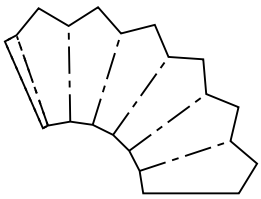
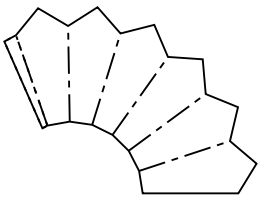
Lily of the Valley

lily-of-the-valley / 1.0.0 / A4 / Template page 1

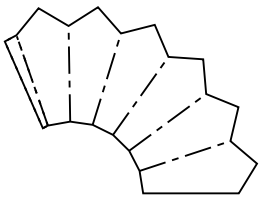
B1 | cut 1
33.35 x 24.61 mm



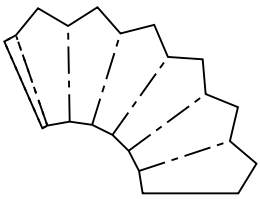
B2 | cut 1
33.35 x 24.61 mm



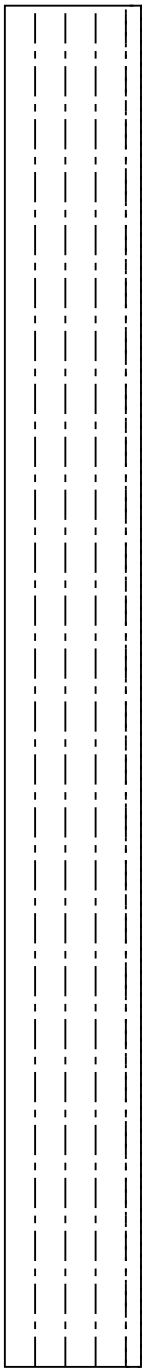
B3 | cut 1
33.35 x 24.61 mm



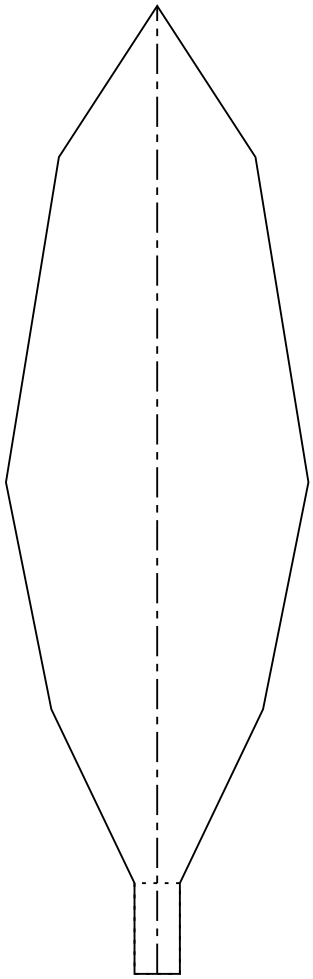
B4 | cut 1
33.35 x 24.61 mm



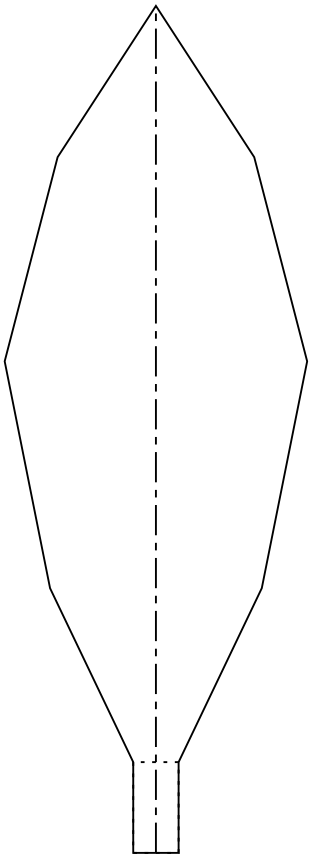
S | cut 1
18.00 x 180.00 mm



L1 | cut 1
40.00 x 128.00 mm



L2 | cut 1
40.00 x 112.00 mm



H3 | cut 1
3.00 x 55.80 mm

H4 | cut 1
3.00 x 55.80 mm

H2 | cut 1
3.00 x 53.80 mm

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

50 mm calibration

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

Lily of the Valley

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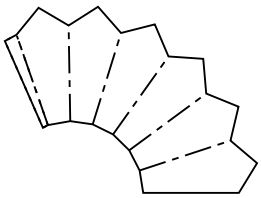
H5 | cut 1
3.00 x 51.80 mm

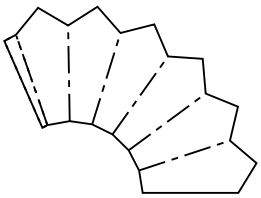
H1 | cut 1
3.00 x 49.80 mm

H6 | cut 1
3.00 x 45.80 mm

B5 | cut 1
33.35 x 24.61 mm



B6 | cut 1
33.35 x 24.61 mm



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

50 mm calibration

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

Lily of the Valley

lily-of-the-valley / 1.0.0 / A4 / Assembly instructions

Finished size: Approximately 103 x 16 x 184 mm; stalk 180 mm tall

Materials: 100-120 gsm white paper for bells; 180 gsm green paper for stalk and hangers; 140-160 gsm green paper for leaves; Scissors or craft knife; Scoring tool and ruler; Fine-tip PVA glue; Tweezers; Optional external narrow vase for display

Original faceted botanical interpretation: six small hanging bells, not a scaled snowdrop.

All structural supports are explicit paper parts. No wire, hidden stem or internal rod is required.

Bell body facets, integral lap and uncreased mouth teeth have exact planar developments; open throat and mouth are intentional.

Zero paper/glue thickness is modeled. Leaf bases are locally flattened during gluing; this small manual attachment adjustment is not simulated.

The branch feet coincide with the bell inner faces in the zero-thickness model; real glue and paper add thickness.

Digital checks are not load testing. Screen review and physical printing, cutting, fine seam gluing and hanger stiffness verification are pending.

Part inventory (cut each instance once):

S: Square hollow stalk

H1: Folded branch hanger

B1: Six-sided hanging bell

H2: Folded branch hanger

B2: Six-sided hanging bell

H3: Folded branch hanger

B3: Six-sided hanging bell

H4: Folded branch hanger

B4: Six-sided hanging bell

H5: Folded branch hanger

B5: Six-sided hanging bell

H6: Folded branch hanger

B6: Six-sided hanging bell

L1: Broad folded basal leaf

L2: Broad folded basal leaf

1. Form the paper stalk [S]: Print at 100 percent; verify the 50 mm ruler. Use 180 gsm green paper for S. Score the four long lines; turn each by 90 degrees to make a 4 x 4 x 180 mm hollow stalk. Glue the final 2 mm lap INSIDE the first face. Hold straight until dry. Both ends remain open.

2. Close six bell seams [B1, B2, B3, B4, B5, B6]: Cut B1-B6 from 100-120 gsm white paper. The six pointed mouth teeth are perimeter cuts, not petals to separate. Score the five radial body creases and the lap crease. Bring the first and last full radial edges together to make a tapered hexagonal tube: top side 3 mm, mouth side 7 mm, axial body height 12 mm. Glue the narrow seventh panel INSIDE the first; overlap is one quarter of a face (0.75 mm at top, 1.75 mm at mouth). Use tweezers through the open mouth; let dry. Keep teeth coplanar with their faces. The throat stays open for its hanger.

3. Hang bell 1 [H1, B1]: Use 180 gsm green H1. Measured from the square-cut end, its first segment is 8 mm. Glue this segment vertically to the RIGHT stalk face, lower end 66 mm above the stalk base. Fold its next 24.60 mm segment horizontally right (90

degree turn), then the next 12 mm vertically down (90 degree turn). The final 5.20 mm foot tilts outward 16.10 degrees from vertical. Apply glue to the last 5 mm on its OUTER face and bond inside B1 on the right-hand top face, with the last crease exactly at the throat rim, 62 mm above the base. The 3 mm hanger width matches the 3 mm throat edge. Bell mouth points down; keep the lap seam at the side edge of the hanger face, not across its glue bond. Prop the horizontal arm level and let both glue joints dry before adding the next bell.

4. Hang bell 2 [H2, B2]: Use 180 gsm green H2. Measured from the square-cut end, its first segment is 8 mm. Glue this segment vertically to the RIGHT stalk face, lower end 88 mm above the stalk base. Fold its next 28.60 mm segment horizontally right (90 degree turn), then the next 12 mm vertically down (90 degree turn). The final 5.20 mm foot tilts outward 16.10 degrees from vertical. Apply glue to the last 5 mm on its OUTER face and bond inside B2 on the right-hand top face, with the last crease exactly at the throat rim, 84 mm above the base. The 3 mm hanger width matches the 3 mm throat edge. Bell mouth points down; keep the lap seam at the side edge of the hanger face, not across its glue bond. Prop the horizontal arm level and let both glue joints dry before adding the next bell.

5. Hang bell 3 [H3, B3]: Use 180 gsm green H3. Measured from the square-cut end, its first segment is 8 mm. Glue this segment vertically to the RIGHT stalk face, lower end 110 mm above the stalk base. Fold its next 30.60 mm segment horizontally right (90 degree turn), then the next 12 mm vertically down (90 degree turn). The final 5.20 mm foot tilts outward 16.10 degrees from vertical. Apply glue to the last 5 mm on its OUTER face and bond inside B3 on the right-hand top face, with the last crease exactly at the throat rim, 106 mm above the base. The 3 mm hanger width matches the 3 mm throat edge. Bell mouth points down; keep the lap seam at the side edge of the hanger face, not across its glue bond. Prop the horizontal arm level and let both glue joints dry before adding the next bell.

6. Hang bell 4 [H4, B4]: Use 180 gsm green H4. Measured from the square-cut end, its first segment is 8 mm. Glue this segment vertically to the RIGHT stalk face, lower end 132 mm above the stalk base. Fold its next 30.60 mm segment horizontally right (90 degree turn), then the next 12 mm vertically down (90 degree turn). The final 5.20 mm foot tilts outward 16.10 degrees from vertical. Apply glue to the last 5 mm on its OUTER face and bond inside B4 on the right-hand top face, with the last crease exactly at the throat rim, 128 mm above the base. The 3 mm hanger width matches the 3 mm throat edge. Bell mouth points down; keep the lap seam at the side edge of the hanger face, not across its glue bond. Prop the horizontal arm level and let both glue joints dry before adding the next bell.

7. Hang bell 5 [H5, B5]: Use 180 gsm green H5. Measured from the square-cut end, its first segment is 8 mm. Glue this segment vertically to the RIGHT stalk face, lower end 154 mm above the stalk base. Fold its next 26.60 mm segment horizontally right (90 degree turn), then the next 12 mm vertically down (90 degree turn). The final 5.20 mm foot tilts outward 16.10 degrees from vertical. Apply glue to the last 5 mm on its OUTER face and bond inside B5 on the right-hand top face, with the last crease exactly at the throat rim, 150 mm above the base. The 3 mm hanger width matches the 3 mm throat edge. Bell mouth points down; keep the lap seam at the side edge of the hanger face, not across its glue bond. Prop the horizontal arm level and let both glue joints dry before adding the next bell.

8. Hang bell 6 [H6, B6]: Use 180 gsm green H6. Measured from the square-cut end, its first segment is 8 mm. Glue this segment vertically to the RIGHT stalk face, lower end 176 mm above the stalk base. Fold its next 20.60 mm segment horizontally right (90 degree turn), then the next 12 mm vertically down (90 degree turn). The final 5.20 mm foot tilts outward 16.10 degrees from vertical. Apply glue to the last 5 mm on its OUTER face and bond inside B6 on the right-hand top face, with the last crease exactly at the throat rim, 172 mm above the base. The 3 mm hanger width matches the 3 mm throat edge. Bell mouth points down; keep the lap seam at the side edge of the hanger face, not across its glue bond. Prop the horizontal arm level and let both glue joints dry before adding the next bell.

9. Add the broad basal leaves [L1, L2]: Use 140-160 gsm green paper. Mountain-fold each central vein gently: each half turns 12.61 degrees from flat (154.79 degree included angle). The narrow basal 12 mm is the attachment zone. Place both bases 5 mm above the stalk bottom on its front face; L1 leans left 22.92 degrees, L2 right 20.05 degrees. Glue the basal zones to the stalk and to each other where they overlap; press the tiny attachment areas locally flat while drying. Keep the wide blades in front of the stalk and clear of the bells.

10. Dry and display the spray [S, L1, L2]: Let all joints dry fully while supported flat on the back of the stalk. Hold the finished spray by the bottom 20 mm or place that section in an external narrow vase (not supplied). This is not a freestanding model. Check all six bell lap seams are closed and each hanger is bonded before lifting. Physical print/cut/assembly testing remains pending.