

Omega Centauri Probe

Assembly Instructions

Designed by: Buzz Nau

1) Assemble the center section first. Paint the 2.4" BT-5 silver and all of the RA-520 rings copper and set aside to dry. When dry, make a mark with a pencil every 0.2" on the BT-5 (there should be 11 marks). Scrape away a little silver paint around the BT-5 at each mark and at both ends. Starting at one end, use a few small drops of medium CA (or wood glue) to glue the RA-520's to the tube.

There should be one on each mark and on both ends. Make sure the rings are centered around the mark before the glue dries.

2) Make a mark with a pen 3" from one end of the PST-20. Push the BT-5/RA-520 assembly into the PST-20 until the rear edge rests on the 3" mark. Secure the internal assembly in place with styrene cement or 5 min epoxy.

3) Assemble the two shrouds and slip both onto the PST-20. The rear shroud goes on the end with the 3" mark. Make a mark 1" from each end of the PST-20. Slip an AR-2050 up to but not over each line and secure into place with styrene cement or 5 min epoxy. Fasten the 2 remaining AR-2050's flush on each end of the PST-20.

4) Mark the 3.5" BT-50 for four fins and extend lines the length of the tube.

Spread a layer of wood glue inside one end of the BT-50 and insert the PST-20 assembly end with the 3" mark near it until the second AR-2050 on that end is flush with the end of the BT-50. Slide the rear shroud down and glue in place flush against the BT-50. Sand the ends of the 1.9" 3/32" dowel round and glue onto the seam of the rear shroud. Assemble the EH-2050 engine mount and glue into the other end of the of the 3.5" BT-50. The engine tube should be flush with the end of the BT-50.

5) Spread a layer of glue inside one end of the 3.75" BT-50 and slide over the top end of the PST-20 assembly until the edge of the BT-50 is flush with the second AR-2050 on that end. Slide the forward shroud up and glue flush against the BT-50.

6) Lay out the parts for fins 1&3 on a sheet of wax paper. Using double glue joints, fasten the tip piece to the main fin piece for each fin. When dry, sand all edges except the root edge round. Again, using double glue joints fasten fins 1&3 to the 3.5" BT-50 180° apart.

7) Sand the leading and trailing edges of fins 2&4 round. Glue each to the remaining fin guide marks on the 3.5" BT-50 with the root/trailing tip flush with rear of the tube. Mark a straight line the length of both 1.8" BT-5 pod tubes. Make a mark on each line 0.9" from the bottom end. Using double glue joints fasten the pods to fins 2&4. The trailing/tip edge should be on the 0.9" mark. Glue 1 pod leg centering ring to the base of each BNC-5W pod cone and 1 just inside the rear of both pod tubes. Glue the pod cones on top of the pod tubes and when dry, glue a pod leg in each pod. Set a fin support dowel from the pod cone/tube joint straight to the BT-50, sand support dowels as necessary to make pods parallel with BT-50 when support is in place. When sanded to correct length glue in place. Sand the pod leg tips until the model stands straight up and does not wobble. Glue a 0.5" launch lug flush on each of the pod leg tips.

8) Glue the rear launch lug against fin 1 or 3, 2" from the rear of the BT-50.

Use a straight edge to mark the upper BT-50 for the upper launch lug in-line with the rear one. Glue the upper

launch lug 0.15" from the rear of the upper BT-50.

9) Assemble and install the recovery system normally. To minimize chance of damaging the pod legs a horizontal suspension of the model from the parachute is suggested.

10) Finishing: Use sanding sealer on all wood parts and sand between applications until a smooth surface is obtained. Mask off the PST-20 section and after model is primed, paint entire model gloss white. Remove masking tape from PST-20 and cover forward shroud and upper 1" of PST-20 (the part that does not show the inner assembly) with chrome trim monokote. Paint the pod legs and dowel on the rear shroud silver. Paint pod leg tips red.

Flying Weight (minus motor) = 48 grams.

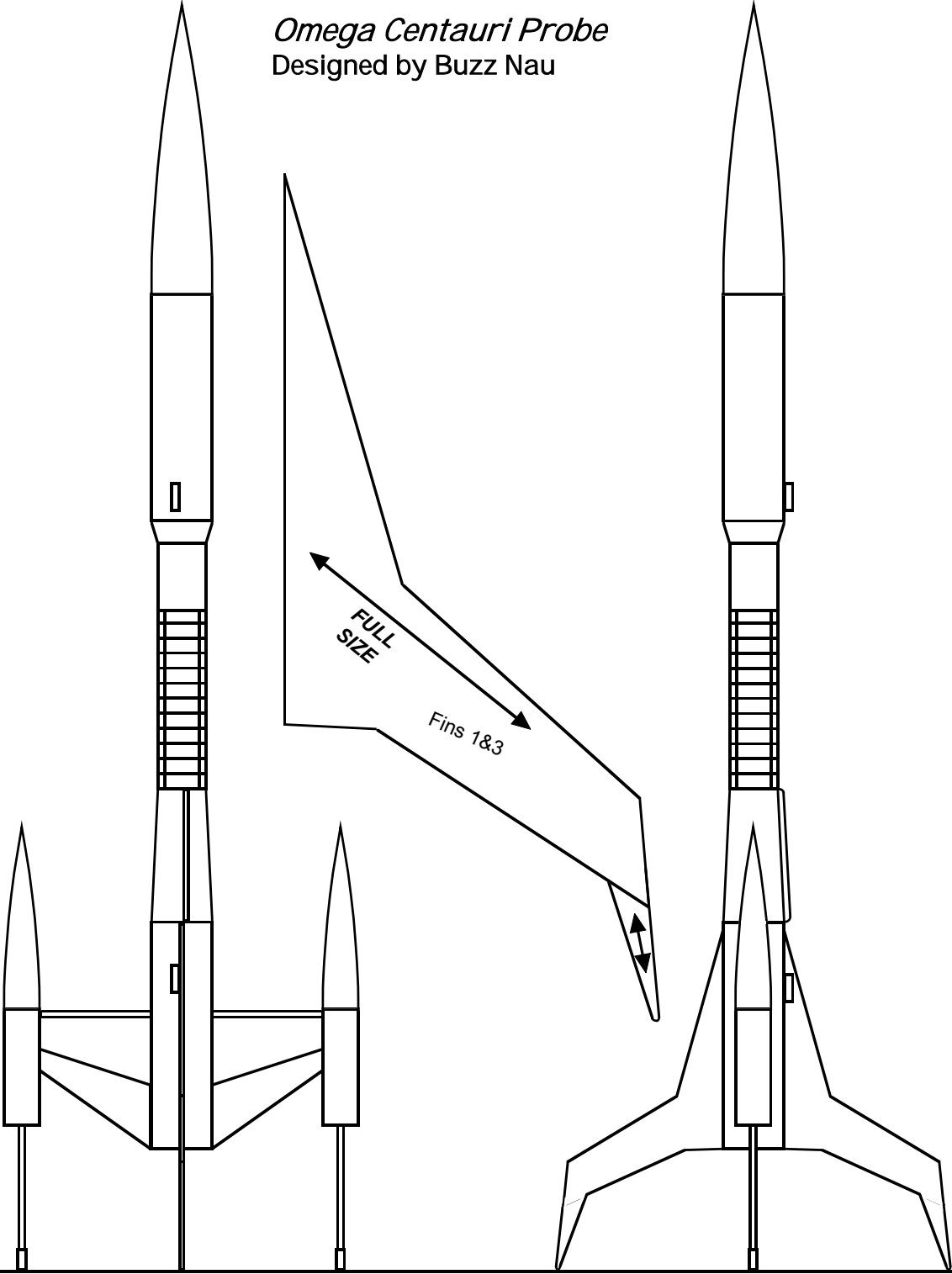
Flown successfully with A8-3 and B4-4 motors.

Thomas Beach's Altitude Simulation hypercard stack was used to make the following predicted altitude chart:

Motor	Altitude
A8-3	148'
B4-4	334'
B6-4	349'
C6-5	659'



Omega Centauri Probe
Designed by Buzz Nau



Top View

Side View

Omega Centauri Probe

Designed by Buzz Nau

Parts List:

- A - (1) BNC-50Y, Nose Cone
- B - (1) BT-50, 3.75"
- C - (1) Forward Shroud, Card Stock
- D - (4) RA-2050
- E - (1) PST-20, 7.25"
- F - (1) BT-5, 2.4"
- G - (13) RA-520
- H - (1) Rear Shroud, Card Stock
- I - (1) 3/32" Dowel, 1.9"
- J - (1) BT-50, 3.5"
- K - (2) 3/32" Fin 2-4 Support Dowel, 1.71"
- L - (2) Fins 2&4, 3/32" Balsa
- M - (2) BT-5 Fin 2-4 Pod Tube, 1.8"
- N - (2) BNC-5W Pod Cone
- O - (2) Pod Legs, 3/32" Dowel
- P - (4) Pod Leg Centering Rings
- Q - (2) Pod Leg Tip, 1/8" Launch Lug, .5"
- R - (2) Fins 1&3, 3/32" Balsa (two pieces)
- S - (1) EH-2050
- T - (2) LL-2, Forward and Rear Launch Lug, .5"
- U - Recovery System
- V - Small Screw Eye

