Plumeria Pinwheel

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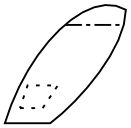
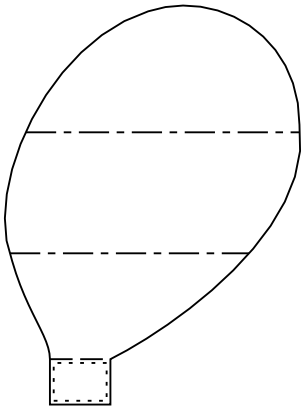
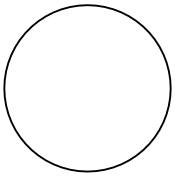
Y5 | cut 1
16.00 x 15.63 mm



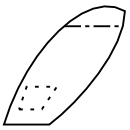
P5 | cut 1
39.04 x 52.76 mm



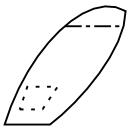
B1 | cut 1
22.00 x 22.00 mm



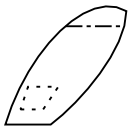
Y1 | cut 1
16.00 x 15.63 mm



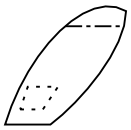
Y2 | cut 1
16.00 x 15.63 mm



Y3 | cut 1
16.00 x 15.63 mm

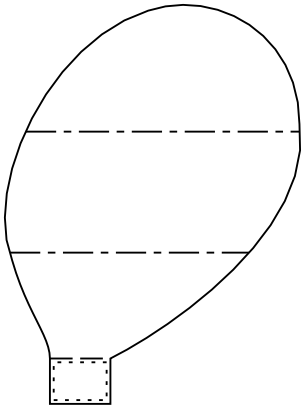


Y4 | cut 1
16.00 x 15.63 mm

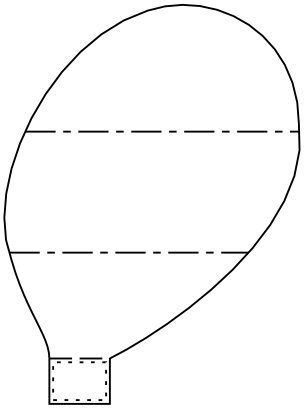


C1 | cut 1
9.00 x 9.00 mm

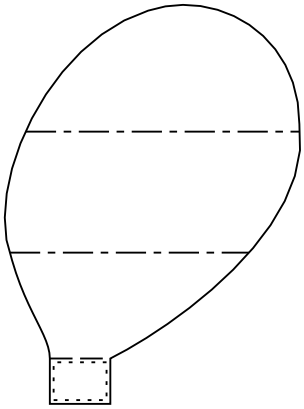
P1 | cut 1
39.04 x 52.76 mm



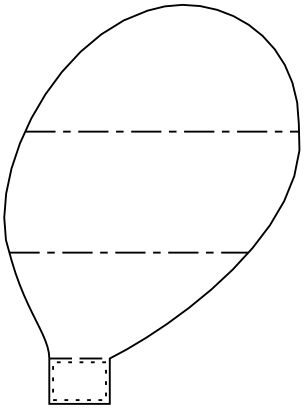
P2 | cut 1
39.04 x 52.76 mm



P3 | cut 1
39.04 x 52.76 mm



P4 | cut 1
39.04 x 52.76 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.

Plumeria Pinwheel

plumeria / 1.0.0 / A4 / Assembly instructions

Finished size: Approximately 108 x 108 x 7 mm

Materials: White paper, 140-160 gsm for petals and backing; Yellow paper, 70-90 gsm for five patches and throat cover; Scissors; PVA glue; Ruler; Blunt scoring tool; Protractor

Original paper construction; physical printing, cutting and assembly pending.

Five equal-handed swept blades distinguish this pinwheel from notched cherry blossoms and the bilateral unequal lobes of pansies. White blades and yellow markings are actual cut pieces.

All shaping uses rigid planar bands with exact flat correspondence, not compound curvature. Natural fleshy petal curvature is simplified to three shallow hinges.

Small vertical offsets separate paper layers in the preview; glue thickness, springback and cyclic edge contact are idealized. Adjust loose overlaps during assembly; physical fit remains unverified.

No hidden wire, stem, paint or extra joining piece is required.

Part inventory (cut each instance once):

B1: White root backing

P1: White swept petal 1

Y1: Yellow throat patch 1

P2: White swept petal 2

Y2: Yellow throat patch 2

P3: White swept petal 3

Y3: Yellow throat patch 3

P4: White swept petal 4

Y4: Yellow throat patch 4

P5: White swept petal 5

Y5: Yellow throat patch 5

C1: Yellow throat cover

1. Cut and identify the pieces [B1, P1, P2, P3, P4, P5, Y1, Y2, Y3, Y4, Y5, C1]: Print at 100 percent; the calibration ruler must measure 50 mm. Cut five white P petals, five thin yellow Y patches, the 22 mm white B1 backing and 9 mm yellow C1 throat cover. Keep every petal the same way up; do not mirror any.

2. Attach the yellow throats [P1, P2, P3, P4, P5, Y1, Y2, Y3, Y4, Y5]: On each P, measure from the straight root edge: place the matching Y base 7 mm above that edge, centered across its width. Match the y=20 mm fold marks. Use a very thin film of PVA on the marked patch area; smooth outward and let dry flat for 5 minutes. The tapered yellow tongue points into the wide swept side of the white petal.

3. Form shallow developable blades [P1, P2, P3, P4, P5, Y1, Y2, Y3, Y4, Y5]: Keep the first 6 mm of each root flat. Viewed yellow side up, valley fold at 6 mm to raise the blade 18 degrees from the root plane. Mountain fold at 20 mm by 10 degrees, leaving that band 8 degrees above the root. Mountain fold at 36 mm by 18 degrees, leaving the tip band 10 degrees below horizontal. Use gentle straight creases, not a stretched cup; fold the yellow patch with its white petal.

4. Mount clockwise blade 1 [B1, P1, Y1]: Place P1 root on B1 with its straight bottom edge 2 mm from the disk center, directed outward at 0 degrees clockwise from the first blade. Glue only the 8 x 6 mm root underside to B1; its fold lies at radius 8 mm. Keep the broad swept wing above the narrower edge of the next clockwise blade. Leave blade edges unglued so the next petal can slide beneath. Hold the root for 30 seconds; keep all five root folds on the same 8 mm radius.

Plumeria Pinwheel

plumeria / 1.0.0 / A4 / Assembly instructions continued

5. Mount clockwise blade 2 [B1, P2, Y2]: Place P2 root on B1 with its straight bottom edge 2 mm from the disk center, directed outward at 72 degrees clockwise from the first blade. Glue only the 8 x 6 mm root underside to B1; its fold lies at radius 8 mm. Keep the broad swept wing above the narrower edge of the next clockwise blade. Leave blade edges unglued so the next petal can slide beneath. Hold the root for 30 seconds; keep all five root folds on the same 8 mm radius.

6. Mount clockwise blade 3 [B1, P3, Y3]: Place P3 root on B1 with its straight bottom edge 2 mm from the disk center, directed outward at 144 degrees clockwise from the first blade. Glue only the 8 x 6 mm root underside to B1; its fold lies at radius 8 mm. Keep the broad swept wing above the narrower edge of the next clockwise blade. Leave blade edges unglued so the next petal can slide beneath. Hold the root for 30 seconds; keep all five root folds on the same 8 mm radius.

7. Mount clockwise blade 4 [B1, P4, Y4]: Place P4 root on B1 with its straight bottom edge 2 mm from the disk center, directed outward at 216 degrees clockwise from the first blade. Glue only the 8 x 6 mm root underside to B1; its fold lies at radius 8 mm. Keep the broad swept wing above the narrower edge of the next clockwise blade. Leave blade edges unglued so the next petal can slide beneath. Hold the root for 30 seconds; keep all five root folds on the same 8 mm radius.

8. Mount clockwise blade 5 [B1, P5, Y5]: Place P5 root on B1 with its straight bottom edge 2 mm from the disk center, directed outward at 288 degrees clockwise from the first blade. Glue only the 8 x 6 mm root underside to B1; its fold lies at radius 8 mm. Keep the broad swept wing above the narrower edge of the next clockwise blade. Tuck this last broad wing above P1 while keeping P4 above this blade; lift the still-loose margins to close the cyclic overlap. Hold the root for 30 seconds; keep all five root folds on the same 8 mm radius.

9. Close the throat and dry [C1, P1, P2, P3, P4, P5, Y1, Y2, Y3, Y4, Y5]: Center C1 over the five root ends, yellow side up, and glue its underside to the root stack. Keep the yellow tongues visible around it. Adjust the loose petal margins into a clockwise shingle overlap, approximately 3-6 mm near the inner shoulders; do not glue or force the outer tips. Dry on a level surface for 15 minutes. The flower is a decorative head without a stem.