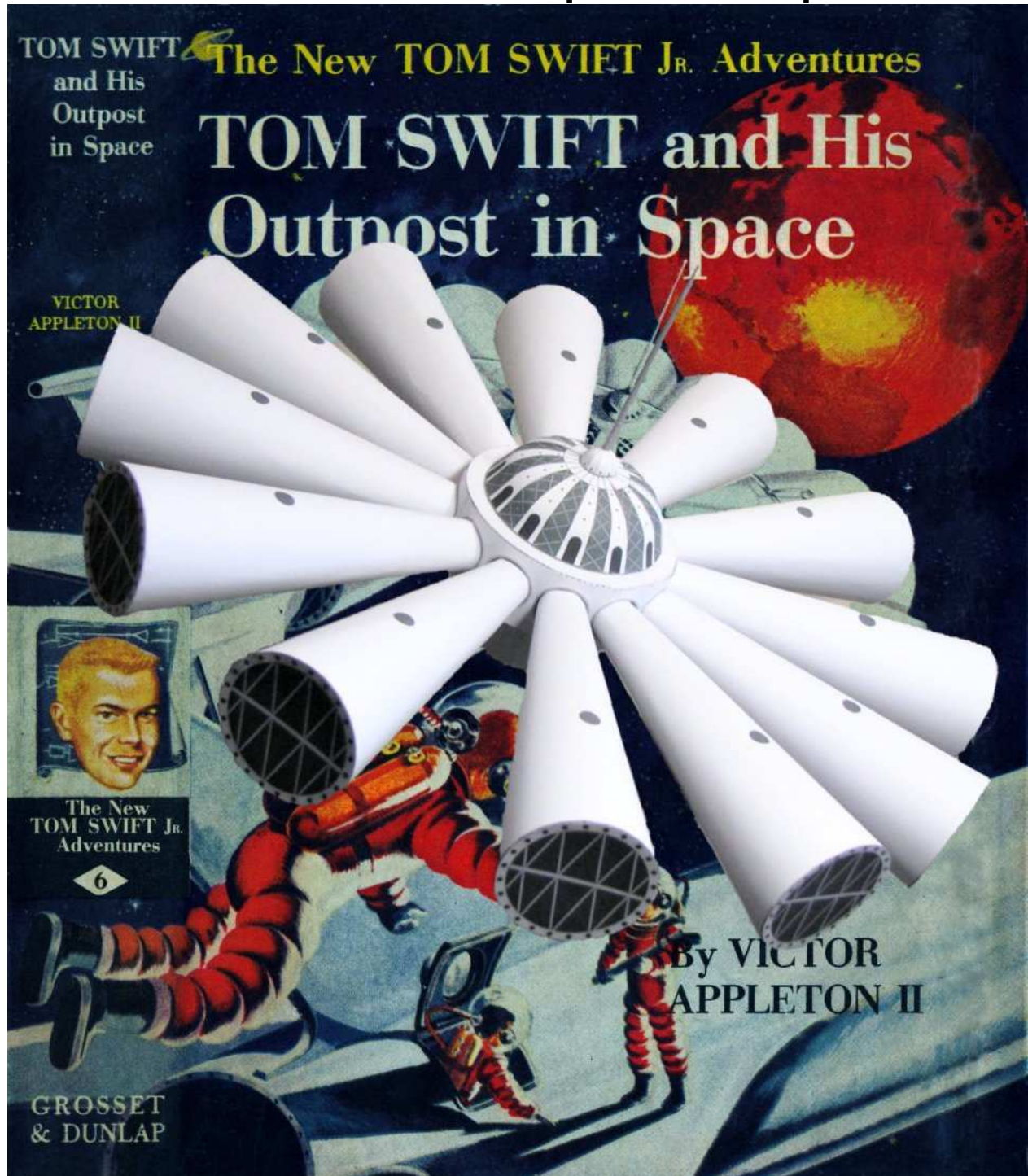


Assembly Instructions for a
1:400 Scale Paper Model of

Toms Swift's Outpost in Space



Model designed and copyright © by Mike Hungerford
<http://www.chthulhu.com/models.html> – chthulhu@chthulhu.com

Read ALL of these instructions before beginning.

Print the model's pages on a good quality 90 lb (135 GSM) index card stock for best results. Whatever you use should be approximately 0.008 inch (0.2 mm) thick as that is what this model was designed around.

Print one (1) copy each of pages 1 through 3, and six (6) copies of page 4. Allow the ink to dry completely before beginning assembly.

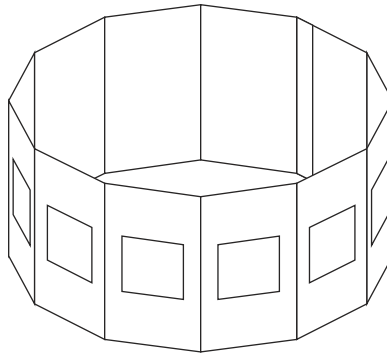
Use of common white PVA glue (Elmer's Glue-All is one) is recommended.

Accurate cutting, scoring, folding, and assembly will yield the best results. Clean hands and working surface, and a bit of patience, will also help a great deal.

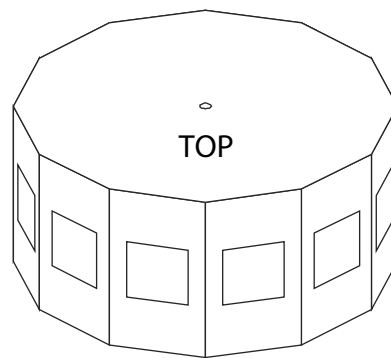
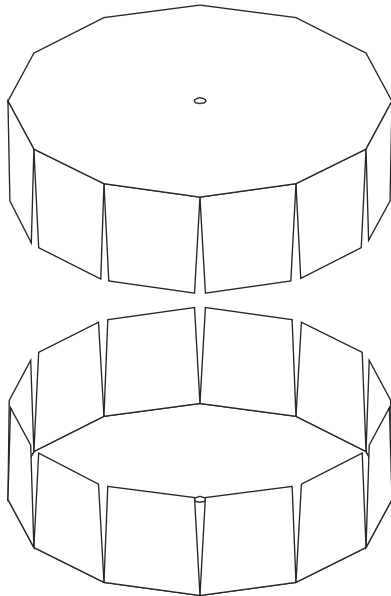
Center locating dots have been provided for those using circle cutters.

Align all the 1/16" center holes during assembly by placing the Antenna (see Step 13) through the holes.

1. Core: Score part 1 at each of the 13 dashed lines. Cut out part 1 and fold away from the printed side at each scored line, then glue at the end tab to make a 12-sided part.

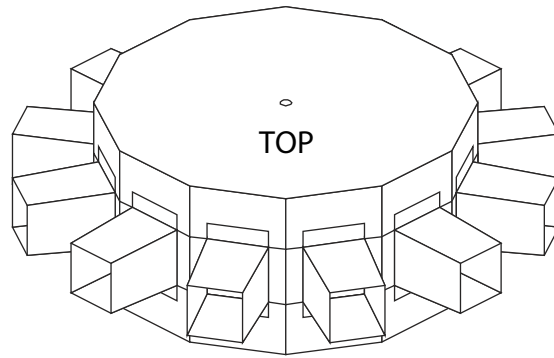
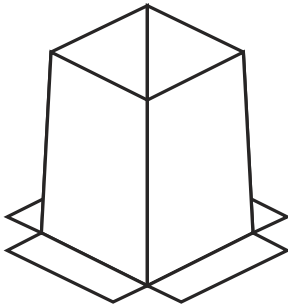


2. Core: Score parts 2 on the dashed lines at the 12 tabs. Cut out each part and cut or punch a 1/16" diameter in the center as indicated. Fold all tabs away from the printed side of the parts. Glue a part 2 flush into either open end of part 1. Using whatever you have chosen for the Antenna, enlarge the 1/16" diameter holes to fit it. Glue a scrap of card stock over one of the 1/16" holes and mark that side as the TOP (I use an arrow on one face of the part). This allows the upright of a stand a place to rest against.

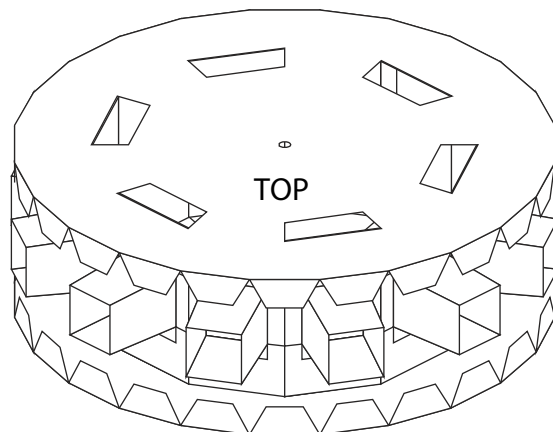
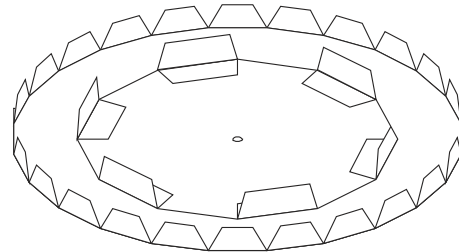
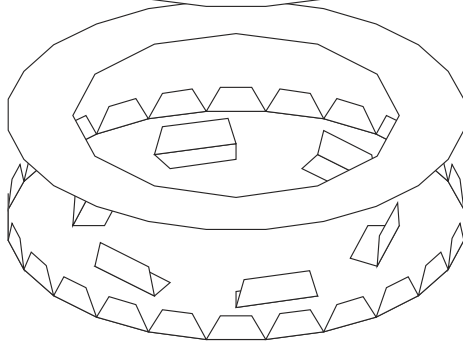
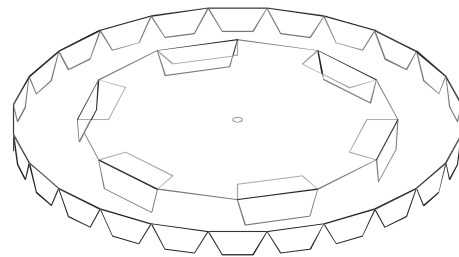
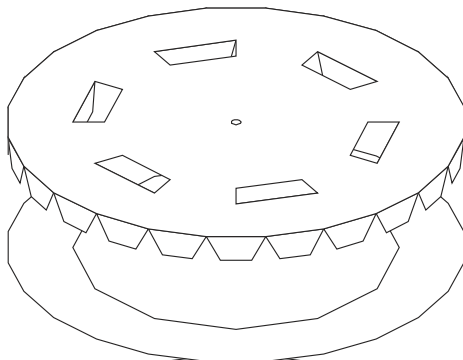


3. Core - Laboratory Guides: Score and cut out 12 parts 3. Form each part 3 into the shape shown below and glue at the tab. Glue each part 3 onto part 1 in the marked locations.

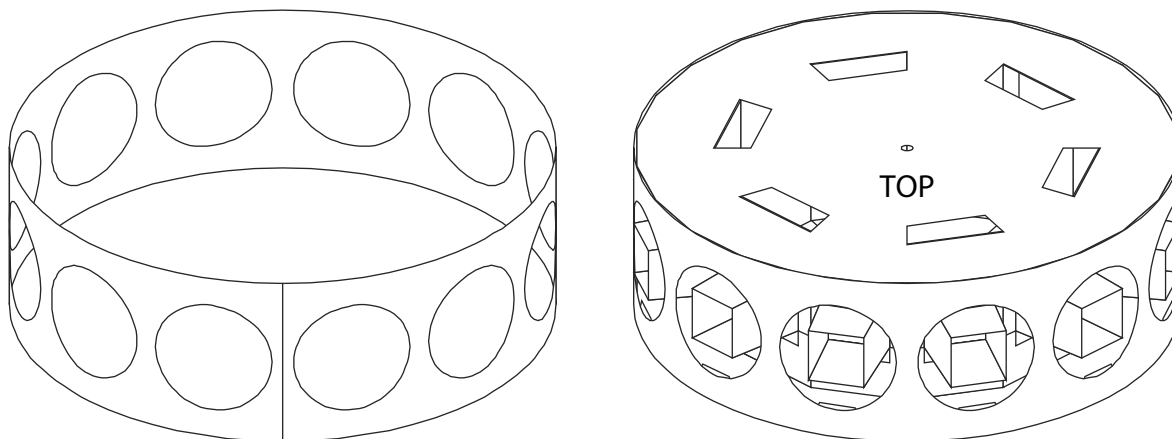
GLUING THESE PARTS ACCURATELY IS VERY IMPORTANT.



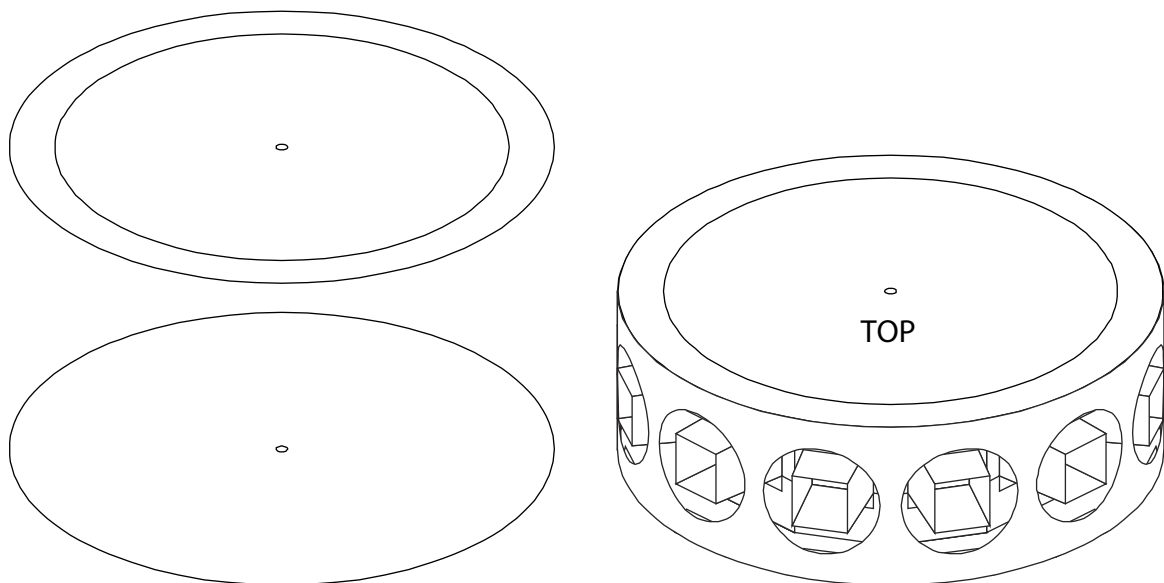
4. Core: Score each part 4 at all the dashed lines around the rim. Score the remaining six dashed lines on each part. Cut along the solid lines adjacent to the dashed lines, then cut out the parts. Cut or punch 1/16" diameter holes in the centers where indicated. Using whatever you have chosen for the Antenna, enlarge the 1/16" diameter holes to fit it. Push the six inner tabs on each part down away from the printed side. Cut out parts 4a and remove each hexagon marked with a red "X". Glue one part 4a to the unprinted side of each part 4, with the inner tabs projecting through the openings. Glue one part 4 to each part 2 so that the six inner tabs sit flat against the sides of part 1. Glue the tabs down.



5. Hub: Carefully cut out each of the twelve circles on part 5 marked with a red "X." Cut out parts 5 and 5a. **HANDLE THIS PART WITH CARE, AS IT IS QUITE FRAGILE.** Glue part 5a to the back of part 5 at one end. **IMPORTANT:** Align the end of part 5 (NOT of part 5a) with one of the twelve tick marks on parts 4. Glue part 5 to the tab on part 4 it touches that is nearest part 5a, then glue to the same tab on the other part 4. Continue gluing to alternating tabs, keeping part 5 tight against parts 4. Finish by gluing the free end of part 5 to part 5a.



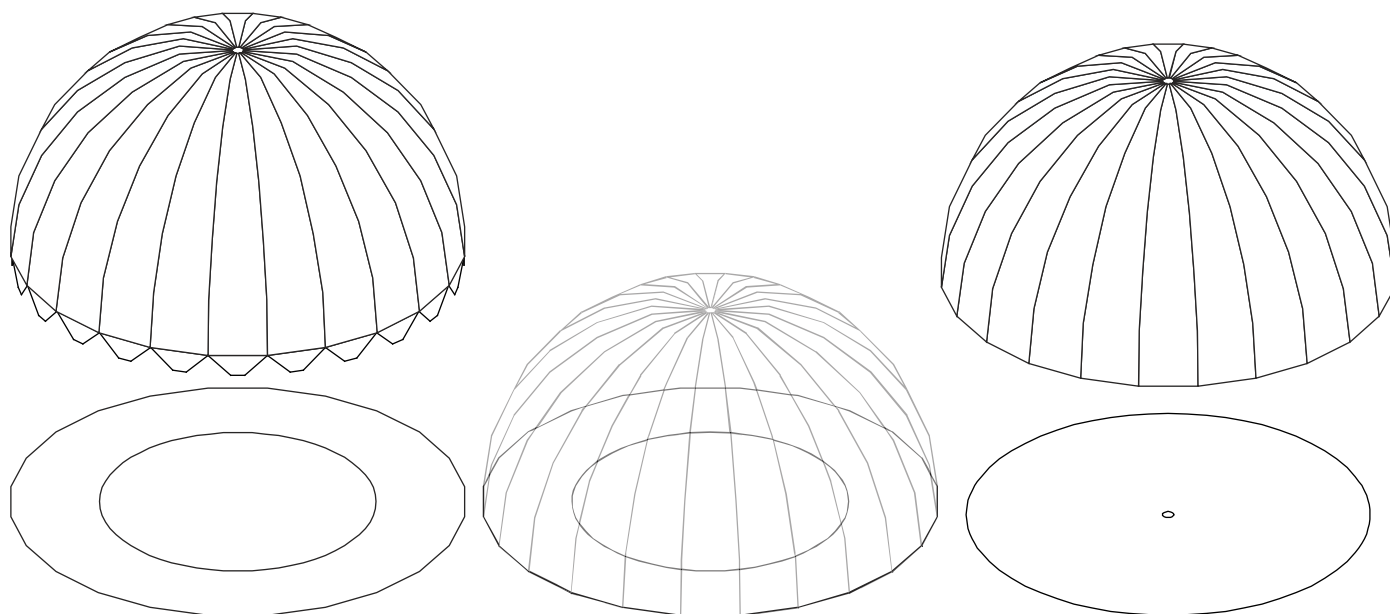
6. Hub: Cut out parts 6. Cut or punch 1/16" holes in the centers where indicated. Using whatever you have chosen for the Antenna, enlarge the 1/16" diameter holes to fit it. Align the 1/16" holes with those on parts 4 and glue parts 6 onto parts 4.



7. Hub: Carefully inspect each of the twelve holes in part 6. Each circle should align with one of the parts 3 centered behind it. If it doesn't you will need to reprint pages 1 and 2 and start over.

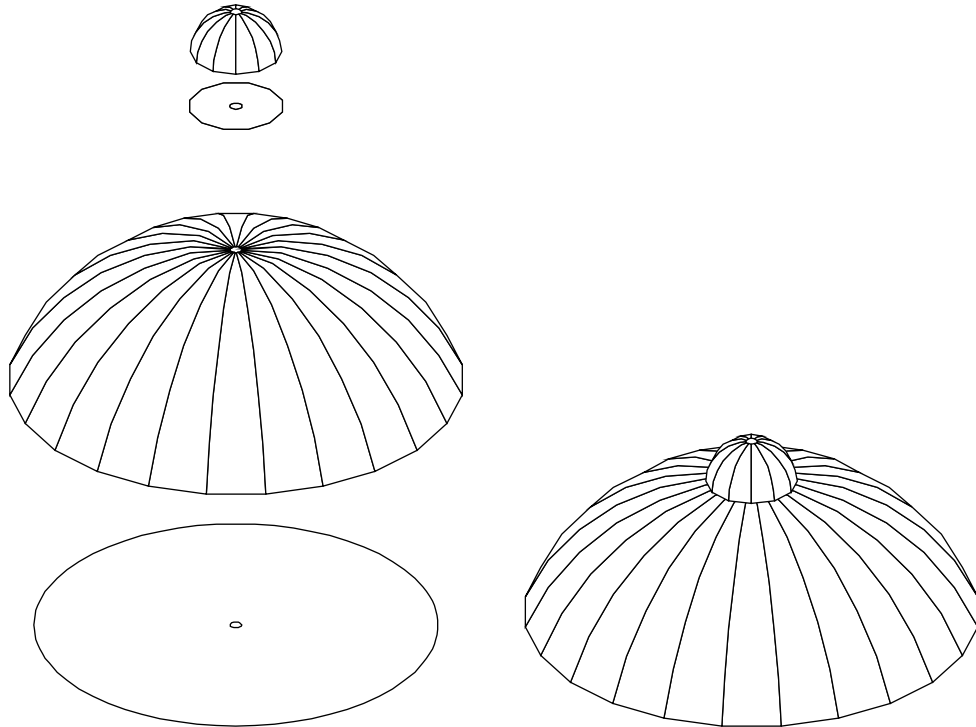
8. Lower Dome: Score the small tabs along the outer edge of part 7. Cut out part 7. Cut or punch a 1/16" hole in the center where indicated. Using whatever you have chosen for the Antenna, enlarge the 1/16" diameter hole to fit it. Curl each of the "petals" away from the printed side to roughly a 90-degree arc. Cut out part 7a; remove the center portion marked with a red "X." Fit part 7a inside part 7 and bend all the tabs around part 7 inward. Glue the tabs to part 7a where indicated*, reaching through the hole to press the tabs down. Cut out part 7b. Cut or punch a 1/16" hole in the center where indicated. Using whatever you have chosen for the Antenna, enlarge the 1/16" diameter hole to fit it. Glue part 7b to the bottom of part 7a, keeping it centered within the tabs as indicated. Set this assembly aside.

*There are twenty-four tabs to this dome. For best results, glue just one tab first, then glue the tab directly opposite (count around to the twelfth tab and position from the first). Then glue the two tabs halfway between these first two, then the four tabs halfway between those. The remaining sixteen tabs can be glued in any order.

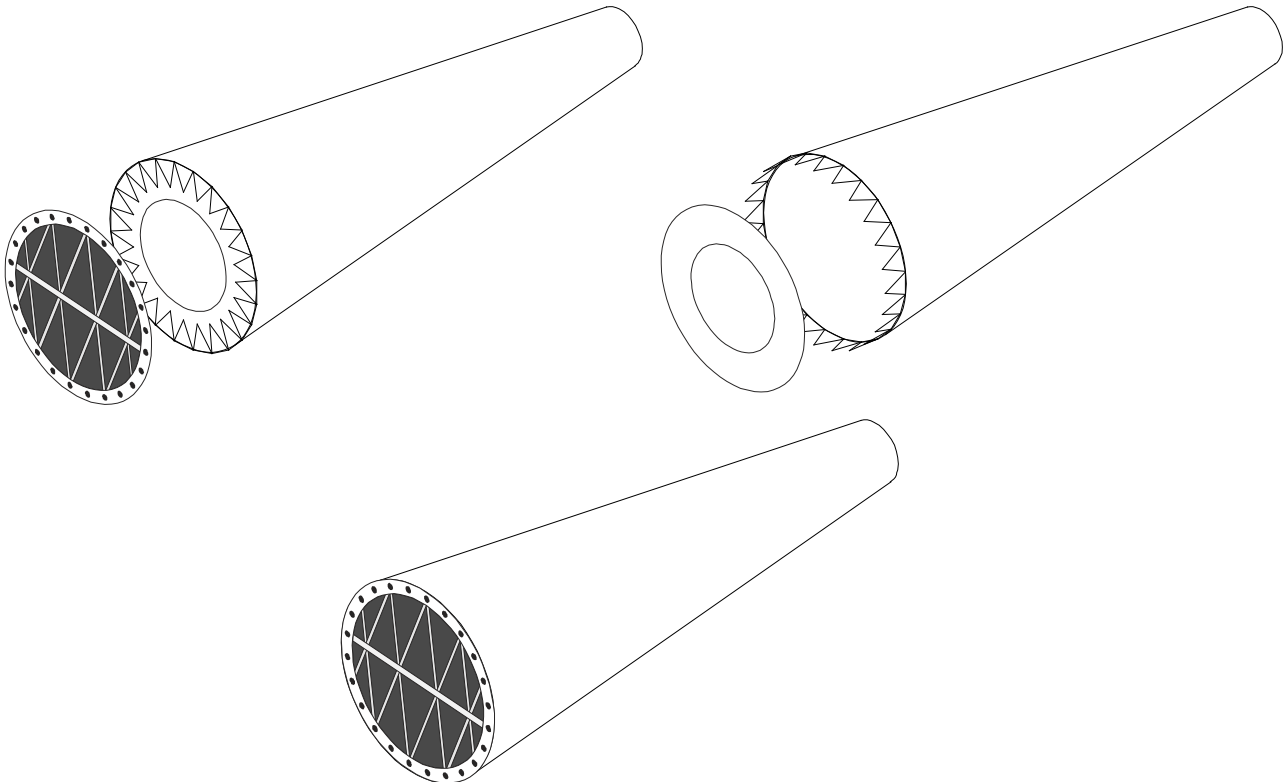


9. Upper Domes: Repeat step 8 for parts 8 through 8b; note that this dome is shallower than the previous one.

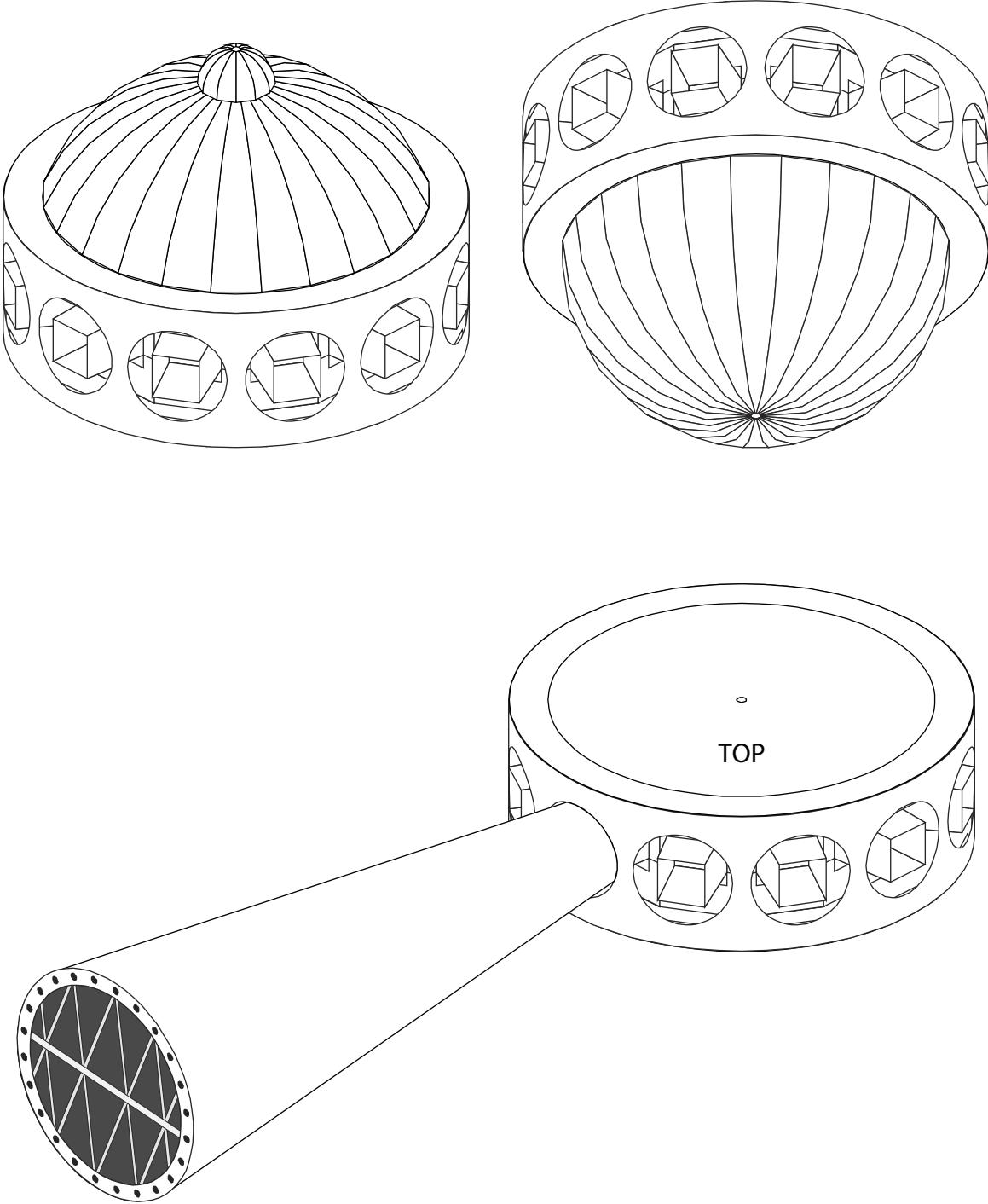
10. Upper Domes: Assemble parts 9 and 9a in a similar manner to the preceding steps; use your Antenna to reach through the hole in part 9 to apply pressure when gluing the tabs. Glue this assembly to the top of the dome from step 9 in the location indicated; use your Antenna to align the parts. Lastly, glue part 8c to the bottom of this assembly where indicated on part 8a.



11. Laboratories: Score the triangular tabs on part 10. Cut out parts 10 and 10a. Glue part 10a to the back of one edge of part 10. Roll part 10 into a cone and glue the free edge to part 10a. Cut out part 10b and remove the portion marked with a red "X." Fit part 10b inside part 10 and glue the tabs down to it all around. Reach through the hole to apply pressure. Cut out part 10c. The white bar on part 10c runs horizontally. The dark dot on part 10 is on the top, and the seam is the bottom. Position part 10c with this in mind and glue it to the tabs on part 10. Repeat this step for eleven more Laboratory assemblies.



12. Final Assembly: Glue the Upper Dome assembly into the circle indicated on the TOP of the Hub (it will be the one with the blocked center hole). Glue the Lower Dome into the circle indicated on the BOTTOM of the Hub. Install a Laboratory into each of the holes around the Hub with a gentle twisting motion, turning all the dark dots to the top. No glue is needed here.



13. Antenna: Cut a 4" long piece of 1/16" bamboo skewer as shown on parts page 3. Test fit it through the holes in the Upper Domes; it should fit down solidly against the top of the Core. Mark the skewer where it exits the top of the small Upper Dome. Paint the pointed end of the skewer white or silver down to just past the mark. Apply a bead of glue to the other end of the skewer and put it back through the Upper Domes until it stops against the top of the Core. Apply a bead of glue around the skewer where it meets the small Upper Dome.

14. Details: (Optional) Using the included cover image as a reference, shape a ring 7.5" in diameter out of 1/16" diameter wire or other material. Attach to it 12 rods of suitable length (approximately 1.5") to reach the center of the dark dot atop each Laboratory. Add a short vertical rod (approximately 1/8") from the center of the dark spot.

15: Stand: Using coat hanger wire or other suitable materials, fabricate a stand with a 1/16" diameter vertical rod of about 12" length. Smooth the tip of the vertical rod, and insert it into the assembled model through the holes in the Lower Dome and Hub. It should rest against the inside of the TOP of the Hub.

