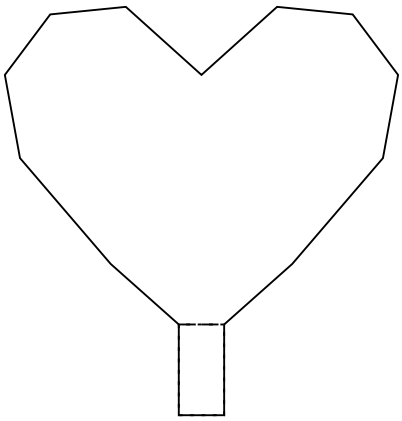
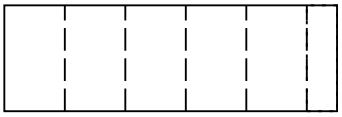
Reflexed Facet Cyclamen

cyclamen / 1.0.0 / A4 / Template page 1

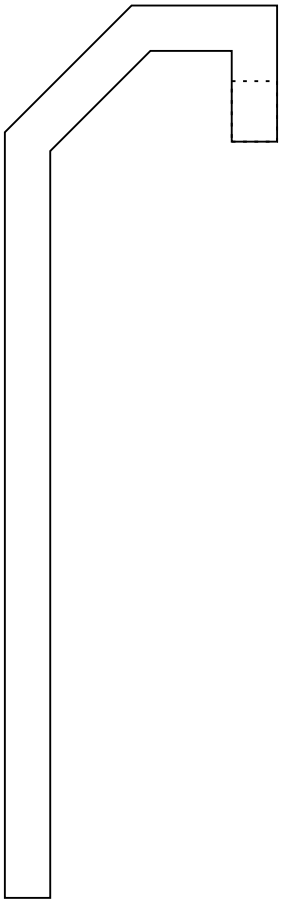
L1 | cut 1
52.00 x 54.00 mm



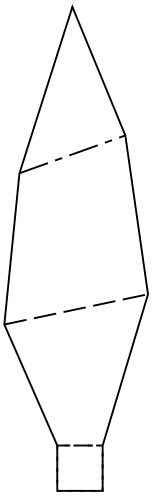
T1 | cut 1
44.00 x 14.00 mm



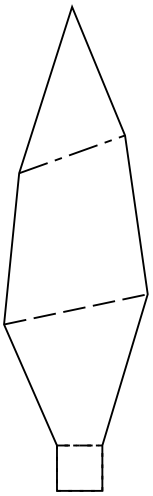
S1 | cut 1
36.00 x 118.00 mm



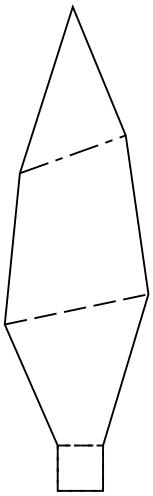
P1 | cut 1
19.00 x 64.00 mm



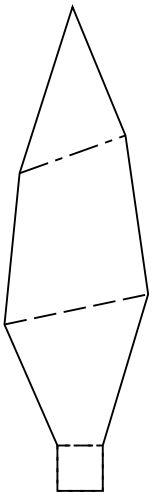
P2 | cut 1
19.00 x 64.00 mm



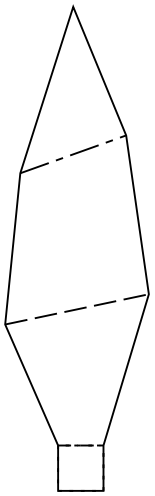
P3 | cut 1
19.00 x 64.00 mm



P4 | cut 1
19.00 x 64.00 mm



P5 | cut 1
19.00 x 64.00 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.

Reflexed Facet Cyclamen

cyclamen / 1.0.0 / A4 / Assembly instructions

Finished size: 96.0 x 76.5 x 137.2 mm paper envelope; external clamp excluded

Materials: 140-160 gsm pink paper for petals; 180 gsm dark pink paper for throat; 200-220 gsm green card for stem facing and leaf; Scissors, scoring tool, ruler and protractor; PVA glue for paper joints; strong narrow double-sided tape for wire backing; Required external support: one 151.2 mm length of 2 mm stiff craft wire, pliers; Required external support: weighted desk clamp with padded jaws gripping the bottom 20 mm of the wire-backed stem

Original faceted interpretation of cyclamen: five reflexed blades, oblique fold lines and hanging open throat. Physical printing and assembly pending.

Every paper surface, root tab and seam lap has exact flat-triangle correspondence. Petals do not require stretching or a smooth compound twist.

Wire, adhesive and weighted clamp are mandatory external materials, not printable parts and not rendered. The paper stem alone is not a self-supporting cantilever.

Wire centerline length is 100 + sqrt(15^2+15^2) + 15 + 15 = 151.21 mm before real bend-radius adjustment. Bend to the template centerline, trim only after fitting.

Meshes idealize zero paper and adhesive thickness. Coincident glued surfaces and the 4 mm throat overlap are intentional; physical springback and support strength remain untested.

Crease angles below are rotations away from flat, not included angles. Petal oblique folds are 22 and 30 degrees, not literal torsion of the paper.

Part inventory (cut each instance once):

S1: Bent stem facing

T1: Hanging pentagonal throat

P1: Reflexed petal 1

P2: Reflexed petal 2

P3: Reflexed petal 3

P4: Reflexed petal 4

P5: Reflexed petal 5

L1: Heart leaf with stalk tab

1. Print and cut eight paper pieces [S1, T1, P1, P2, P3, P4, P5, L1]: Print at 100 percent and measure the 50 mm ruler. Cut S1, T1, P1-P5 and L1 once each. Score only the marked folds. Keep the 6 x 6 mm petal roots and all tabs intact.

2. Make and clamp the supported bent stem [S1]: Use S1 as the full-size wire bending guide. From the bottom run 100 mm vertically, 21.21 mm diagonally up/right at 45 degrees, 15 mm right, then 15 mm down. The final end is 30 mm right and 100 mm above the bottom. Tape the 2 mm wire continuously to the BACK of S1, centered in its 6 mm width. Allow adhesive to set. Hold the bottom 20 mm of wire AND card in a weighted padded desk clamp; keep the hook in the vertical plane. This external clamp remains part of the display.

3. Fold the downward-open throat [T1]: On T1 fold each vertical crease 72 degrees toward the unprinted inside; five 8 mm panels form a regular pentagon with 108 degree internal corners. Fold the terminal 4 mm lap behind the first panel and glue it there over its full 14 mm height. Leave both ends open. Dry completely before adding petals.

4. Reflex each faceted petal [P1, P2, P3, P4, P5]: Hold each 6 x 6 mm root upright, short free edge uppermost and blade initially pointing down. At the transverse 6 mm line swing the blade OUTWARD and UP by 145 degrees (35 degree included angle). At the first oblique crease reverse by 22 degrees; at the second oblique crease fold another 30 degrees in the original direction. These are straight hinges, not curled or stretched surfaces. Keep the asymmetrical tip and same handedness on P1-P5.

Reflexed Facet Cyclamen

cyclamen / 1.0.0 / A4 / Assembly instructions continued

5. Attach roots around the hanging lip [T1, P1, P2, P3, P4, P5]: Glue one 6 x 6 mm root to the OUTSIDE of each 8 mm throat face, centered with 1 mm clearance at each side. Root lower crease is flush with the lower mouth; free root edge is 6 mm above the mouth. P1 goes on the first seam panel and P2-P5 follow around the tube. Petal blades turn away from the open mouth and sweep upward. Dry one root at a time without closing the mouth.

6. Join throat to stem hook [S1, T1]: Face the flat first throat panel toward the stem backing plane, with the other four faces projecting forward. Glue its upper central 6 x 8 mm region to the front of S1 at the marked terminal patch: 100-108 mm above the stem bottom. The throat top is at 108 mm and its open lower lip at 94 mm. The stem tip ends at 100 mm, meeting the upper edge of P1 root without covering its reflex fold. Hold this paper-to-paper joint until fully dry; wire stays behind S1.

7. Set the heart leaf [S1, L1]: Glue L1 integral 6 x 12 mm stalk tab to the FRONT of the straight stem, from 30 to 42 mm above its bottom. At the tab top crease tilt the heart blade 45 degrees forward, away from the stem. The two lobes and deep center notch remain uncreased; the blade is a flat heart, not a stretched dome. Dry in the clamp and retain the clamp for display. Physical stability and real-paper assembly are deferred.