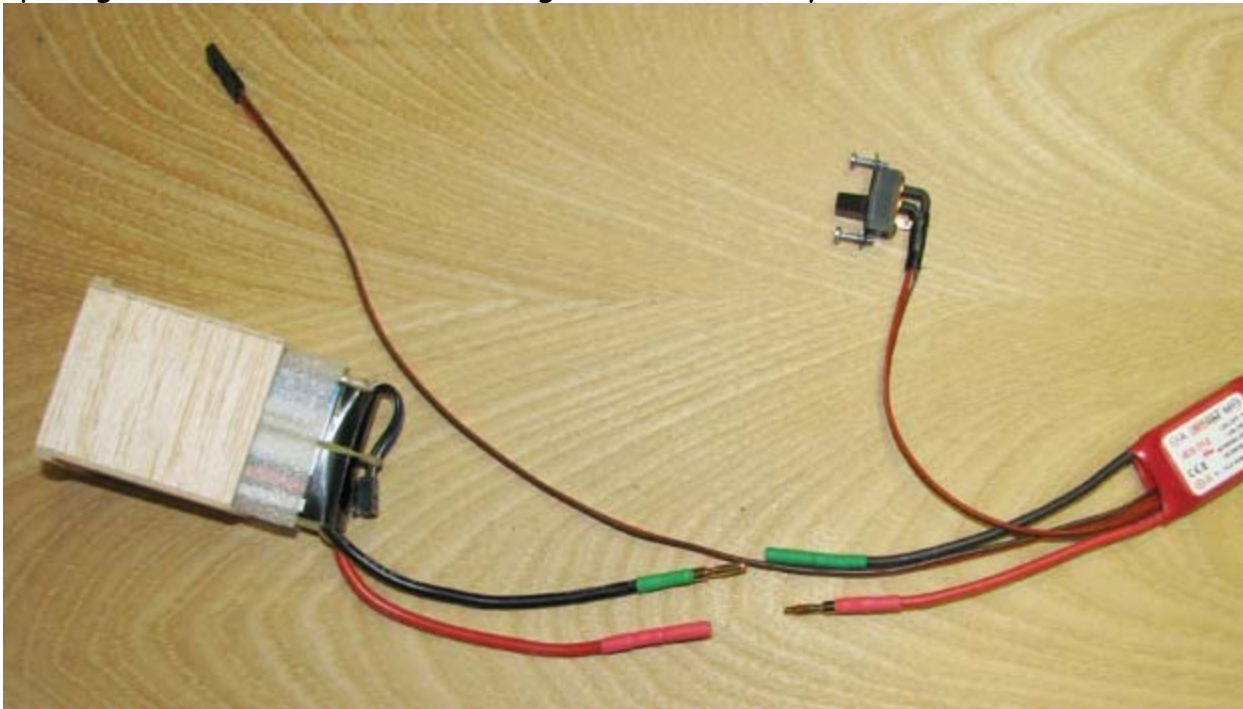


David Harding

From: Tandy C. Walker [tandyw@flash.net]
Sent: Friday, February 19, 2010 12:33 AM
To: Undisclosed-Recipient: ;@smtp107.sbc.mail.mud.yahoo.com
Subject: 65 Speed 400 Cloudster - Battery and ESC Connectors and Antenna Guide for 2.4 GHz Receiver

Speed 400 Cloudster Project

I began the day by soldering the polarized connectors to the red and black wires on the Li-Po battery and the corresponding red and black wires on the ESC as shown below. The battery in its box was successfully installed in the fuselage through the opening in the top of the cabin and the battery connected to the ESC a total of three times. Based on this exercise, it was concluded that a hatch opening on the bottom of the fuselage is not necessary.



The next task was to install the antenna guides for the two *FASST* receiver antennae. I want to restate Futaba's three antenna requirements to "maximize" the 2.4 GHz receiver's reception performance. They are as follows:

- (1) The two antennae are to be 90 degrees to each other.
- (2) The locations of the two antennae are to be as far apart as practical in the model's fuselage.
- (3) The two antennae are to lie in different planes.

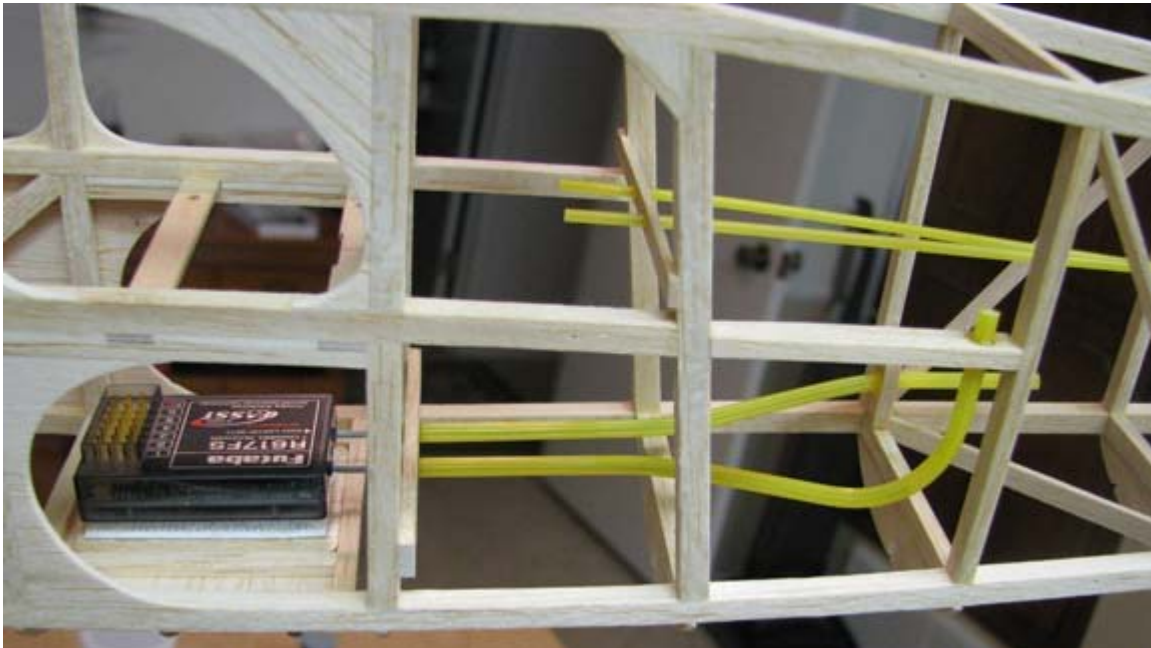
I used the standard Sullivan Gold-N-Rod for the antenna guides, which is yellow in color. It has a large enough hole in the center to accommodate the *FASST* antenna diameter and can be bent to hold its shape.

[Here is a great tip for bending Sullivan Gold-N-Rod that was developed on the previous Sailplane project.](#)

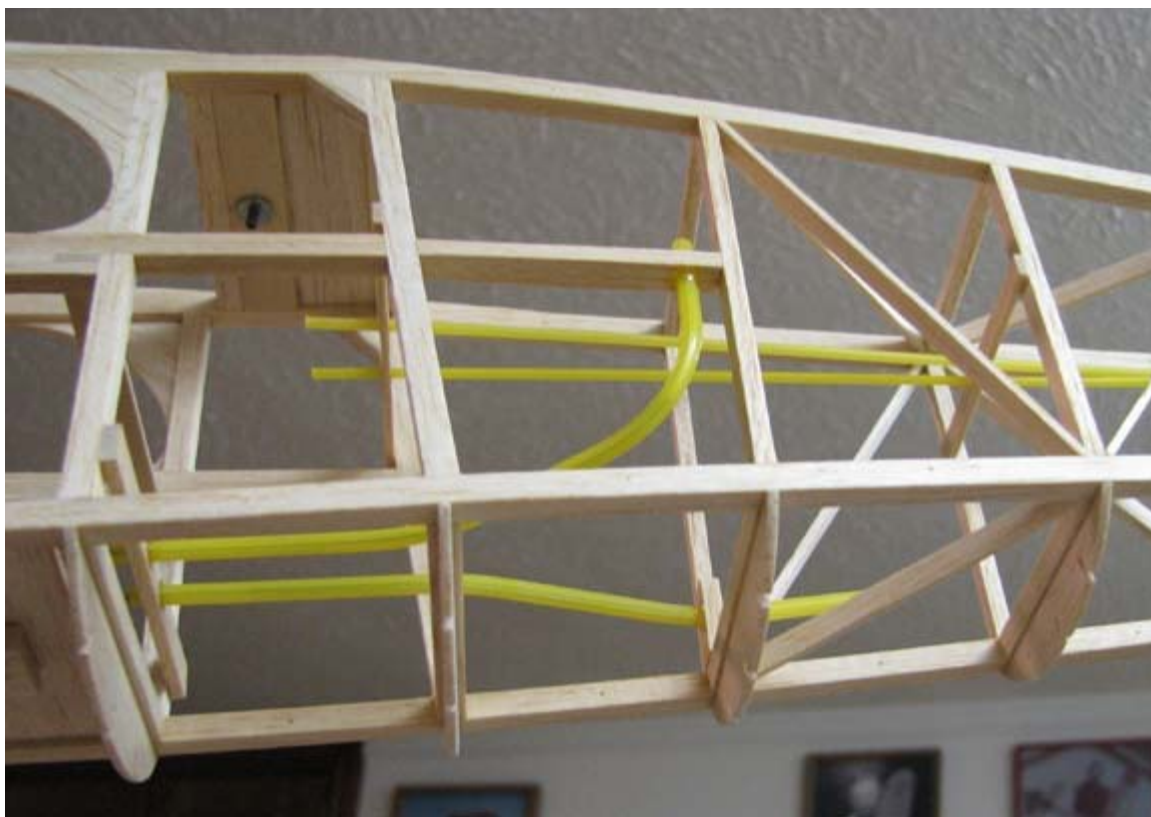
Gently heat the Gold-N-Rod with a heat gun and begin to bend it into the shape you want. Holding the shape you want and while it is still warm, dip the bend in cold water and this will instantly set the angle of the bend. If you miss the angle a little, reheat the bend and it will start to release or unbend. Again, hold in the angle you want and while it is still warm and dip it in cold water. This will again setting the angle of the bend that you want.

The configuration I chose to satisfy the above three requirements is shown in the pictures below. After the tubes were bent to shape, balsa brackets were glued to the fuselage structure, and the tubes inserted into the brackets. After some adjustment and alignment of the tubes, they were CA'd in place.

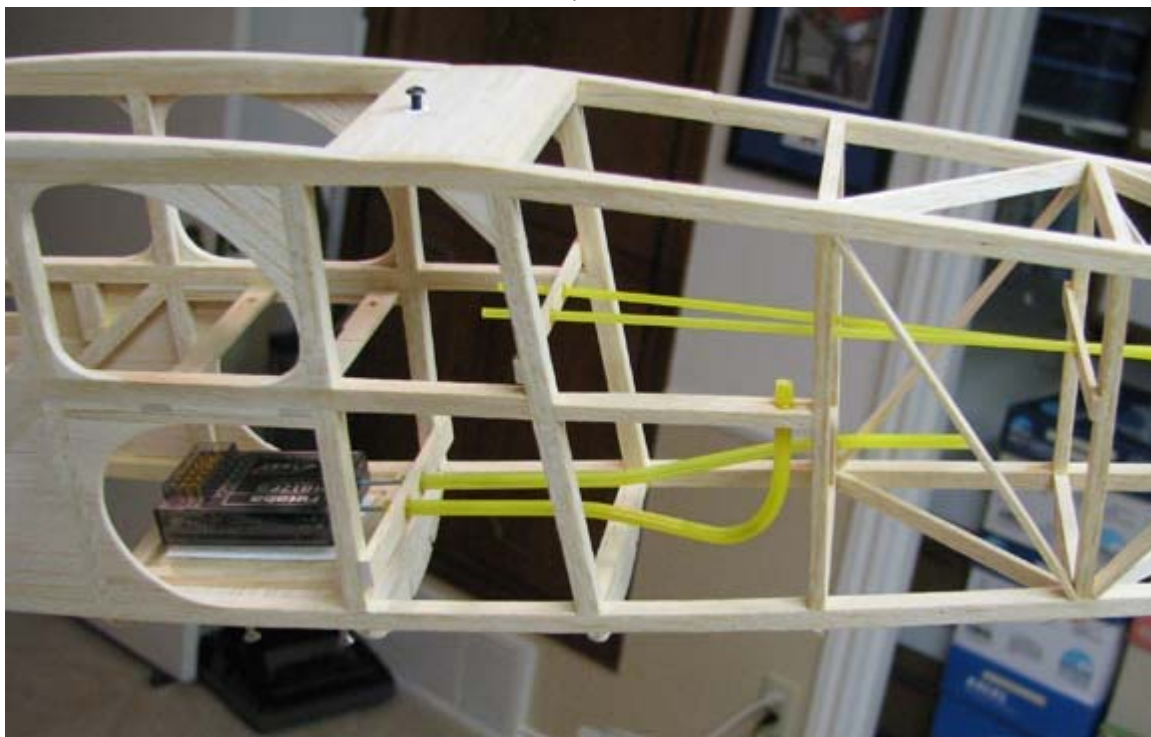
Left Side View



Left Side View from the Bottom.



Another Left Side View.



This now completes both the electric power train and radio installations. The next task for tomorrow is to glue the three stringers to the fuselage's bottom bulkheads shown below and plank in around the two ABS tubes through which the receiver is mounted.....Tandy

