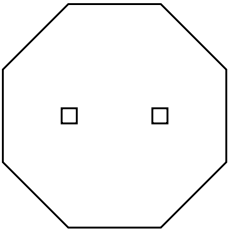


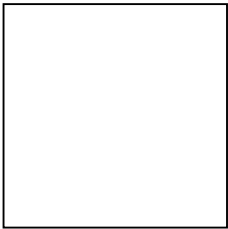
Faceted Hot-Air Balloon

hot-air-balloon / 1.0.0 / Letter / Template page 1

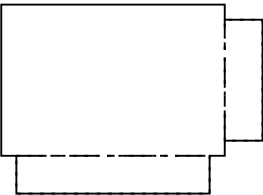
C | cut 1
29.56 x 29.56 mm



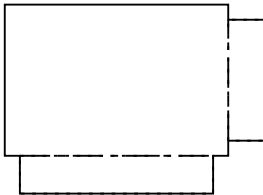
F | cut 1
29.56 x 29.56 mm



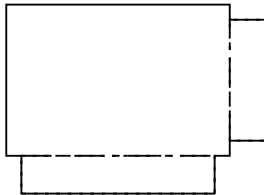
B1 | cut 1
34.56 x 25.00 mm



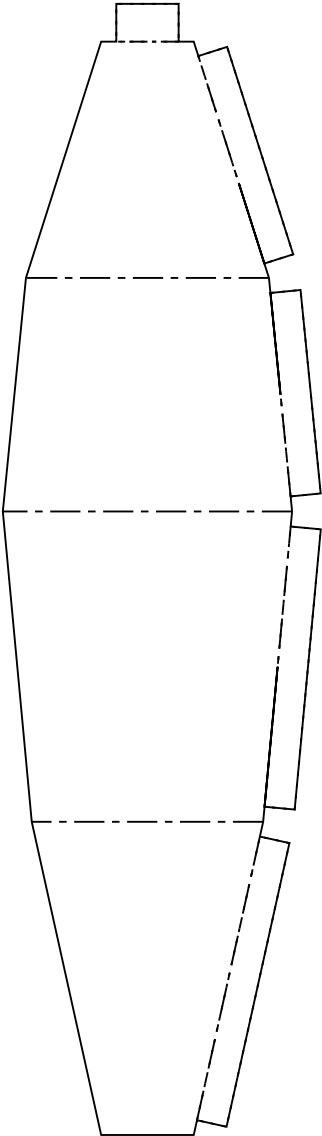
B2 | cut 1
34.56 x 25.00 mm



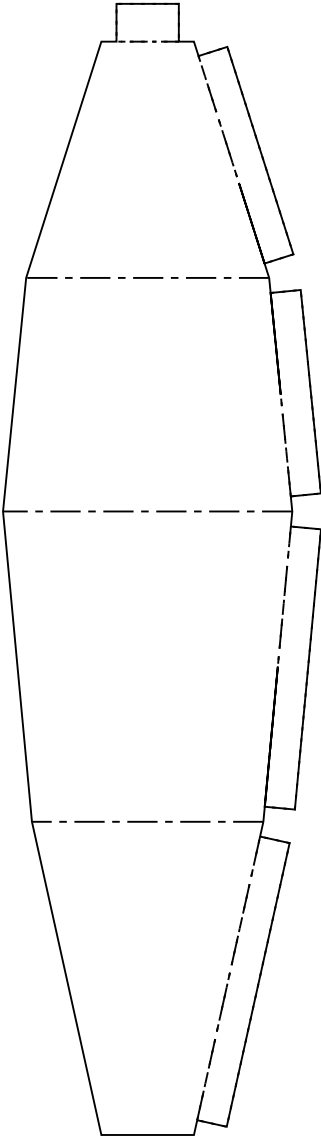
B3 | cut 1
34.56 x 25.00 mm



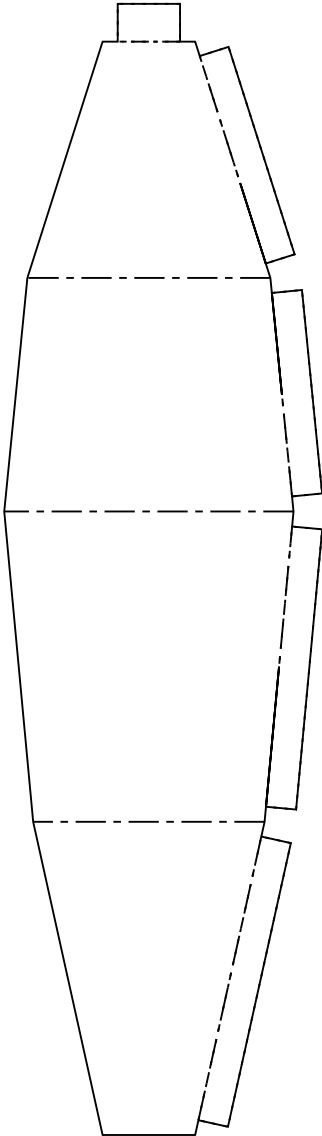
G1 | cut 1
42.07 x 149.64 mm



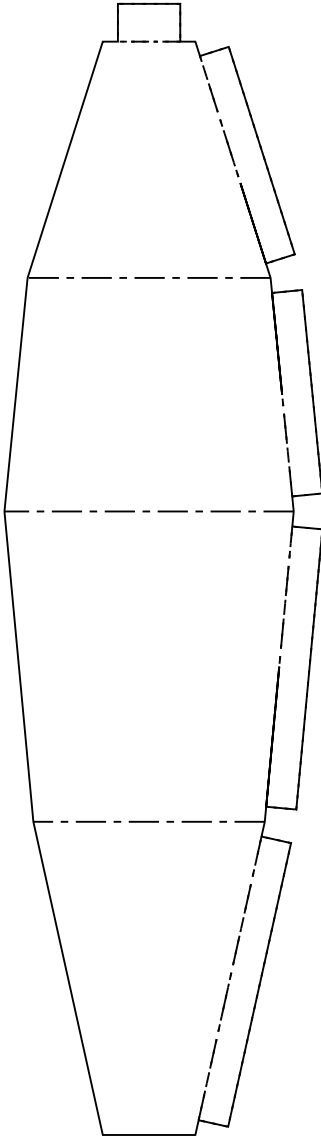
G2 | cut 1
42.07 x 149.64 mm



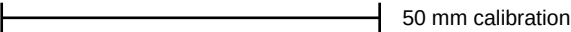
G3 | cut 1
42.07 x 149.64 mm



G4 | cut 1
42.07 x 149.64 mm



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

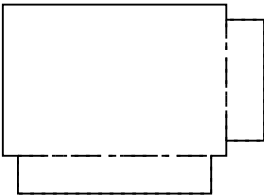


Print at 100% / Actual size. Do not fit to page. Original paper craft template.

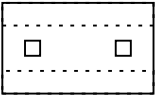
Faceted Hot-Air Balloon

hot-air-balloon / 1.0.0 / Letter / Template page 2

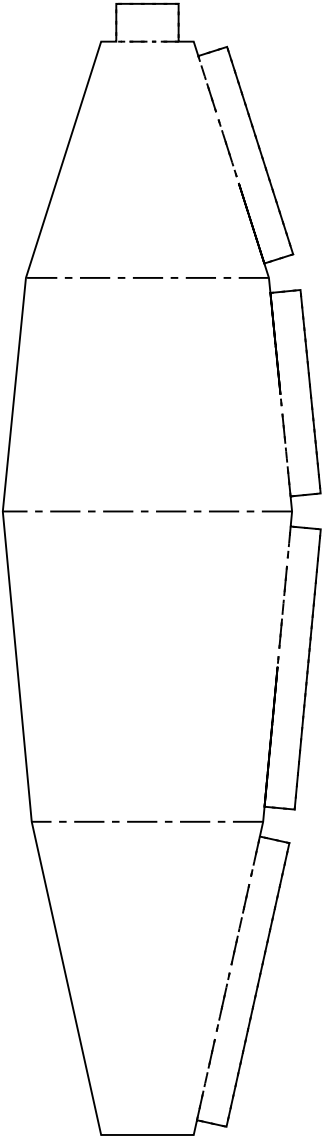
B4 | cut 1
34.56 x 25.00 mm



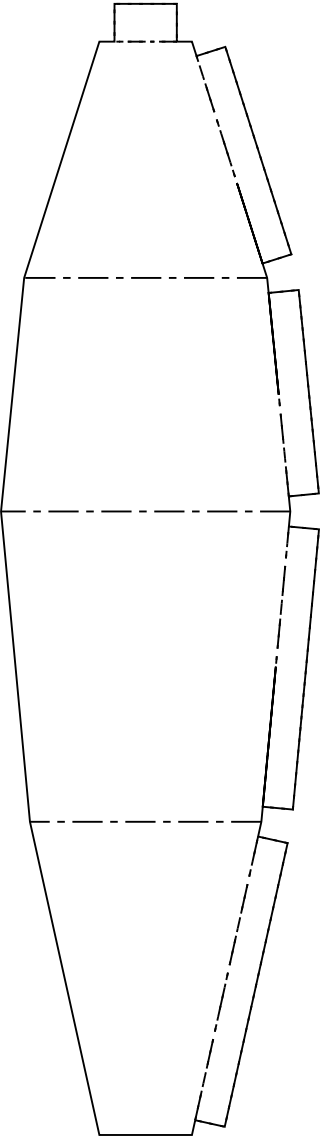
R | cut 1
20.00 x 12.00 mm



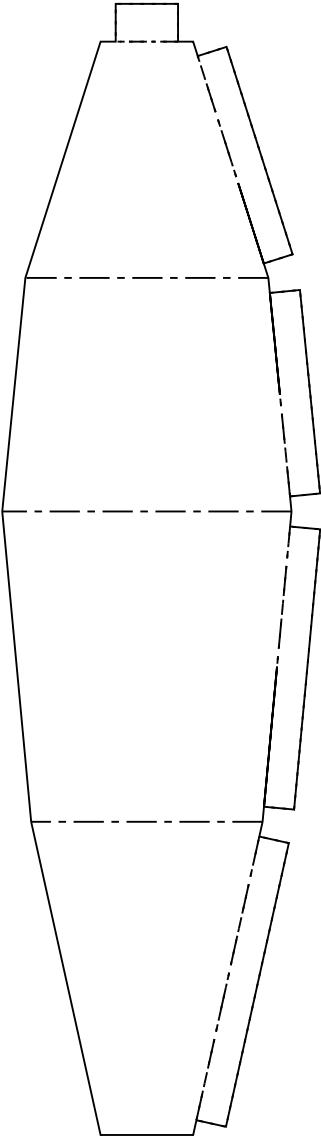
G5 | cut 1
42.07 x 149.64 mm



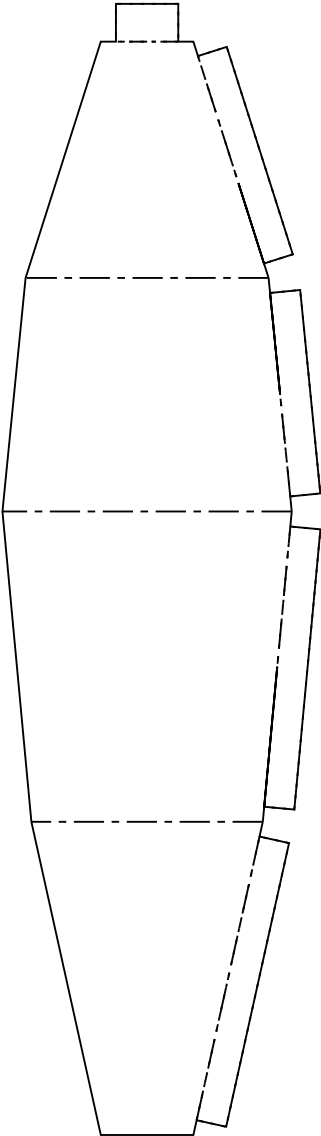
G6 | cut 1
42.07 x 149.64 mm



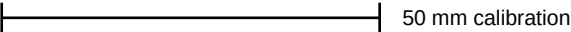
G7 | cut 1
42.07 x 149.64 mm



G8 | cut 1
42.07 x 149.64 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 Hot-Air Balloon

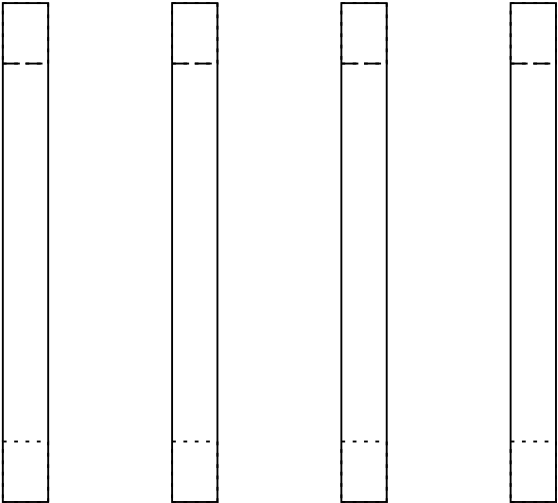
hot-air-balloon / 1.0.0 / Letter / Template page 3

S1 | cut 1
6.00 x 66.00 mm

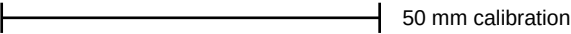
S2 | cut 1
6.00 x 66.00 mm

S3 | cut 1
6.00 x 66.00 mm

S4 | cut 1
6.00 x 66.00 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 Hot-Air Balloon

hot-air-balloon / 1.0.0 / Letter / Assembly instructions

Finished size: 100 mm maximum vertex diameter x 195 mm paper height; basket 29.56 x 29.56 x 20 mm; hanging loop approximately 170 mm above crown

Materials: 160-180 gsm cardstock: G1-G8, C, R, B1-B4, F and S1-S4 (19 individual paper pieces); One 400 mm length of 0.5-1 mm cotton thread for the crown hanging loop (not a paper template part); PVA glue; scissors; scoring tool; ruler; craft knife and cutting mat for two 2 mm holes; Temporary assembly supports: two equal 50 mm-high blocks; remove after drying; a hanging hook or stand

Original rigid faceted construction, not stretched spherical gores. Each of eight gores has four planar trapezoids and four separate integral side flaps plus a crown flap.

All paper, including flaps and reinforcement, is represented. One cotton hanging thread and temporary supports are explicitly listed but not rendered in the paper-only preview.

Paper thickness and glue thickness are idealized; reinforcement is offset 0.2 mm in preview. Straps are tensile suspension members, not compression legs: hang the model, do not stand it on the basket.

Decorative only: no flame, heat, burner, gas, lifting function or basket payload. Physical print/cut/assembly and hanging strength checks pending.

Part inventory (cut each instance once):

G1: Balloon gore 1

G2: Balloon gore 2

G3: Balloon gore 3

G4: Balloon gore 4

G5: Balloon gore 5

G6: Balloon gore 6

G7: Balloon gore 7

G8: Balloon gore 8

C: Octagonal crown

R: Crown reinforcement

B1: Basket wall 1

B2: Basket wall 2

B3: Basket wall 3

B4: Basket wall 4

F: Basket floor

S1: Suspension strap 1

S2: Suspension strap 2

S3: Suspension strap 3

S4: Suspension strap 4

Faceted Hot-Air Balloon

hot-air-balloon / 1.0.0 / Letter / Assembly instructions continued

1. Print, cut and score [G1, G2, G3, G4, G5, G6, G7, G8, C, R, B1, B2, B3, B4, F, S1, S2, S3, S4]: Print at 100 percent; measure the 50 mm ruler. Cut all 19 paper pieces, preserving every integral flap. Cut the two 2 x 2 mm holes in C and R. Score printed folds. Gores run from the narrow open bottom to the narrow crown; glue markings face inside.
2. Crease the faceted gores [G1, G2, G3, G4, G5, G6, G7, G8]: From the outside printed face, mountain-fold each gore at the three horizontal joins: turn approximately 19.6, 26.8 and 36.6 degrees respectively, bottom to top. Leave each trapezoid flat. Fold each 4 mm right-side flap inward to meet the adjacent gore, and the 5 mm crown flap inward. Match edges rather than rounding or stretching the paper.
3. Join eight gores [G1, G2, G3, G4, G5, G6, G7, G8]: Arrange G1 through G8 counterclockwise viewed from above. Glue each G right-edge flap beneath the next G left cut edge, with a 4 mm overlap; align all four facet endpoints exactly. Join G8 to G1 last, pressing seams through the still-open crown and neck. Work in pairs, let each seam set before closing. Ring vertex diameters bottom to top are 32, 80, 100, 84, 32 mm; height is 125 mm.
4. Reinforce and thread the crown [C, R]: Glue R centrally under C, matching the two holes 12 mm apart; keep holes clear and dry flat. Cut exactly one 400 mm cotton thread. Feed one end up through each hole so a 12 mm bridge remains beneath R. Tie the two free ends together above C with a double knot using about 40 mm total for knot and tails; the resulting loop rises about 170 mm. Thread is not shown in the preview.
5. Close crown [C, R, G1, G2, G3, G4, G5, G6, G7, G8]: Dry-fit C with its eight edges aligned to the eight gore tops. Glue it onto all eight inward 5 mm crown flaps, holes across the center. Press through the open neck with a blunt tool and let dry completely before applying tension to the loop.
6. Make the open basket [B1, B2, B3, B4, F]: Fold each B side flap and bottom flap inward 90 degrees. Join B1-B4 cyclically, each right 5 mm flap behind the next wall. The outside square is 29.56 mm across, height 20 mm. Glue F over the inward bottom flaps, keeping walls square. Press from the open top and dry.
7. Attach four suspension straps [S1, S2, S3, S4, B1, B2, B3, B4, G1, G3, G5, G7]: Glue the lower marked 8 mm of S1-S4 onto the centered outside faces of B1-B4, from 12 to 20 mm above the floor. Each strap is 6 x 66 mm. Crease at 58 mm from its lower end about 32.4 degrees outward so the upper 8 mm follows the balloon lower facet. S1-S4 attach to G1,G3,G5,G7 respectively at the center of each neck edge, with 8 mm measured up the sloping face.
8. Set spacing and hang only when dry [S1, S2, S3, S4, G1, G2, G3, G4, G5, G6, G7, G8, C, R, F]: Support the shell using the hanging loop at a height where its neck is exactly 70 mm above the basket floor: the open gap above the 20 mm basket rim is 50 mm. Use two temporary equal 50 mm blocks between rim and neck while gluing upper strap overlaps; do not glue blocks. Keep all four straps straight and the basket level. Dry fully, remove blocks, then gently test hanging over a soft surface. Adjust thread on its hook to level. No payload; print, seam fit and hanging strength still require physical verification.