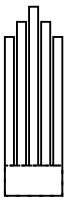
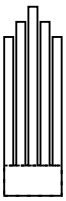
Ridge-sepal Clematis

clematis / 1.0.0 / A4 / Template page 1

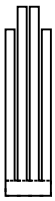
F5 | cut 1
7.60 x 25.00 mm



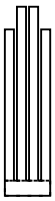
F6 | cut 1
7.60 x 25.00 mm



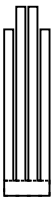
C1 | cut 1
6.00 x 25.00 mm



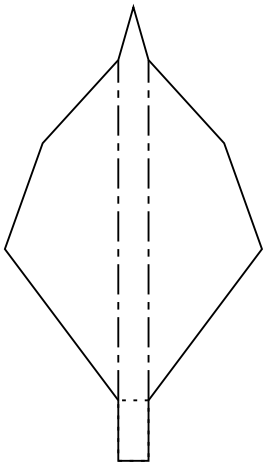
C2 | cut 1
6.00 x 25.00 mm



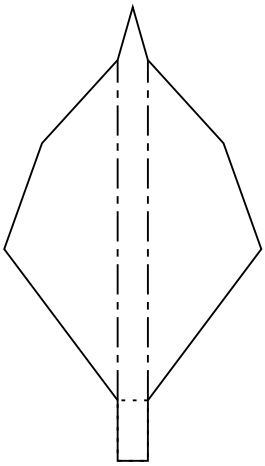
C3 | cut 1
6.00 x 25.00 mm



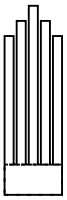
S5 | cut 1
34.00 x 60.00 mm



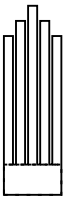
S6 | cut 1
34.00 x 60.00 mm



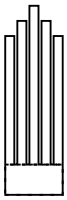
F1 | cut 1
7.60 x 25.00 mm



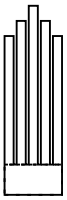
F2 | cut 1
7.60 x 25.00 mm



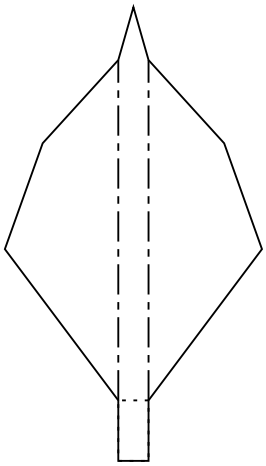
F3 | cut 1
7.60 x 25.00 mm



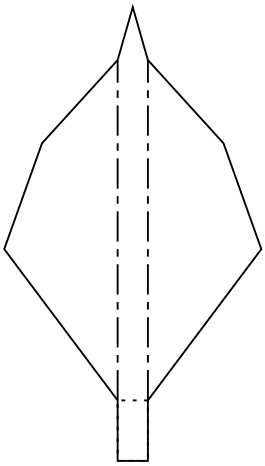
F4 | cut 1
7.60 x 25.00 mm



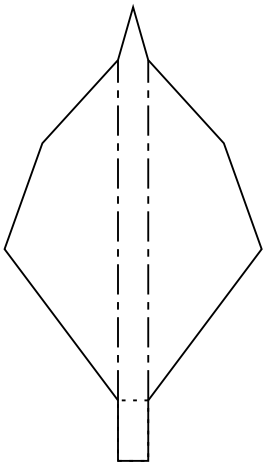
S1 | cut 1
34.00 x 60.00 mm



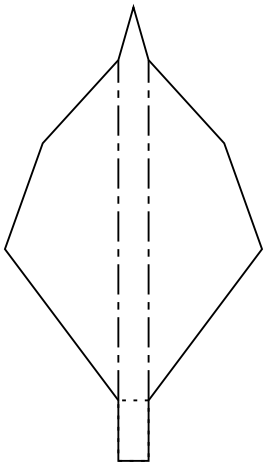
S2 | cut 1
34.00 x 60.00 mm



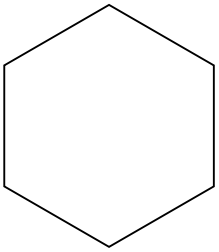
S3 | cut 1
34.00 x 60.00 mm



S4 | cut 1
34.00 x 60.00 mm



H1 | cut 1
27.71 x 32.00 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.

Ridge-sepal Clematis

clematis / 1.0.0 / A4 / Assembly instructions

Finished size: 113 x 130 x 29.4 mm

Materials: 160-180 gsm violet paper for sepals; 200 gsm green card for mounting hub; 100-120 gsm cream paper for filament combs; Fine scissors or craft knife and cutting mat; Ruler, scoring tool, tweezers and PVA glue

Original faceted clematis interpretation, not a botanical surface replica.

16 physical pieces: one hub, six sepals, six outer five-tooth combs and three inner four-tooth combs; 42 integral filament teeth.

Every cut face, including the root tabs and comb bases, has exact flat-to-folded correspondence. No stretched surfaces or hidden supports.

Zero-thickness paper is idealized: glued contact faces coincide in 3D. Paper thickness, glue films and springback are not simulated.

This is a stemless decorative flower head. Support the hub while drying so the downward-folded wings are not flattened.

Physical printing, cutting and assembly verification pending.

Part inventory (cut each instance once):

H1: Hexagonal mounting hub

S1: Ridged pointed sepal

S2: Ridged pointed sepal

S3: Ridged pointed sepal

S4: Ridged pointed sepal

S5: Ridged pointed sepal

S6: Ridged pointed sepal

F1: Attached filament comb

F2: Attached filament comb

F3: Attached filament comb

F4: Attached filament comb

F5: Attached filament comb

F6: Attached filament comb

C1: Attached filament comb

C2: Attached filament comb

C3: Attached filament comb

1. Cut and score six sepals [S1, S2, S3, S4, S5, S6]: Print at 100%; confirm the 50 mm ruler. Cut each sepal as one piece. Score the two longitudinal mountain lines. Keep the 4 mm central spine flat; fold each side wing 25 degrees downward from that plane. Keep the 4 x 8 mm root tongue flat. Do not curl or add cuts.

2. Mount the six root tongues [H1, S1, S2, S3, S4, S5, S6]: Cut H1, a hexagon with 16 mm center-to-corner distance. On its underside mark six rays toward the six corners. Glue each sepal tongue under H1, centered on one ray, with its inner cut edge 5 mm from the hub center and its outer tongue edge 13 mm from center: 8 mm overlap. The tips lie 65 mm from center, spaced 60 degrees apart. Keep the spines in the hub plane and the wings below it. Rest the hub on a small temporary support and let dry.

3. Cut the open filament combs [F1, F2, F3, F4, F5, F6, C1, C2, C3]: Use 100-120 gsm paper. Cut all open gaps down to the base line, removing the 0.4 mm-wide waste strips. Preserve each 1.2 mm-wide tooth and the continuous base. F1-F6 each have five teeth

on a 7.6 x 4 mm base; C1-C3 each have four teeth on a 6 x 2 mm base. Lightly score each short tooth-root line.

4. Install the upright inner filaments [C1, C2, C3, H1]: Fold C1-C3 teeth upward 90 degrees, leaving their 2 mm-deep bases flat. With a hub corner pointing up, mark the center as x=0,y=0. Glue the three bases on top of H1, centered left-to-right, spanning y=-4 to -2, -1 to 1, and 2 to 4 mm respectively. Teeth rise from the upper edge of each base to heights 20/23/23/20 mm. Press only the bases with tweezers; let set.

5. Surround the center with six filament fans [F1, F2, F3, F4, F5, F6, H1]: Fold each F comb tooth up 75 degrees from its base so it leans outward 15 degrees from vertical. Glue the base on top of H1 with its 7.6 mm width across one corner ray and its 4 mm depth along that ray: inner edge 8 mm, tooth-root edge 12 mm from center. Repeat at 60-degree intervals, aligned with S1-S6. Keep glue off the upright teeth; dry fully before handling. The outer teeth are 17/19/21/19/17 mm long.

6. Finish the raised center [S1, S2, S3, S4, S5, S6, F1, F2, F3, F4, F5, F6, C1, C2, C3]: Separate any wet teeth with tweezers without bending their faces. Keep all 42 tips free and all nine bases bonded to H1. The tallest center stands 23 mm above the hub; the widest sepal wings descend 6.34 mm below it. Lift by the hub, not the filaments. Physical assembly validation remains pending.