



Thank you for buying a TBRC60



Video Build Series



TBRCwings.com

TBRC 60 V3 SILVER

Thank you for purchasing a TBRC wing.

Kit Contents

- 01: 1x Left Wing Core
- 02: 1x Right Wing Core
- 03: 1x Blunt Center Section Core
- 04: 1x Laminate
- 05: 2x Balsa Elevons
- 06: 1x Laser Cut Plywood Motor Mount
- 07: 2x Coroplast Winglets
- 08: 12x Fiberglass Spars
- 09: 1x Coroplast Equipment Bay Hatch
- 10: 1x Decal Set

Tools Required

Hobby Iron
Glue
Sand Paper
Hobby Knife
T-pins
Goop glue (optional)

Centre of Gravity is 9" from the nose.

Step 1

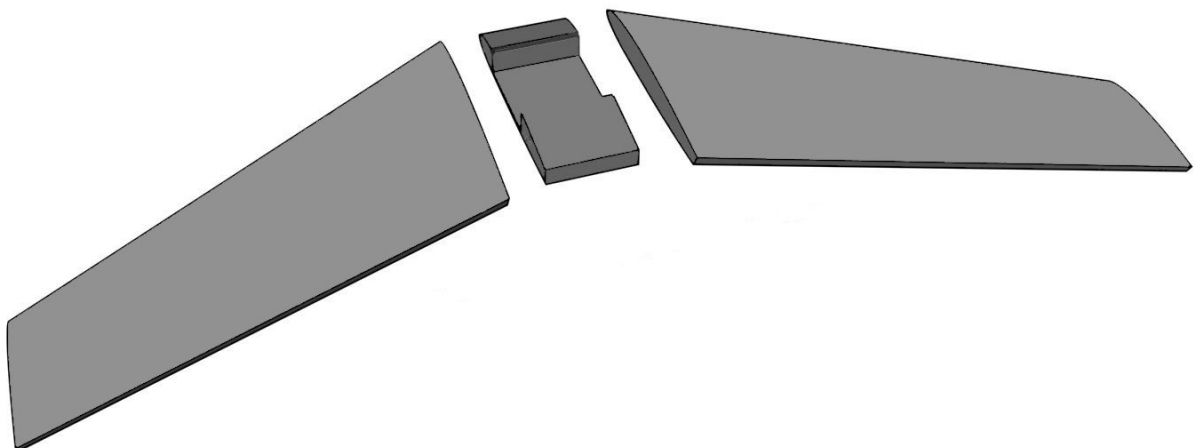
Smear a very thin layer of Goop on the inside of the equipment bay. This is to allow Velcro to adhere better and add a bit more strength to the bay.



Step 2

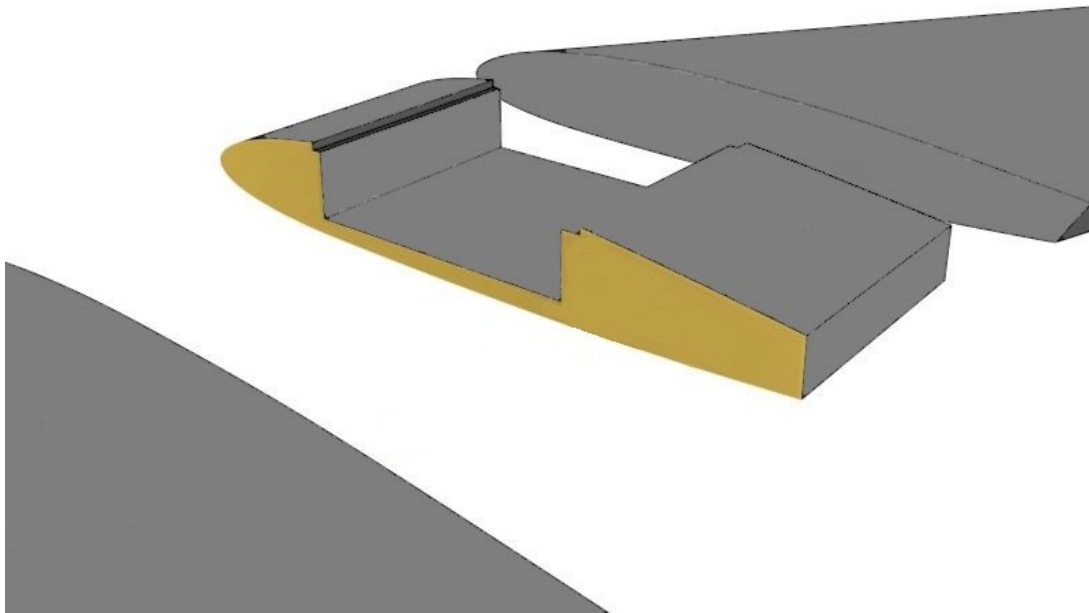
Identify your left wing, right wing center section.

Do a dry fit to make sure everything lines up.



Step 3

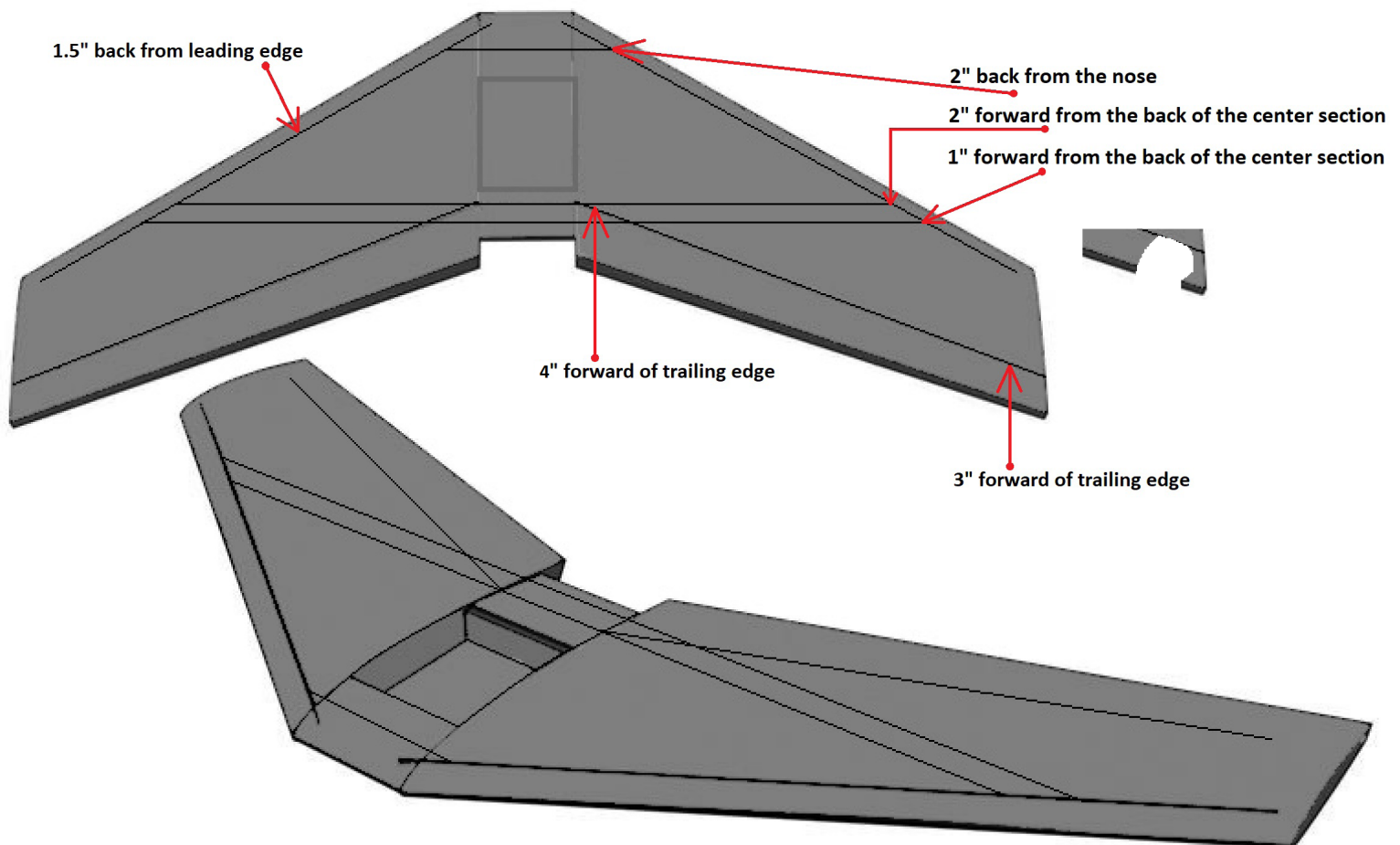
Glue the outer left and right side walls of your center section and firmly press against each wing, remove quickly. The glued area should be now visible as an outline on each wing and you can apply a heavier coating of adhesive on each wing in these areas. Firmly press all 3 pieces together and using T-pins keep all parts joined as tightly as possible. Allow enough time for the adhesive to fully cure.



Glue can take up to 24 hours to cure properly.

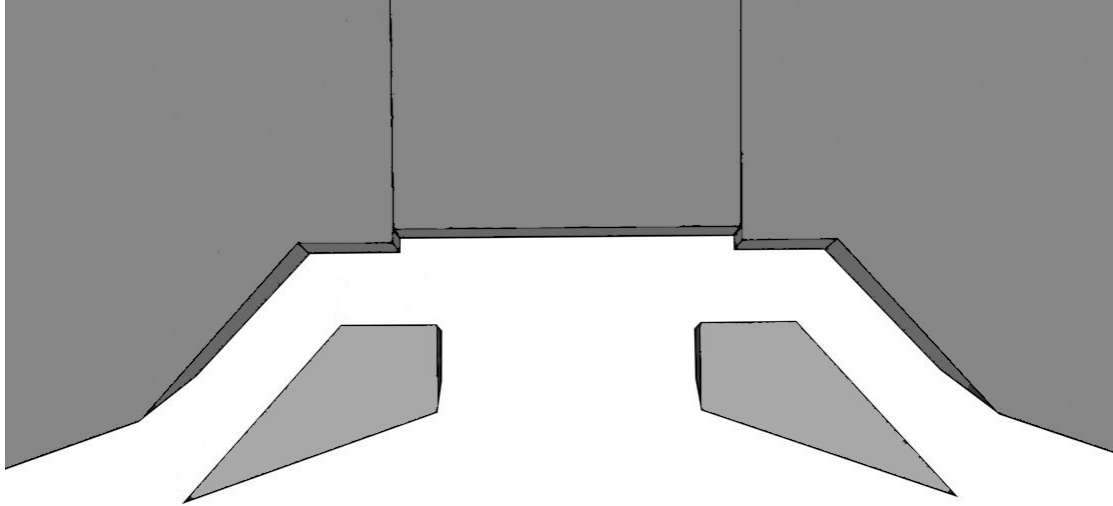
Step 4

On the wing mark guide lines as shown in the diagram below on both top and bottom. Using a fresh blade and razor knife cut slits along these lines deep enough to embed the 1/8" rods into the foam. Make certain all spars will embed deep enough to fully seat under the surface. Where a spar may intersect another spar or crosses over another one be sure they are in contact with each other before gluing .



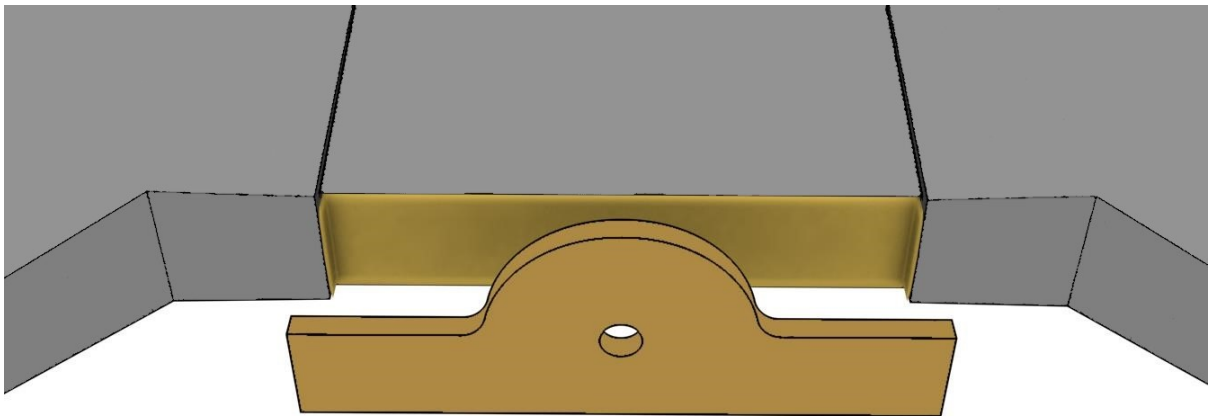
Step 5

We now need to cut out an area to allow prop clearance. See diagram below.



Step 6

Rough up the back of the ply motor mount for extra surface area for the glue to stick to. Apply glue along the back of the blunt section of your wing and to the side notches which will glue your motor mount on 3 sides.



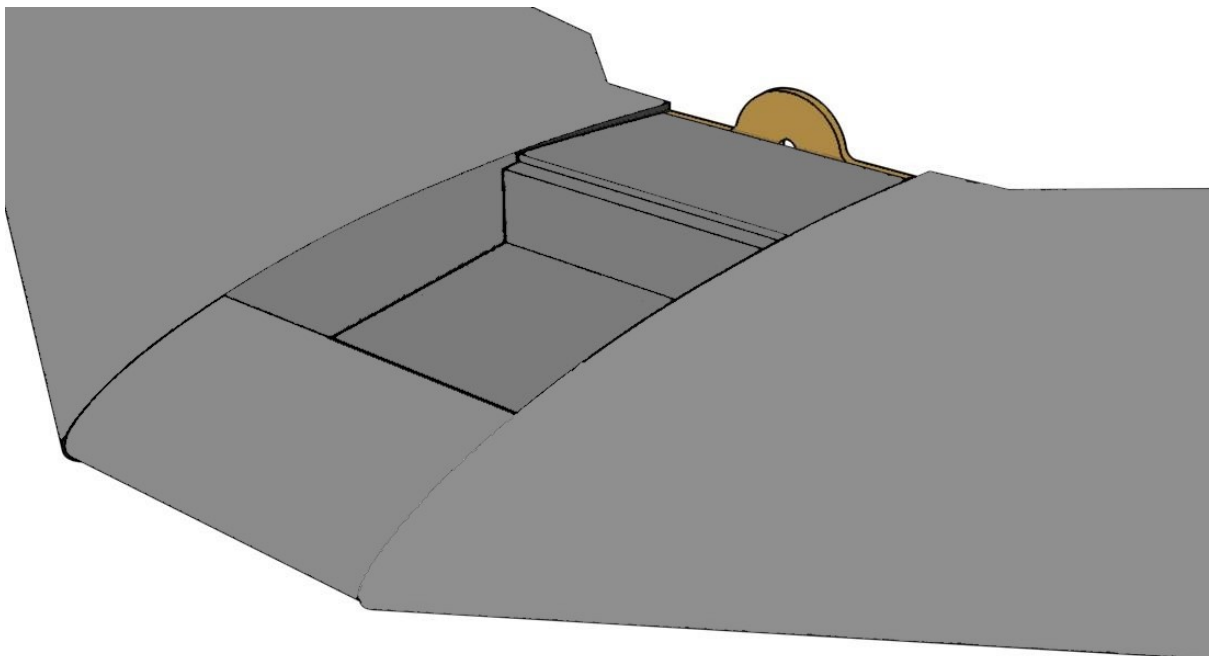
Glue can take up to 24 hours to cure properly.

Step 7

Use either 150 or 220 grit sandpaper. Lightly sand the entire surface of the wing to help the laminate adhere better to the foam. The foam surface should feel almost fuzzy to the touch. (Optional) You may choose to spray the surface with 3M 77 or 3M 90 or other similar spray adhesive to make your laminate bond even better to the foam surface.

Step 8

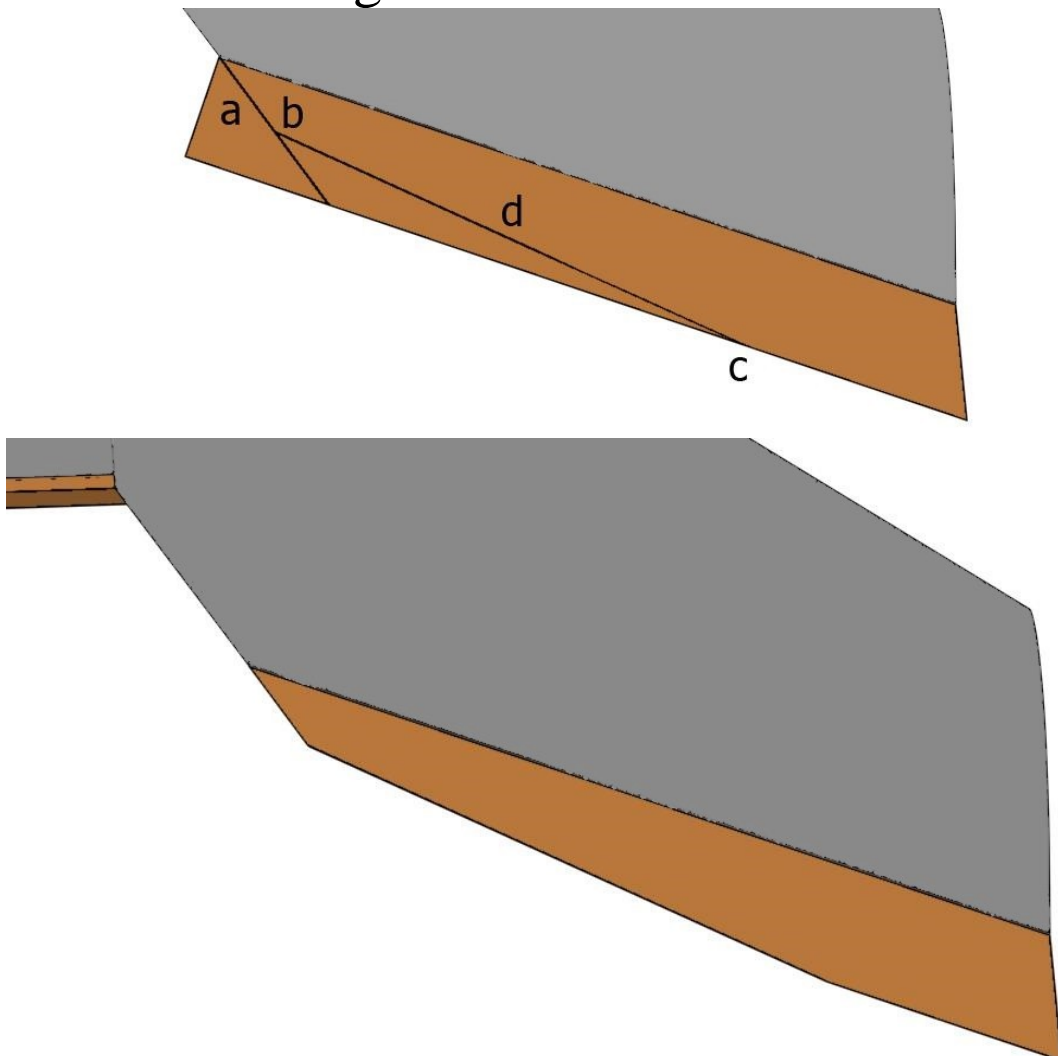
Using a hobby iron, laminate your wing. Be sure to add an extra strip over the sides of the motor mount for added strength. Do not cover the wingtips as we'll be gluing the winglets on later.



Step 9

Do this for both elevons. Measure your elevons to be the same length on the trailing edge of your wing. You can opt to leave the elevon full sized but we recommend you cut them to match this shape. To achieve this shape,

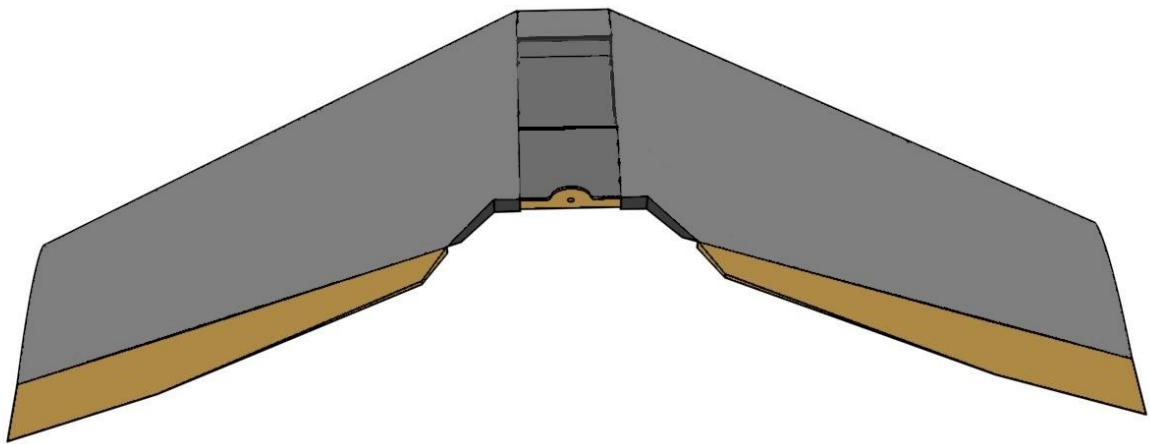
- a:** Cut the inside at the same angle as your propeller slot on your plane.
- b:** Measure halfway down this cut and make a mark.
- c:** Measure $\frac{1}{3}$ the distance from the tip to the inner most point of the trailing edge.
- d:** Connect the lines between points **b** and **c**.
- e:** Cut along line **d**.



Step 10

Laminate your Elevons. Once they are covered, cut 4 strips of laminate about 50 mm wide and as long as your elevons. Lay one strip on top of your elevon and laminate it to your wing. Turn your plane upside down and use a 2nd strip to laminate the underside of the elevon to your plane. Be sure to check for ample throw movements once it's been laminated.

Do this to both elevons.



Step 11

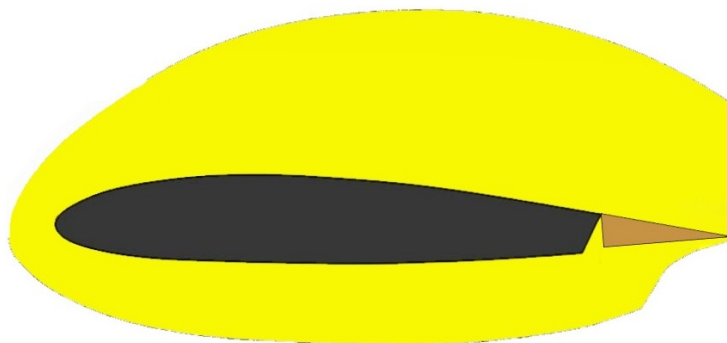
Using the method of your choice cut out bays in the wings for your servos and your other electronics that you plan to use. (e.g. Video transmitter, Camera, Receiver). We recommend laying out all the parts on your plane first to allow you to get the plane to balance on its center of gravity which is 9" from the nose.

Step 12

Install your electronics. When setting up your throws for your elevons we recommend about 1.5 inches total throw from highest to lowest point. Using 35% expo and setting dual rates is up to personal preference.

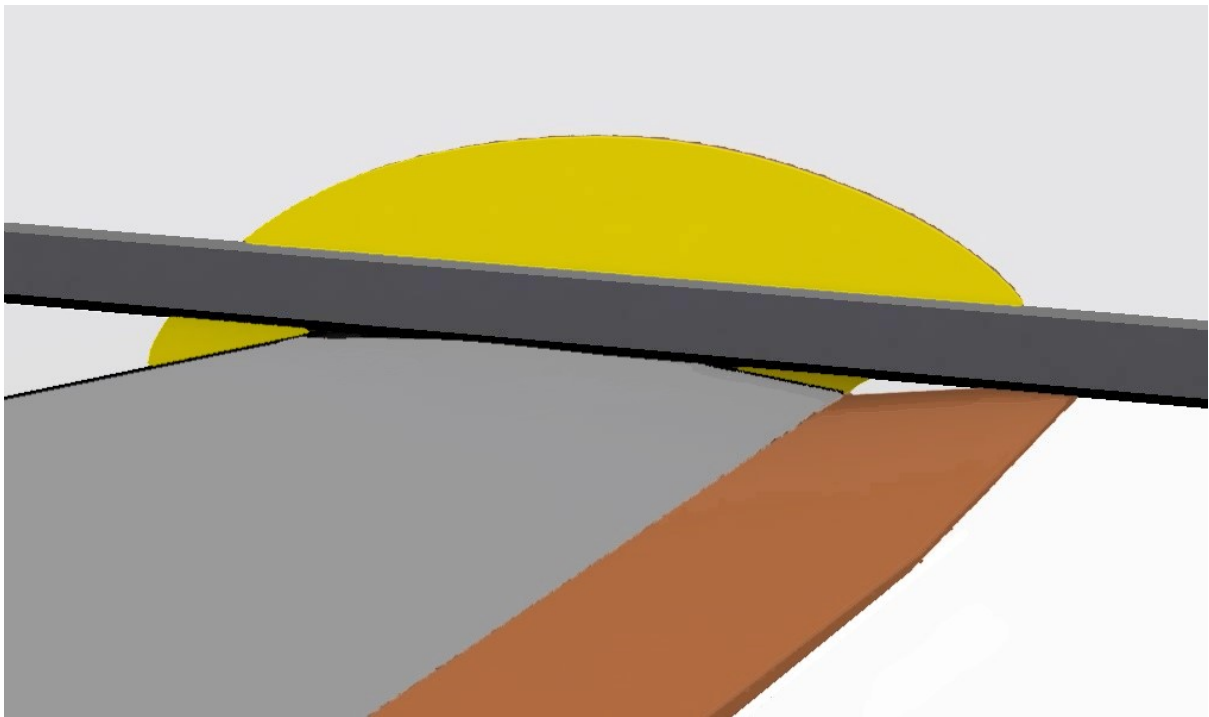
Step 13

One of the unique features of the TBRC60 is its winglets. Their unique design and positioning will improve airflow around the wingtips and create less drag leading to smoother stable flights. When gluing the winglets on the wing tips be sure to line up according to the figure below. Mount the winglet horizontally. Use the flutes in the Coroplast as a guide. It is also time to secure your bay cover. Clear packing tape as a hinge and a thin Velcro strip works well secure it in place (may require trimming to fit properly).



Step14

Prior to your first flight make sure you have about 4mm of reflex added to your elevons. This can be easily measured by placing a straight edge from the top of the airfoil to the tip of the elevon at the wingtip and measuring the vertical distance between the straight edge and the hinge line.



Congratulations!!

You now have yourself a TBRC60 V3 Silver ready for flight. Make sure you balance your plane on your cg mark, 9 inches from the nose, and you'll have a good time. Good luck on your maiden flight.

Thank you again for purchasing a TBRC Wing.



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