

## Long Distance Paper Glider

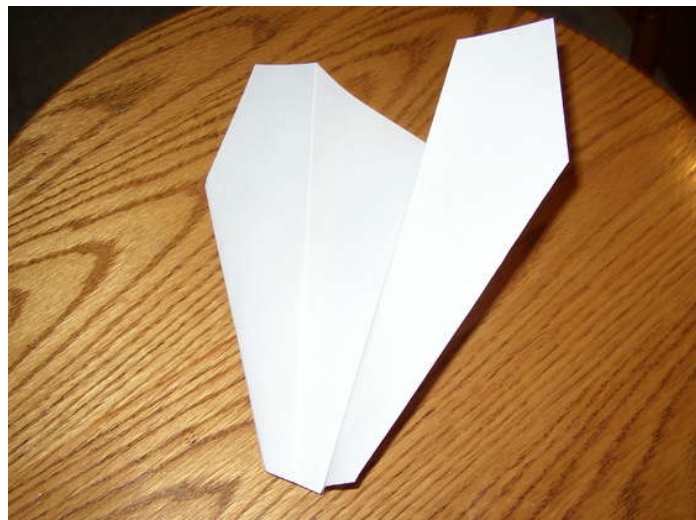
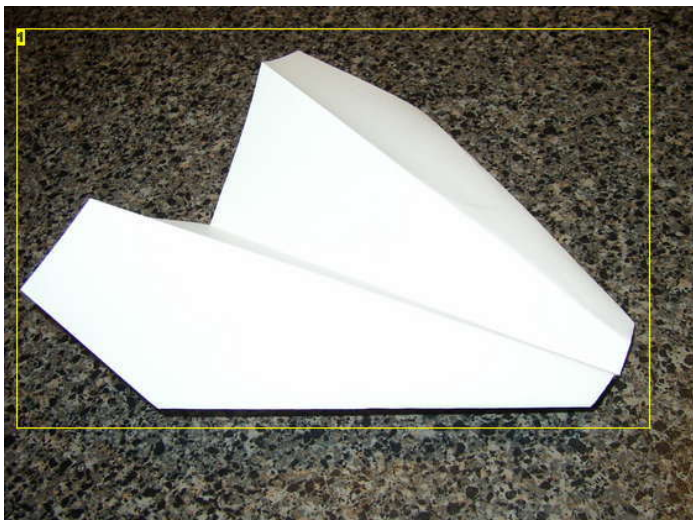
by [sbrown](#) on February 21, 2008

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## Intro: Long Distance Paper Glider

Learn how to build a long distance paper glider that will go further than any other airplane you've made.

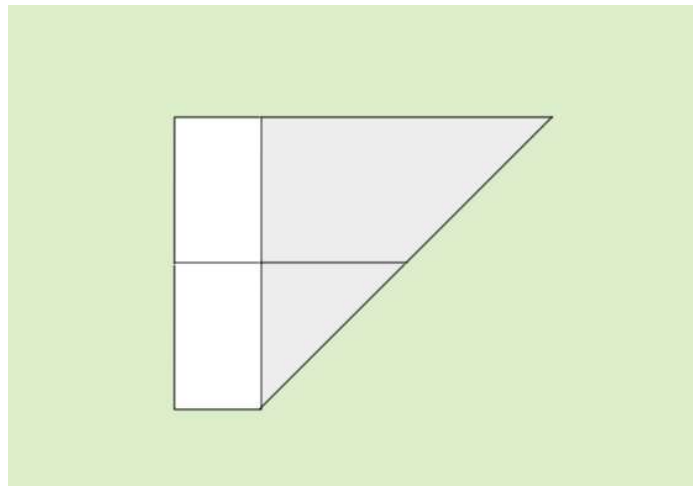
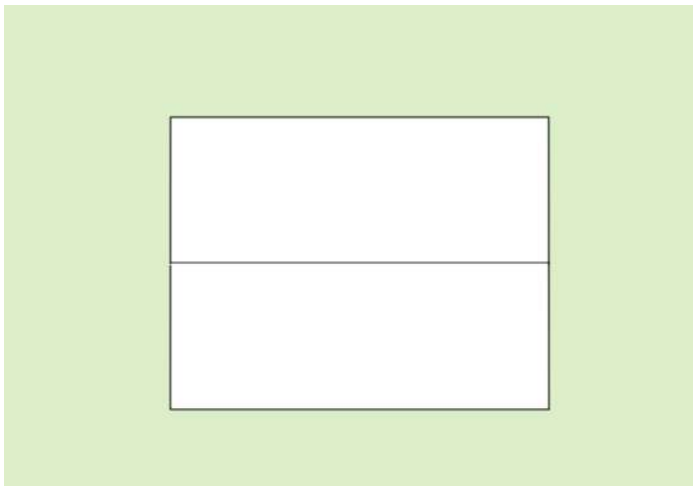
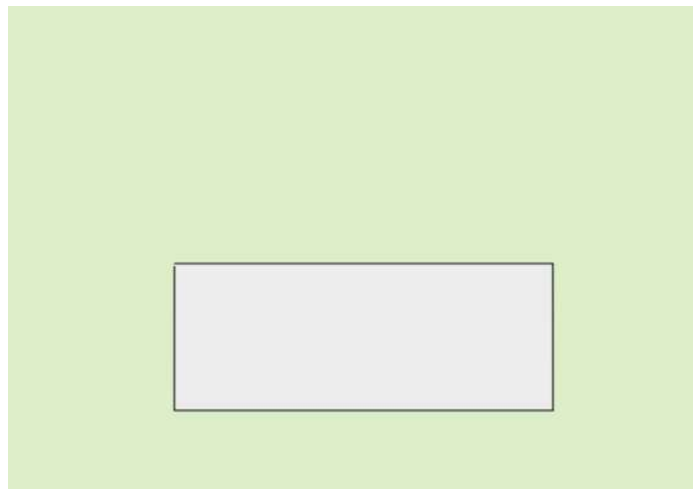
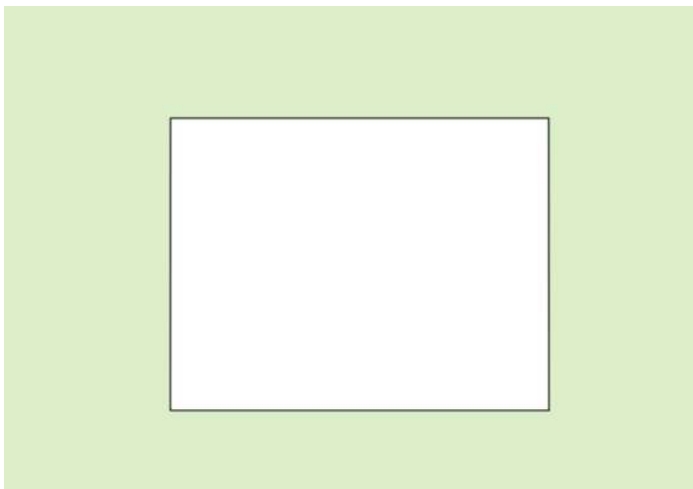


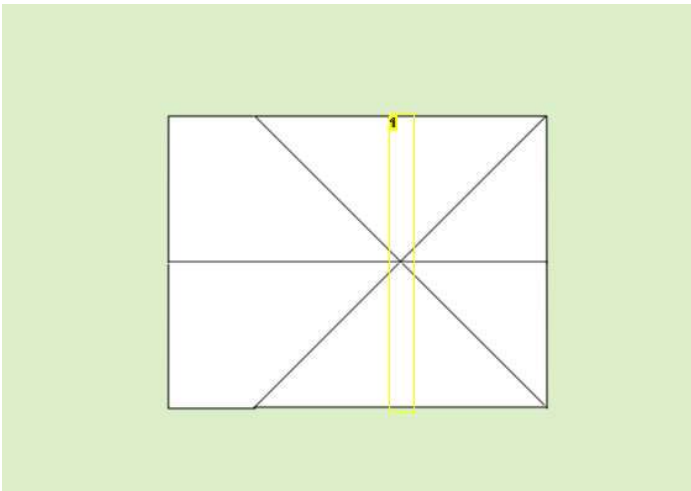
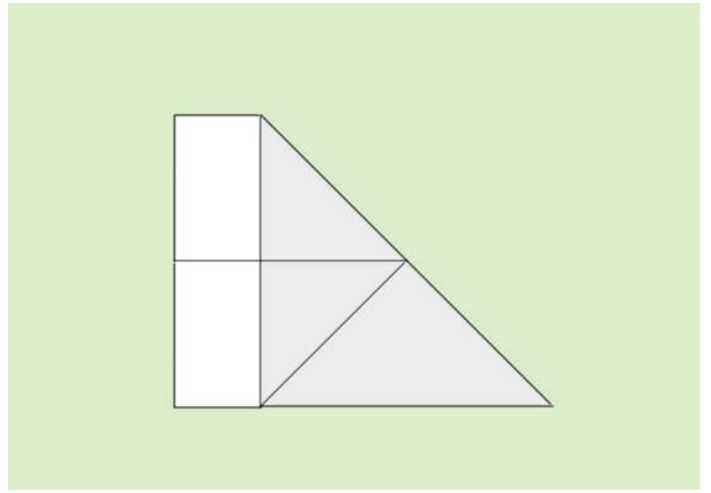
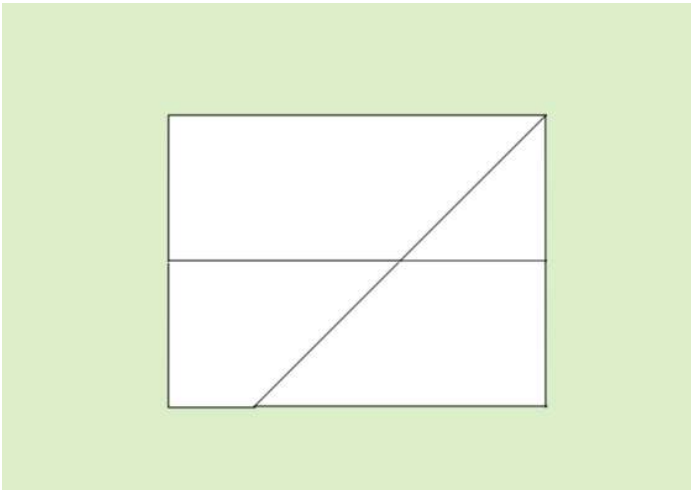
### Image Notes

1. Colored side shows entirely here

## Step 1: Step 1 - Prefolding

Pre-fold along the lines. White is primary side.



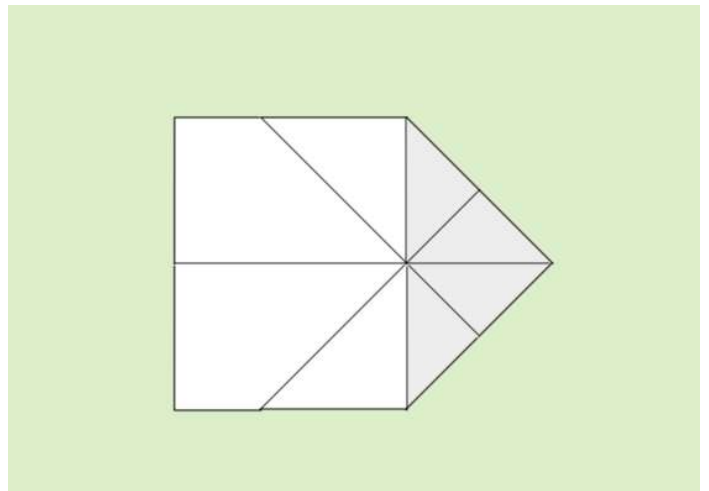
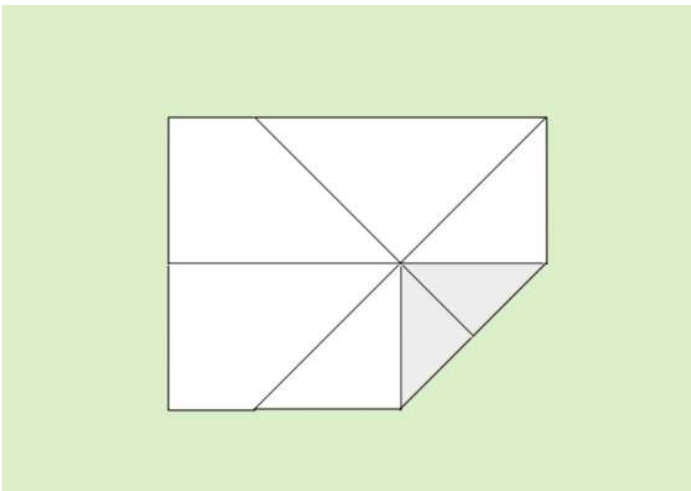


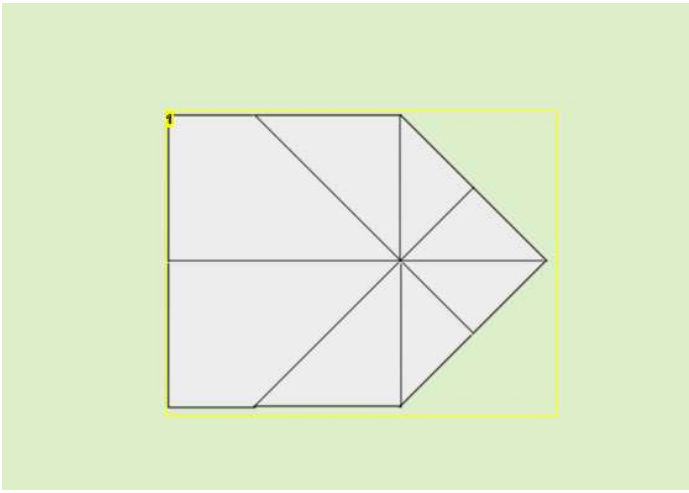
#### Image Notes

1. Squash fold along here of a4-legal paper. Make a large triangle like in step 2, and fold over like in step 2.

#### Step 2: Step 2 - Tip

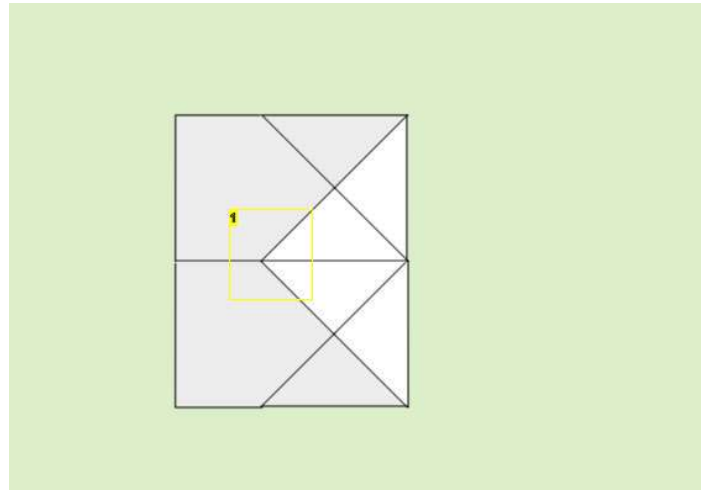
Fold in two edges, flip and fold tip backward.





#### Image Notes

1. Flip over

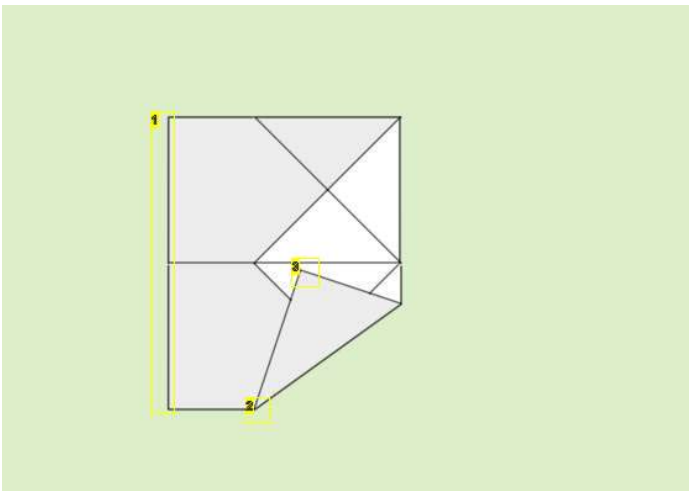


#### Image Notes

1. Fold back for any paper size.

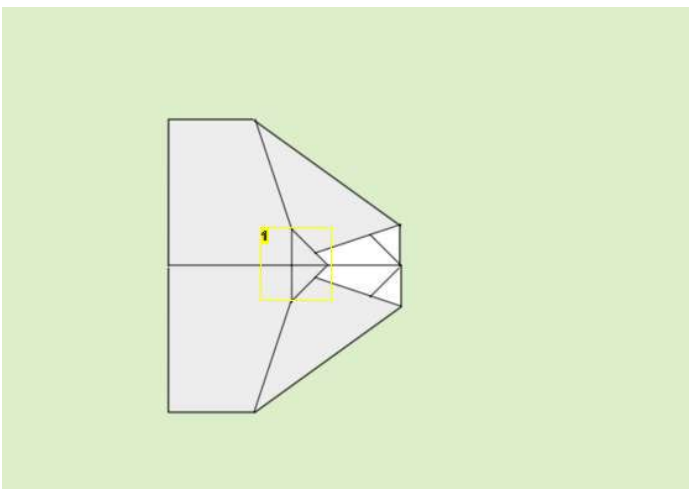
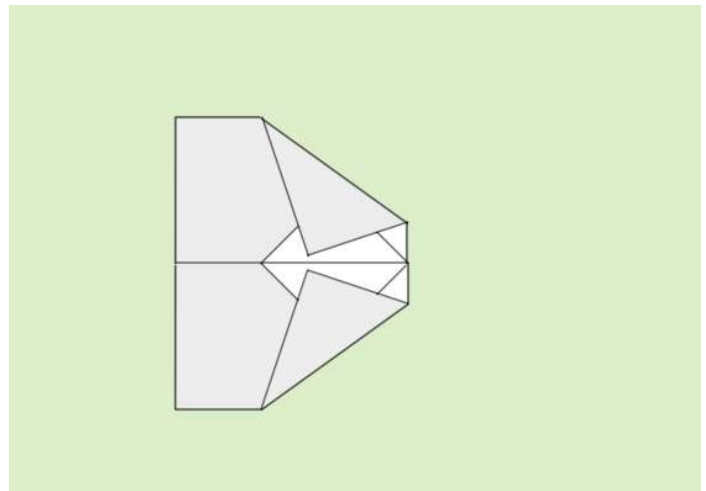
### Step 3: Step 3 - Fuselage

Fold as directed, for any paper size.



#### Image Notes

1. May be longer depending on paper size.
2. Guesstimate the the distance here, I usually go by the prefolds
3. Don't touch to crease, as it will rip the flap in the next step.

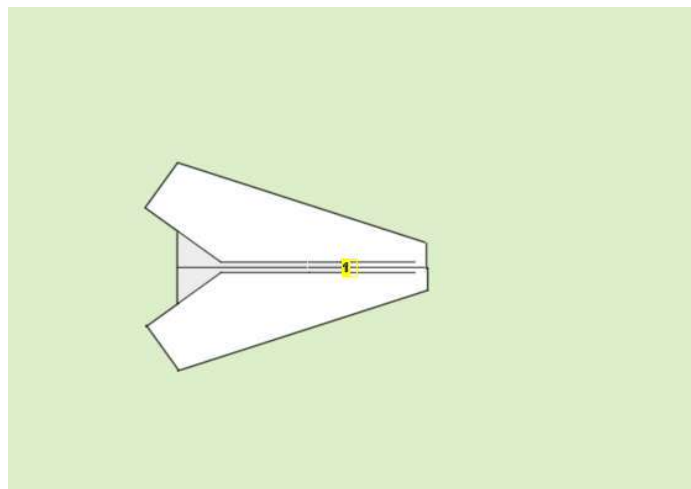
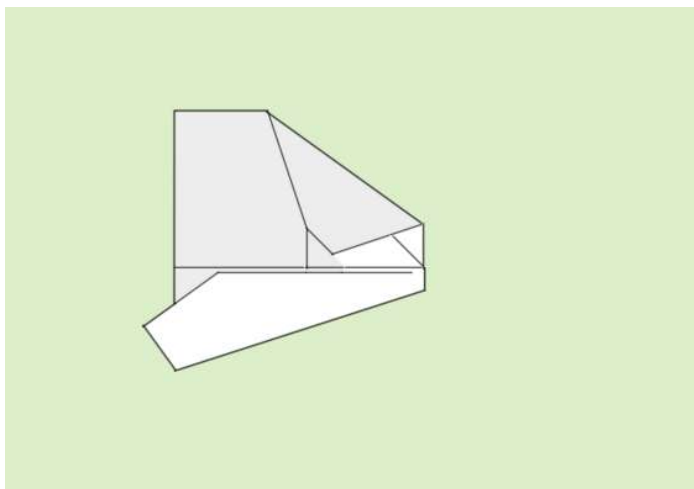


#### Image Notes

1. Fold this piece really flat to reduce drag and potential falling apart

## Step 4: Step 4 - Wings

Fold parallel to fuselage. Easier if you fold paper in half first.

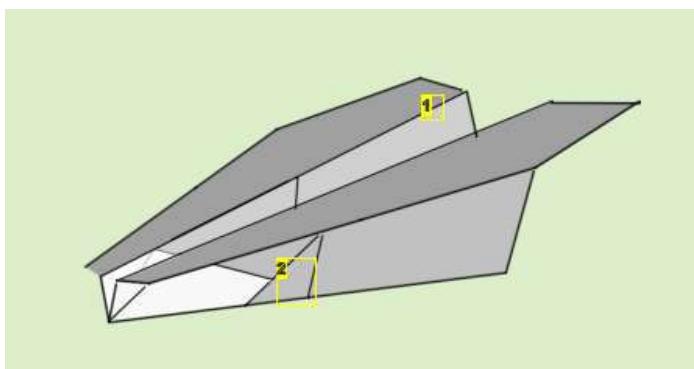


### Image Notes

1. Geometry overload sketchup yes

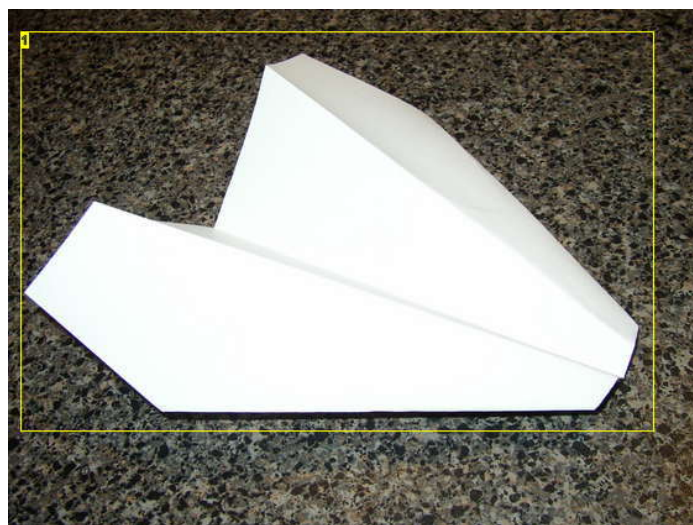
## Step 5: Step 5 - Angles and Throwing Tips

Fold to approximate angles for best lift, fold tip over to reinforce it.



### Image Notes

1. Colors do not apply in this image, shadows were applied.
2. Grasp with thumb and forefinger and throw at shoulder height. Don't throw too hard, or it will drop.



### Image Notes

1. Colored side shows entirely here

## Related Instructables



**Paper Airplane Glider** by L815



**The best ever paper glider!** by purplemonkeydish



**Paper Airplane (Glider)** by rawknexstuff



**Mini Staple Sailplane** by pmet



**Card Board Gliders** by flashanimator




**glider T** by paperairplanemant

## Comments


45 comments

[Add Comment](#)


- 
- 

**Cheezpaper** says: Feb 13, 2011. 9:31 AM [REPLY](#)


I've made better.

And isn't this the plane that everyone knows?
- 
- 


**SPYBOOM** says: Oct 18, 2010. 9:39 PM [REPLY](#)

ITS SO AWESOME!!!!!!!!!!!!!!!!!!!!!!!!!!!!!! But I accidently chunked it in the toilet. But its still really awesome.
- 
- 


**bamcar1** says: Dec 11, 2010. 10:00 AM [REPLY](#)

u threw while going pee?!
- 
- 


**legoman111** says: Dec 9, 2010. 7:36 PM [REPLY](#)

mine keeps falling apart no matter what.\*whines\*
- 
- 


**killer33** says: May 17, 2009. 9:03 AM [REPLY](#)

I LOVE YOU
- 
- 


**Iridium7** says: May 18, 2009. 7:18 PM [REPLY](#)

someone need a hug?
- 
- 


**oi987986** says: Dec 14, 2009. 10:55 AM [REPLY](#)

i need a hug plz
- 
- 


**gb123** says: Jul 14, 2010. 11:41 AM [REPLY](#)

\*hugs\*
- 
- 


**oi987986** says: Sep 24, 2010. 11:22 AM [REPLY](#)

yey hugs rock!
- 
- 


**calson1432** says: Sep 6, 2010. 10:13 AM [REPLY](#)

if u flip it over and do the same folds it becomes a dart
- 
- 


**tanmanknex** says: Jun 29, 2010. 10:00 AM [REPLY](#)

I learned this plane when I was in kindergarten and everyone would come to me for them. I'd be a millionaire if I had charged for them... ;)
- 
- 

**acruise** says: Jun 21, 2010. 11:11 AM [REPLY](#)

I first encountered this design, which I remember being great 20+ years ago, in Advanced Paper Aircraft Construction by Campbell Morris. I have four books in the series.
- 
- 

**123069** says: Nov 26, 2009. 3:38 PM [REPLY](#)

omg i love you (but not in the gay waybut in this is the best plane ever)  
oh yeah i flew during my physics class my teacher caught looked at it gave me thumbs up some extra credit. then when i thought i was in the clear he gave me a detention:)
- 
- 

**oi987986** says: Feb 17, 2010. 8:50 AM [REPLY](#)

lol
-



**[ jack the young idiot ]** says:  
meh

Jan 11, 2010. 8:32 PM [REPLY](#)



**origamiananything** says:  
this plane is "meh" to me. if you think about it... try to make gliders either based off this or make it wide ways for bigger wings. u gotta figure it out on ur own for wide airplanes.

Dec 20, 2009. 2:04 PM [REPLY](#)



**jackoteeny** says:  
I have made this type of plane before which in my country, Wales, it is called a HARRIER JET PLANE I have only said this to show you the name of it Good instructable by the way :)

Sep 12, 2009. 6:01 AM [REPLY](#)



**ROARY** says:  
I threw this plane out of my window and it flew more than 100 feet (i was on the roof by the way) this is awesome

Jul 30, 2009. 7:47 AM [REPLY](#)



**thisismin3** says:  
great glider, flies very far and straight. thanks!!!

Jul 16, 2009. 1:02 PM [REPLY](#)



**cheech922** says:  
AMAZING!!!!!!!!!!!!!! Thanks SSSOOOOOO MUCH.

Jun 21, 2009. 1:21 PM [REPLY](#)



**thebookworm127** says:  
laughable

May 31, 2009. 7:45 AM [REPLY](#)



**killer33** says:  
ITS THE BEST PLANE EVA

May 17, 2009. 9:03 AM [REPLY](#)



**Ben.land101** says:  
first off nice Instructable. but anyway this plane is good, although I found a glider that will go much farther. I measured approximately a 4-5:1 glide ratio on it.(that means it goes 4-5ft. forward for every foot it drops)

Apr 5, 2009. 2:44 PM [REPLY](#)

<http://www.youtube.com/watch?v=1MI9mo-eAIs>

although it's a little hard to fold



**Cmos4081** says:  
Always won money on bets crossing the highway where my school was with this design. It is a really old design, I can't even remember who showed it to me but I love it. when tossed correctly from the right spot (CG) the thing will fly a lot. If some wind is available it will go even longer distances.

Mar 23, 2009. 8:00 AM [REPLY](#)



**shadowspydre** says:  
You should rotate the images just as you would be looking at the paper when folding it - or do I hold the paper differently?

Mar 19, 2009. 3:31 PM [REPLY](#)



**cyanide4c** says:  
We used to make these in our school days (more then 18 years ago), when the plane dropped too fast we made a little upward 'V' in the bottom back of the plane. Nice to see it's still a hit :)

Nov 2, 2008. 5:20 AM [REPLY](#)



**Polymorph** says:  
My friends and I flew a lot of these when I was a kid. I still make and fly them! Bend up the back of the wings a bit and it does great loops. Tip it about 45 degrees and toss hard, and it will fly a big horizontal loop and fly right back to you. It is great fun catching it. With adjustments it can fly a long, long distance, or turn gentle curves. It is very stable. Very tough, probably due to the combination of a blunt nose and the multiple folds in the nose. You can adjust where you initially fold the wings to control the flight characteristics. I prefer folding so the wings end up a bit wider.

Sep 1, 2008. 9:19 AM [REPLY](#)



**vernors** says:  
i have seen this plane in a book. i think it could do loops and if thrown right it will come back to you. i know a few good gliders. one of them is called the parrot. it is from book called "Super Simple Paper Airplanes" it was very good. it think it had this plane on it.

Jul 29, 2008. 1:18 PM [REPLY](#)





**Cmos4081** says:

Jul 29, 2008. 7:34 AM [REPLY](#)

use to place bets in highschool to see who could go the greatest distance, the secret was to launch this plane after traffic passed, our high school was on a 8 lane Ave, we used the hot air the the cars that stopped at the street lights, this model would fly over 300 ft. Of course we where at the 3rd floor in the building.



**pikathebudgie1234** says:

Jun 22, 2008. 3:46 PM [REPLY](#)

awesome!!my cousin and I made paper gliders,planes and stunt planes etc...etc..!and then had a contest check it out on youtube coming summer 2008!



**cafeine** says:

Apr 3, 2008. 9:42 AM [REPLY](#)

wow!!!!...i never imagined how smoothly this thing would go....very very impressive for a paper glider!...thx!



**so\_simple98** says:

Mar 13, 2008. 5:55 PM [REPLY](#)

This is published in a book. I have the book and it is an awesome plane. It flies really really well.



**dchall8** says:

Feb 22, 2008. 4:10 PM [REPLY](#)

This is perhaps the most rare of all paper airplanes. I've never seen it published in any book. This design has everything good about paper airplanes and none of the bad. As far as I'm concerned it is the perfect plane...once you know the secret. I'm not sure why it is not more popular, but possibly it is because people do not pass the secret on with the basic folds. Someone else post it here on Instructables; I'll tell you what I told them. SECRET EXPOSED Once you have made the plane and tightly creased the outer wing folds, you have to UNcrease them. When you look from back to front, you should be able to see all the way inside the plane. To do that you stick your fingers into the pockets on the underside of the wing and do your best to flatten that outer crease. The more rounded you can make that the more it opens the pocket underneath. I hold the plane with the fuselage together and wrap my other hand around both wings and squeeze together to open the pockets as much as possible. The exact aerodynamics of this had not been explored when I first learned of this design, but maybe some student at some school has gone further with it. Here's how to test the lift. Hold the plane by the tail, pointing down, up as high as you can reach. Then simply drop it. If you have made it with a deep pocket, the plane will fly away before it hits the ground. If you have creased the wings' outer edges, the plane will land on the ground at your feet. Have fun!



**bhunter736** says:

Feb 25, 2008. 2:15 PM [REPLY](#)

Thank you for the "Secret". I just tried this and wow! This is such a good plane anyway, I had forgotten about it.



**dchall8** says:

Feb 25, 2008. 3:47 PM [REPLY](#)

Here is a picture of what I had in mind. The giant gaping pockets, as seen from the back, are what you are after.



**rc jedi** says:

Feb 23, 2008. 7:30 PM [REPLY](#)

this plane is one of the few things i rember from high school, 1981. just slightly curl up the trailing edge to induce up trim. too much and the plane will stall and zoom. to turn, bend up 1 slightly more than the other. this plane is my favorite, and i teach kids to make this 1 instead of the dart type they always seem to make. good instructable!



**dchall8** says:

Feb 23, 2008. 8:37 PM [REPLY](#)

That reminds me, if you want it to go left or right, bend the trailing edge of the FUSELAGE, not the wings. This plane is so directionally stable along the deep fuselage that bending the back edge of that seems to work best.



**rc jedi** says:

Feb 25, 2008. 6:03 PM [REPLY](#)

if you open the wings and fuse, then we can't bend the rudder. it can fly very slowly unfolded. and the elevon trim i outlined does work well. either way works, just need a light touch. it is a great plane. we color ours before folding with magic markers so the kids know theirs. stack several on top of each other to launch a bunch at one time. they fly in formation a way, looks cool



**dchall8** says:

Feb 25, 2008. 7:28 PM [REPLY](#)

Opening the fuselage doesn't make sense since it flops open as soon as you let go if it anyway. To bend the trailing edge of the fuselage, it has to be creased. When it flops open, there is enough curvature to change the path in the direction you want it to go. It does fly slowly. At a paper airplane contest at Wright Patterson AFB in 1980, this plane won the award for staying aloft the longest.





**sbrown** says:

It also is so aerodynamically stable, the wings provide too much lift. To get it to fly longer aim the elevators down, to reduce small stalls.

Feb 25, 2008. 5:58 PM [REPLY](#)



**bhunter736** says:

Thank you for sharing. Your diagrams speak for themselves. Very professional. I had forgotten about this one. Armed with some new "secret" knowledge, this is even better than I remember! Thanks everyone. : )

Feb 25, 2008. 2:16 PM [REPLY](#)



**krezac** says:

What kind of program are you using for drawing the folding-sequence pictures? Thanks

Feb 22, 2008. 2:06 AM [REPLY](#)



**sbrown** says:

Google Sketchup, with guidelines turned off and background color changed.

Feb 22, 2008. 9:08 AM [REPLY](#)



**nickc321** says:

This is one paper airplane I remember learning as a kid and have never forgot. Thanks for sharing it and reminding me.... also, I second krezac question, what package did you use to make the folding sequence diagrams.

Feb 22, 2008. 7:37 AM [REPLY](#)



**GorillazMiko** says:

Looks cool and quite easy to make.

I do something quite like this, and the past few days, it's been raining, and there's been really strong winds.

Yesterday I made a plane, and when I heard the wind coming towards me, I threw it, and oh boy-- that thing went *high* and *far* at the same time. :-)

Feb 21, 2008. 9:13 PM [REPLY](#)