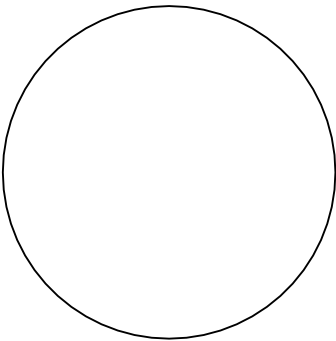


Upright Cup Magnolia

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B | cut 1
44.00 x 44.00 mm



C2 | cut 1
8.63 x 33.63 mm



C3 | cut 1
8.63 x 33.63 mm



C4 | cut 1
8.63 x 33.63 mm



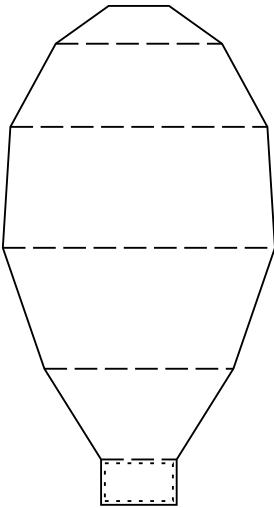
C5 | cut 1
8.63 x 33.63 mm



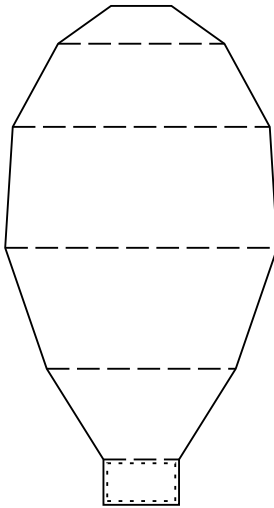
C6 | cut 1
8.63 x 33.63 mm



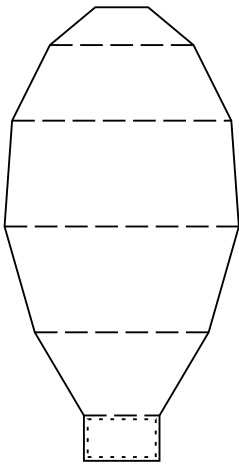
O5 | cut 1
36.00 x 66.00 mm



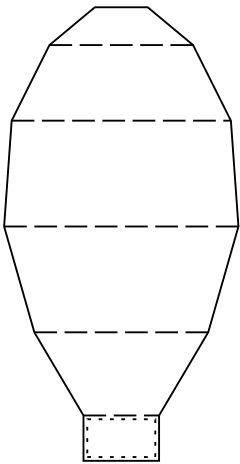
O6 | cut 1
36.00 x 66.00 mm



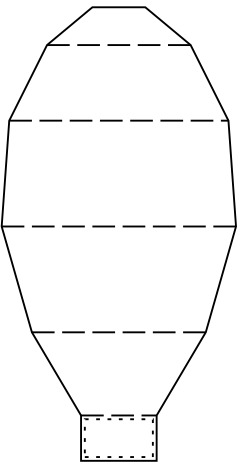
I1 | cut 1
31.00 x 60.00 mm



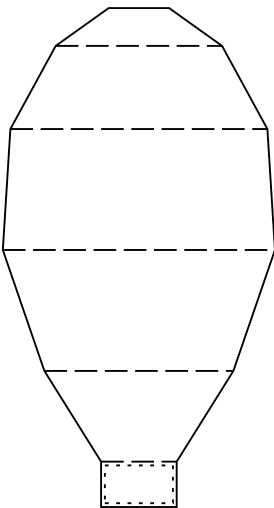
I2 | cut 1
31.00 x 60.00 mm



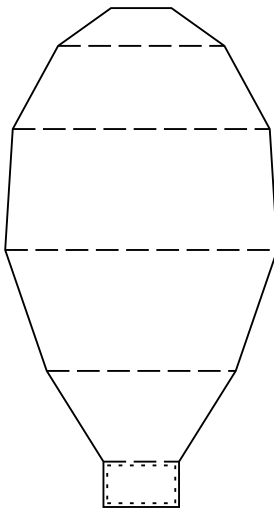
I3 | cut 1
31.00 x 60.00 mm



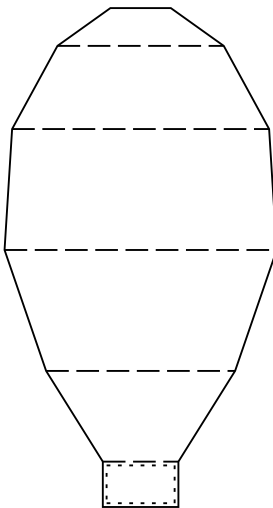
O1 | cut 1
36.00 x 66.00 mm



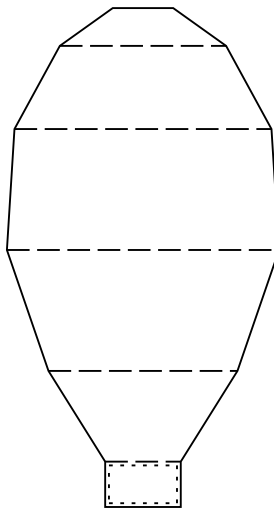
O2 | cut 1
36.00 x 66.00 mm



O3 | cut 1
36.00 x 66.00 mm



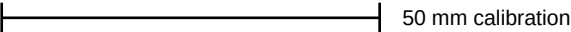
O4 | cut 1
36.00 x 66.00 mm



C1 | cut 1
8.63 x 33.63 mm



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



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

Upright Cup Magnolia

magnolia / 1.0.0 / Letter / Assembly instructions

Finished size: Approximately 81 x 87 x 54 mm

Materials: 160-180 gsm ivory paper for tepals; 160 gsm ochre paper for cone panels; 250 gsm green cardstock for support disk; Scissors; PVA glue; Ruler; Blunt scoring tool; Tweezers for narrow seam flaps; Protractor

Original simplified magnolia: broad rounded-polygon tepals, upright cup and tall conical receptacle; no lotus seedpod, pointed keel petals or tiered crowns.

Every tepal is a sequence of rigid planar bands. Parallel hinges preserve lengths exactly; faceting deliberately replaces smooth botanical compound curvature. Do not stretch or wet-form.

Cone is a six-sided approximation, with a separate ID for each of its six footed and tabbed panels. No hidden stem, wire or supports.

Paper and glue thickness, springback and seam layering are not simulated. Preview uses small vertical offsets for the glued layers. Dry fully before lifting by the support disk.

Physical printing, cutting and assembly validation pending. Narrow cone flaps and tepal springback require a real-paper trial.

Part inventory (cut each instance once):

B: Support disk

O1: Outer broad tepal

O2: Outer broad tepal

O3: Outer broad tepal

O4: Outer broad tepal

O5: Outer broad tepal

O6: Outer broad tepal

I1: Inner broad tepal

I2: Inner broad tepal

I3: Inner broad tepal

C1: Cone panel with foot

C2: Cone panel with foot

C3: Cone panel with foot

C4: Cone panel with foot

C5: Cone panel with foot

C6: Cone panel with foot

1. Cut the support and nine tepals [B]: Print at 100 percent; check the 50 mm ruler. Cut B, O1-O6 and I1-I3 on solid perimeters. Score every transverse dashed line lightly. Keep the 10 x 6 mm root tabs intact. B is a 44 mm disk; mark its center lightly in pencil.

2. Form and attach the outer whorl [O1, O2, O3, O4, O5, O6]: On each O tepal leave the root tab flat. Moving from root to tip, valley-fold by 40, 20, 18, 16 and 11 degrees, giving band inclinations of 40, 60, 78, 94 and 105 degrees above the disk. Tips turn slightly inward. Glue each 10 x 6 mm root tab to B, pointing inward: root hinge at radius 20 mm, tab inner edge at radius 14 mm. Space O1-O6 every 60

Upright Cup Magnolia

magnolia / 1.0.0 / Letter / Assembly instructions continued

degrees, with O1 at the right (3 o'clock). Hold each tab until tacky; let the entire whorl dry.

3. Add three upright inner tepals [I1, I2, I3]: Valley-fold each I tepal from root to tip by 58, 16, 14, 12 and 10 degrees, giving band inclinations 58, 74, 88, 100 and 110 degrees. Keep root tabs horizontal. Place root hinges at radius 15 mm, tab inner ends at radius 9 mm. Position I1, I2, I3 at 30, 150 and 270 degrees counterclockwise from O1. Glue tabs down onto B or the underlying outer tabs; do not glue blades together. Dry.

4. Join the tall center shell [C1, C2, C3, C4, C5, C6]: Cut C1-C6. Score foot and side-lap lines. Arrange triangular faces into a six-sided cone with 7 mm base edges and height 29 mm. Fold each side lap inward about 59 degrees from its face; glue beneath the plain left edge of the next numbered panel. The lap tapers from 2 mm to 1.1 mm; align full sloping edges and tips, without widening the seam. Join C1 through C6, then close C6 onto C1. Use tweezers from the open bottom; let seams dry.

5. Mount the cone on its feet [B, C1, C2, C3, C4, C5, C6]: Fold all six 5 x 4 mm feet outward by about 78 degrees from the unfolded position (about 102 degrees inside between foot and face) so they lie in one horizontal plane. The shell base is a regular hexagon, 14 mm corner to corner. Dry-fit centered on B, with one base vertex pointing toward O1; feet extend to roughly radius 10.4 mm. Glue the undersides of feet onto B and any inner-root-tab overlap. Seat flat without crushing the cone, then dry completely. Lift only by B; no extra cuts or hidden support are needed.