

How to Build The Best Paper Aeroplane



1. Start with an ordinary sheet of 8 1/2" x 11" - 21.6 x 28 cm (U.S. standard writing paper size). The exact size is not important; it should be rectangular and not square. The paper should be at least 20 Lb. bond or copy paper.

2. Fold over the left hand corner as shown.

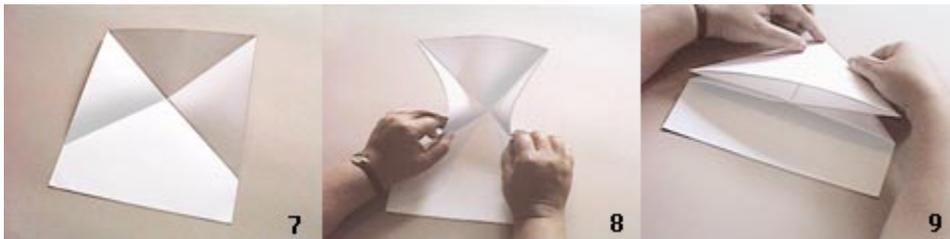
3. Crease



4. Result

5. Fold over the right hand corner.

6. Crease



7. Result

8. Carefully close in the sides as shown.

9. Fold down the centerline from front to back.

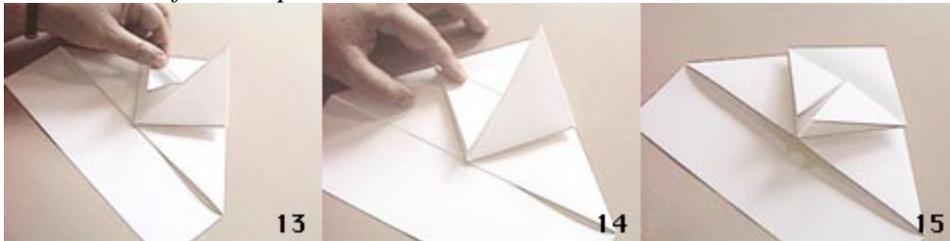


10. Fold the resulting left hand tip up as shown.

11. Crease along the bottom edge.

12. Repeat the same procedure on the right section.

... Continued from steps 1 to 12



13. Fold the left hand point back.

14. Crease

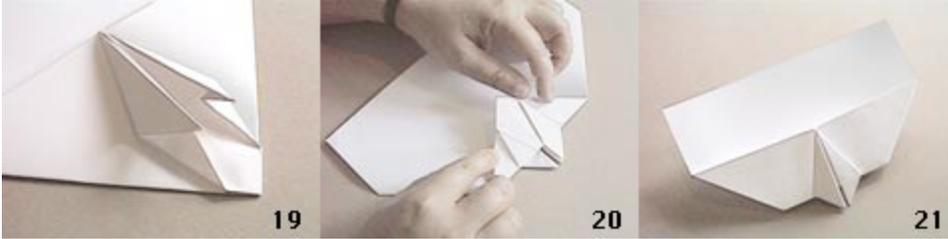
15. Mirror the same folds on the right panel.



16. Bend the left panel as shown.

17. Crease from back to front only 2/3 of the way.

18. Study photos 18 and 19 carefully. These folds are difficult to describe. Try to duplicate them as shown in the photos.



19. Mirror the folds on the right.

20. Turn the plane over and fold the point back and crease as shown.

21. Turn the plane over again. The result should be similar to the photo.



22. Crease wing as shown.

23. Moisten the crease with your tongue. Do this **slowly and carefully** or you could receive a painful paper cut on your tongue.

24. Carefully tear off strip of paper. **Save the strip of paper because you are going to need it to make the tail.**

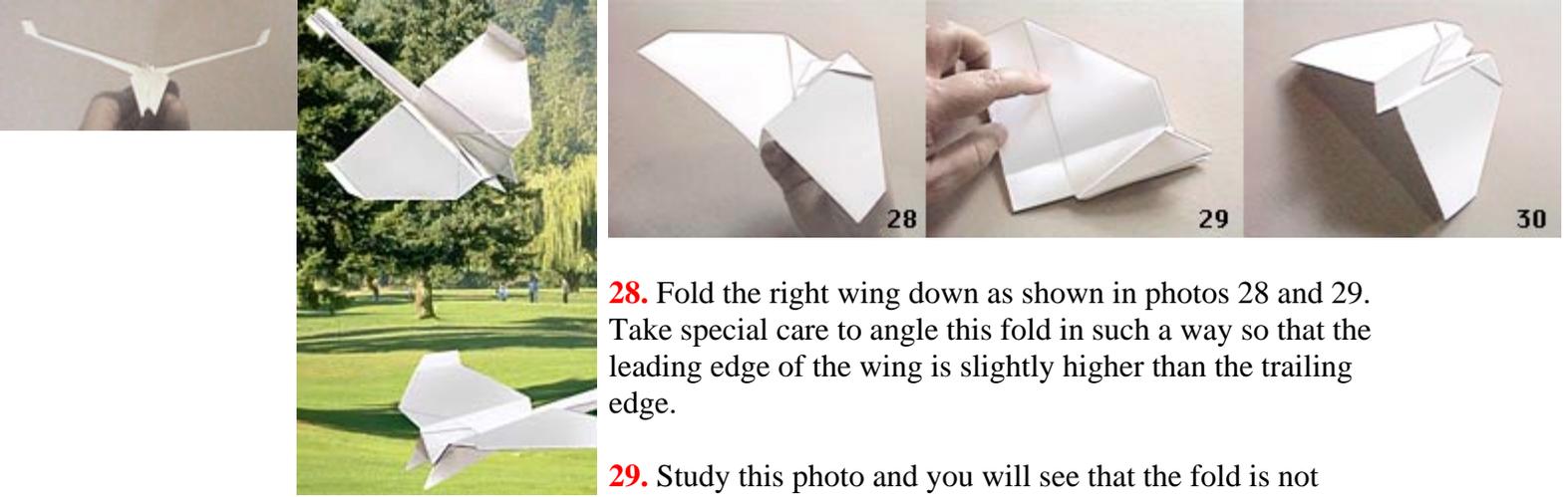
... Continued from steps 13 to 24



25. To make the tail, fold down the center of the strip of paper to form a trough.

26. Tear as shown to form control surfaces. The folds should be parallel with the bottom of the trough.

27. Fold wings up.



28. Fold the right wing down as shown in photos 28 and 29. Take special care to angle this fold in such a way so that the leading edge of the wing is slightly higher than the trailing edge.

29. Study this photo and you will see that the fold is not exactly parallel with the trough at the bottom but slightly angled as described in photo 28.

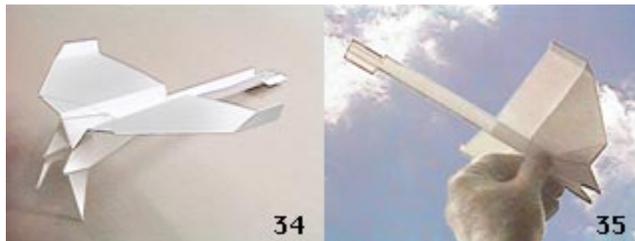
30. The plane should look like this at this point.



31. Bend the wingtips up.

32. Insert tail into slot under wing.

33. *Finished at last!*



34. Aircraft shown with landing gears down. Note: the craft does not fly as well with the gears down.

35. *Ready to fly! - IMPORTANT:*

Preflight inspection -

Before you fly the model plane for the first time you should examine it carefully looking directly at the front and the rear. Just like a real airplane, the left and right side must be the same that is a mirror image of each other. If one wing is higher than the other or the surfaces are not at the same angle, or the tail is crooked, then the plane is likely to fly poorly. Make any adjustments to correct these problems now.

Flight techniques -

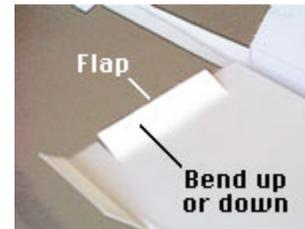
This is the fun part, learning to fly. The airplane can be launched with force or softly.



Launching it on a windy day directly into the breeze causes it to climb into a half-barrel roll. For a second it will fly upside down and then flip over and fly a long distance with the wind. On calm days you can launch it gently horizontally. It has a long glide path and will generally go in a straight line or go into a gentle curve.

Fine-tuning -

If you find that the plane is banking to the left or right, you can correct this by experimenting with bends on the control surfaces. To gain extra control, cut flaps on the rear edge of the wings and bend the flaps up or down as needed. You can also try bending the wing tips down instead of up.



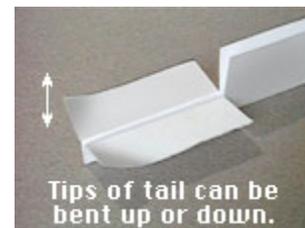
The tail flaps can be bent up slightly if the plane tends to dive. All changes should be made with small adjustments and then a test flight to analyze the change.

Make more than one model airplane. You will find that they all have unique flight characteristics, no two are alike. Choose the one that flies best and try to find out why it flies so well.

Try making really large versions of this plane using construction or ledger paper. They fly just as well only higher and farther.

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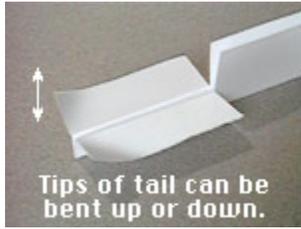
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