

LoLo



A sporty parkflyer with an Old Timer flair!

*Designed by: Tres Wright
Kitted by: Park Scale Models
<http://www.ParkScaleModels.com/>*

Assembly Instructions

General Information

The laser cutting process leaves a slight discoloration or “burn” on the laser cut edges of the parts. The builder can if desired sand the edges lightly to remove this. If a light colored covering (like white) is used, the “burn” marks will show through the covering if they’re not removed.

Most parts will fall easily out of the laser cut sheets. If a part does not fall out, do not force it. Use a hobby knife to trim along the balsa “tabs” that hold the part in until the part is freed.

The ribs, formers and small misc. parts are identified with engraved numbers. Major subgroups that are grouped on a sheet together do not have individual engraved numbers on them. It is advisable to leave the parts in the sheets until they’re needed to make identification easier.

Where the instructions call for pinning parts, do not pin through the balsa. Place pins on either side of the parts to hold them in place.

Abbreviations used in the instructions:

LC Laser Cut
TE Trailing Edge
LE Leading Edge

Tools and Supplies

The following basic items will be required to complete this kit:

- Thin and thick C/A glue
- Sandpaper
- "T" pins
- Hobby Knife (Exacto #11 blades recommended)
- Wax paper
- Metal straight edge
- Work surface capable of being pinned into (a ceiling tile works well)
- Wire cutters & pliers (for forming control wires)
- Small patches of Velcro
- Covering (SoLite recommended, otherwise known as Nelson LiteFILM)
- Covering iron
- Pencil
- Hinge tape (clear packing tape is recommended)
- Wheels (1-3/4" diameter Dubro wheels are shown on the drawing)

The following items are not required but are recommended:

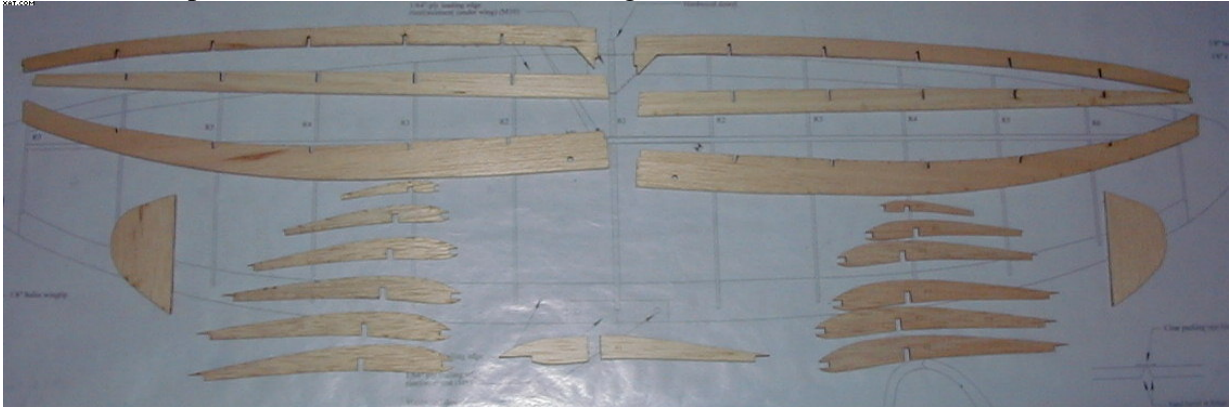
- Hobby razor saw
- C/A accelerator
- 6" plastic cable ties (to hold landing gear in place)

Contents of Kit

2 1/8" thick laser cut balsa sheet
3 1/16" thick laser cut balsa sheet
1 1/64" thick laser cut light plywood sheet
1 1/8" hardwood dowel
1 1/8" Light Ply laser cut sheet
1 1/16" music wire for landing gear

Construction Steps

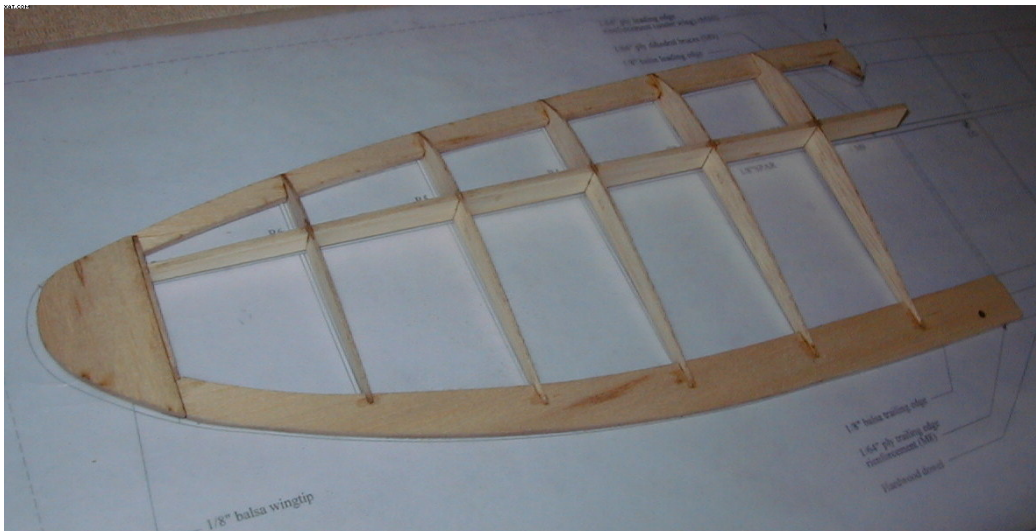
- ❑ ***See addendum at the end of the instructions for changes to the assembly of the wing and the brushless motor mount. Follow instructions except when modified by addendum.***
- ❑ Remove all ribs, trailing edges (TE), leading edges (LE) and spar material from the laser cut (LC) sheets. Group them into two sets for left and right.



**Note that due to the wing being undercambered, the spar will not rest on the work surface during construction. Make sure the spar is properly seated in the ribs, it should be flush with the top and bottom of each rib.*

Begin with the left wing half:

- ❑ Insert ribs R2 through R6 onto the wing spar and trailing edge. Insert the leading edge into the slots at the front of the ribs. Align the assembly over the plan to make sure it is square and place a drop of thin C/A at each part joint on the leading edge and trailing edge only. Lift the center spar up so that it is flush with the tops of the ribs and glue it at each rib. *Make sure the spar is fully seated on the ribs!*
- ❑ Insert rib R7 into place and glue.
- ❑ Hold the wingtip in place using the plan as a reference and glue it.

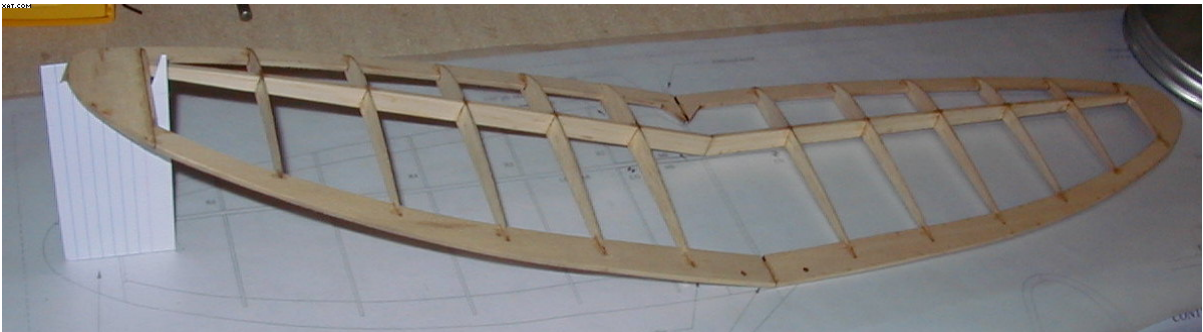


Now build the right wing half. Note that the parts for each wing half are identical, take care not to build two of the same side wing halves!

- ❑ Insert ribs R2 through R6 onto the wing spar and trailing edge. Insert the leading edge into the slots at the front of the ribs. Align the assembly over the plan to make sure it is square and place a drop of thin C/A at each part joint on the leading edge and trailing edge only. Lift the center spar up so that it is flush with the tops of the ribs and glue it at each rib. *Make sure the spar is fully seated on the ribs!*
- ❑ Insert rib R7 into place and glue.
- ❑ Hold the wingtip in place using the plan as a reference and glue it.

Join the wing halves together:

- ❑ Lightly sand the leading edge and trailing edge joining surfaces until you get a tight fit at the dihedral angle. Note that the spars need no sanding, use them as a reference to determine how well the fit is. Sand the LE and TE until the spars fit tightly together. Once a tight fit is achieved, glue all the joints with thin C/A. The dihedral angle will be determined by the spar joining. When one wing half is flat on the work surface, the other wing half should be approximately 4-3/4" above the surface. A "dihedral template" is provided on the plan, you may cut this shape out of stiff paper to check and make sure the dihedral angle is correct. The template should fit under one wingtip while the other wing is flat.

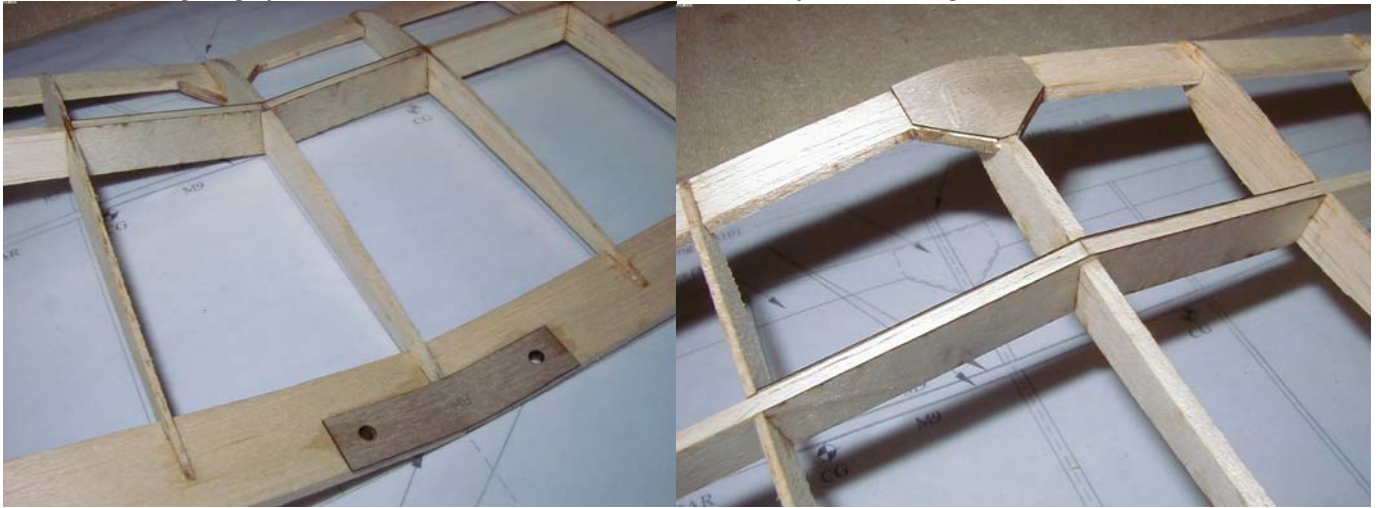


- ❑ Install the 1/64" ply dihedral doublers (part M9) on each side of the spar. Glue into place. *Building tip: some of the plywood reinforcement parts have holes laser cut through them; these holes can be used to glue the parts into place. Thin C/A can be placed in the hole and it will wick between the parts.*
- ❑ Install the two R1 pieces into the LE and TE slots and align against the M9 doublers. It might be necessary to slightly enlarge the slots in the LE and TE depending on how much sanding was done when the wing halves were joined. Glue the R1 pieces into place.

Final sand the wing assembly (it is easiest to use a sanding block for this, or sandpaper wrapped around a small block of wood):

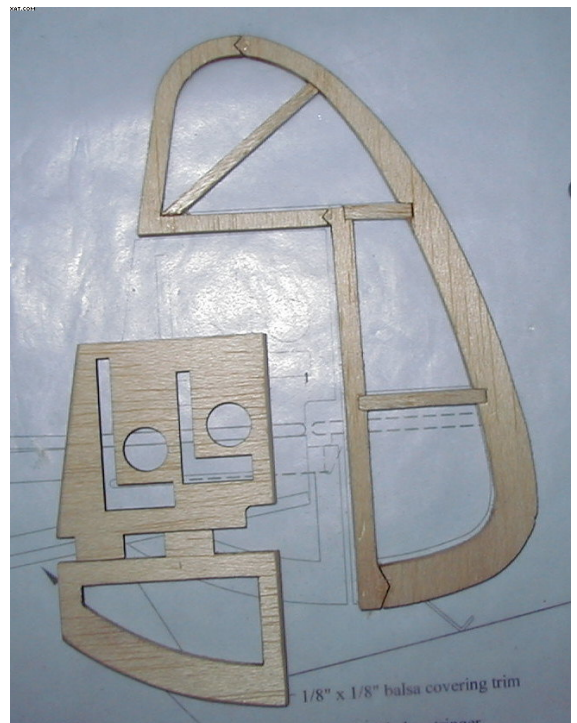
- ❑ Sand the leading edge and wingtips to a rounded profile.
- ❑ Sand the top surface of the trailing edge to an angled profile that follows the lines of the ribs (it is easiest to do this by laying the wing so that the trailing edge is on the edge of a table and then use a sanding block to sand the angle, be careful not to damage the ribs). Round the bottom edge of the trailing edge.
- ❑ Glue the 1/64" ply reinforcement (part M8) onto the top of the trailing edge while keeping the holes aligned.
- ❑ Glue the 1/64" ply reinforcement (part M10) onto the bottom of the leading edge.

The wing is now complete. There are two holes in the trailing edge and a hole in the center of the leading edge for dowels. These will be installed later after the wing is covered.



Build the horizontal stab and elevator:

- ❑ Remove all parts from the sheet labeled “Elevator/ Stab”. Align the parts over the plan view of the tail. Make sure the horizontal trailing edge material is installed so that the notches align with the leading edge notches (“LT” and “RT” is engraved into these parts, this indicates “left top” and “right top”). Glue the parts together. Cut the remainder of the parts from the supplied 1/8” x 1/8” balsa stock and glue into place.
- ❑ Cut a 2” piece from the supplied 1/8” hardwood dowel stock and glue into the slot on the leading edge of the elevator.
- ❑ Remove the tail parts from the plan and sand all edges to a rounded profile.
- ❑ The elevator will be hinged to the top surface of the stabilizer by taping it into place after the parts are covered. In order to achieve proper surface movement, the mating edges must be sanded to a bevel shape as shown on the drawing (refer to the Control Surface Detail). Sand the trailing edge of the stabilizer and the leading edge of the elevator to a bevel as shown on the drawing.



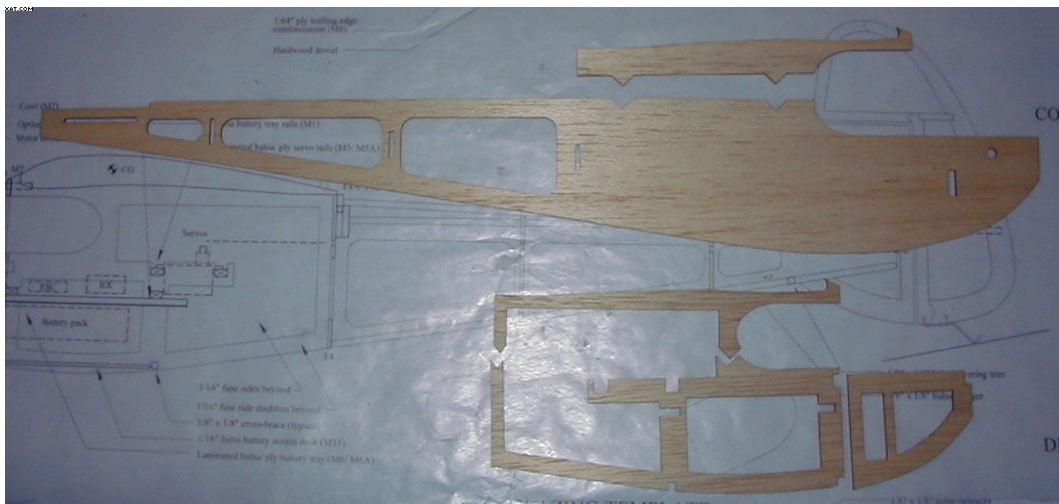
Build the vertical stab and rudder:

- ❑ Remove all parts from the sheet labeled “Rudder”. Align the parts over the plan view of the rudder and glue them together. Cut the remainder of the parts from the supplied 1/8” x 1/8” balsa stock and glue into place. The two vertical stab pieces are not glued to anything until after the tail pieces and fuselage are covered in later steps.

- ❑ Remove the rudder from the plan and sand all edges to a rounded profile.
- ❑ The rudder will be hinged to the vertical stabilizer pieces by taping it into place after the parts are covered. In order to achieve proper surface movement, the mating edges must be sanded to a bevel shape as shown on the drawing (refer to the Control Surface Detail). Sand a bevel into one side of the rudder and into the matching side of the two vertical stabilizer pieces as shown on the drawing.

*Build the **left** fuselage side (note that the parts for each side are identical, take care to build opposite sides!):*

- ❑ Remove the fuselage sides and fuselage doublers from the sheets. Note that there are two pieces to each fuselage side and 3 pieces to each side doubler. The doublers can break next to the servo rail cutouts, so handle with care. If they break, simply align them over the plan and lightly glue the break. Once they are glued to the fuselage sides in the below steps they will be quite strong.

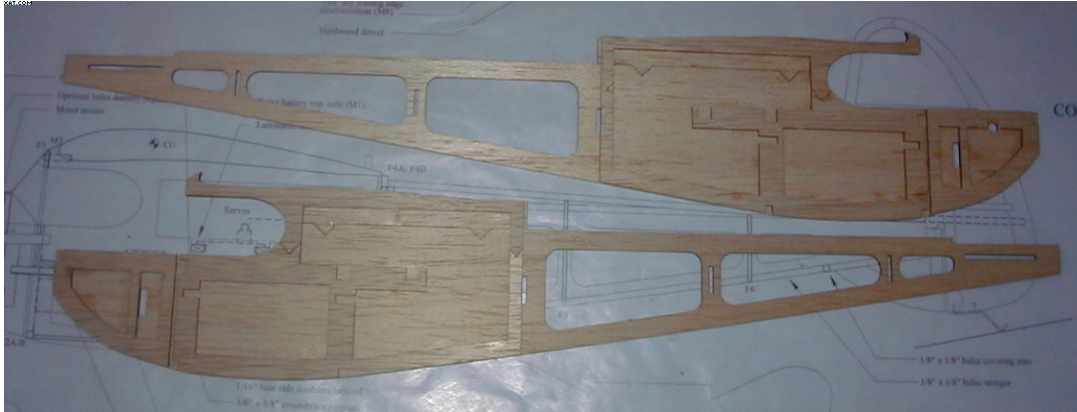


- ❑ Glue the upper fuselage section to the lower section. The parts notch together.
- ❑ Glue the upper doubler section to the lower section. The parts notch together.
- ❑ Glue the doubler to the inside section of the fuselage, make sure all sides are aligned properly. Reference the plan and photos for clarification.
- ❑ Glue the nose doubler in place. Note that there is to be a gap between the nose doubler and fuse doubler, this allows the nose to be angled inward during final assembly.



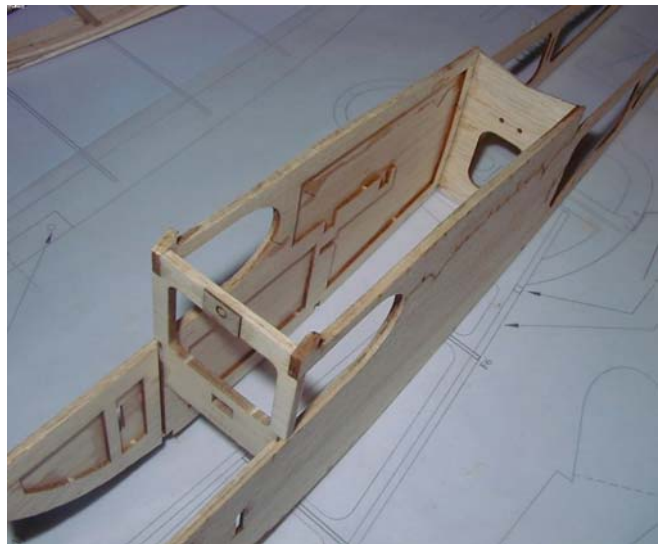
Build the **right** fuselage side (note that the parts for each side are identical, take care to build opposite sides!):

- ❑ Glue the upper fuselage section to the lower section. The parts notch together.
- ❑ Glue the upper doubler section to the lower section. The parts notch together.
- ❑ Glue the doubler to the inside section of the fuselage, make sure all sides are aligned properly. Reference the plan and photos for clarification.
- ❑ Glue the nose doubler in place. Note that there is to be a gap between the nose doubler and fuse doubler, this allows the nose to be angled inward during final assembly.

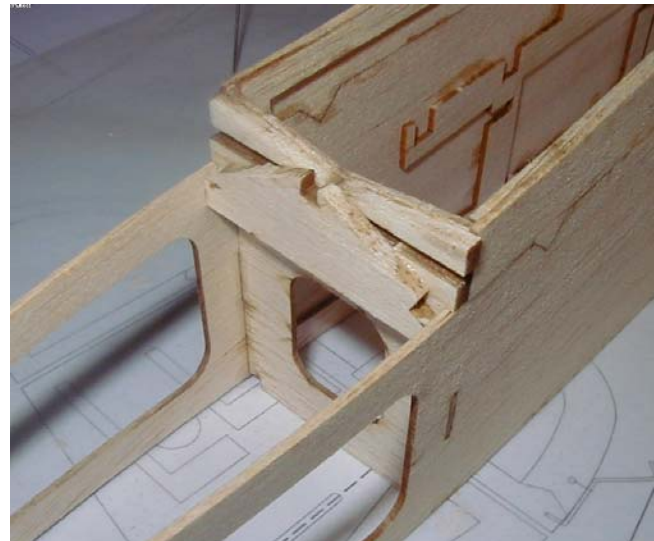
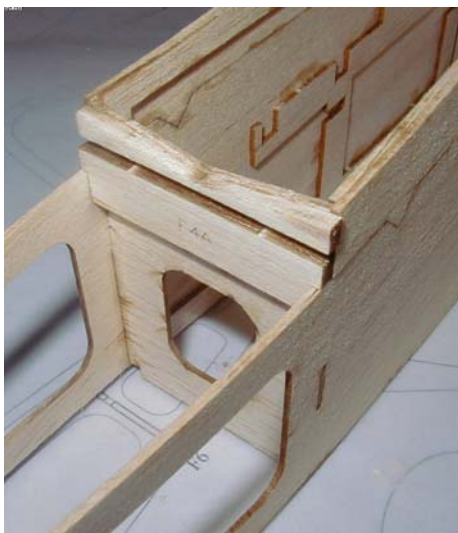
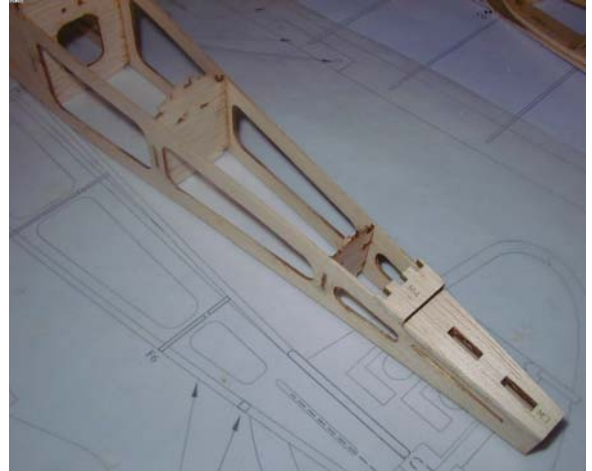


Assemble the fuselage:

- ❑ Insert formers F3 (light ply) and F4 (balsa) into the slots of one fuselage side. Refer plan for locations. Note that F3 has “Front” laser cut into one face, this face should face the front of the plane because it will set the thrust angle of the motor mount. F4 has “Back” laser cut into one face, this face should face the tail. Check to make sure the formers are square to the fuselage side and glue into place. Install the second fuselage side on the formers, check to make sure the sides are properly aligned and glue into place.
- ❑ Glue 1/64” ply reinforcement M7 to front of F3. There are lines engraved into F3 for alignment.
- ❑ Insert former F5 into place, check fuselage alignment and glue F5.

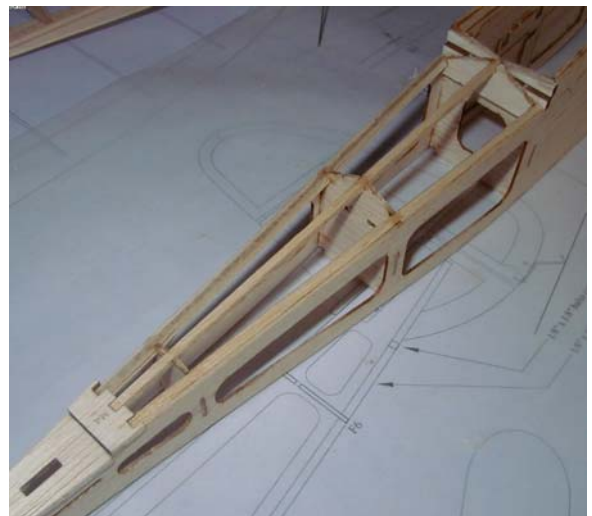


- ❑ Insert former F6 into place; check fuselage alignment and glue into place.
- ❑ Install tail support M3 on top of fuselage sides (in notches) and flush with the sides and glue.
- ❑ Install the rear stringer support M4 on the top of the fuselage near the tail in the location shown on the plan (the rear of M4 aligns with the front of M3).
- ❑ Glue the two former pieces F4A into place on the back of former F4. Leave a 1/8" gap between them for the wing dowel to pass through. Dowel will not be installed until after fuselage is covered. There is a line engraved in F4 that shows where the bottom of F4A is to be located.



- ❑ Install F4B into place behind F4A. Align the bottom of F4B with the bottom of F4A and glue.

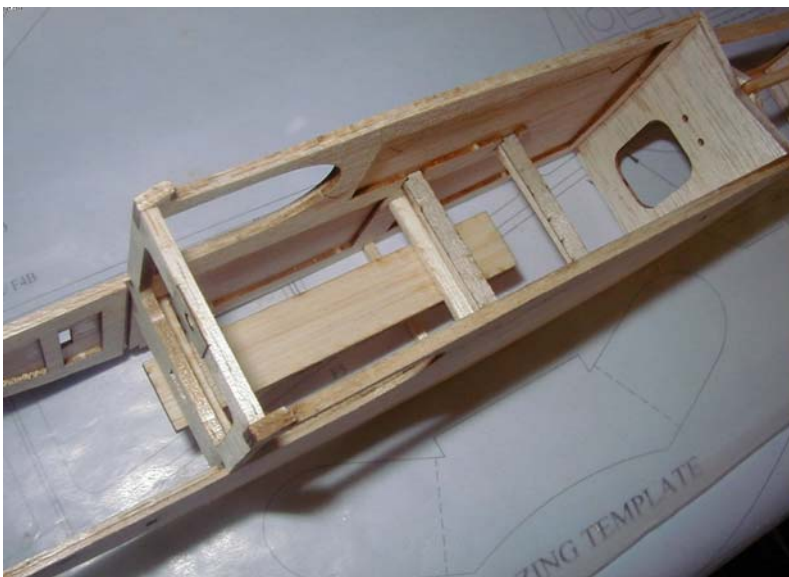
- ❑ Cut 3 stringers for the top of the fuselage (running front to back from F4B to M4) from the 1/8" x 1/8" material and insert into place. The stringers are to be inserted fully into the former slots. Note that the sides of M4 are going to be sanded to match the profile of the fuselage, so the side stringers push down into M4, they are not flush with the top of it. Glue the stringers into place. Also spot glue the fuselage sides to the stringers in between the formers for added support.



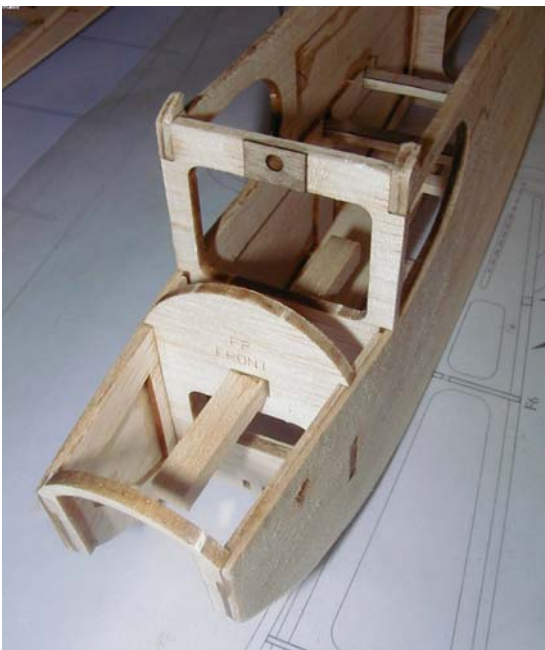
- ❑ Cut 2 stringers for the bottom of the fuselage (running front to back from F4 to the tip of the tail) from the 1/8" x 1/8" material and glue into place. Glue these stringers to the fuselage sides in between the formers for added support. There should be a gap between the stringers at the tip of the tail, this is needed to clear the vertical stabilizer which will be installed after covering.



- ❑ Cut 1 cross brace for the bottom of the fuselage (midway between F3 and F4) from the 1/8" x 1/8" balsa material and glue into place in the fuse doubler slots.
- ❑ Cut another cross brace for the bottom of the fuselage (goes in the slots under F3) from the 1/8" x 1/8" balsa material and glue into place in the fuse doubler slots.
- ❑ Glue 1/64" ply doublers M5A to servo rails M5. Glue servo rails into place inside fuselage (insert into slots in fuse doublers) with the ply doublers facing the top of the fuselage.
- ❑ Glue 1/64" ply doubler M6A to battery tray M6. Glue battery tray rails (M1) inside fuselage (insert into slots in fuse doublers). Glue the front tray rail continuously to F3 as well (it serves as a brace for F3). Glue battery tray assembly to bottom of rails with 1/64" ply doubler facing the bottom of the fuselage in the location shown on the plan.

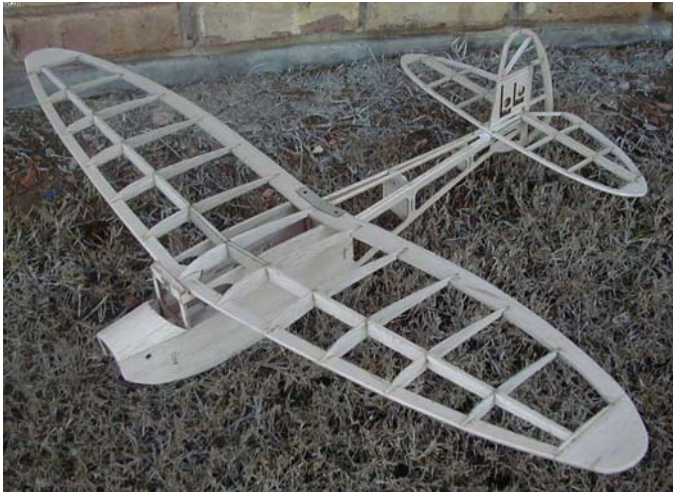


- ❑ Glue former F2A to the rear of former F2 (the front of F2 has the word “front” laser cut into it). Line up the slots leaving a 1/16” space between the halves of F2A for the landing gear wire to pass through. Do not install 1/32” ply F2B yet. It will be installed at the same time the landing gear is installed.
- ❑ Wet the fuselage sides along F3 by misting the balsa. This will make it easier to bend the balsa to install F2. Let the water soak into the balsa for about a minute, then install F2 in the location shown on the side view of the fuselage (see drawing) with the laser cut word “front” facing forward. While pinching the fuselage sides inward, glue F2 into place and hold long enough for the glue to set.
- ❑ Glue light ply former F1 into the front of the fuselage.
- ❑ Insert the supplied hard balsa motor mount into formers F2 and F3 using the plan view of the fuselage as a guide for how far the motor mount should slide into the formers (this motor mount allows the use of a GWS DX series geared motor). The motor mount will have a little right thrust and downthrust angle as a result of the hole locations in the formers, this is intentional. Install your motor/ gearbox, prop and spinner (if used) and check to make sure it sits in the airframe as desired. There should be a small space between the spinner and F1 as shown on the drawing. Glue the motor mount to the formers.



- ❑ Wet cowling piece M2 by misting it on both sides. Allow the water to soak into the balsa about a minute, then bend the piece over formers F1 and F2. Once satisfied with the fit, glue into place. The easiest way to do this is to hold M2 in place and glue to the curved parts of the formers from underneath (hold the fuselage upside down). Then turn the fuselage right side up and glue M2 to the sides of the fuselage. Sand the edges to be flush with the fuselage sides.
- ❑ Cut 1 cross brace for the top of the fuselage (just behind F3) from the 1/8” x 1/8” balsa material and glue into place.
- ❑ Glue the 1/64” ply battery door lip M11A to the balsa battery door M11 overlapping rear edge of door about 1/8”. Set assembly aside.
- ❑ Before beginning covering, install the pushrod sleeves in the fuselage. Push the sleeves through the laser cut holes in the formers. Extend them about 1-1/2” in front of F4 and about 1/8” past the rear slots in the back of the fuselage. Put a drop of glue where the sleeves pass through each former, but

do not glue the sleeves where they pass through the fuselage slots in the rear as it can cause control binding.

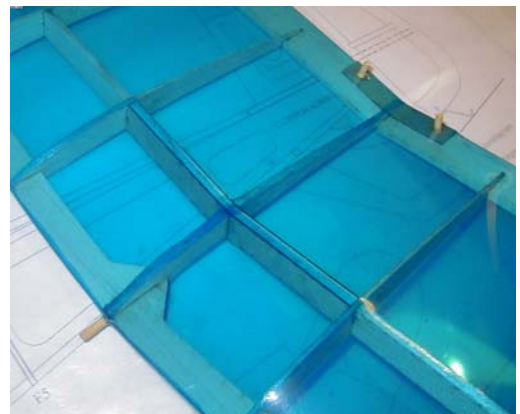


Covering the Airframe

**The airframe is now ready to cover! SoLite (otherwise known as Nelson LiteFilm) is recommended because it is lightweight and it doesn't require much heat to shrink it tight. However, practically any covering can be used with added weight being the only concern. There's not really anything unusual about covering any parts of this plane, standard covering procedures are all that is required. Some suggestions will be made below to help make things easier.*

Cover the wing:

- ❑ Cover the bottom first, then the top. On the top, cover the wing one half at a time. When covering the first half, iron the covering down really well to the center rib. Turn the covering down the side of the center rib about 1/8" as well. This will keep the covering from pulling up at the dihedral joint when the covering is shrunk tight. Overlap the second half of the covering by a minimum of 1/8" over the first half (on top of the center rib R1).
- ❑ After the wing covering has been shrunk tight, heat some "washout" into the outer edges of the wing. "Washout" refers to the trailing edge of the wing being slightly higher than the leading edge beginning about halfway out on the wing (from the fuselage). This gives the plane some added stability in flight. This is done by heating the wing covering and lightly twisting the outer half of the wing, then letting it cool. Once it cools it should hold the washout. If not, repeat this and twist a little more. Ideally the TE should be about 1/4" above the LE.
- ❑ After covering the wing, make a small hole in the leading edge at the center of the wing where the dowel will be inserted. Cut a 3/4" length from the 1/8" hardwood dowel and epoxy it into the wing.
- ❑ Make two more small holes in the top covering aligning with the trailing edge holes. It's a good idea to install a piece of clear packing tape over this area so the holes don't cause a rip in the covering. Cut two 9/16" lengths from the hardwood dowel and epoxy them into the wing (bottom of dowels should be flush with bottom of wing).

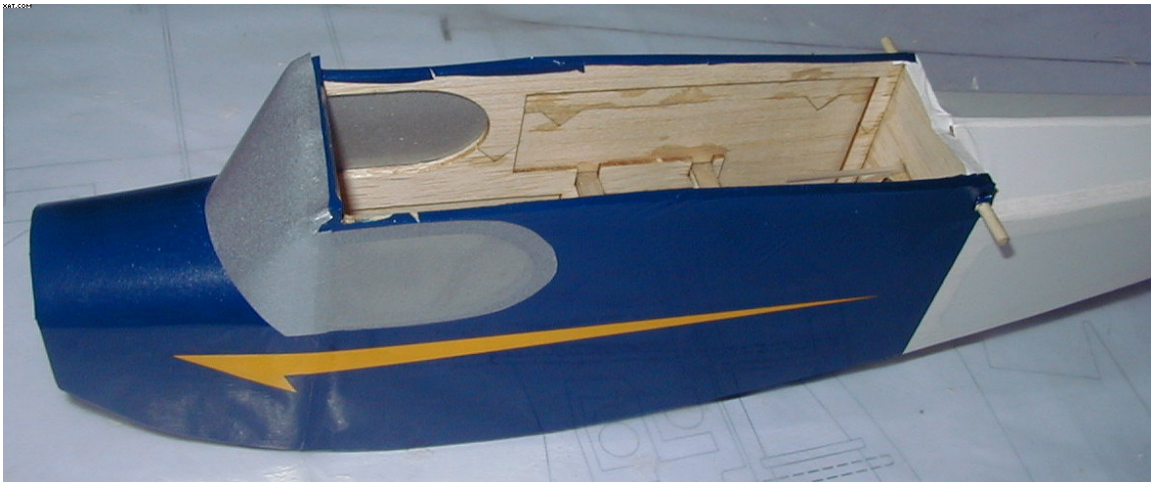


Cover and hinge the tail parts:

- ❑ Cover the rudder, vertical stab pieces, elevator and horizontal stab. Examine how the tail pieces all fit together into the fuselage and do not cover the slot and tab areas as these will be glued together when the tail is installed.
- ❑ To hinge the elevator, use clear packing tape. Scotch tape is not recommended because it does not stick well and doesn't result in an invisible joint like packing tape does. Cut the packing tape into a 1/2" strip. Install the strip on the elevator such that half of it (about 1/4") is on the elevator and half of it extends off the elevator. Then hold the elevator up to the horizontal stab at the desired angle of deflection for "down" elevator input. While holding it at this deflection angle, push the remaining tape down onto the horizontal stab.
- ❑ The rudder will not be hinged until the tail components are installed on the fuselage. The above technique will be used for installing the rudder as well.

Cover the fuselage:

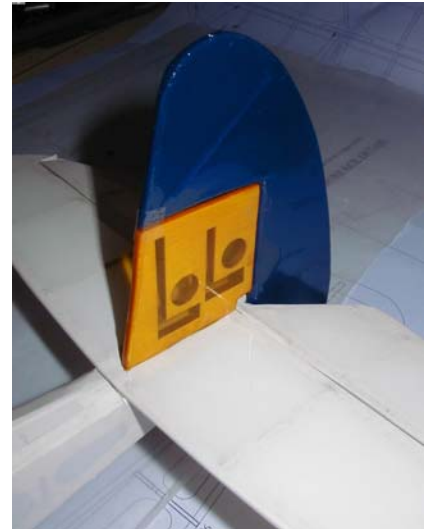
- ❑ Cover the bottom first, then the sides and finally the top.
- ❑ There is a template on the plan for the windshield. If you are going to install clear windows and windshield, use the entire template. If you are going to install opaque windows and windshield, first cut the windshield out of note card material up to the dashed lines. Then cover the note card windshield with covering and glue it into place with C/A. I find it easiest to hold the windshield in place and glue the sides to F3 first, then pinch the top down to the header and glue it. There is no need to glue the bottom edge, the note card paper is stiff enough to hold the shape. Then cut the side windows out of covering using the remainder of the plan template (allow for some overlap at F3) and iron them into place on the fuselage.
- ❑ You can leave the bottom of the nose uncovered up to F2. If you want to cover this area, install a 1/8" x 1/8" cross brace just under the motor as a covering support. Allow enough room to install and remove the motor.
- ❑ Cover the battery door (M11). Hinge it with tape to the front cross brace between F2 and F3. The 1/64" ply lip will be at the back and seals the door to the fuse. There are various techniques for securing the battery door. A small piece of tape can be used, or rare earth magnets, or a spare servo arm can be screwed into the fuselage and pivoted to hold the door closed. If you want to install the servo arm catch, cut a scrap of 1/8" balsa about 3/8" wide and glue it inside the fuselage; this will give you a surface to screw the servo arm into.
- ❑ Cut a 3" length from the 1/8" hardwood dowel and insert through the slot in the fuselage at former F4A.



Final Assembly

Assemble the tail:

- ❑ First dry fit the tail parts in place on the fuselage. Install the lower vertical stab first from underneath, then the horizontal stab, then insert the upper vertical stab through the horizontal stab and into the fuselage. The parts will all slot tightly together. Verify that there is no covering on the surfaces that need to be glued. Remove the parts and use slow C/A or epoxy to coat the mating surfaces, then reassemble the parts and hold them in place until the glue sets.
- ❑ Hinge the rudder to the vertical stab pieces using the technique described above under “Cover and hinge the tail parts”. Check to make sure there is at least 30 degrees of deflection on the rudder and elevator, and that they move smoothly.



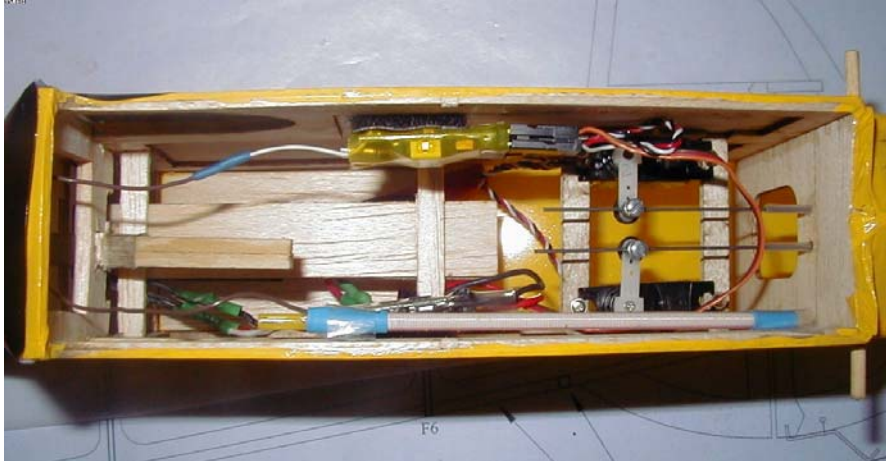
Landing gear installation (optional):

LoLo flies nicely with no landing gear at all, but with the landing gear LoLo does beautiful rise-off-ground launches, touch-and-goes and pavement landings. Without the landing gear the airframe is more streamlined and as a result the plane thermals better.

- ❑ Insert the provided pre-bent landing gear wire into the slots in F2A (do not glue). Place 1/32” ply part F2B over the gear. F2B can either be glued in place, or small 4” plastic cable ties can be used to secure it in place. If using the cable ties, insert them through the holes in the formers, pull as tight as possible and trim the loose ends off. Install your wheels and wheel catches. Wheels are not provided since most people have a personal preference as to what they want to use. 1-3/4” Dubro wheels were used on the test planes and provide great clearance for a 9” prop.
- ❑ LoLo will ground handle fairly well without a tail skid as the rudder rides directly on the ground; but if desired, a small tail skid can be attached to the rudder. Bend a small piece of music wire to the shape shown on the plan and secure it to the rudder with thread. Soak the thread in C/A after installing. LoLo is quite light and can tolerate the skid being installed directly onto the rudder, but if ground steering is not required the skid can be installed on the vertical stab in front of the rudder instead of on the rudder.

Install motor/ ESC:

- ❑ These instructions are for the recommended GWS IPS geared motor. First install the ESC onto the motor using the manufacturer’s instructions. It’s a good idea to hook it up to the receiver before installation and make sure the prop is turning the right direction. Fish the ESC and wiring through the former holes and into the fuselage while sliding the gearbox onto the motor mount stick. There is a small access hole in the side of the fuselage, through it use a pin vice or drill to drill a hole through the side of the gearbox and into the motor mount. Install a spare servo screw through the hole to secure the gearbox to the motor mount. The ESC can be secured wherever desired inside the fuselage using servo tape, Velcro or cable ties.



Installing servos and hooking up controls:

- ❑ First hook up the servos to the receiver and power it up to center the servo arms. The rudder servo goes on the left, the elevator servo on the right. The servos must be located as shown on the plan to ensure that the control wires make a straight run from the servo arms all the way to the tail through the sleeves. Install the servo arms as shown on the plan and screw to the servos. Install the Dubro EZ Connectors that came with the pushrod set into the outer holes on the servo arms.
- ❑ Use the servo screws that came with your servos to attach the servos to the servo rails inside the fuselage.
- ❑ Insert the provided micro control horns through the laser cut holes in the rudder and elevator and glue. Remember that the rudder servo is on the left, elevator on the right. Glue the horns on the correct sides to match.
- ❑ Push the control wires through the sleeves from the tail forward. Insert them through the EZ Connectors and extend through the connectors at least 1/4". Make a 90 degree bend at the tail control horns and clip off the excess wire. Use the Dubro Micro EZ Links that came with the pushrod set to secure the wires to the control horns.
- ❑ Power up the servos again and center the control surfaces, then tighten the EZ Connector screws down on the control wires with the control surfaces held in a "neutral" position (aligned with the stabilizers).

Final hookup:

- ❑ Plug the ESC and servos into the receiver and place the receiver where desired in the fuselage. It can be Velcroed to the interior surfaces of the fuselage sides or to the top of the battery tray. Make sure the ESC battery connector is accessible from the battery door underneath the fuselage.
- ❑ Place a strip of Velcro on the bottom of the battery tray to mount your battery pack to.

Optional dummy glow motor:

- ❑ A lot of people think an Old Timer just isn't an Old Timer without a glow head sticking out of the cowl, so we've included a balsa one for you if you want that look! The parts all have a hole in the center that is sized to allow stacking the pieces on a round toothpick for assembly. Assemble in the following order (from bottom to top): all three 1/8" disks, small 1/64" ply disk, 1/16" balsa disk, large 1/64" ply disk, 1/16" balsa disk, small 1/64" ply disk, 1/16" balsa disk. Leave some toothpick extending out the top to simulate a glow plug. Paint assembly with craft paints for more realism.



Flying LoLo

- ▣ Check the center of gravity: Locate your battery pack so that the plane balances in the location shown on the plan. There is some flexibility in the CG: moving it forward will make it more stable in flight, moving it back will make it slightly more aerobatic. Be careful not to move it too far back or it can potentially create some bad stall tendencies.
- ▣ Final controls setup: LoLo does not need extreme throws to fly well. I personally prefer 5/8" throw each way on rudder and elevator both, with no expo. LoLo is nicely aerobatic on these throws, but still easily controlled. I would suggest that initially you set those throws for high rates and set the low rates at 75% of that. Over the course of several flights adjust the throws until you find what works best for you.
- ▣ Launching: Hand launching is very simple, just throttle up and give it a gentle, level push. If doing a rise-off-ground launch, ease into the throttle and it should lift off with just a bit of "up" elevator.

LoLo Prototype Setups and Info

- First prototype (brushed): GWS S1 (4.14:1 gearing) stock brushed motor; 8x6 GWS prop; 8 amp ESC; GWS Pico servos, Berg 4 Microstamp receiver, E Flight Lightenna; 2 cell 830 Tanic pack.
Test data: 2.4 amps, 18 watts.
Weight: 5.20 oz. w/o pack, 6.80 oz. w/ pack.
- Second prototype (brushless): GWS DX-A (5.9:1 gearing) gearbox with 4100 kv Feigao 12mm motor; 8x6 GWS prop; Phoenix 10 ESC; GWS Pico servos, Berg 4 Microstamp receiver, E Flight Lightenna; 3 cell 620 Vampower pack.
Test data: 4.2 amps, 40 watts.
Weight: 5.30 oz. w/o pack, 6.90 oz. w/ pack.

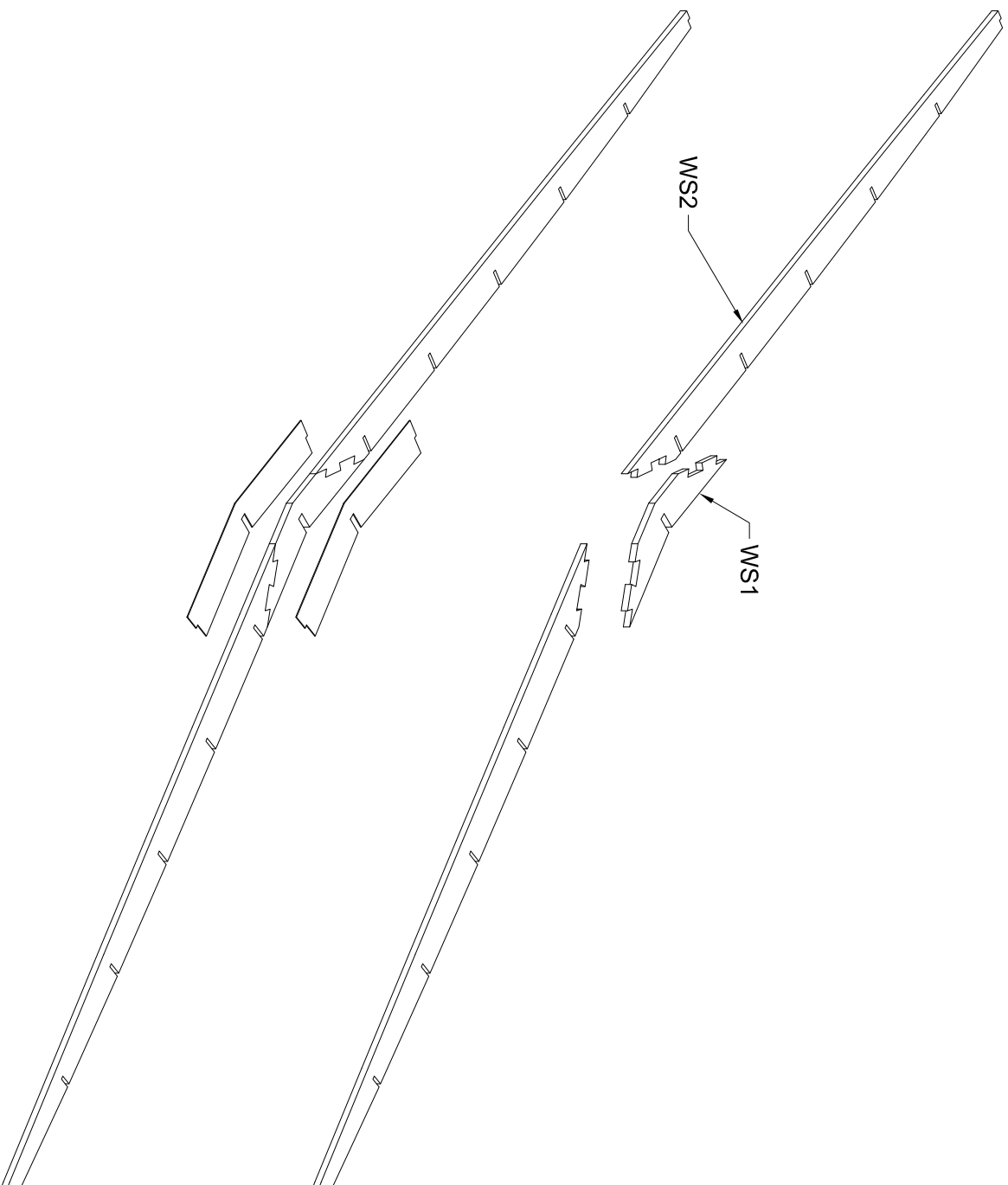


We hope you enjoy your LoLo!

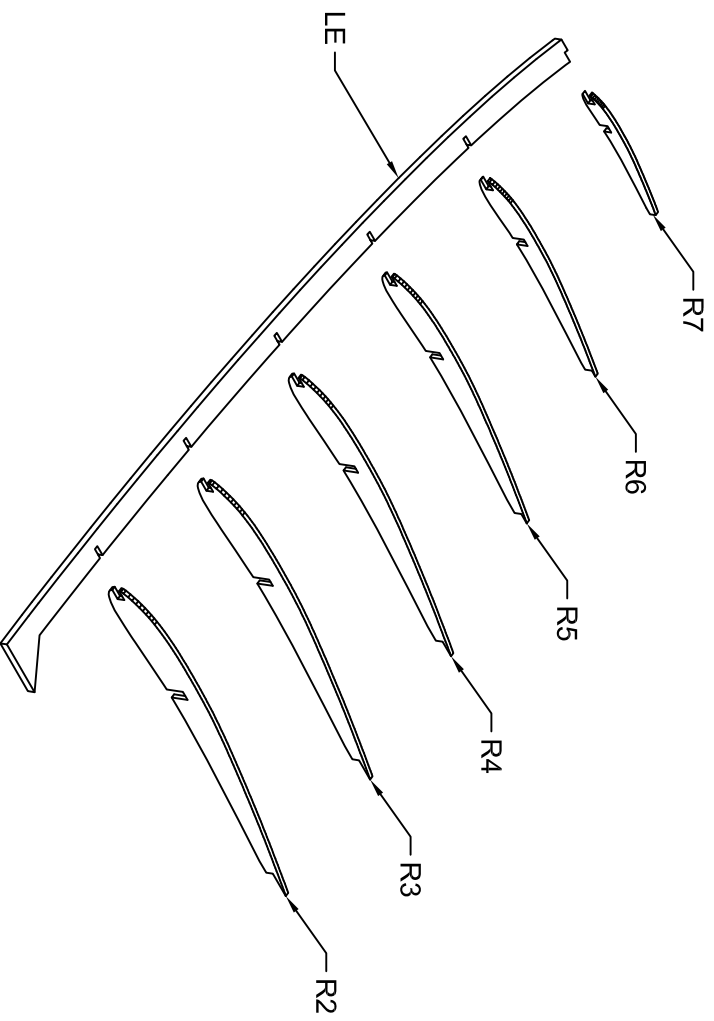
Last revised: 01-04-07

Wing Assembly Addendum

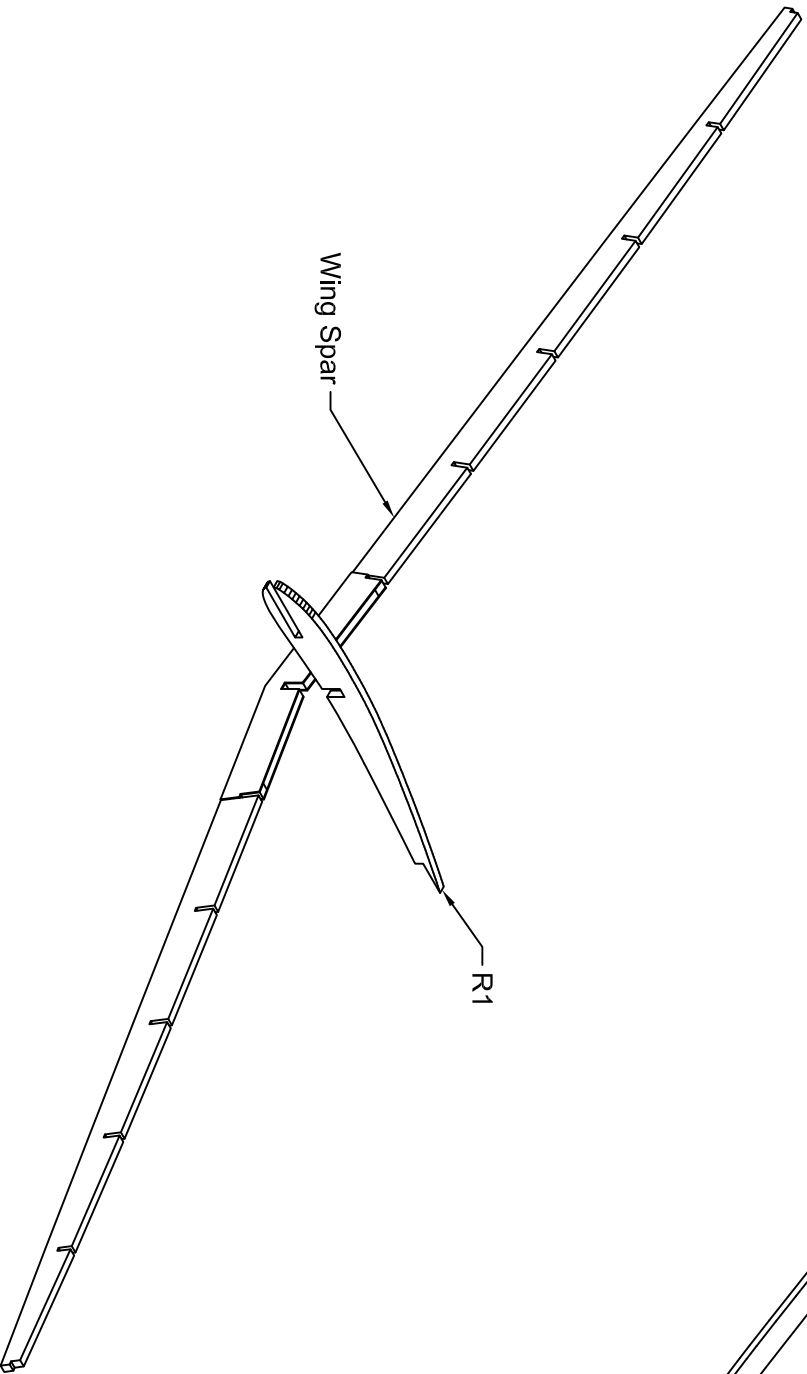
1. Assemble wing spar by gluing part WS1 and parts WS2 together. Glue 1/64" ply dihedral doublers M9 to each sides of the wing spar.



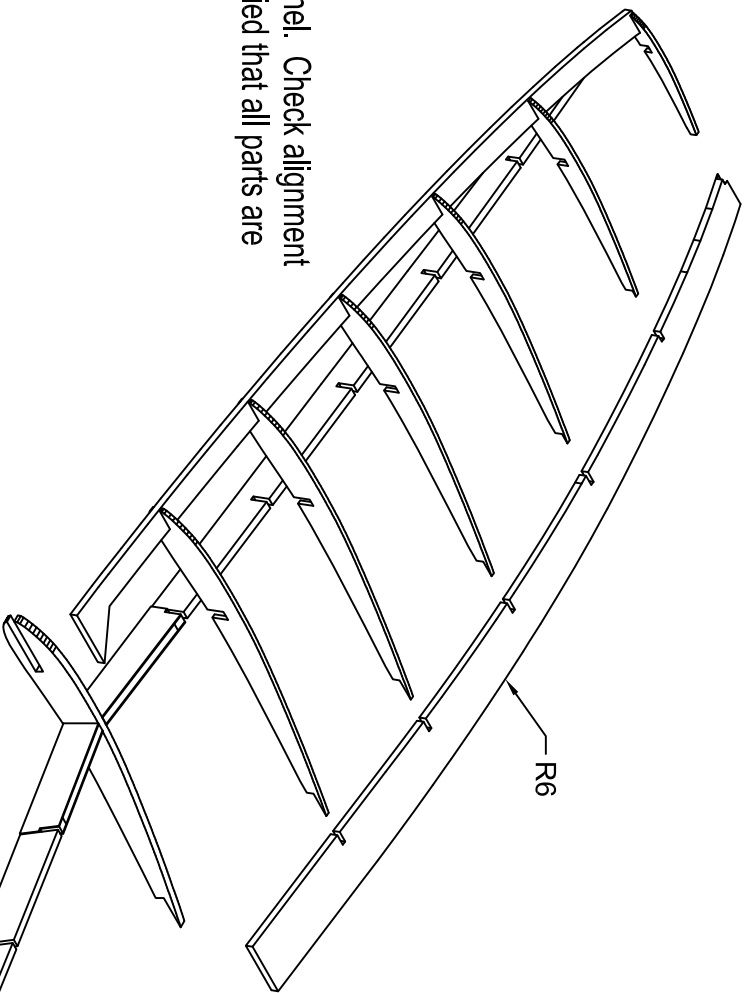
2. For steps 2 - 4, dry fit parts together (do not glue yet) Fit ribs R2 - R7 into the notches in the leading edge.



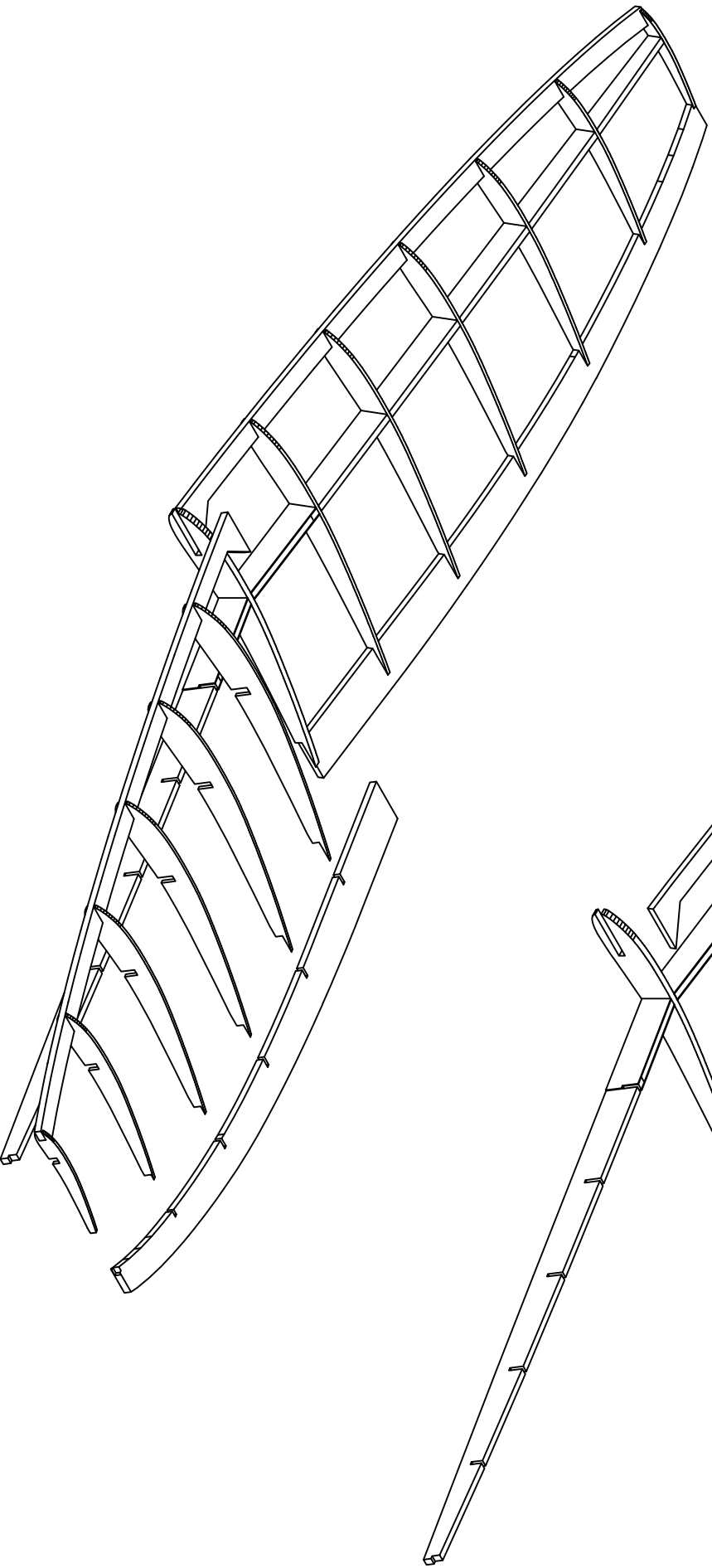
3. Fit R1 into the center slot in the wing spar.



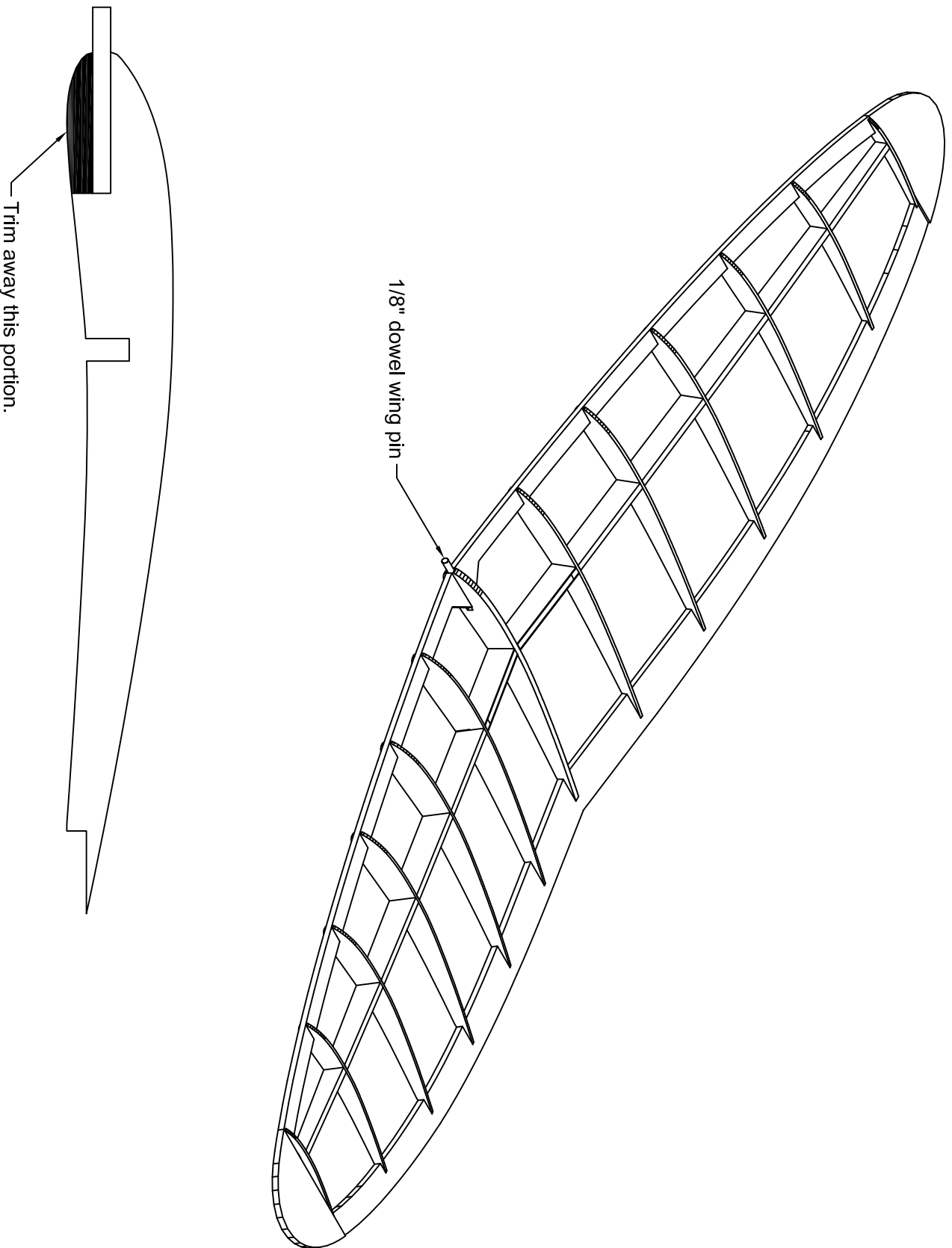
4. Fit the ribs into the slots in the wing spar. Fit ribs into the slots in the trailing edge TE.



5. Do steps 2-4 for the opposite wing panel. Check alignment of parts and glue together when satisfied that all parts are aligned properly.

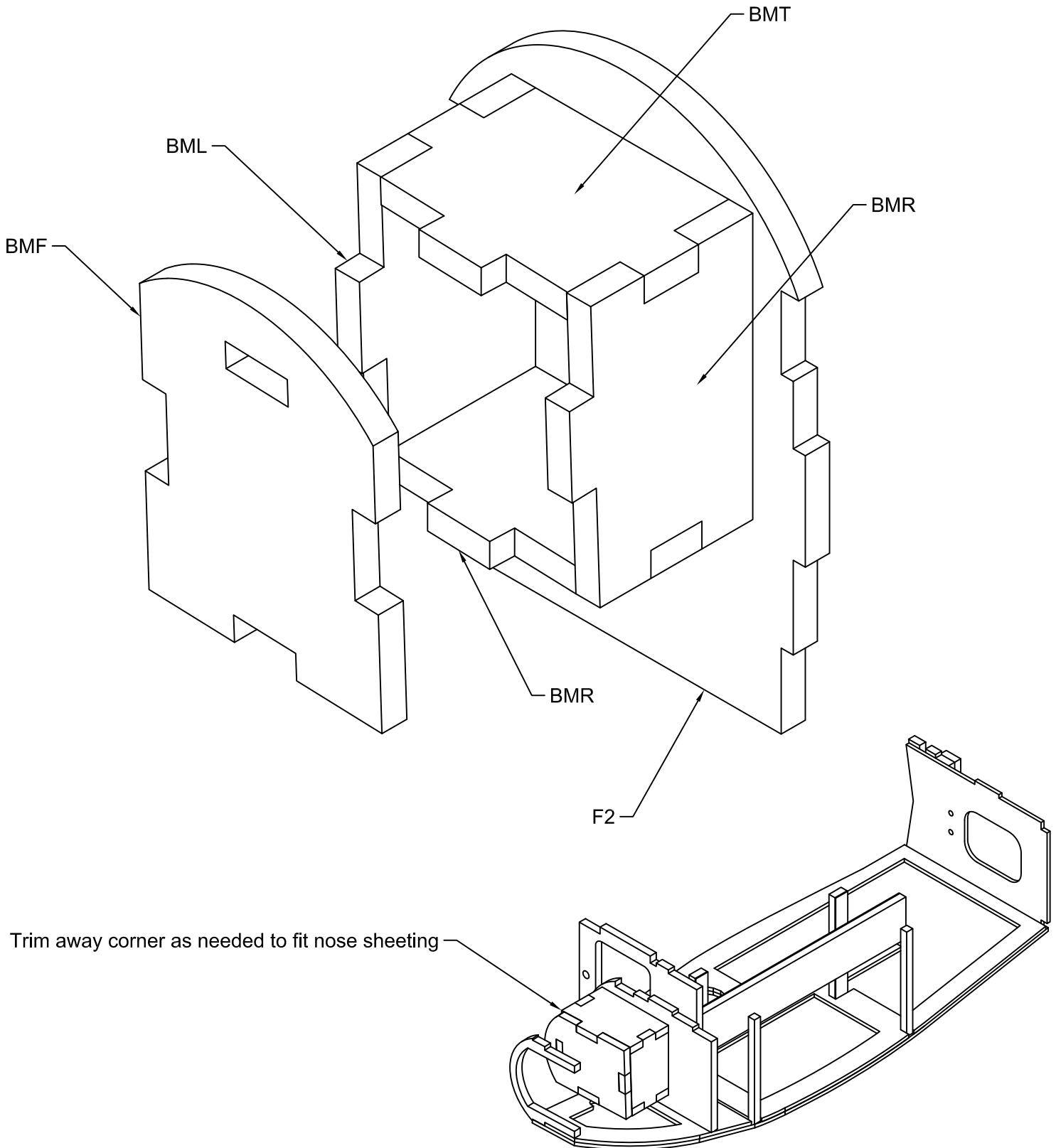


6. Glue wing tips WT in place. Glue the 1/8" dowel wing pin into the slot in R1. You will need to trim away the bottom of R1 to glue the 1/64" ply reinforcing plate M10 to the underside of the leading edge.

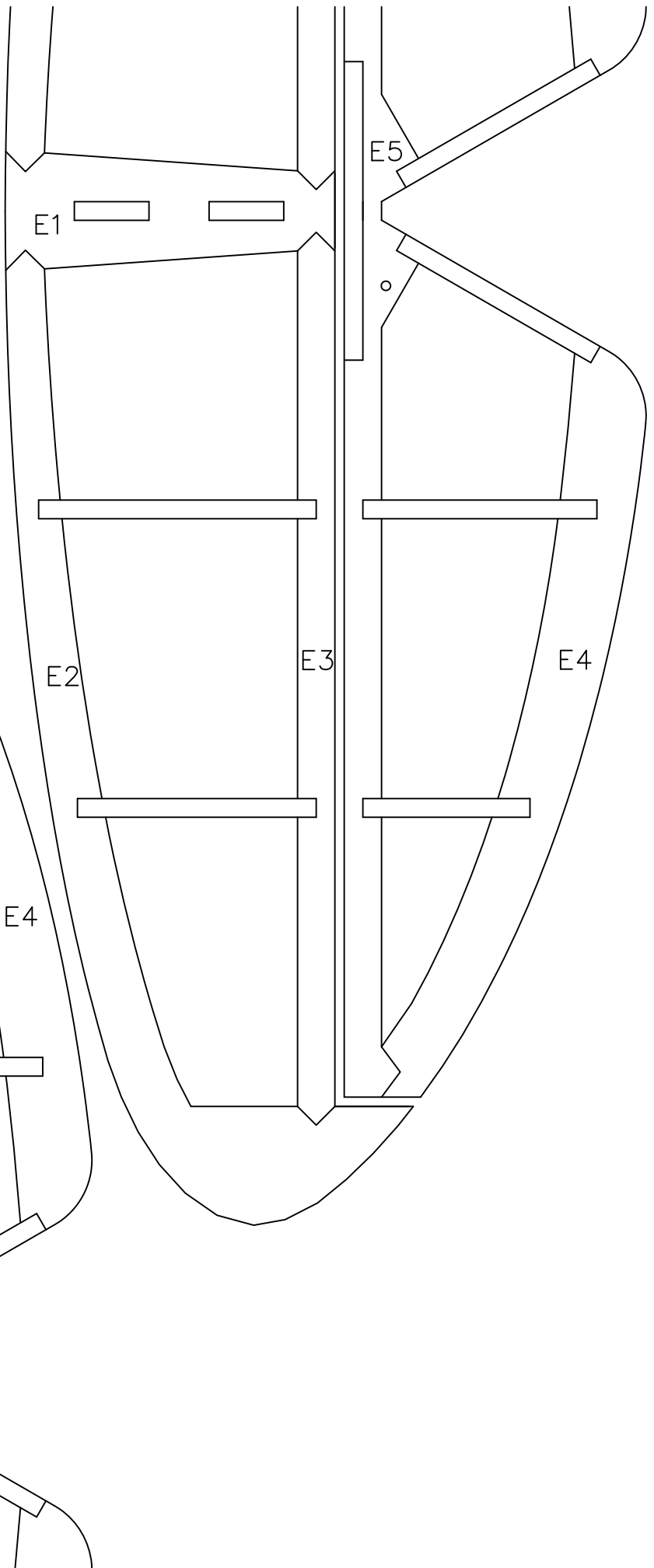
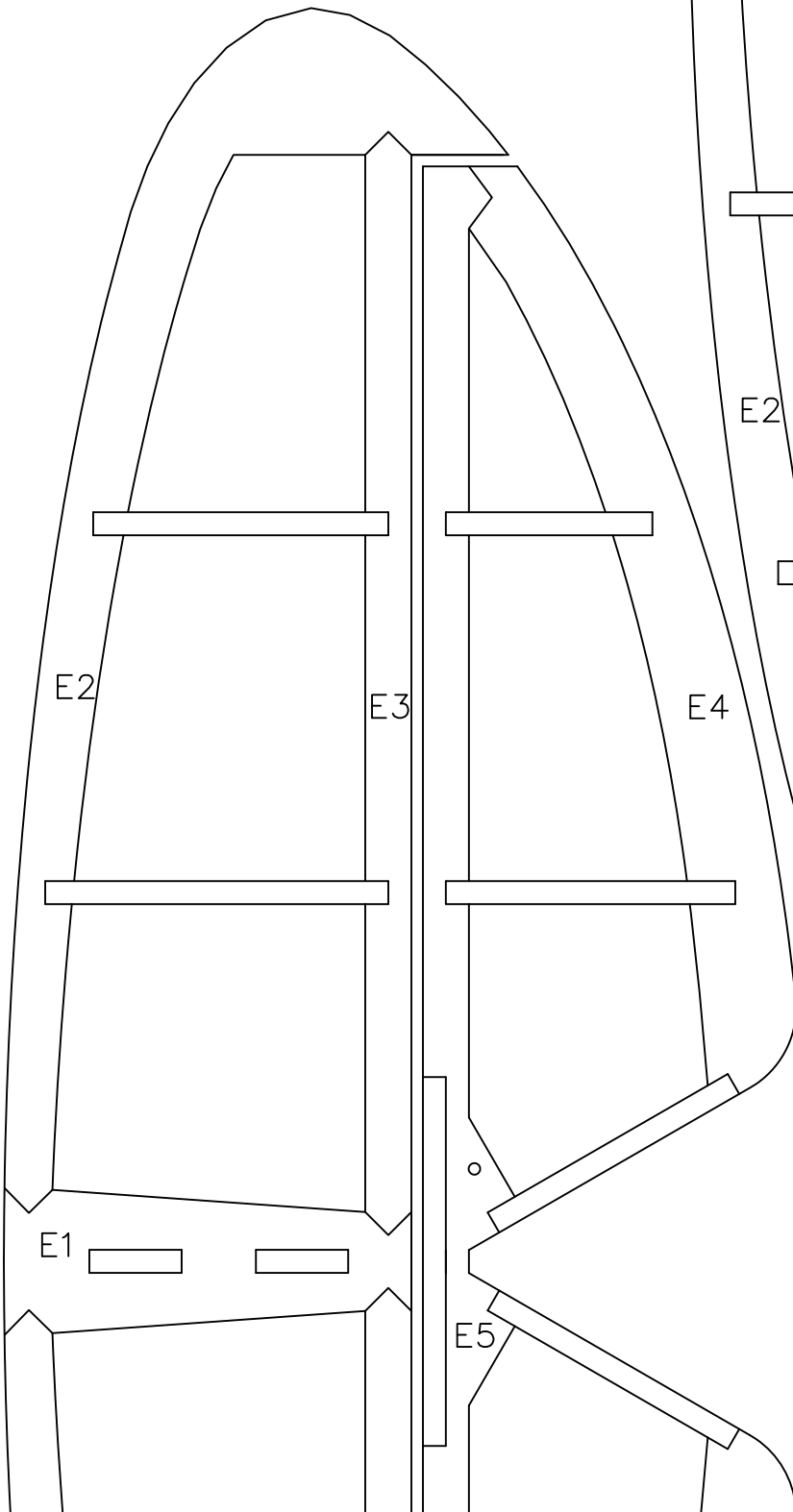


Brushless Motor Mount Addendum

1. Fit BMT, BMR, BMB and BML together and then fit into slots in F2 and glue in place. Pay attention to how the parts are oriented, the mount is designed to have down and right thrust built in. Use the alignment marks in BMF to center your motor and drill 1/32" holes as necessary. Harden screw holes with a drop of thin CA in each hole. Fit and glue BMF to the rest of the assembly. It will be necessary to trim/sand the corner of BMR so it does not interfere with the nose sheeting.



Horizontal Stabilizer Template



Landing Gear and Rudder Template

