

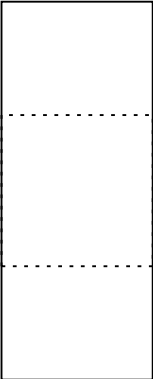
Stationary strut-braced biplane

biplane / 1.0.0 / Letter / Template page 1

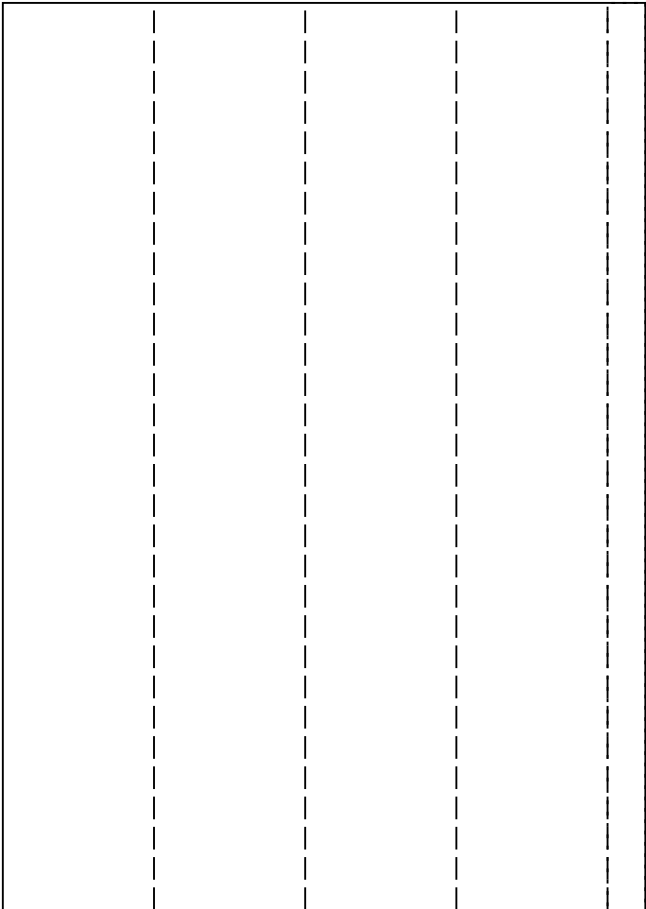
WL | cut 1
160.00 x 50.00 mm



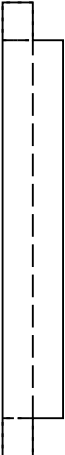
H | cut 1
20.00 x 50.00 mm



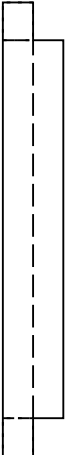
F | cut 1
85.00 x 120.00 mm



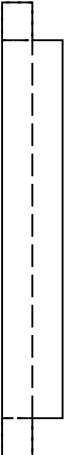
O1 | cut 1
8.00 x 60.00 mm



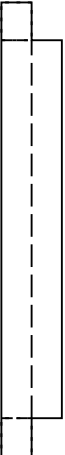
O2 | cut 1
8.00 x 60.00 mm



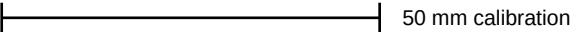
O3 | cut 1
8.00 x 60.00 mm



O4 | cut 1
8.00 x 60.00 mm



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

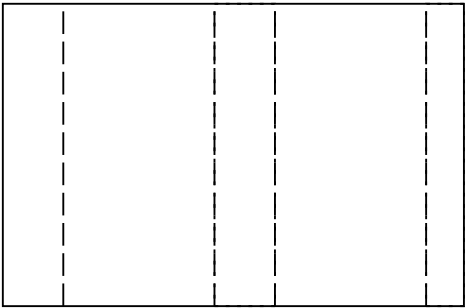


Print at 100% / Actual size. Do not fit to page. Original paper craft template.

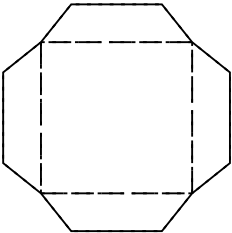
Stationary strut-braced biplane

biplane / 1.0.0 / Letter / Template page 2

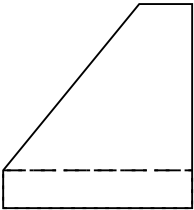
KR | cut 1
61.00 x 40.00 mm



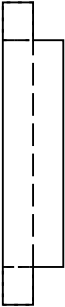
T | cut 1
30.00 x 30.00 mm



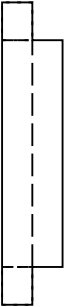
V | cut 1
25.00 x 27.00 mm



C2 | cut 1
8.00 x 40.00 mm



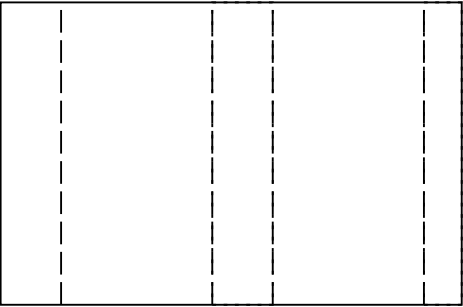
C3 | cut 1
8.00 x 40.00 mm



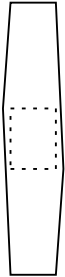
C4 | cut 1
8.00 x 40.00 mm



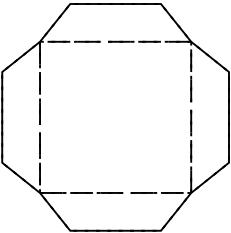
KL | cut 1
61.00 x 40.00 mm



P | cut 1
8.00 x 36.00 mm



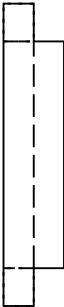
N | cut 1
30.00 x 30.00 mm



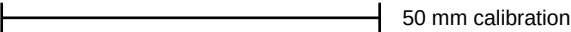
WU | cut 1
160.00 x 50.00 mm



C1 | cut 1
8.00 x 40.00 mm



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



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

Stationary strut-braced biplane

biplane / 1.0.0 / Letter / Assembly instructions

Finished size: 120 long x 160 wingspan x 70 high mm

Materials: 200-250 gsm cardstock; Scissors; PVA glue; Ruler and pencil; Blunt scoring tool

Original decorative construction; not a flying toy. Propeller and landing skids are stationary.

All folded faces and tabs have exact rigid flat-to-assembled correspondence. Idealized zero paper and glue thickness; stacked bonds coincide in the preview. No hidden wire, stand or supports.

Skids deliberately have open ends. Wing stiffening flanges and L-section struts resist sag but cardstock stiffness and joint strength require physical testing.

Measured mount rectangles are given in the steps; pencil them on the receiving surfaces before gluing. Dry bottom joints before closing the upper wing.

Physical print/cut/assembly verification pending. Automated checks do not prove stability, foldability or flight.

Part inventory (cut each instance once):

F: Fuselage tube

N: Nose cap

T: Tail cap

WL: Lower wing

WU: Upper wing

O1: Outer strut

O2: Outer strut

O3: Outer strut

O4: Outer strut

C1: Cabane strut

C2: Cabane strut

C3: Cabane strut

C4: Cabane strut

KL: Stationary landing skid

KR: Stationary landing skid

H: Horizontal tail

V: Vertical tail with foot

P: Fixed propeller

1. Cut and score [F, N, T]: Print at 100 percent and measure the 50 mm ruler. Use 200-250 gsm card. Cut each part once; score all dashed lines before folding. Keep glue off unmarked surfaces. Coordinates below are mm: x=0 nose, x=120 tail, y=0 centreline, z=0 tabletop.

Stationary strut-braced biplane

biplane / 1.0.0 / Letter / Assembly instructions continued

2. Close the square fuselage [F, N, T]: F has four 20 x 120 panels and one 5 x 120 seam. Fold the four long scores 90 degrees around a 20 x 20 square; glue the 5 mm lap inside the first panel. Hold square and dry. Fold all N and T perimeter tabs 90 degrees inward. Glue inside the tube ends with cap faces flush at x=0 and 120. Each 5 mm tab meets an inside wall; dry before mounting.

3. Stiffen both wings [WL, WU]: WL and WU each have a 160 mm span and 40 mm chord. Fold both 5 mm edge flanges DOWN 90 degrees. Do not fold the central panels. In assembly their leading and trailing edges are x=25 and 65; tips y=-80 and +80. Set WU aside until the struts are dry.

4. Build the two landing skids [KL, KR, WL]: Fold KL and KR into open-ended rectangular tubes, 40 long x 8 wide x 20 high. Glue each 5 mm seam inside its first panel; dry square. Glue each entire 40 x 8 top panel beneath WL, flush with its chord edges x=25 and 65. KL spans y=-34..-26; KR spans y=26..34. Keep both bottoms level on the table. These fixed skids are the included display supports.

5. Centre the body on the lower wing [F, WL]: Glue the bottom of F onto the top of WL over the 40 x 20 contact rectangle x=25..65, y=-10..10. The nose projects 25 mm ahead of the wing and the tail 55 mm behind it. F bottom is z=20, top z=40. Let this joint and the skids dry fully.

6. Fit the four interplane struts [O1, O2, O3, O4, WL]: O1-O4: fold the long central crease 90 degrees to make two perpendicular 4 mm webs, clear height 50 mm. Fold each 4 x 5 end tab 90 degrees toward the same side, opposite the return web. Bottom tab footprints (x range; y range): O1 35..40;-60..-56, O2 55..60;-60..-56, O3 35..40;56..60, O4 55..60;56..60. Pencil these rectangles on WL and matching rectangles under WU. Glue bottoms on WL; keep struts vertical and dry.

7. Add four centre supports [C1, C2, C3, C4, F]: Fold C1-C4 exactly like the outer struts; clear height is 30 mm. Glue their bottom tabs to the fuselage TOP at C1 x=35..40,y=-8..-4; C2 x=55..60,y=-8..-4; C3 x=35..40,y=4..8; C4 x=55..60,y=4..8. Mark matching rectangles under WU. All eight upper tabs must now be level at z=70. Dry before adding the upper wing.

8. Bond the upper wing [WU, O1, O2, O3, O4, C1, C2, C3, C4]: Dry-fit WU directly above WL with no stagger: same x=25..65 and y=-80..80. Check 50 mm clear panel-to-panel spacing outside the body. Apply thin glue to all eight upper 4 x 5 tabs and lower WU onto their marked rectangles. Hold level without crushing the struts, then allow glue to cure. Leading and trailing flanges point down and remain clear of all struts.

9. Attach horizontal and vertical tail [H, V, F]: Glue H flat on the rear fuselage top: its 20 mm chord spans x=100..120 and its 50 mm span y=-25..25. The central 20 x 20 area bonds to F. Fold V foot 90 degrees; glue its 25 x 5 foot at x=95..120,y=0..5 on the body/H top. Keep V upright on the centreline, tall edge at the tail. The small paper-thickness step where H begins is accommodated by glue.

10. Attach the stationary propeller [P, N]: Glue only the central 6 x 8 patch of P to the centre of N. Long blade axis vertical, hub at y=0,z=30. Tips are z=12 and 48 and clear the tabletop. Hold until dry. The propeller is fixed: no axle, pin or rotation is intended.

11. Check the display model [F, N, T, WL, WU, O1, O2, O3, O4, C1, C2, C3, C4, KL, KR, H, V, P]: After curing, check both skids sit flat, all eight struts are bonded at both ends, wings are parallel and tail is upright. Display indoors on a level shelf. This is a stationary decorative biplane, NOT a flying toy. Physical printing, cutting, mounting fit and stability tests remain pending.