

# Gary Jones' Micro Spoil Sport

res 4/2007

## Tools required:

#11 X-Acto, straight edge, Foam safe CA, Foam safe CA kicker, Blenderm tape, sandpaper, lighter.

## Equipment:

Plantraco 0.9 gm receiver, 2 - MicroACTs, Orange SS motor, Tri-Turbo prop.



<p>1. Here is the kit contents. Decoration is easiest at this stage. You can color the Depron with some paints and some Sharpie markers.</p>		<p>2. Using a #11 X-Acto blade, cut the parts out of the Depron sheet.</p> <p>Use sandpaper to clean off the little tabs that are left from removing parts from the sheet.</p>	
<p>3. Cut the rudder loose.</p> <p>NOTE: do not cut out the radio opening at this time.</p>		<p>4. Cut the elevator loose.</p>	
<p>5. Using a straight edge, cut the bevel on the elevator.</p>		<p>6. Hold the knife blade at a 45° angle.</p>	
<p>7. Likewise, cut the bevel on the rudder hinge line.</p> <p>Note orientation of rudder to be sure and have the bevel on the correct side.</p>		<p>8. Use a fine tip on your CA bottle and apply CA to the edge of the side stiffeners.</p>	

<p>9. Inset tabs from stiffener into the fuselage.</p>		<p>10. Lay fuselage side on flat surface and hold the side stiffener perpendicular to side.</p>	
<p>11. Use CA Kicker to set the CA glue.</p>		<p>12. Do the other side watching the alignment of the stiffener.</p>	
<p>13. Cut out the radio cutout at this time.</p>		<p>14. Your fuselage should look like this at this stage.</p>	
<p>15. Cut the plywood parts loose.</p>		<p>16. Apply CA to one side of the ply doubler.</p> <p>NOTE: there is a left and right side, so check first and then glue.</p>	
<p>17. Glue ply doublers to fuselage nose area. Watch the alignment as this affects the motor thrust angle and the landing gear mounting.</p>		<p>18. Your fuselage should look like this at this time.</p>	
<p>19. Put down a piece of Blenterm tape and cut into 1/8 inch by 1/2 inch pieces.</p> <p>NOTE: a piece of glass, mirror or plexiglass make a nice surface to do this operation.</p>		<p>20. Apply Blenterm tape hinges to the elevator/stab. Use 4 hinges.</p>	

21. Glue the elevator horn in place on the elevator.



22. Likewise, glue the rudder horn to the rudder. Note orientation.



23. Using the supplied alignment tool, insert and align the elevator/stab assembly.



24. After the elevator/stab is aligned, glue with CA and Kicker.



25. Using 3 tape hinges, mount the rudder to the fin/fuselage.



26. Glue one of the gear legs into fuselage. Gear leg should be flush with top of the stiffener.

NOTE: LG legs are 2.25 inches long 1mm carbon rod.

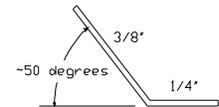


27. Insert and glue the other gear leg. Gear leg should be flush with top of the stiffener.



28. Bend wheel axels like the drawing. Test fit them on the LG until you get the proper angle.

Each axel is 0.025" music wire 5/8 inch long.



29. Using a piece of heat shrink 3/8 inch long, mount the wheel axels to the landing gear legs. Use a heat source to shrink the heat shrink. NOTE: foam will melt if the heat source is applied to the foam.



30. Insert wheel hubs into wheels.

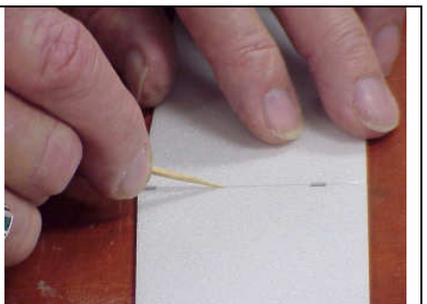
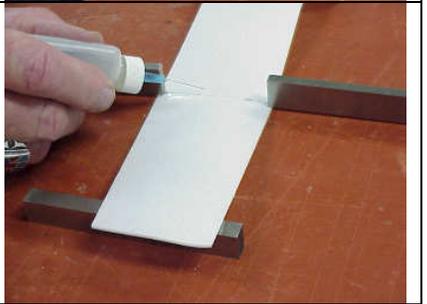
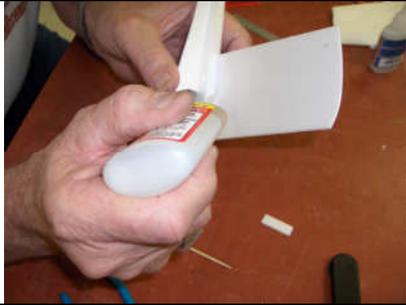
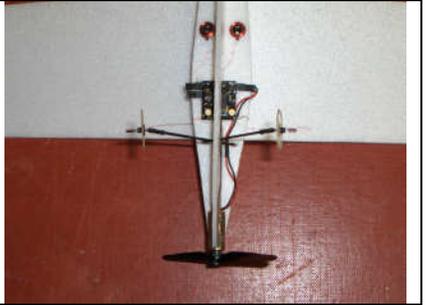
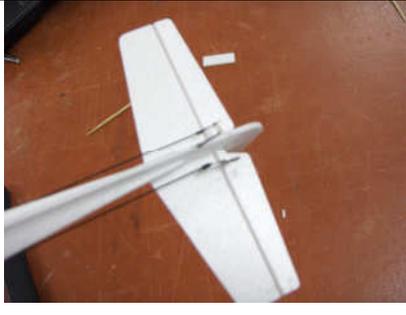
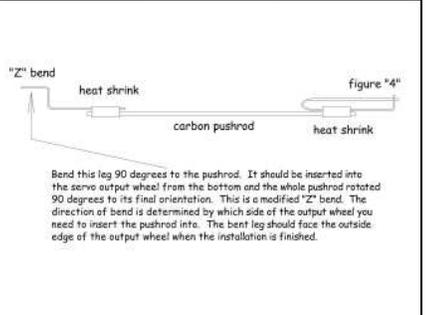


31. Use CA to secure the hubs to the wheels. Be careful to keep CA out of the axle hole.



32. After carefully aligning the axels, secure the axel/landing gear/heat shrink with CA.



<p>33. Install wheels on the axel and install the keepers.</p> <p>The keepers may be extremely tight. It is best to push them on a scrap piece of wire first to loosen them up.</p>		<p>34. Take the wing and bevel the top of the center slot of the wing until the wing can easily bend up at a 30° to 45° angle.</p>	
<p>35. Now form the airfoil by bending the wing over the edge of a table.</p> <p>NOTE: the top of the wing is UP.</p>		<p>36. Your airfoil should look like this.</p>	
<p>37. Now apply CA to the top of the center slot.</p>		<p>38. Block up the wing 5/8 inch on both tips while holding the center down and apply CA Kicker. Leave it down for 15 minutes to allow it to cure out.</p>	
<p>39. Install wing using CA. Check alignment and then use Kicker to set the glue joint.</p>		<p>40. Install the motor, actuators and receiver.</p>	
<p>41. Build two pushrods and install them on the elevator and rudder.</p>		<p>42. Typical pushrod construction.</p>	 <p>"Z" bend      heat shrink      carbon pushrod      heat shrink      figure "4"</p> <p>Bend this leg 90 degrees to the pushrod. It should be inserted into the servo output wheel from the bottom and the whole pushrod rotated 90 degrees to its final orientation. This is a modified "Z" bend. The direction of bend is determined by which side of the output wheel you need to insert the pushrod into. The bent leg should face the outside edge of the output wheel when the installation is finished.</p>

This completes the construction of the Micro Spoil Sport. The CG should be set at 0.75 inches from the leading edge of the wing. After test flight, adjust CG to suit your flying style.

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