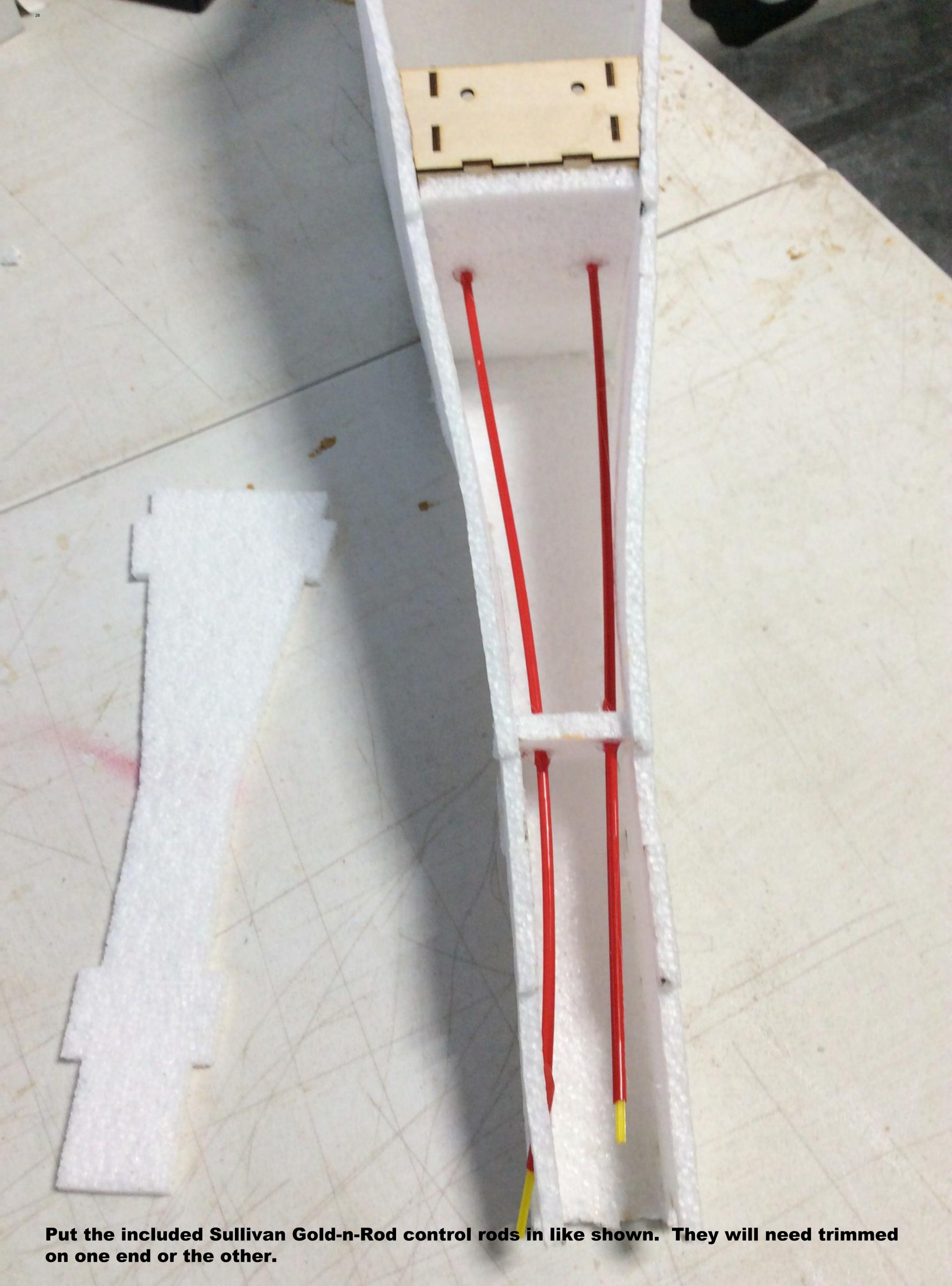
Sheet the bottom of the fuselage. I leave the very front open until the motor/esc are installed.



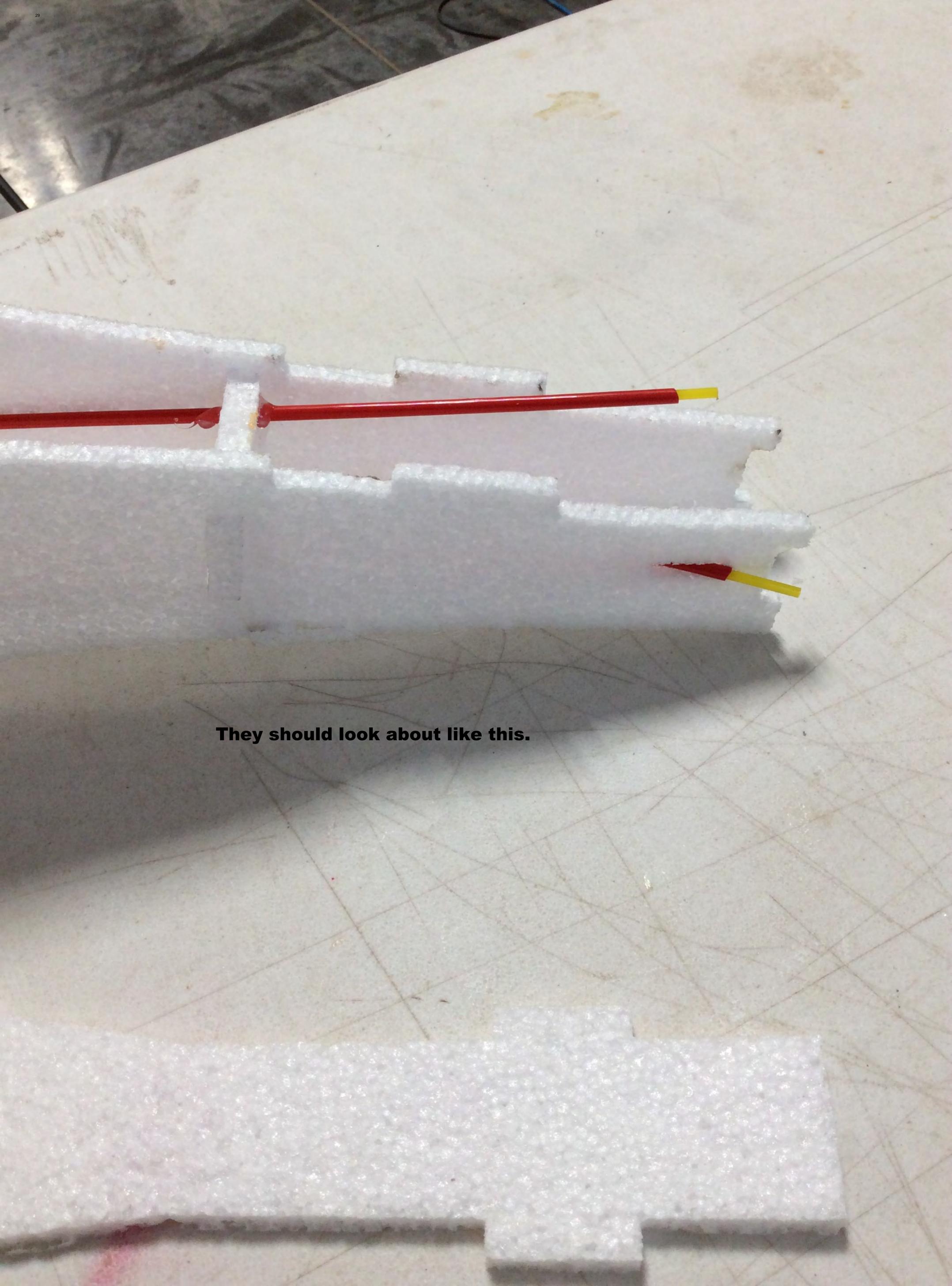
This is your servo tray and wing bolt mount. Glue onto the bulkhead and flush with the top of the fuselage.



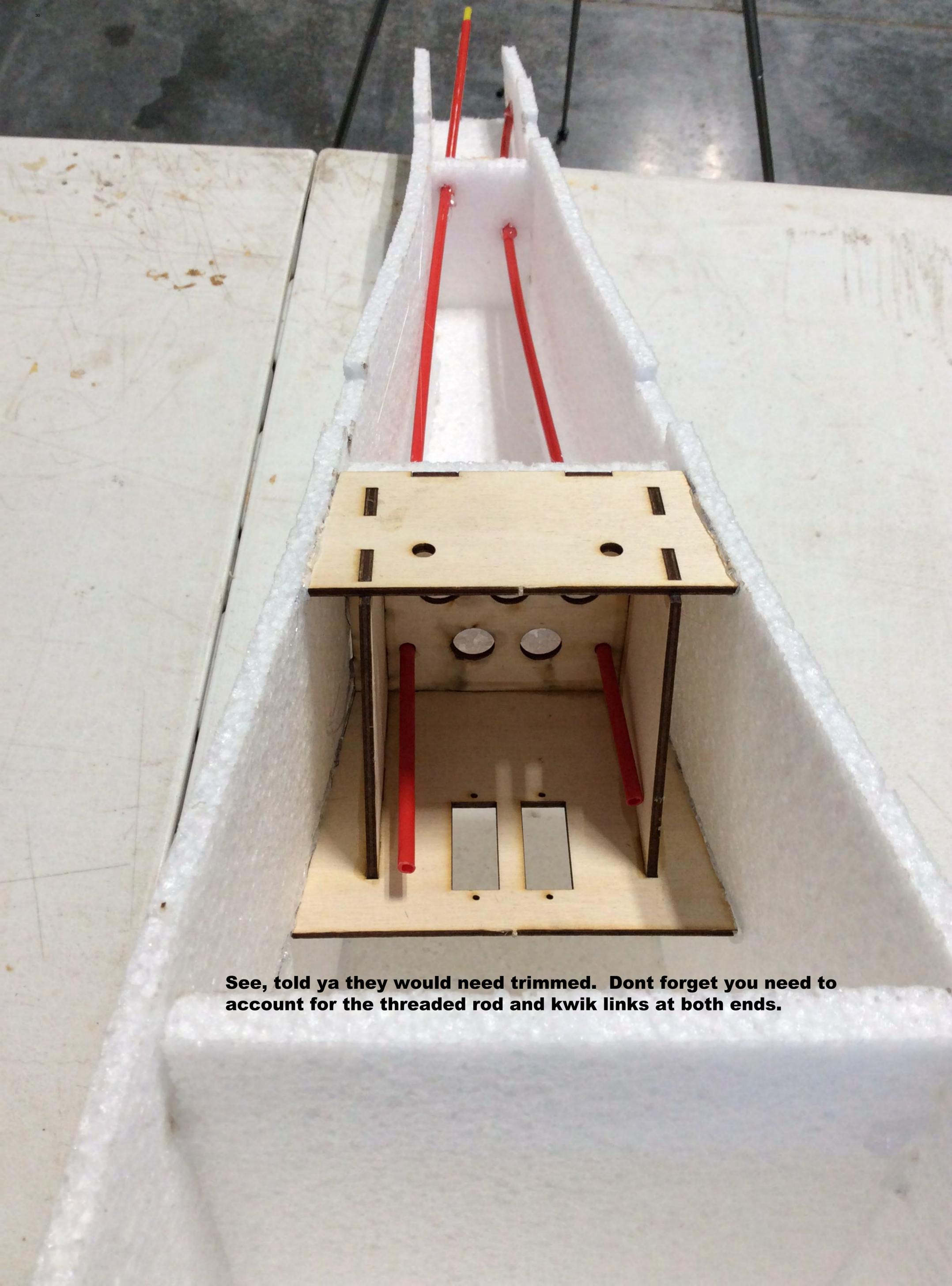




Put the included Sullivan Gold-n-Rod control rods in like shown. They will need trimmed on one end or the other.



They should look about like this.



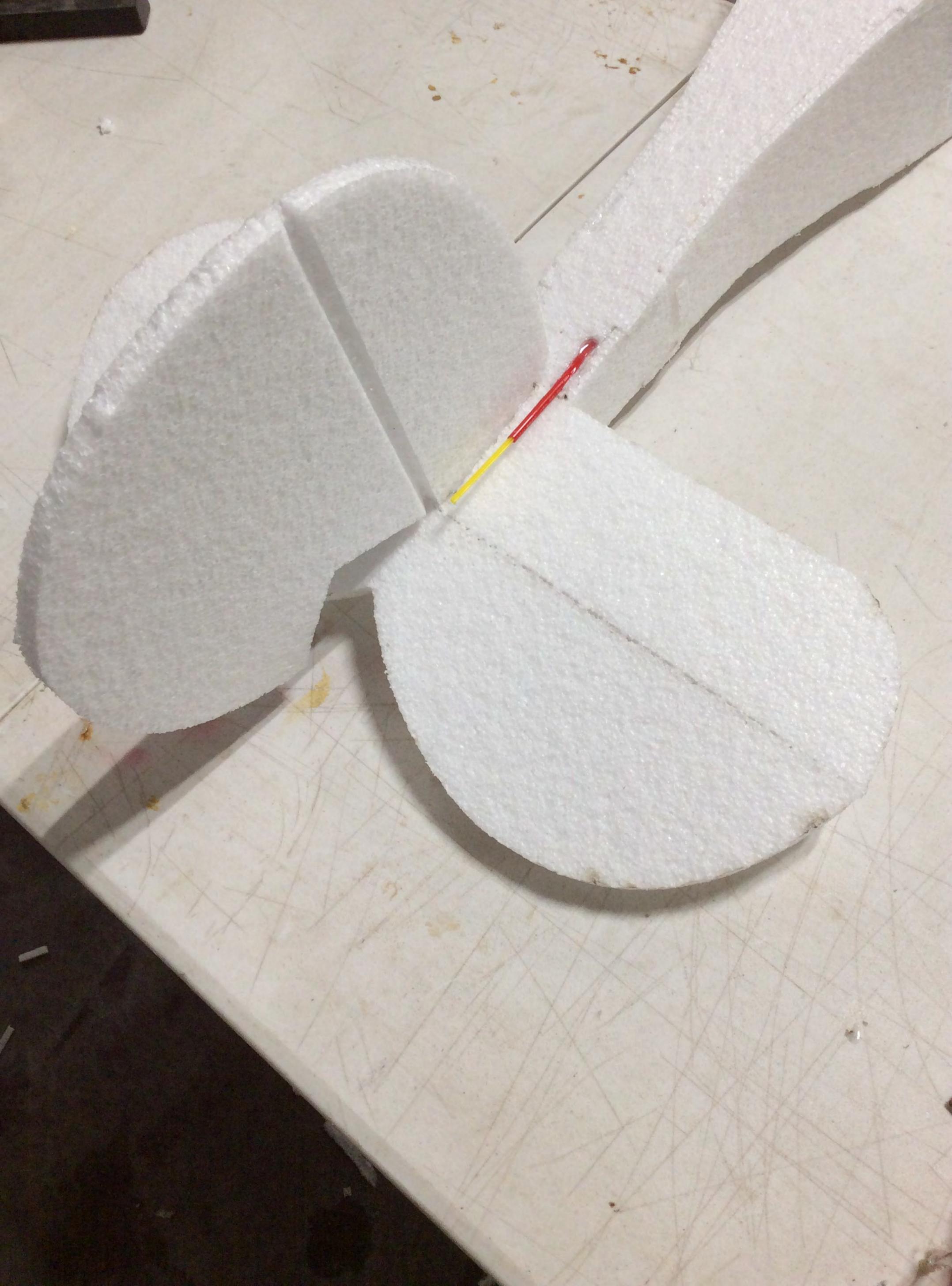
See, told ya they would need trimmed. Dont forget you need to account for the threaded rod and kwik links at both ends.



Cut a 45 degree bevel in the elevator and rudder. If you cut to far through, just add a very thin hot glue hinge to the top side.

Glue the elevator and rudder together. Be sure to get it at a 90 degree angle. Then glue them into the airplane as shown.









Glue the foam "hood" onto the motor mount.

A laser-cut wooden piece, likely a model component, is shown resting on a white foam block. The piece is rectangular with a circular hole in the center and a semi-circular notch on the top edge. It has a dark, charred edge from the laser cutting process. The foam block is placed on a light-colored wooden workbench with a grid pattern.

Install on nose of Norman.



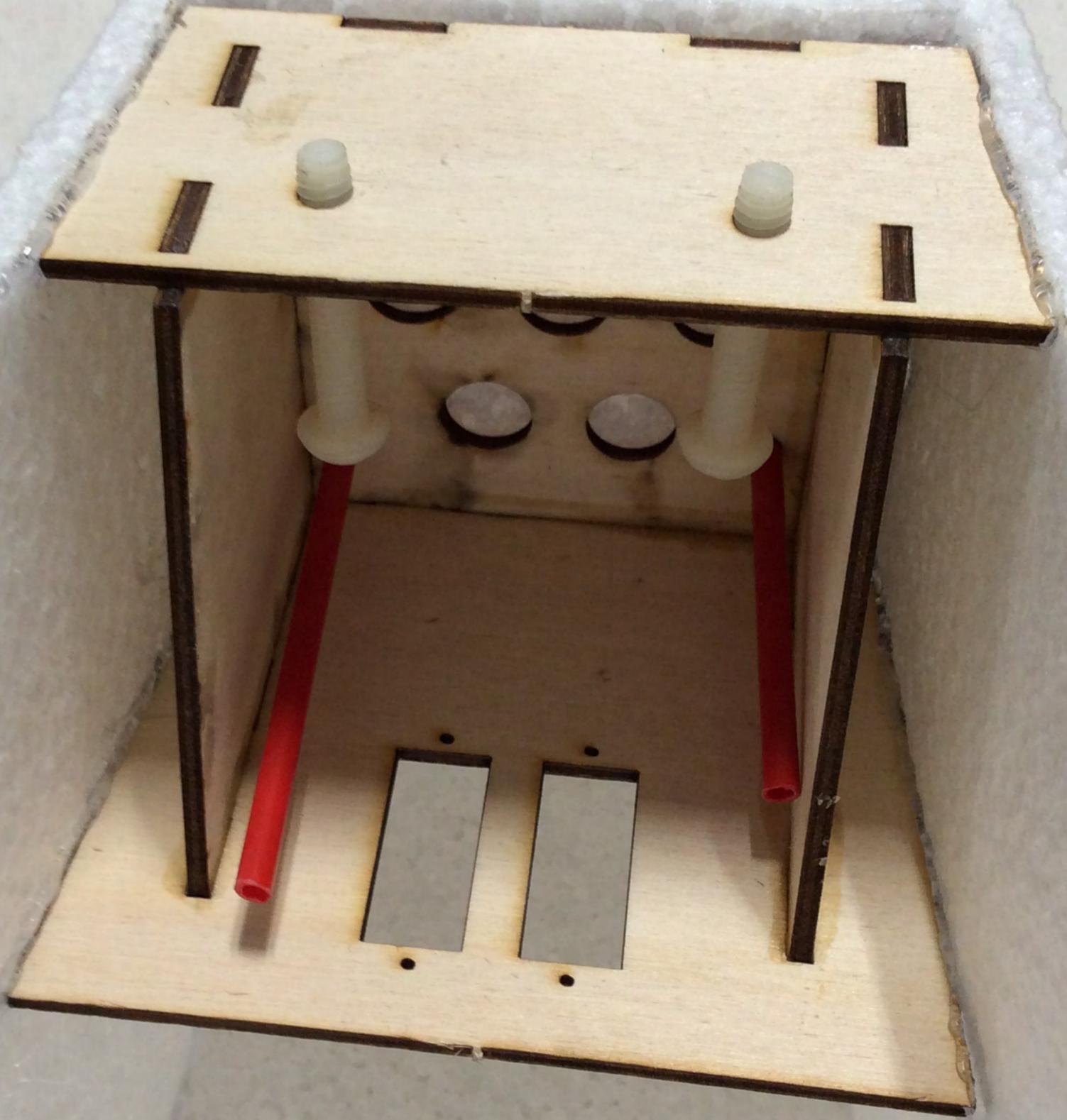
Make a hot glue hinge for the battery hatch / face.

Find the center of your wing and mark it on the bottom. Glue the wing hold down parts about 1/4" back from the leading edge on the center of the wing.



Set the wing onto the fuse and push it forward against the bulkhead to leave marks where your carbon tubes will go through to secure the front of the wing. Then glue the wood piece (not shown) across. Make sure the holes on the wood part align with these marks.

Put the 1/4-20 nylon wing bolts in upside down. Set wing in place and press down to make marks for the wing bolt holes.



Glue the wing bolt plate to the top of the wing aligned with the holes you made from the last step. If you're weird and you don't want Normans name showing, you can flip it over. But it might hurt Normans feelings.



42

Install the wing, mark on the bottom where the trailing edge meets the back sheeting on the fuselage. Remove the wing, and cut away the foam at the trailing edge so the wing will fit in place.



Optional: Cut from the center outward about 10" to give the wing a neat trailing edge shape. This looks nicer than the square that was there before.



Glue your Normans wheels together. I use the axle to keep them straight while I glue them. Dont glue them to the carbon axle!



Those really neat Laines Planes hub caps go on both sides of the wheel. One on the inside, one on the outside. Again, this gives the wheel a smoother surface to rub against instead of foam against foam.

**These parts strengthen the fuselage where the axle passes through
They also give the wheels something to spin against.**





The tiny little round things are the only parts that get glued to the axle. Dont accidentally glue the tiny part to the hubcap! The axle does not get glued to the wheel or fueselage. The wheels and the axle should all freely spin.

Now, go add your electronics and do some "Normation" flying with your buddies!