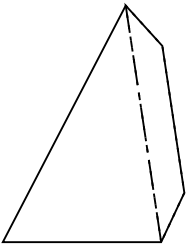


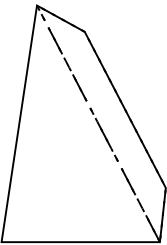
Faceted Sea Turtle

turtle / 1.0.0 / Letter / Template page 1

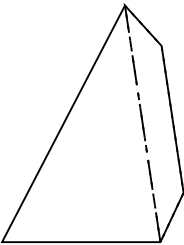
S09 | cut 1
24.01 x 31.30 mm



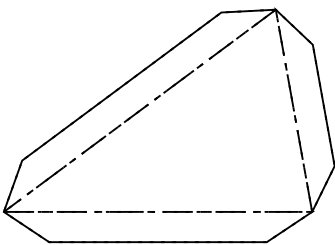
S18 | cut 1
21.73 x 31.30 mm



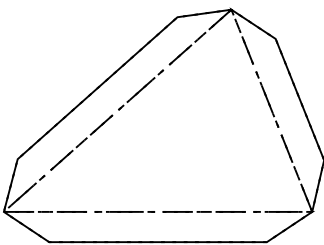
S21 | cut 1
24.01 x 31.30 mm



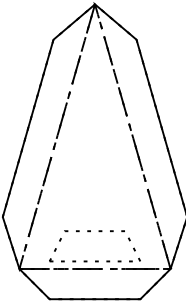
S10 | cut 1
43.76 x 30.75 mm



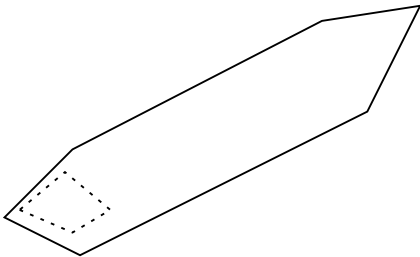
S13 | cut 1
42.37 x 30.75 mm



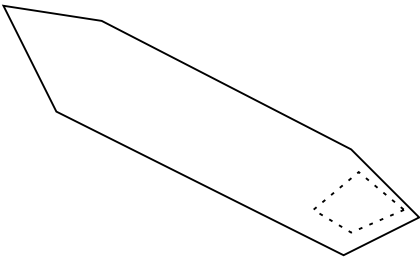
H01 | cut 1
24.40 x 39.00 mm



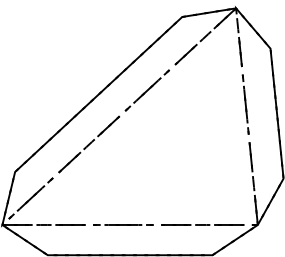
F01 | cut 1
55.00 x 33.00 mm



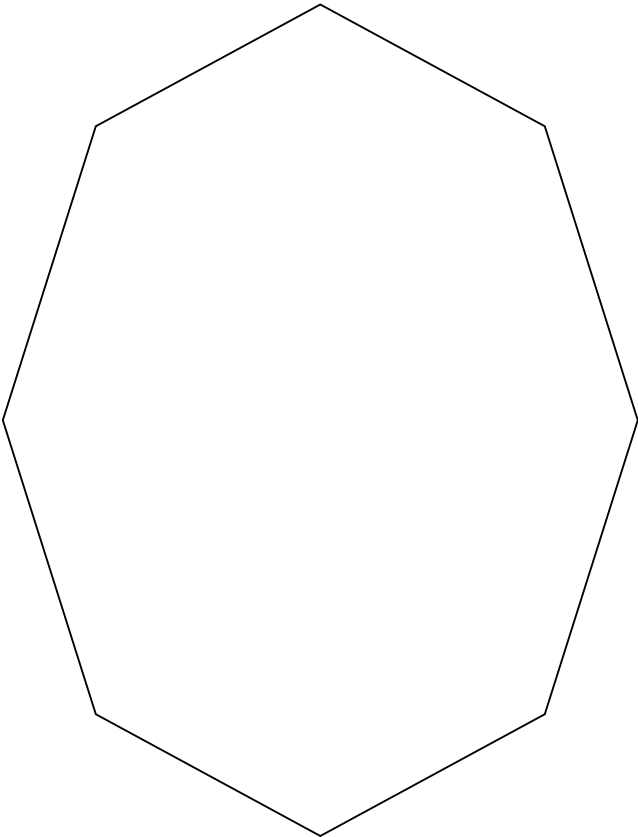
F02 | cut 1
55.00 x 33.00 mm



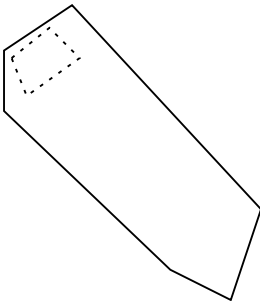
S07 | cut 1
37.19 x 32.66 mm



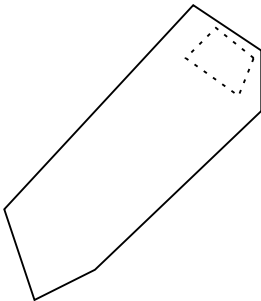
B01 | cut 1
84.00 x 110.00 mm



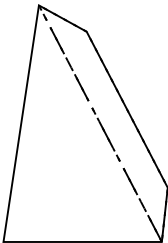
F03 | cut 1
34.00 x 39.00 mm



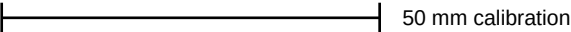
F04 | cut 1
34.00 x 39.00 mm



S06 | cut 1
21.73 x 31.30 mm



Solid: cut | Dashed: valley | Dash-dot: mountain | Dotted: glue



Print at 100% / Actual size. Do not fit to page. Original paper craft template.

Faceted Sea Turtle

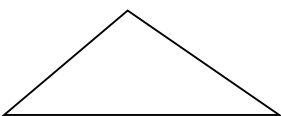
S20 | cut 1
42.16 x 14.33 mm



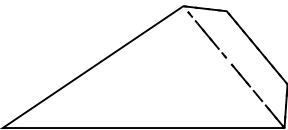
H03 | cut 1
36.40 x 14.11 mm



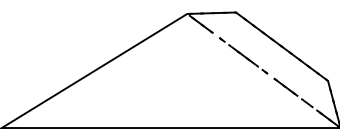
H04 | cut 1
36.40 x 13.81 mm



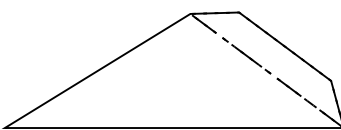
S17 | cut 1
37.67 x 16.11 mm



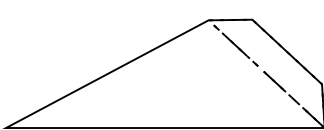
S11 | cut 1
44.83 x 15.28 mm



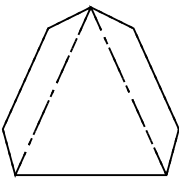
S23 | cut 1
44.83 x 15.28 mm



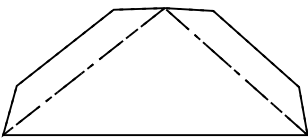
S08 | cut 1
42.16 x 14.33 mm



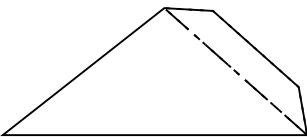
H02 | cut 1
23.29 x 22.20 mm



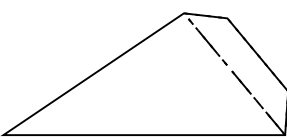
S02 | cut 1
40.27 x 16.80 mm



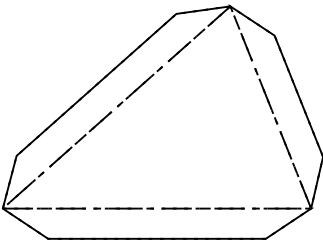
S14 | cut 1
40.27 x 16.80 mm



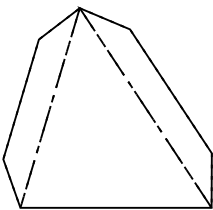
S05 | cut 1
37.67 x 16.11 mm



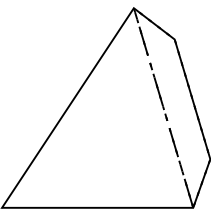
S01 | cut 1
42.37 x 30.75 mm



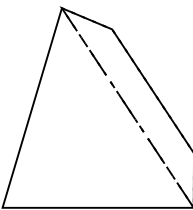
S03 | cut 1
27.59 x 26.41 mm



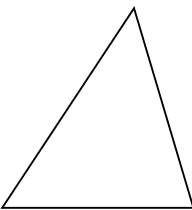
S12 | cut 1
27.55 x 26.41 mm



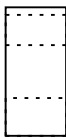
S15 | cut 1
25.32 x 26.41 mm



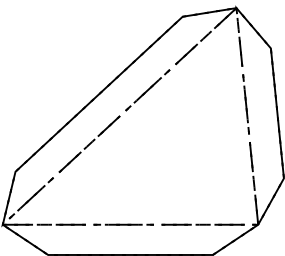
S24 | cut 1
25.29 x 26.41 mm



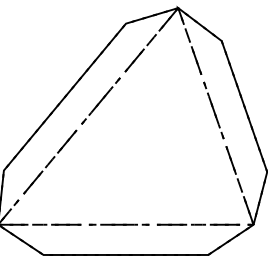
N01 | cut 1
8.00 x 17.00 mm



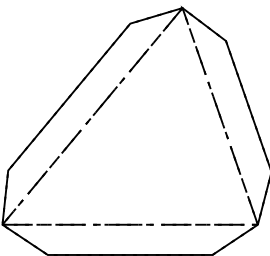
S19 | cut 1
37.19 x 32.66 mm



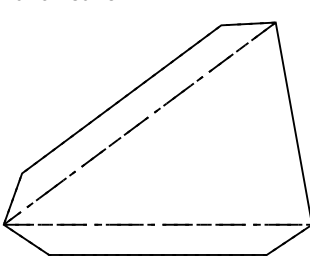
S04 | cut 1
35.59 x 32.66 mm



S16 | cut 1
35.59 x 32.66 mm



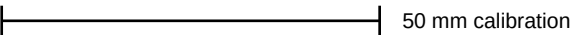
S22 | cut 1
40.79 x 30.75 mm



T01 | cut 1
10.00 x 29.00 mm



Solid: cut | Dashed: valley | Dash-dot: mountain | Dotted: glue



Faceted Sea Turtle

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Finished size: 158 x 164 x 31 mm

Materials: 180-220 gsm cardstock; Scissors or craft knife; Scoring tool and ruler; PVA glue

Original construction; 35 physical pieces: 24 shell facets, one bottom, four flippers, four head facets, one neck tongue and one tail. Tabs are integral paper, not extra instances.

All shell and head faces and tabs have exact rigid flat-to-assembled correspondence; the dome is faceted, never stretched or smoothly curved.

Zero-thickness geometry idealizes glued layers; real cardstock and glue add thickness. Flat flippers and the broad plastron provide the intended tabletop posture.

Generation only. Screen review and physical printing, cutting, assembly and stability testing are deferred.

Part inventory (cut each instance once):

S01: S01 rigid panel

S02: S02 rigid panel

S03: S03 rigid panel

S04: S04 rigid panel

S05: S05 rigid panel

S06: S06 rigid panel

S07: S07 rigid panel

S08: S08 rigid panel

S09: S09 rigid panel

S10: S10 rigid panel

S11: S11 rigid panel

S12: S12 rigid panel

S13: S13 rigid panel

S14: S14 rigid panel

S15: S15 rigid panel

S16: S16 rigid panel

S17: S17 rigid panel

S18: S18 rigid panel

S19: S19 rigid panel

S20: S20 rigid panel

S21: S21 rigid panel

Faceted Sea Turtle

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S22: S22 rigid panel

S23: S23 rigid panel

S24: S24 rigid panel

B01: Flat octagonal plastron

F01: Right front flipper

F02: Left front flipper

F03: Right rear flipper

F04: Left rear flipper

T01: Pointed tail

N01: Flat neck joining tongue

H01: H01 rigid panel

H02: H02 rigid panel

H03: H03 rigid panel

H04: H04 rigid panel

1. 1. Prepare matched panels [S01, S02, S03, S04, S05, S06, S07, S08, S09, S10, S11, S12, S13, S14, S15, S16, S17, S18, S19, S20, S21, S22, S23, S24]: Print at 100%; the ruler must measure 50 mm. Cut one of every ID, keeping all tabs. Score dashed lines. For each triangular panel, vertex 1 is template (0,0), vertex 2 is on its positive horizontal axis, vertex 3 is above that axis. Edges 1, 2, 3 run 1-2, 2-3, 3-1; tab cut edges are not panel edges. Transfer IDs and edge numbers lightly to the reverse before cutting. All tab folds go inside the hull.

2. 2. Lay the flat bottom [B01]: Keep B01 flat on the table, 84 mm wide by 110 mm long. Front is the pointed vertex at $y=+55$ mm; rear is $y=-55$ mm. The crown will stand 31 mm above this plane. Do not round or stretch any panel.

3. 3. Bond four flippers and tail [F01, F02, F03, F04, T01, B01]: Lay all five pieces flat on the table with their printed root glue patches on top of B01. Use the common template coordinates to register roots: front flippers at $x=\pm 24$, $y=22$ mm; rear flippers at $x=\pm 22$, $y=-25$ mm; tail root centered at $y=-45$ mm. Glue only root patches, leaving the outer 4 mm bottom rim clear for shell tabs. Tips reach $x=\pm 79$ mm, rear flippers $y=-58$ mm and tail $y=-74$ mm. Press roots for 60 seconds and let dry flat.

4. 4. Form head H01 [H01]: edge 1 (20.0 mm) to H02, own 4 mm tab folded inward 144.2 degrees; edge 2 (36.4 mm) to H03, own 4 mm tab folded inward 109.8 degrees; edge 3 (36.4 mm) to H04, own 4 mm tab folded inward 109.8 degrees. Pre-fold owned tabs to the stated angles from flat; glue under the receiving face, align full seam ends and hold 45 seconds. Keep the H01 underside root patch free for mounting. Complete all four faces as a 20 mm wide, 35 mm long, 13 mm high wedge.

5. 5. Form head H02 [H02]: edge 1 (20.0 mm) to H01, receiving its tab; edge 2 (24.4 mm) to H03, own 4 mm tab folded inward 83.0 degrees; edge 3 (24.4 mm) to H04, own 4 mm tab folded inward 83.0 degrees. Pre-fold owned tabs to the stated angles from flat; glue under the receiving face, align full seam ends and hold 45 seconds. Keep the H01 underside root patch free for mounting. Complete all four faces as a 20 mm wide, 35 mm long, 13 mm high wedge.

6. 6. Form head H03 [H03]: edge 1 (36.4 mm) to H01, receiving its tab; edge 2 (21.4 mm) to H04, own 4 mm tab folded inward 129.6 degrees; edge 3 (24.4 mm) to H02, receiving its tab. Pre-fold owned tabs to the stated angles from flat; glue under the receiving face, align full seam ends and hold 45 seconds. Keep the H01 underside root patch free for mounting. Complete all four faces as a 20 mm wide, 35 mm long, 13 mm high wedge.

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7. 7. Form head H04 [H04]: edge 1 (36.4 mm) to H01, receiving its tab; edge 2 (24.4 mm) to H02, receiving its tab; edge 3 (21.4 mm) to H03, receiving its tab. Pre-fold owned tabs to the stated angles from flat; glue under the receiving face, align full seam ends and hold 45 seconds. Keep the H01 underside root patch free for mounting. Complete all four faces as a 20 mm wide, 35 mm long, 13 mm high wedge.

8. 8. Mount the raised head [N01, H01, H02, H03, H04, B01]: Glue the rear 5 mm patch of N01 onto B01, centered at x=0 with its rear edge at y=44 mm. N01 projects forward to y=61 mm, staying flat. Glue the H01 underside root patch to the forward N01 patch at y=56-60 mm: center the head rear edge at y=55 mm and nose at y=90 mm. The raised head starts beyond the shell rim, connected by the flat tongue. Keep the head base horizontal and dry 5 minutes.

9. 9. Join shell panel S01 [S01]: edge 1 (40.8 mm) to B01, own 4 mm tab folded inward 124.7 degrees; edge 2 (28.8 mm) to S05, own 4 mm tab folded inward 35.0 degrees; edge 3 (40.3 mm) to S02, own 4 mm tab folded inward 0.0 degrees. Fold owned tabs inward by the stated angle from their flat extension. Glue 4 mm tabs beneath receiving faces; align seam endpoints without overlap of the main triangles. Join available neighbors now and leave future-neighbor tabs accessible. Assemble shell separately from B01; keep all B01 rim tabs unglued until the final closure. Hold each seam 45 seconds.

10. 10. Join shell panel S02 [S02]: edge 1 (40.3 mm) to S01, receiving its tab; edge 2 (25.3 mm) to S03, own 4 mm tab folded inward 35.4 degrees; edge 3 (27.2 mm) to S22, own 4 mm tab folded inward 28.7 degrees. Fold owned tabs inward by the stated angle from their flat extension. Glue 4 mm tabs beneath receiving faces; align seam endpoints without overlap of the main triangles. Join available neighbors now and leave future-neighbor tabs accessible. Assemble shell separately from B01; keep all B01 rim tabs unglued until the final closure. Hold each seam 45 seconds.

11. 11. Join shell panel S03 [S03]: edge 1 (25.3 mm) to S02, receiving its tab; edge 2 (31.6 mm) to S06, own 4 mm tab folded inward 13.8 degrees; edge 3 (27.6 mm) to S24, own 4 mm tab folded inward 11.8 degrees. Fold owned tabs inward by the stated angle from their flat extension. Glue 4 mm tabs beneath receiving faces; align seam endpoints without overlap of the main triangles. Join available neighbors now and leave future-neighbor tabs accessible. Assemble shell separately from B01; keep all B01 rim tabs unglued until the final closure. Hold each seam 45 seconds.

12. 12. Join shell panel S04 [S04]: edge 1 (33.8 mm) to B01, own 4 mm tab folded inward 129.9 degrees; edge 2 (30.3 mm) to S08, own 4 mm tab folded inward 42.9 degrees; edge 3 (37.3 mm) to S05, own 4 mm tab folded inward 0.0 degrees. Fold owned tabs inward by the stated angle from their flat extension. Glue 4 mm tabs beneath receiving faces; align seam endpoints without overlap of the main triangles. Join available neighbors now and leave future-neighbor tabs accessible. Assemble shell separately from B01; keep all B01 rim tabs unglued until the final closure. Hold each seam 45 seconds.

13. 13. Join shell panel S05 [S05]: edge 1 (37.3 mm) to S04, receiving its tab; edge 2 (20.9 mm) to S06, own 4 mm tab folded inward 33.4 degrees; edge 3 (28.8 mm) to S01, receiving its tab. Fold owned tabs inward by the stated angle from their flat extension. Glue 4 mm tabs beneath receiving faces; align seam endpoints without overlap of the main triangles. Join available neighbors now and leave future-neighbor tabs accessible. Assemble shell separately from B01; keep all B01 rim tabs unglued until the final closure. Hold each seam 45 seconds.

14. 14. Join shell panel S06 [S06]: edge 1 (20.9 mm) to S05, receiving its tab; edge 2 (35.3 mm) to S09, own 4 mm tab folded inward 15.8 degrees; edge 3 (31.6 mm) to S03, receiving its tab. Fold owned tabs inward by the stated angle from their flat extension. Glue 4 mm tabs beneath receiving faces; align seam endpoints without overlap of the main triangles. Join available neighbors now and leave future-neighbor tabs accessible. Assemble shell separately from B01; keep all B01 rim tabs unglued until the final closure. Hold each seam 45 seconds.

15. 15. Join shell panel S07 [S07]: edge 1 (33.8 mm) to B01, own 4 mm tab folded inward 129.9 degrees; edge 2 (28.8 mm) to S11, own 4 mm tab folded inward 35.0 degrees; edge 3 (42.2 mm) to S08, own 4 mm tab folded inward 0.0 degrees. Fold owned tabs inward by the stated angle from their flat extension. Glue 4 mm tabs beneath receiving faces; align seam endpoints without overlap of the main triangles. Join available neighbors now and leave future-neighbor tabs accessible. Assemble shell separately from B01; keep all B01 rim tabs unglued until the final closure. Hold each seam 45 seconds.

16. 16. Join shell panel S08 [S08]: edge 1 (42.2 mm) to S07, receiving its tab; edge 2 (20.9 mm) to S09, own 4 mm tab folded inward

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33.4 degrees; edge 3 (30.3 mm) to S04, receiving its tab. Fold owned tabs inward by the stated angle from their flat extension. Glue 4 mm tabs beneath receiving faces; align seam endpoints without overlap of the main triangles. Join available neighbors now and leave future-neighbor tabs accessible. Assemble shell separately from B01; keep all B01 rim tabs unglued until the final closure. Hold each seam 45 seconds.

17. 17. Join shell panel S09 [S09]: edge 1 (20.9 mm) to S08, receiving its tab; edge 2 (31.6 mm) to S12, own 4 mm tab folded inward 13.8 degrees; edge 3 (35.3 mm) to S06, receiving its tab. Fold owned tabs inward by the stated angle from their flat extension. Glue 4 mm tabs beneath receiving faces; align seam endpoints without overlap of the main triangles. Join available neighbors now and leave future-neighbor tabs accessible. Assemble shell separately from B01; keep all B01 rim tabs unglued until the final closure. Hold each seam 45 seconds.

18. 18. Join shell panel S10 [S10]: edge 1 (40.8 mm) to B01, own 4 mm tab folded inward 124.7 degrees; edge 2 (27.2 mm) to S14, own 4 mm tab folded inward 28.7 degrees; edge 3 (44.8 mm) to S11, own 4 mm tab folded inward 0.0 degrees. Fold owned tabs inward by the stated angle from their flat extension. Glue 4 mm tabs beneath receiving faces; align seam endpoints without overlap of the main triangles. Join available neighbors now and leave future-neighbor tabs accessible. Assemble shell separately from B01; keep all B01 rim tabs unglued until the final closure. Hold each seam 45 seconds.

19. 19. Join shell panel S11 [S11]: edge 1 (44.8 mm) to S10, receiving its tab; edge 2 (25.3 mm) to S12, own 4 mm tab folded inward 35.4 degrees; edge 3 (28.8 mm) to S07, receiving its tab. Fold owned tabs inward by the stated angle from their flat extension. Glue 4 mm tabs beneath receiving faces; align seam endpoints without overlap of the main triangles. Join available neighbors now and leave future-neighbor tabs accessible. Assemble shell separately from B01; keep all B01 rim tabs unglued until the final closure. Hold each seam 45 seconds.

20. 20. Join shell panel S12 [S12]: edge 1 (25.3 mm) to S11, receiving its tab; edge 2 (27.6 mm) to S15, own 4 mm tab folded inward 11.8 degrees; edge 3 (31.6 mm) to S09, receiving its tab. Fold owned tabs inward by the stated angle from their flat extension. Glue 4 mm tabs beneath receiving faces; align seam endpoints without overlap of the main triangles. Join available neighbors now and leave future-neighbor tabs accessible. Assemble shell separately from B01; keep all B01 rim tabs unglued until the final closure. Hold each seam 45 seconds.

21. 21. Join shell panel S13 [S13]: edge 1 (40.8 mm) to B01, own 4 mm tab folded inward 124.7 degrees; edge 2 (28.8 mm) to S17, own 4 mm tab folded inward 35.0 degrees; edge 3 (40.3 mm) to S14, own 4 mm tab folded inward 0.0 degrees. Fold owned tabs inward by the stated angle from their flat extension. Glue 4 mm tabs beneath receiving faces; align seam endpoints without overlap of the main triangles. Join available neighbors now and leave future-neighbor tabs accessible. Assemble shell separately from B01; keep all B01 rim tabs unglued until the final closure. Hold each seam 45 seconds.

22. 22. Join shell panel S14 [S14]: edge 1 (40.3 mm) to S13, receiving its tab; edge 2 (25.3 mm) to S15, own 4 mm tab folded inward 35.4 degrees; edge 3 (27.2 mm) to S10, receiving its tab. Fold owned tabs inward by the stated angle from their flat extension. Glue 4 mm tabs beneath receiving faces; align seam endpoints without overlap of the main triangles. Join available neighbors now and leave future-neighbor tabs accessible. Assemble shell separately from B01; keep all B01 rim tabs unglued until the final closure. Hold each seam 45 seconds.

23. 23. Join shell panel S15 [S15]: edge 1 (25.3 mm) to S14, receiving its tab; edge 2 (31.6 mm) to S18, own 4 mm tab folded inward 13.8 degrees; edge 3 (27.6 mm) to S12, receiving its tab. Fold owned tabs inward by the stated angle from their flat extension. Glue 4 mm tabs beneath receiving faces; align seam endpoints without overlap of the main triangles. Join available neighbors now and leave future-neighbor tabs accessible. Assemble shell separately from B01; keep all B01 rim tabs unglued until the final closure. Hold each seam 45 seconds.

24. 24. Join shell panel S16 [S16]: edge 1 (33.8 mm) to B01, own 4 mm tab folded inward 129.9 degrees; edge 2 (30.3 mm) to S20, own 4 mm tab folded inward 42.9 degrees; edge 3 (37.3 mm) to S17, own 4 mm tab folded inward 0.0 degrees. Fold owned tabs inward by the stated angle from their flat extension. Glue 4 mm tabs beneath receiving faces; align seam endpoints without overlap of the main triangles. Join available neighbors now and leave future-neighbor tabs accessible. Assemble shell separately from B01; keep all B01 rim tabs unglued until the final closure. Hold each seam 45 seconds.

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25. 25. Join shell panel S17 [S17]: edge 1 (37.3 mm) to S16, receiving its tab; edge 2 (20.9 mm) to S18, own 4 mm tab folded inward 33.4 degrees; edge 3 (28.8 mm) to S13, receiving its tab. Fold owned tabs inward by the stated angle from their flat extension. Glue 4 mm tabs beneath receiving faces; align seam endpoints without overlap of the main triangles. Join available neighbors now and leave future-neighbor tabs accessible. Assemble shell separately from B01; keep all B01 rim tabs unglued until the final closure. Hold each seam 45 seconds.
26. 26. Join shell panel S18 [S18]: edge 1 (20.9 mm) to S17, receiving its tab; edge 2 (35.3 mm) to S21, own 4 mm tab folded inward 15.8 degrees; edge 3 (31.6 mm) to S15, receiving its tab. Fold owned tabs inward by the stated angle from their flat extension. Glue 4 mm tabs beneath receiving faces; align seam endpoints without overlap of the main triangles. Join available neighbors now and leave future-neighbor tabs accessible. Assemble shell separately from B01; keep all B01 rim tabs unglued until the final closure. Hold each seam 45 seconds.
27. 27. Join shell panel S19 [S19]: edge 1 (33.8 mm) to B01, own 4 mm tab folded inward 129.9 degrees; edge 2 (28.8 mm) to S23, own 4 mm tab folded inward 35.0 degrees; edge 3 (42.2 mm) to S20, own 4 mm tab folded inward 0.0 degrees. Fold owned tabs inward by the stated angle from their flat extension. Glue 4 mm tabs beneath receiving faces; align seam endpoints without overlap of the main triangles. Join available neighbors now and leave future-neighbor tabs accessible. Assemble shell separately from B01; keep all B01 rim tabs unglued until the final closure. Hold each seam 45 seconds.
28. 28. Join shell panel S20 [S20]: edge 1 (42.2 mm) to S19, receiving its tab; edge 2 (20.9 mm) to S21, own 4 mm tab folded inward 33.4 degrees; edge 3 (30.3 mm) to S16, receiving its tab. Fold owned tabs inward by the stated angle from their flat extension. Glue 4 mm tabs beneath receiving faces; align seam endpoints without overlap of the main triangles. Join available neighbors now and leave future-neighbor tabs accessible. Assemble shell separately from B01; keep all B01 rim tabs unglued until the final closure. Hold each seam 45 seconds.
29. 29. Join shell panel S21 [S21]: edge 1 (20.9 mm) to S20, receiving its tab; edge 2 (31.6 mm) to S24, own 4 mm tab folded inward 13.8 degrees; edge 3 (35.3 mm) to S18, receiving its tab. Fold owned tabs inward by the stated angle from their flat extension. Glue 4 mm tabs beneath receiving faces; align seam endpoints without overlap of the main triangles. Join available neighbors now and leave future-neighbor tabs accessible. Assemble shell separately from B01; keep all B01 rim tabs unglued until the final closure. Hold each seam 45 seconds.
30. 30. Join shell panel S22 [S22]: edge 1 (40.8 mm) to B01, own 4 mm tab folded inward 124.7 degrees; edge 2 (27.2 mm) to S02, receiving its tab; edge 3 (44.8 mm) to S23, own 4 mm tab folded inward 0.0 degrees. Fold owned tabs inward by the stated angle from their flat extension. Glue 4 mm tabs beneath receiving faces; align seam endpoints without overlap of the main triangles. Join available neighbors now and leave future-neighbor tabs accessible. Assemble shell separately from B01; keep all B01 rim tabs unglued until the final closure. Hold each seam 45 seconds.
31. 31. Join shell panel S23 [S23]: edge 1 (44.8 mm) to S22, receiving its tab; edge 2 (25.3 mm) to S24, own 4 mm tab folded inward 35.4 degrees; edge 3 (28.8 mm) to S19, receiving its tab. Fold owned tabs inward by the stated angle from their flat extension. Glue 4 mm tabs beneath receiving faces; align seam endpoints without overlap of the main triangles. Join available neighbors now and leave future-neighbor tabs accessible. Assemble shell separately from B01; keep all B01 rim tabs unglued until the final closure. Hold each seam 45 seconds.
32. 32. Join shell panel S24 [S24]: edge 1 (25.3 mm) to S23, receiving its tab; edge 2 (27.6 mm) to S03, receiving its tab; edge 3 (31.6 mm) to S21, receiving its tab. Fold owned tabs inward by the stated angle from their flat extension. Glue 4 mm tabs beneath receiving faces; align seam endpoints without overlap of the main triangles. Join available neighbors now and leave future-neighbor tabs accessible. Assemble shell separately from B01; keep all B01 rim tabs unglued until the final closure. Hold each seam 45 seconds.
33. 33. Close the matched rim [S01, S02, S03, S04, S05, S06, S07, S08, S09, S10, S11, S12, S13, S14, S15, S16, S17, S18, S19, S20, S21, S22, S23, S24, B01]: Dry-fit the shell: eight outer vertices must coincide with the eight B01 corners, with the crown at z=31 mm and the shoulder ring at z=22 mm. Front rim vertex lies over the neck. Coat the eight 4 mm rim tabs, lower shell onto B01 and press each rim seam for 60 seconds. The tabs lie inward on top of B01. Dry 20 minutes with the broad bottom and flippers flat on the tabletop. Do not squeeze the crown. Physical printing, fit, glue access and stability remain unverified.