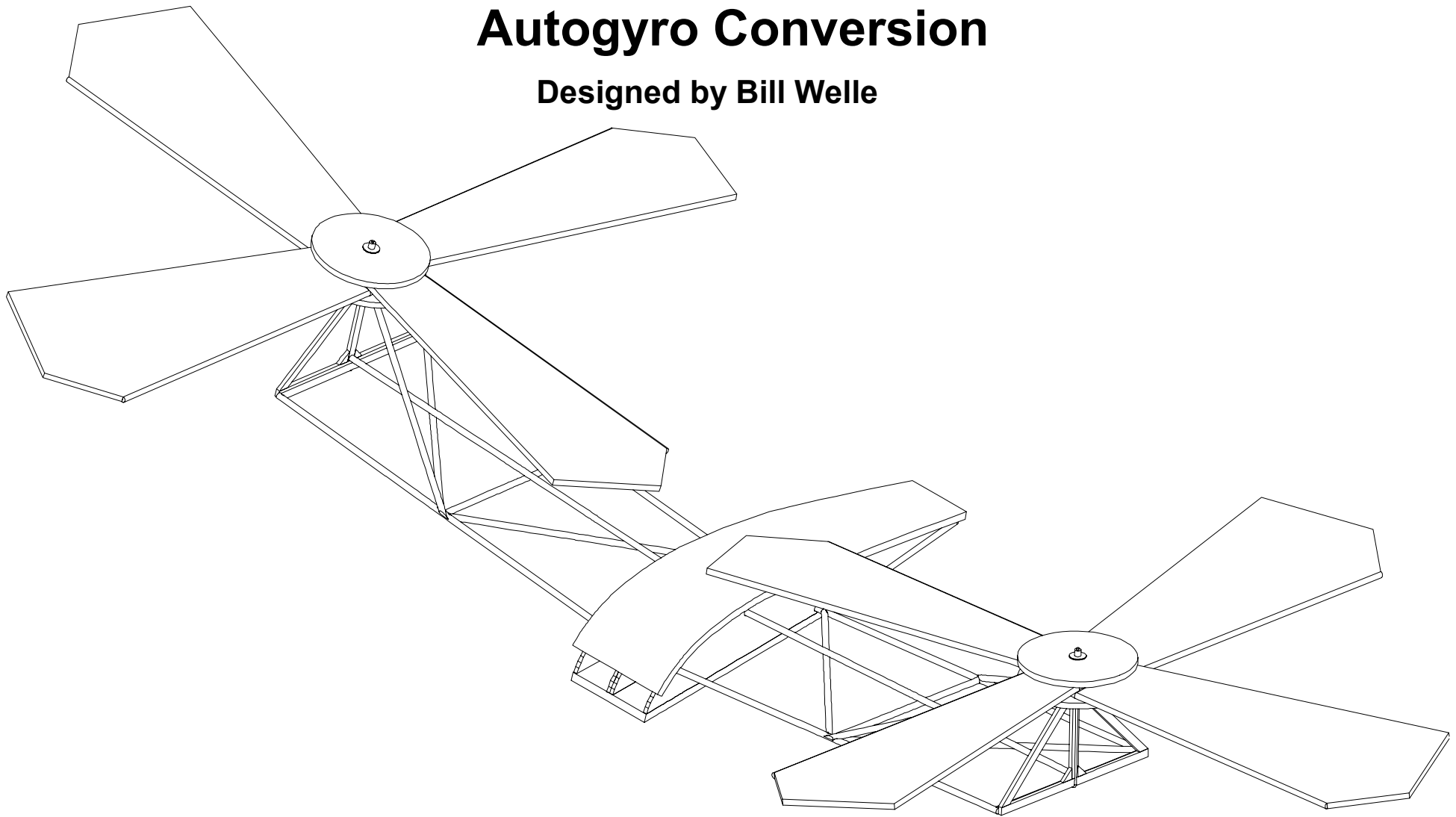


# LO 'N SLO

## Autogyro Conversion

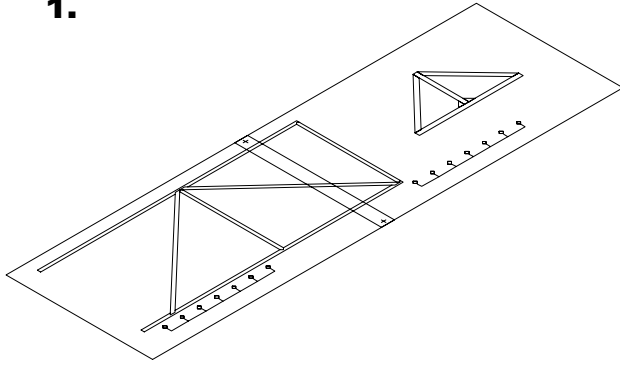
Designed by Bill Welle



# ASSEMBLY GUIDE

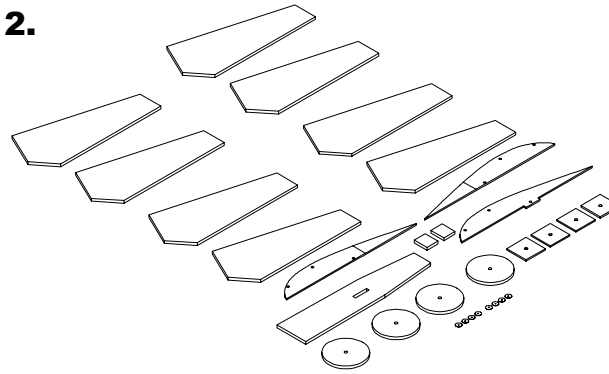
Plan and Assembly Guide by Paul Bradley

**1.**



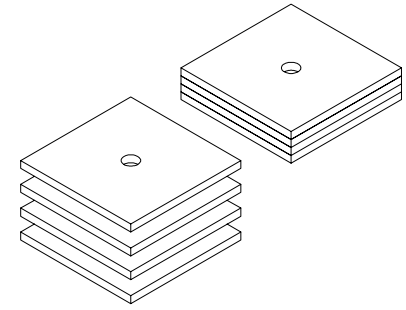
Assembly begins by taping the part sheets that are larger than a single printed page together. The groups that go together are marked with the group name and sheet x of y.

**2.**



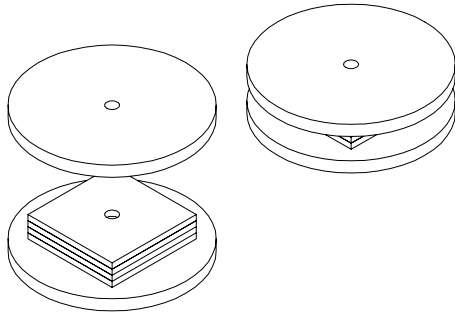
Cut out all of the parts. Note the parts that are to be cut from materials other than foam board.

**3.**



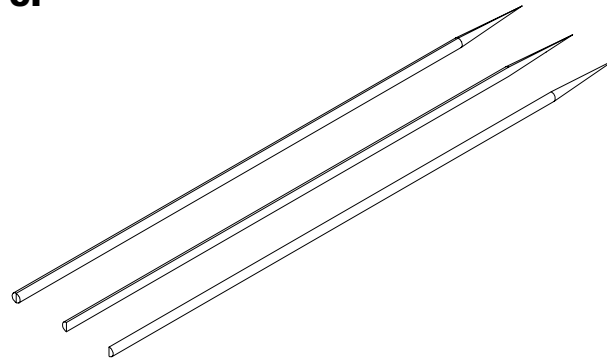
Glue four of the 2" square 1/8" balsa rotor hub parts together. Rotate each lamination so the grain is 90 degrees to the previous lamination. Make two hubs.

**4.**



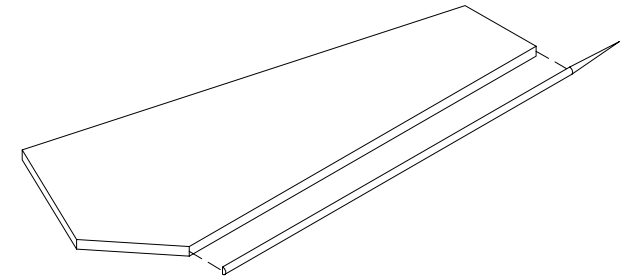
Glue a 3 1/2" diameter foam board disk to one side of each balsa hub with the center holes lined up.

**5.**



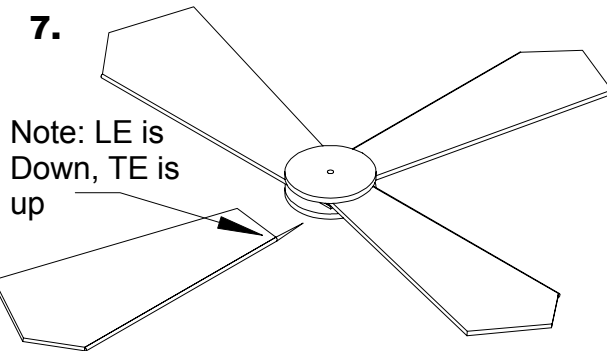
Cut four bamboo skewers to a length of 11 7/8". Split each skewer along the center of its length.

**6.**



Glue a split skewer half to the leading edge of each foam board rotor blade.

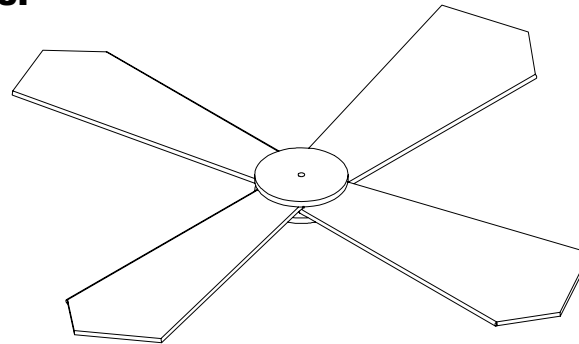
**7.**



Note: LE is Down, TE is up

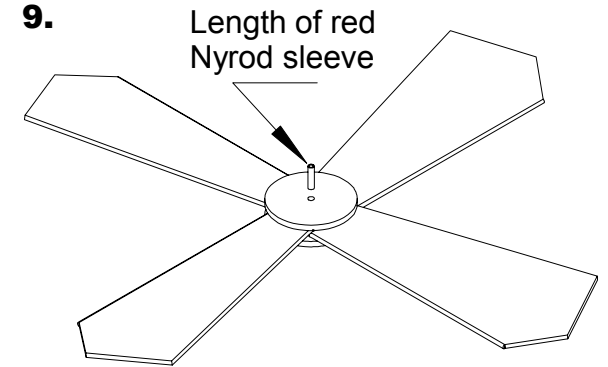
Glue four rotor blade assemblies to a hub assembly. Glue the blades so the leading edge is touching the top of the bottom foam board disk and the bottom of the top of the trailing edge is just below the top edge of the balsa block. Be sure the blades are glued to the foam board disks as well as the balsa hub.

**8.**



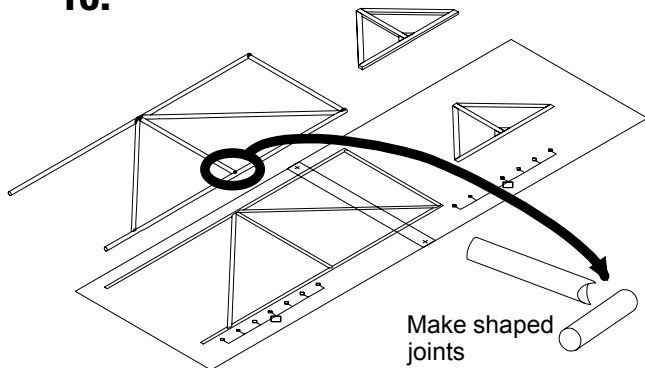
Make up a second rotor with the angle of the blades opposite of the first.

**9.**



Glue a length of red Nyrod pushrod sleeve in each rotor assembly hub.

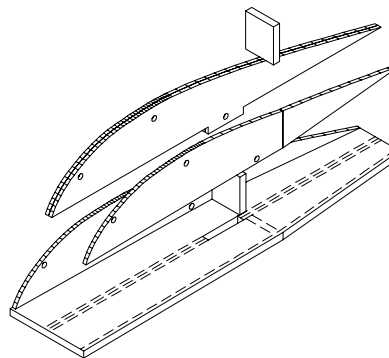
10.



Make shaped joints

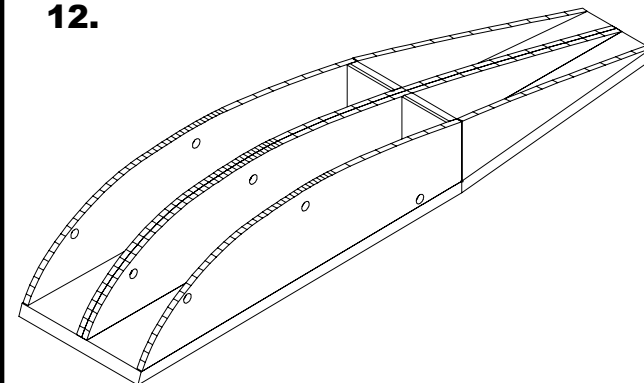
Assemble two sets of the rotor outrigger and rotor mast. Use 3/16" dowel for the outrigger and 1/4" x 1/8" spruce strip stock for the mast assembly.

11.



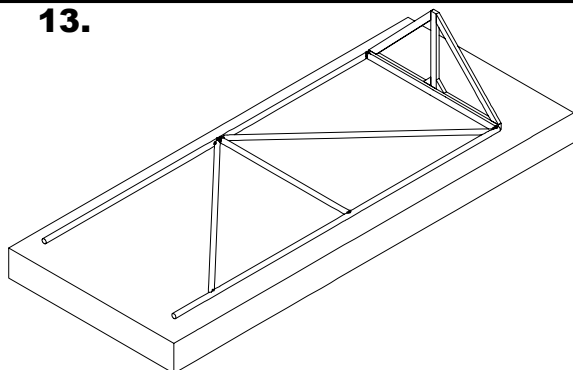
Glue the 1/8" Liteply ribs to the foam board center section base. The ribs are aligned to the rear of the center section base. Cut the outer ribs half way through where they bend to conform to the base shape. Also glue in the two foam board spacers between the ribs.

12.



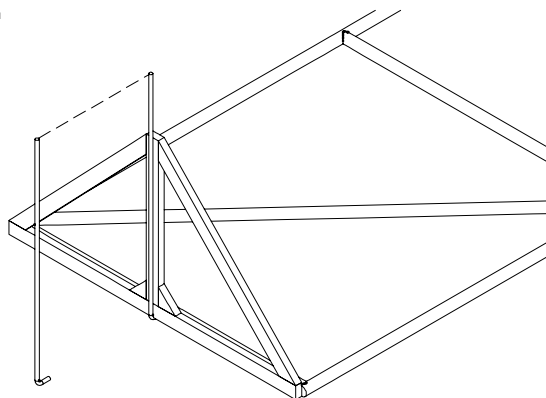
Sand the leading edge of the center section base to match the angle of the rib leading edges. Also sand the top of the spacers to conform to the rib profile.

13.



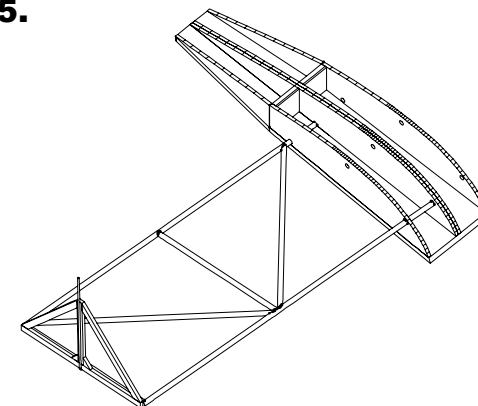
Glue the rotor masts to the ends of the outrigger assemblies while the outrigger assemblies are flat on the building surface. The bottom of the masts lay on the building surface. Each mast is 90 degrees to the outrigger assemblies. Make right and left assemblies.

14.



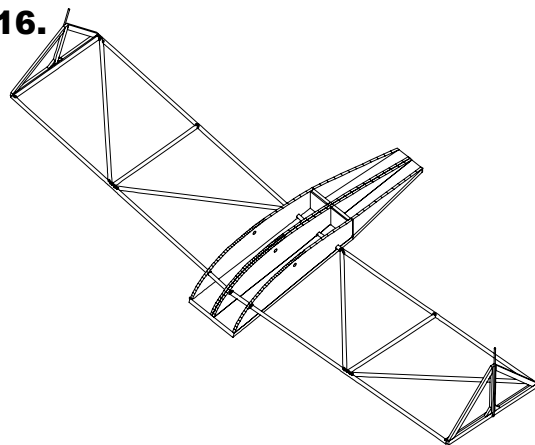
Using the plan, bend two 1/16" diameter piano wire rotor shafts. Epoxy the shafts to the center of the outer face of the rotor masts. Turn the bottom bend so it is under the mast structure.

15.



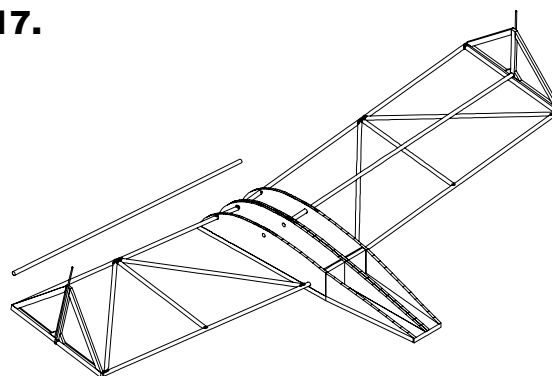
Glue one of the outrigger/mast assemblies to the center section as shown. Glue the dowels to the Liteply ribs. The TE dowel will slightly penetrate the center section foam board floor.

16.



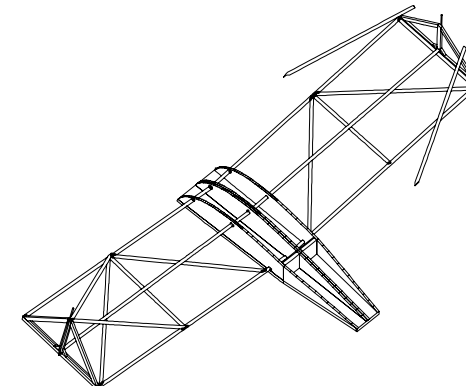
Glue the other outrigger/mast assembly to the center section.

17.



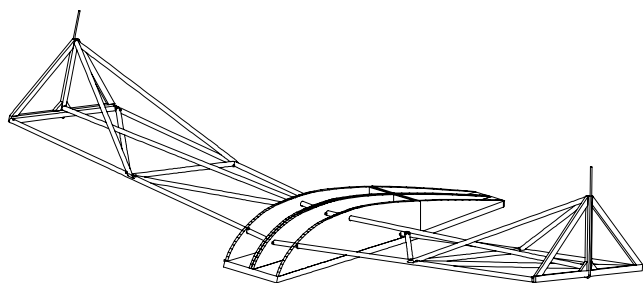
Cut two lengths of 3/16" dowel to fit between the center section center rib and the base of the rotor mast. Slide the pieces into the center section holes and then glue them to the ribs and the base of the rotor mast.

18.



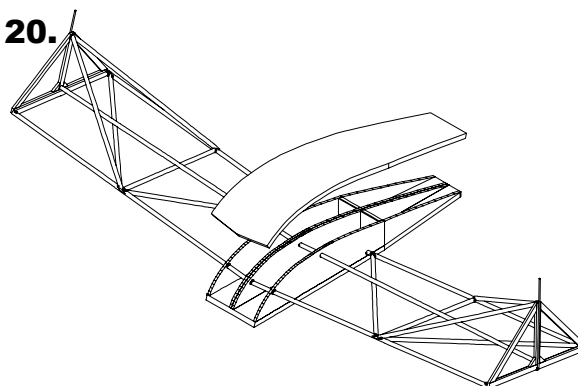
Cut lengths of 3/16" dowel to fit between the top of the rotor mast and the joints where the compression link in each outrigger attaches to the outrigger LE and TE.

**19.**



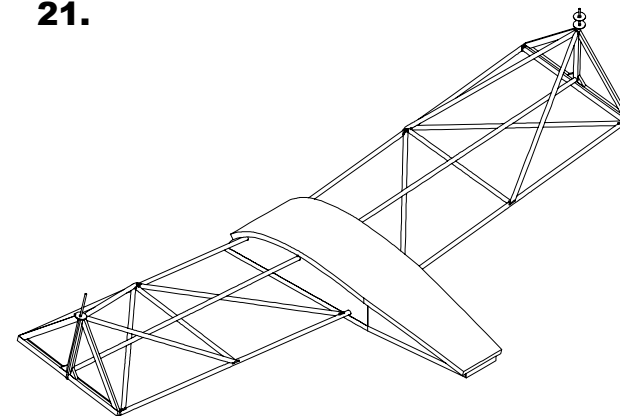
Glue the rotor mast supports to the outrigger LE, TE, and the top of the rotor mast.

**20.**



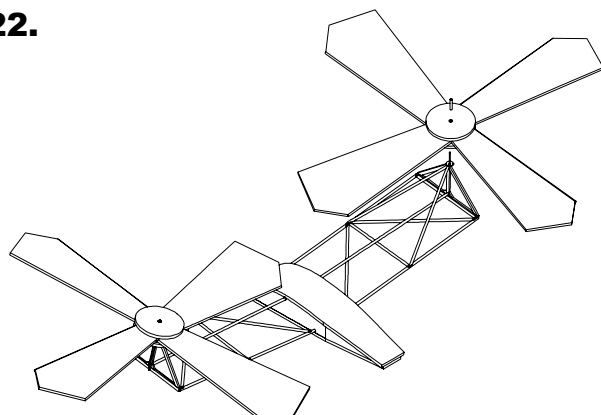
Glue the foam board center section top piece to the center section assembly. It over hangs the ribs by the thickness of the foam board used to make up the fuselage sides.

**21.**



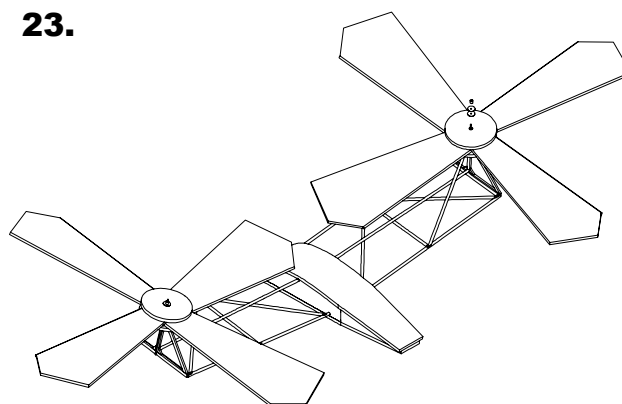
Place two of the plastic washers on each of the rotor shafts.

**22.**



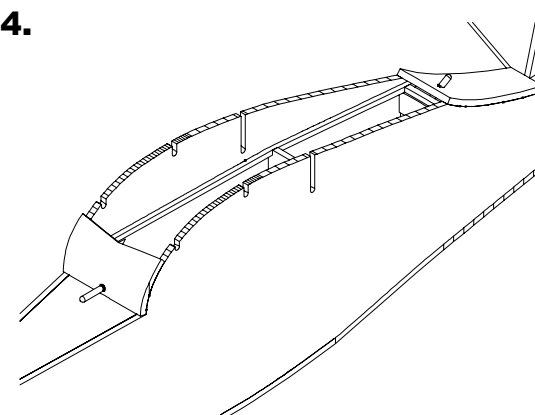
Insert a length of yellow Nyrod pushrod material in each rotor hub. DO NOT GLUE. Slide the rotors on to the shaft.

**23.**



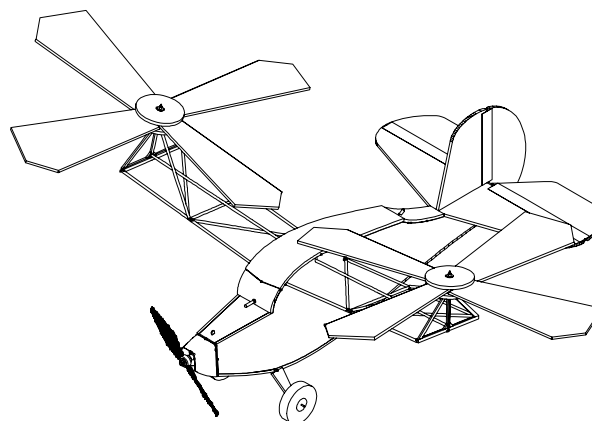
Place two more plastic washers on the shaft on top of the rotor hubs. Secure the rotors with a wheel collar.

**24.**



Use the supplied template to cut slots into the top of each fuselage side to provide clearance for the outrigger dowels.

**25.**



This completes the assembly of the autogyro conversion package for the Low 'N Slo. Just place it in the wing opening of the fuselage. It is held in place using rubber bands like the wing. You can easily switch back and forth between each set up.