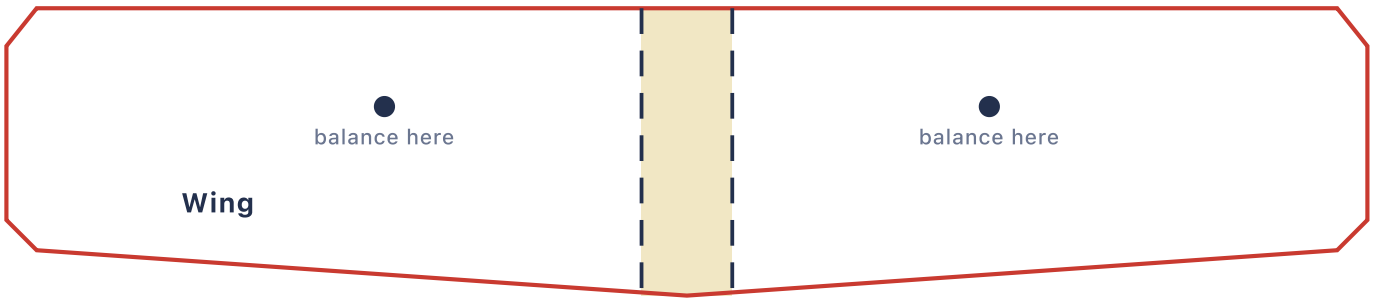
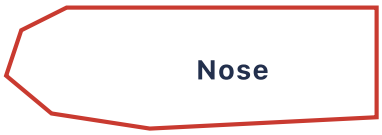
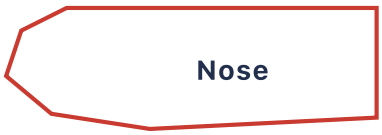
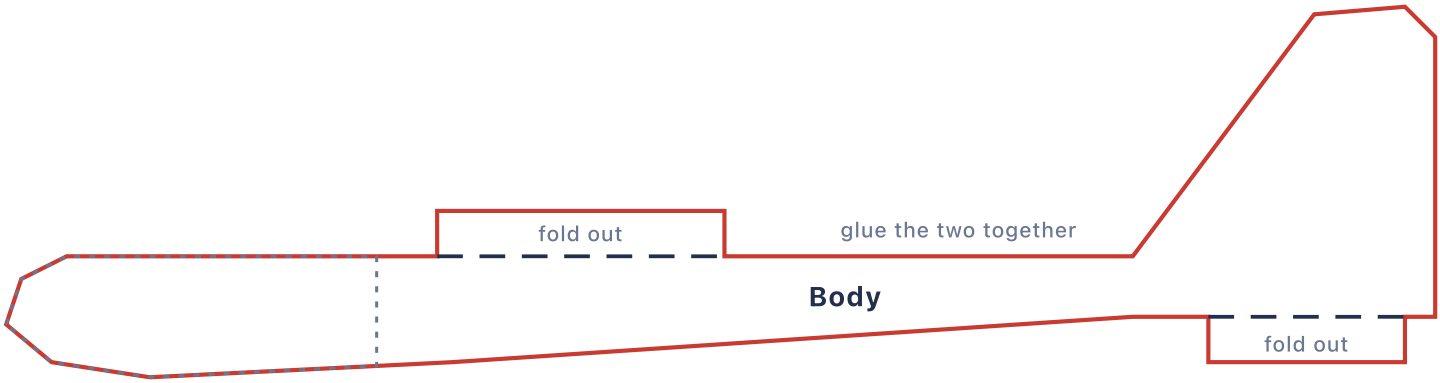


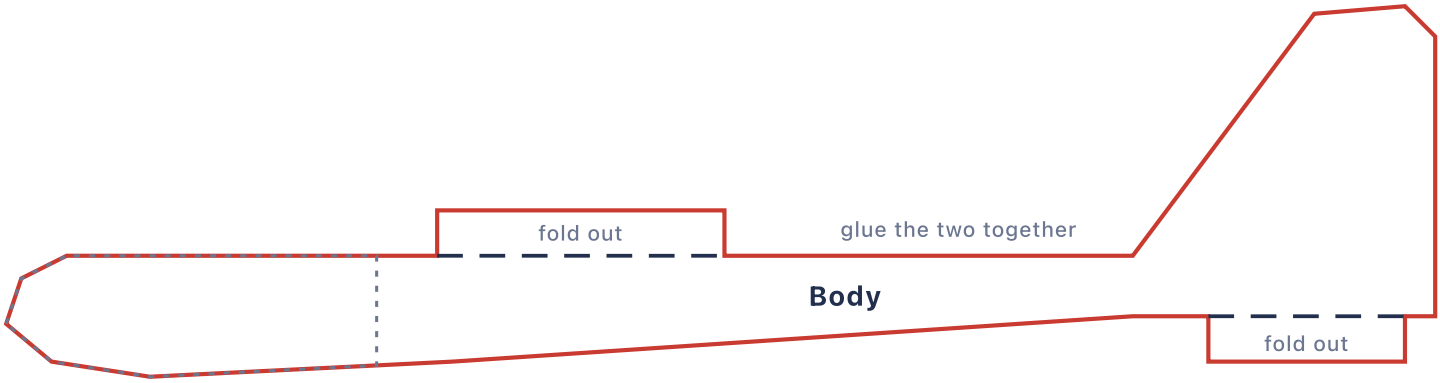
bend both sides up a little on the dashed lines







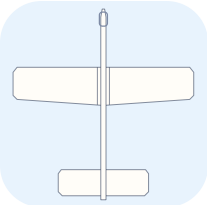




Card glider

Print on thin card. Cut the solid lines, fold the dashed.
Glue the shaded parts. Steps on the next page · paperplanejoy.com

This line is 10 cm when printed at 100%

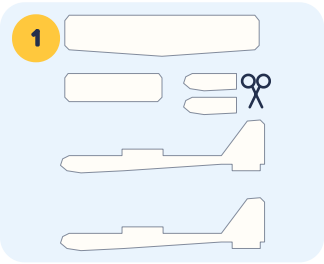


PAPER PLANE ACADEMY · OTHER FLYERS

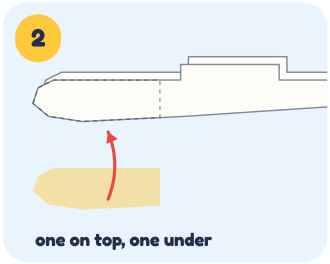
How to make a card glider

7 steps · a little fiddly · one sheet of thin card, A4 · scissors, a glue stick or white glue, a paper clip or two

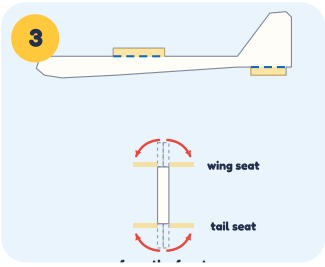
A folded plane's wing is flat: it lifts by meeting the air at a slight angle. This wing is curved, higher in the middle than at its edges, like a real plane's. A curved wing makes more lift for little more drag, so it can fly slowly and lose very little height as it goes: a long, flat, gentle glide.



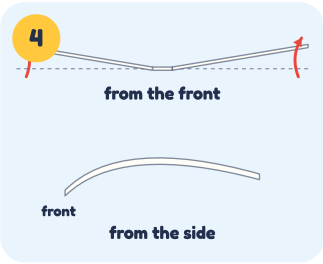
Print the template on thin card and cut out the six pieces along the solid lines.



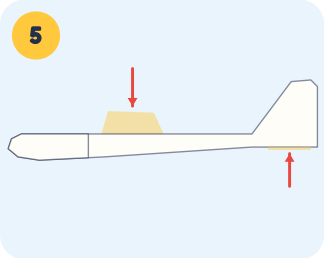
Stack the two body pieces, both printed side up, edges matching, and glue them together, but not their tabs. Glue a nose piece on top, on the dotted outline, and the other underneath.



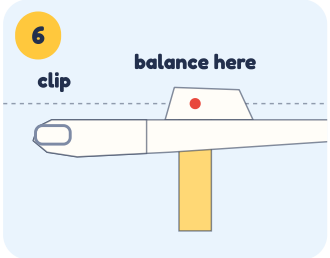
Fold the tabs out along the dashed lines, one of each pair to the left and one to the right: a flat seat on top for the wing, and one underneath for the tail.



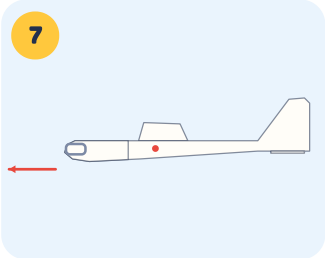
Curve the wing gently front to back: roll it round a pencil, printed side out. Then bend the outer parts up along the dashed lines, so each tip sits about 1.5 cm higher.



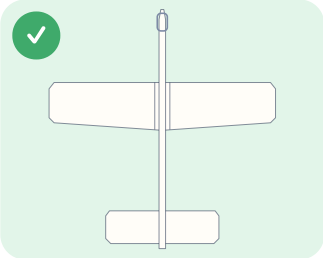
Glue the wing onto the top seat, its front edge at the front of the seat. Glue the tail under the bottom seat, square to the wing.



Slide a paper clip onto the nose. Rest the wing on two fingertips, under the dots: add a clip, or slide it, until the glider balances level.



Hold it under the wing and push it gently forward, level. If it dives or swoops up, trim it: the experiments below show how.



Hold it under the wing, between finger and thumb, nose a little down, and push it gently forward and level, at about walking pace.

It dives? Bend the tail. Bend the back edge of the tail up, by about 1 mm. The nose lifts and it glides flatter. If it now swoops up and drops, bend it back a little, or slide the clip forward.

Move the balance point. Slide the clip a few millimetres back, then forward, gliding it from the same height each time. Which flies furthest? A little less weight in the nose floats; more makes a fast, steep glide. [Try it in the balance lab](#balance) first.

More or less dihedral. Bend the tips up higher, then flatten them almost level. With more, it holds steady in a breeze; with almost none, it rolls over and spirals. Find the least that keeps it flying straight.