



F-14 Tomcat

VF-84 Jolly Rogers

Build an easy paper jet model with your hands, some scissors, two rules, some glue and a paper hole punch machine!

Check your handiwork skill !

Challenge a child to build it !

Assemble one as a gift for someone

!

Collect the most famous jets in the world

! Once built, fly it !
Print on sheet 1 page 8, on sheet 2 page 9 and opposite 9, on sheet 3 page 10, on sheet 4 page 11 and on sheet 5 page 12. Cut the pieces, fold on the lines to give shape and paste with glue. The plane is balanced and should fly with minor aerodynamic adjustments.

Whole process from assembly to flying is detailed in this document.

PaperAircrafts.com presents a flying paper-plane that attempts to replicate as simple as possible the famous Grumman F-14 decorated as VF-84 Jolly Rogers in the 70's.

The F-14 is a twin engine, two seat, variable-sweep wing, carrier based aircraft, designed to defend the fleet. First flew in 1970. Its owners are the US Navy and the Iranian Air Force.

Enjoy !

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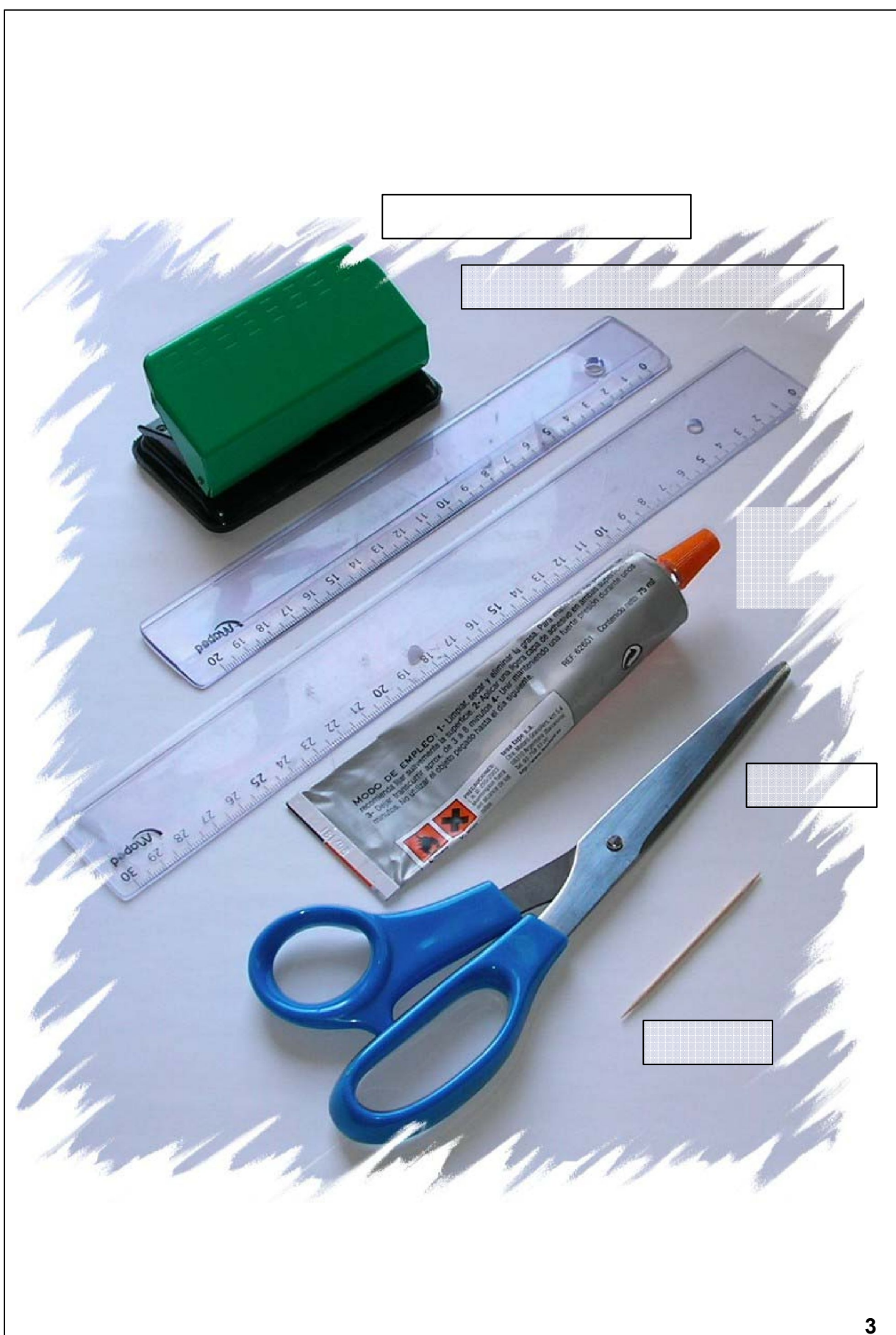
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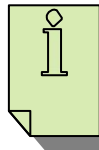
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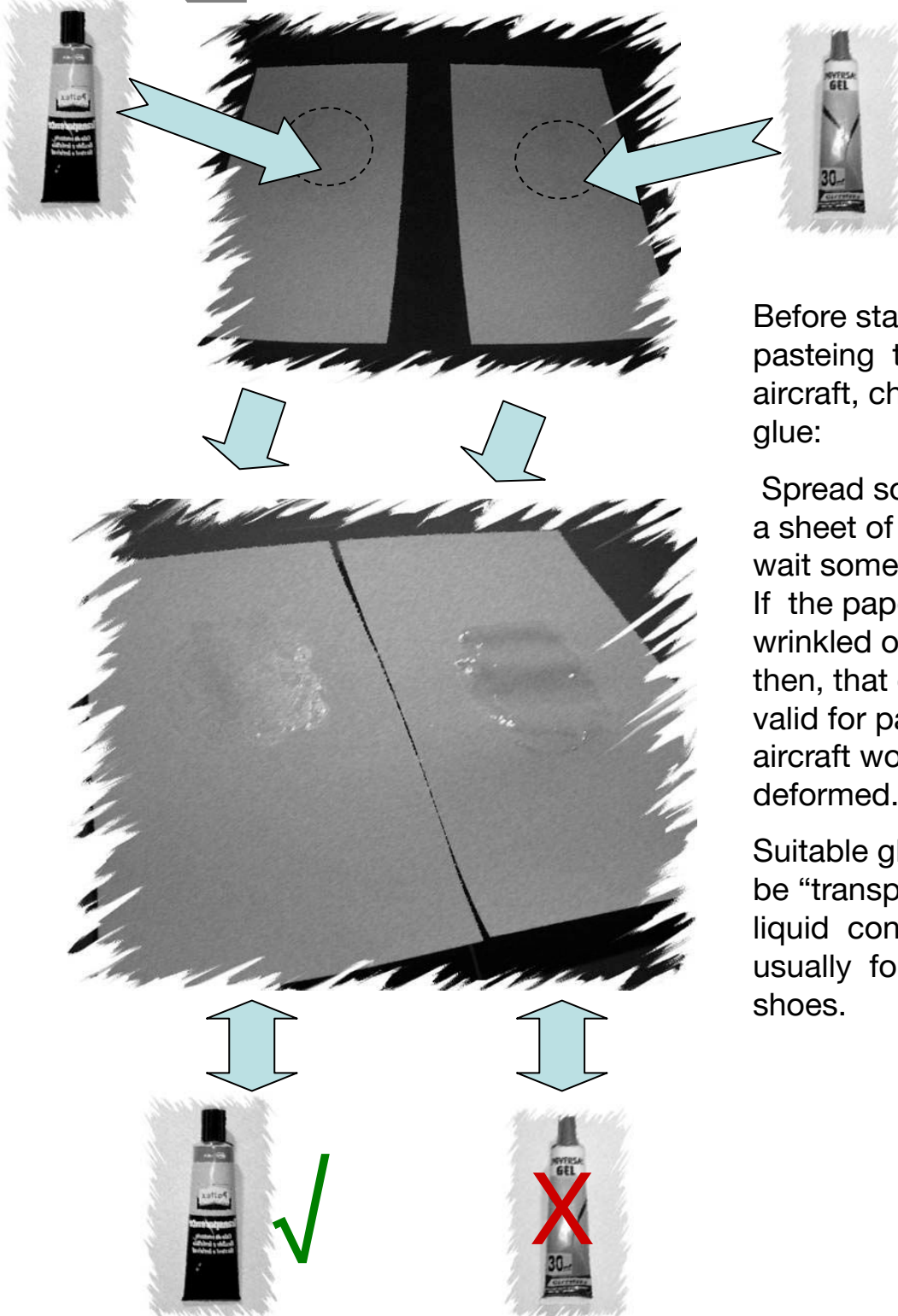
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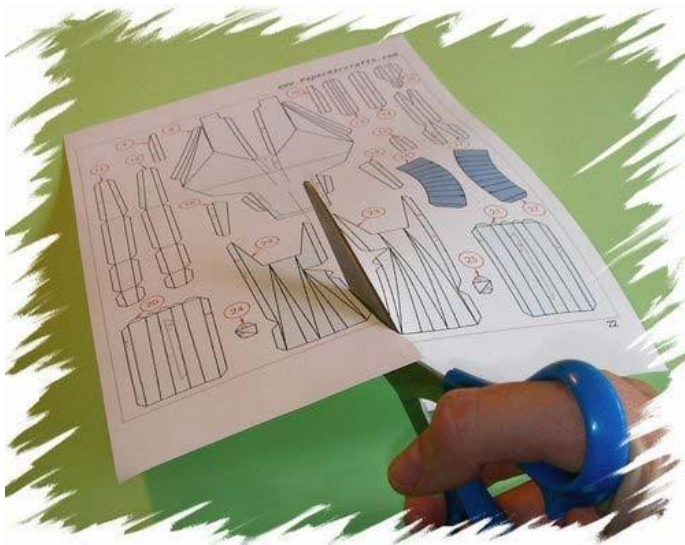
Note about Glue



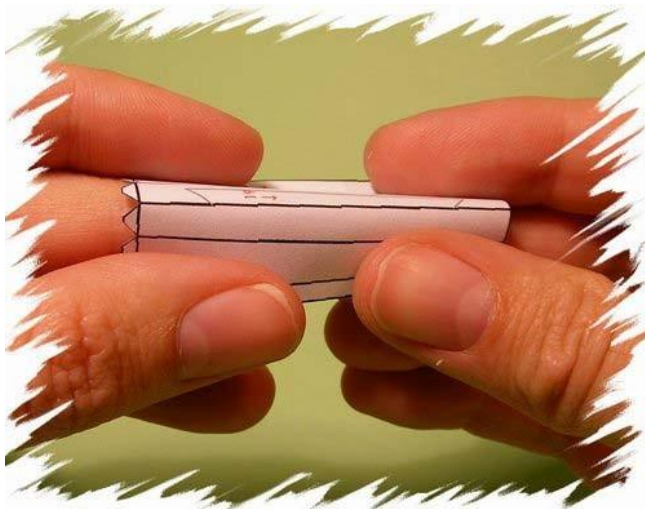
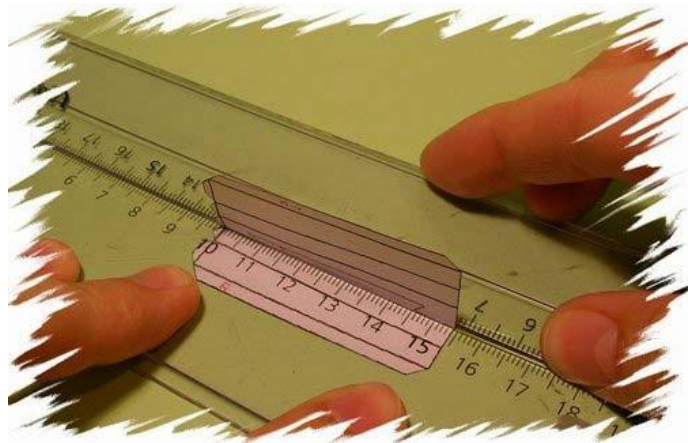
Before start pasting the aircraft, check your glue:

Spread some glue in a sheet of paper and wait some minutes. If the paper gets wrinkled or wavy, then, that glue is not valid for paper; the aircraft would be deformed.

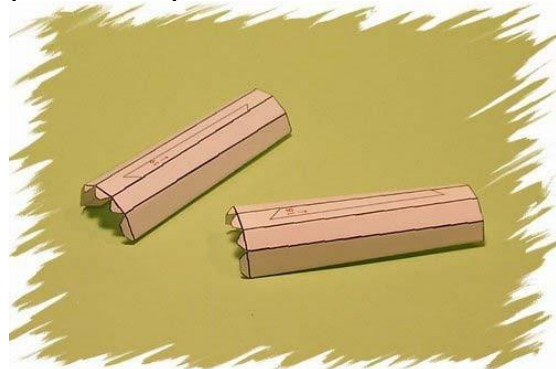
Suitable glues could be “transparent liquid contact glue” usually for repairing shoes.



Fold over the lines with the help of the rules to obtain the shape of each part.



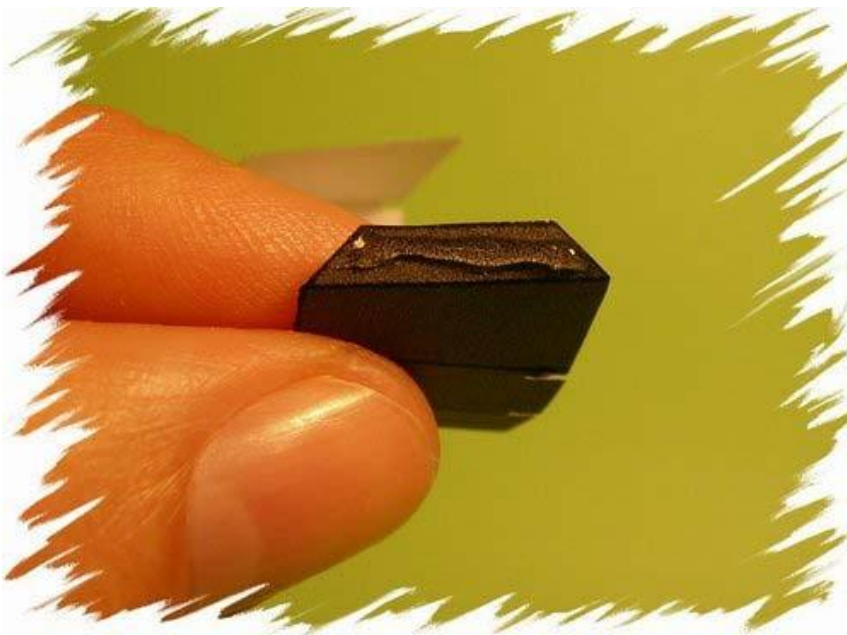
Note that you can bend the paper on the lines with the help of the rules, (to the opposite side) and after it, with your fingers, on the same line, to the correct side to obtain the final piece shape.





X

Put little amount of glue. Otherwise, the aircraft would look ugly and it would weight too much.

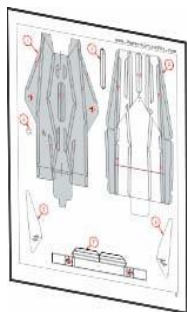


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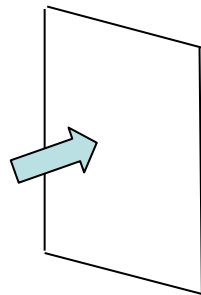
Note about printing

Parts

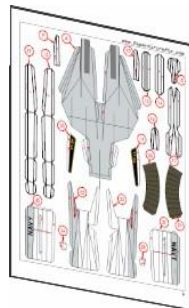
Use either letter or DIN A4 formats. There are six pages with parts to be printed on five sheets of paper. Page opposite 9 must be printed behind page 9 in order to the plane was correctly decorated. Check option "Auto-rotate and center pages" but do not "fit to page" or "shrink to page". Print at 100% scale. You needn't to print the rest of the document. View it in the screen and zoom in when needed.



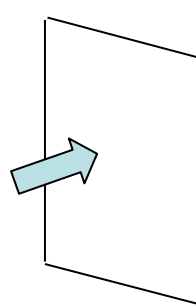
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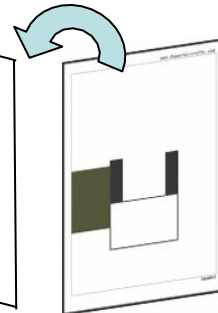
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Page 9



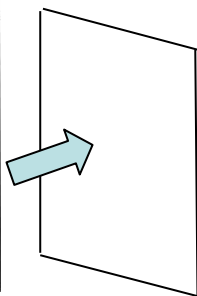
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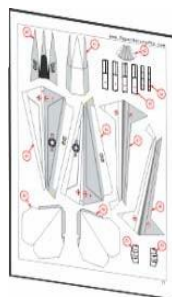
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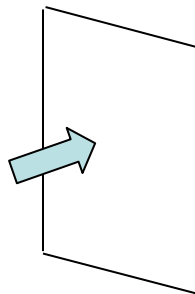
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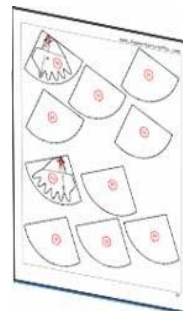
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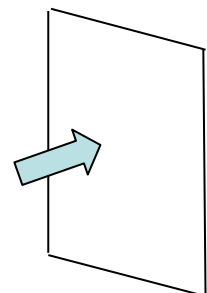
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Sheet 4



Page 12

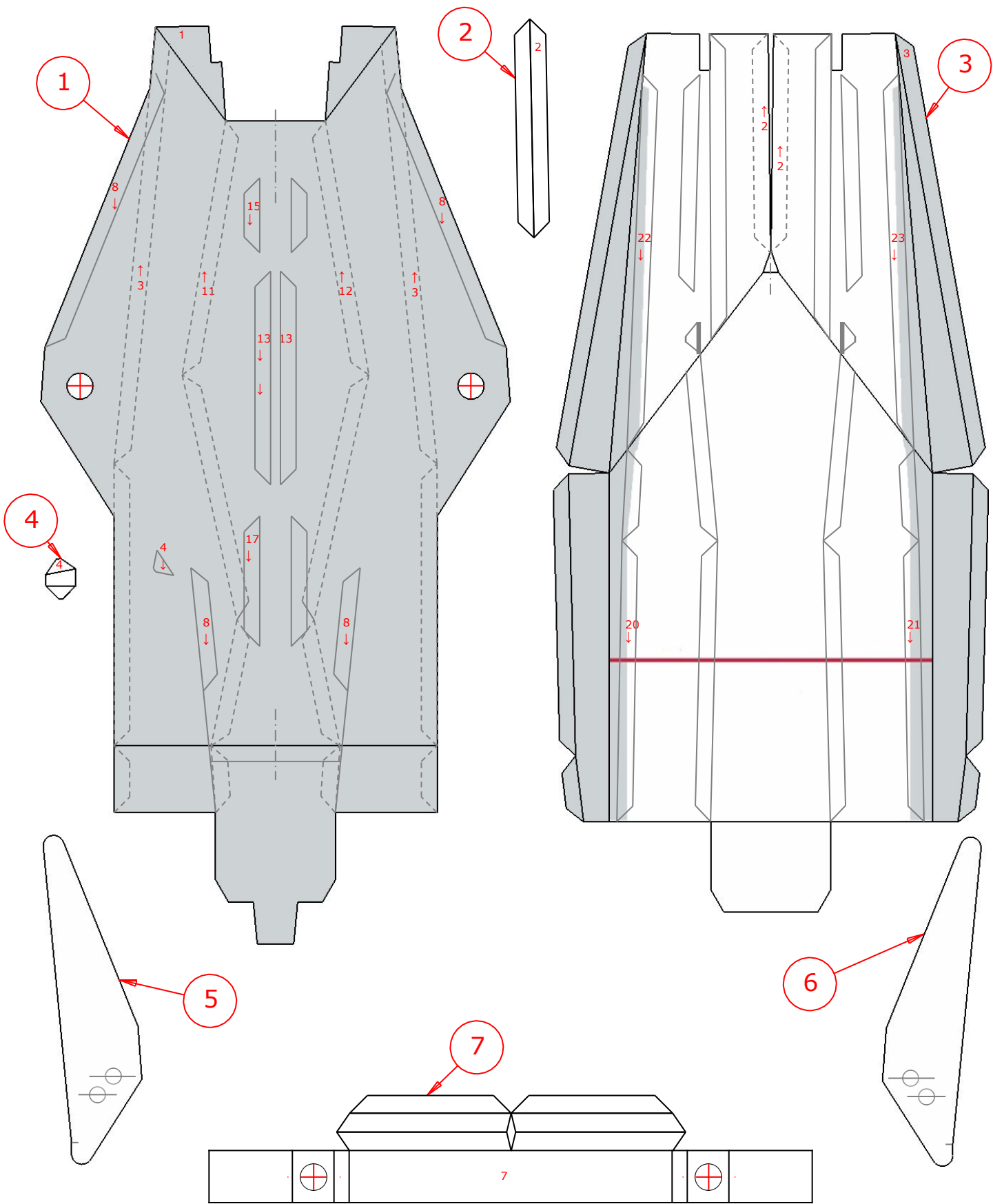


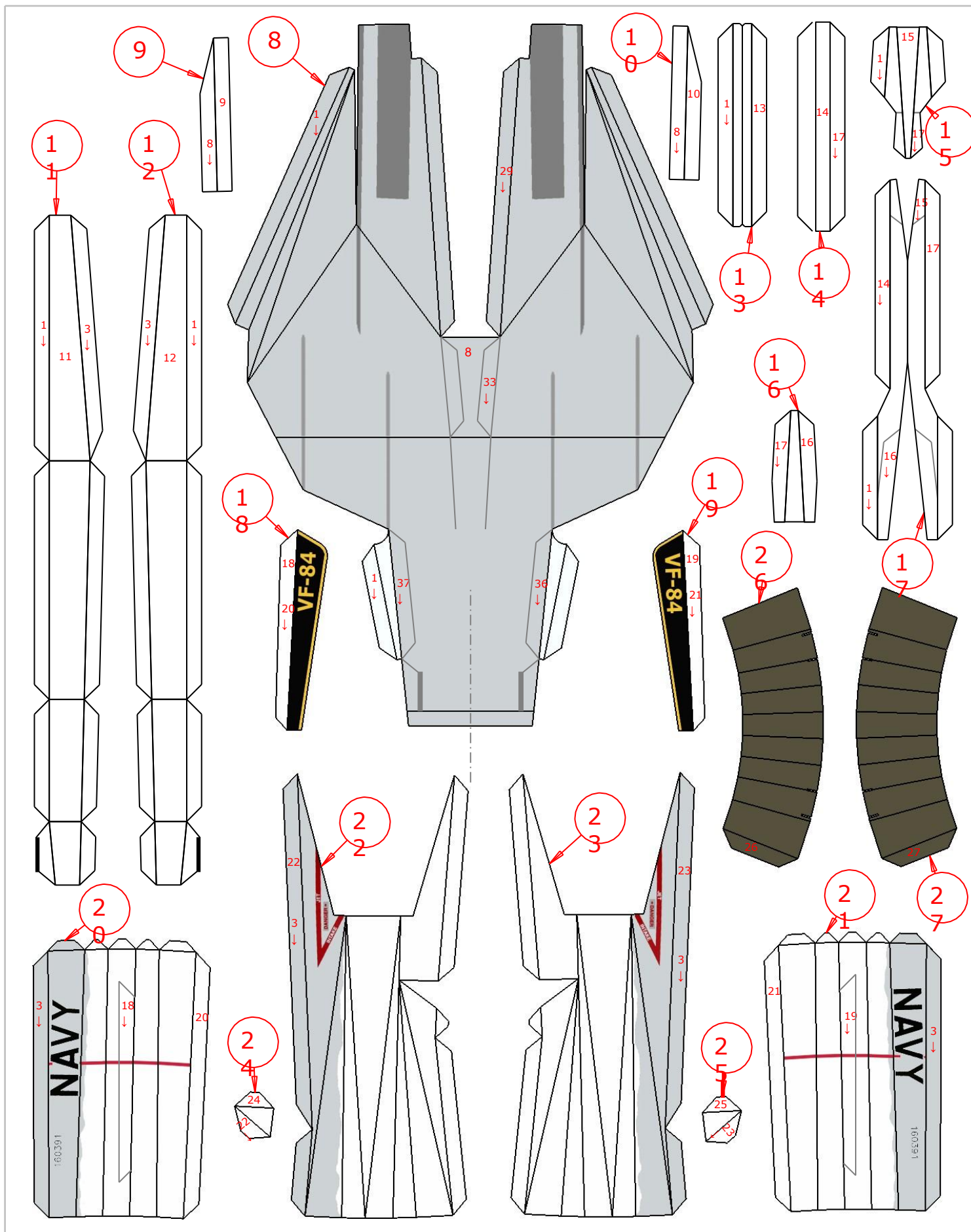
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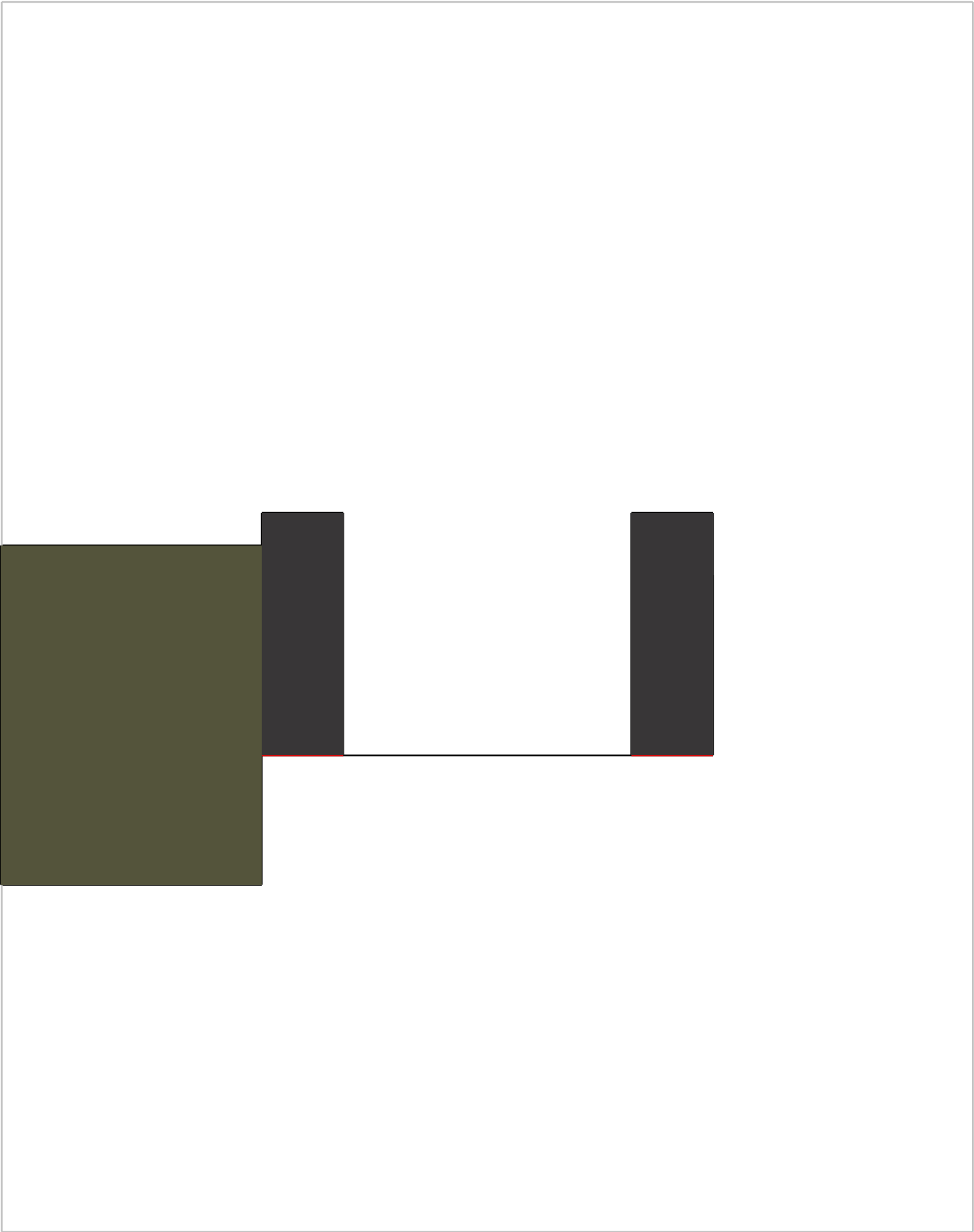
If you want to build a static model (not to fly) you could print on a high quality paper in high resolution. But if you want a flying model it is better to use normal paper printed in low resolution for saving weight and avoiding wrinkling the paper with excess of ink.

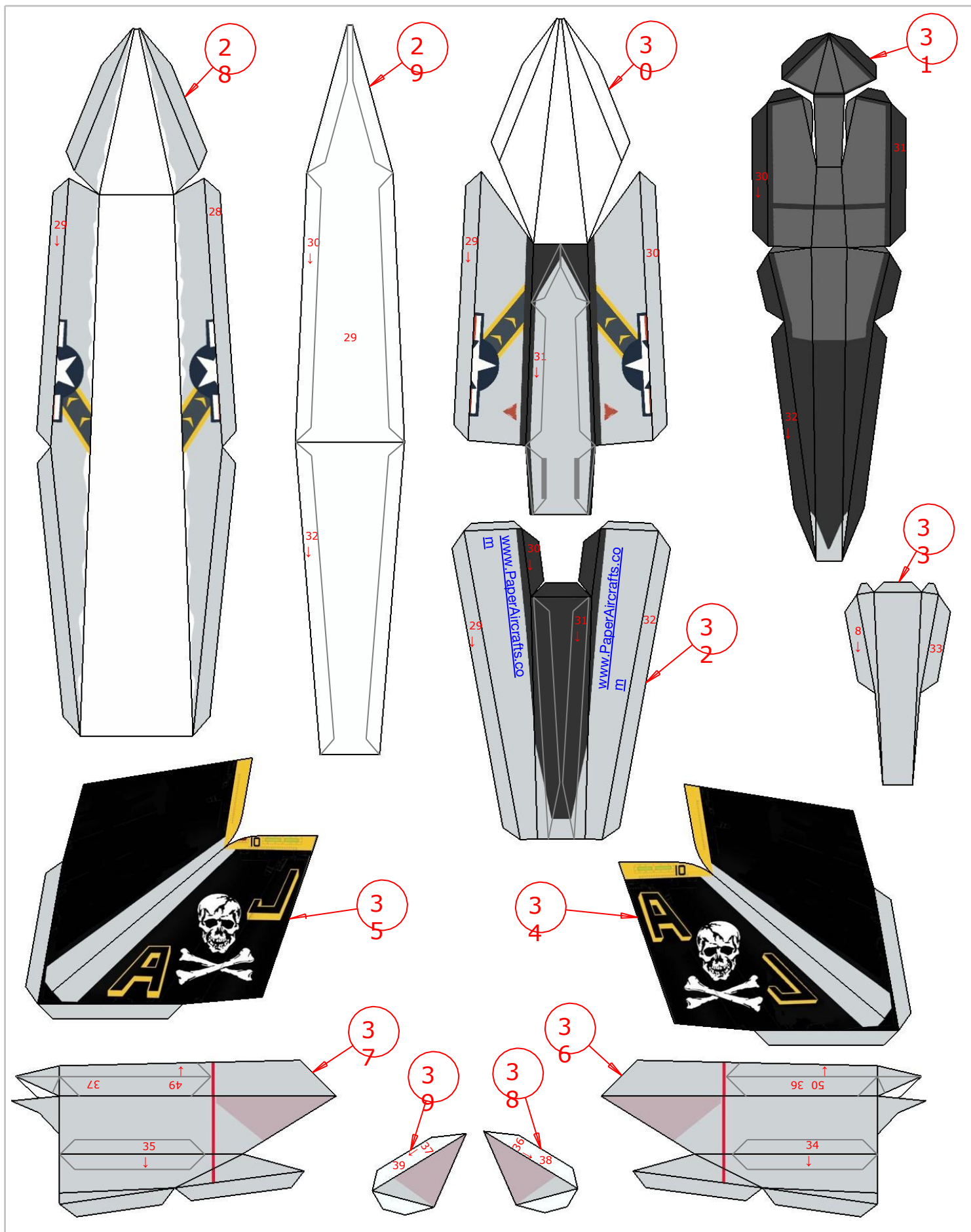
80gr paper is perfect to fold and fly. As thicker is the paper as more difficult to fold and heavier the plane to fly.

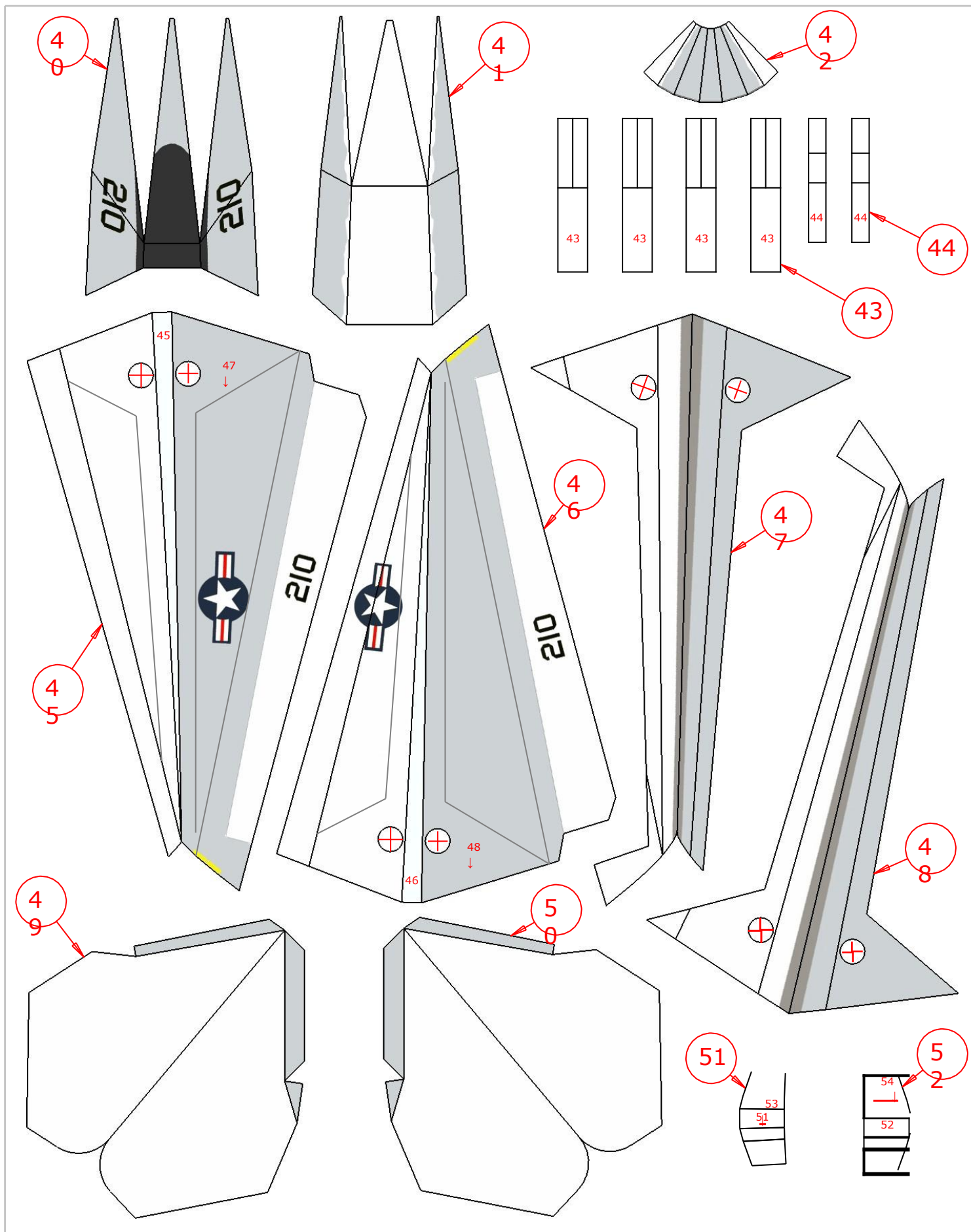
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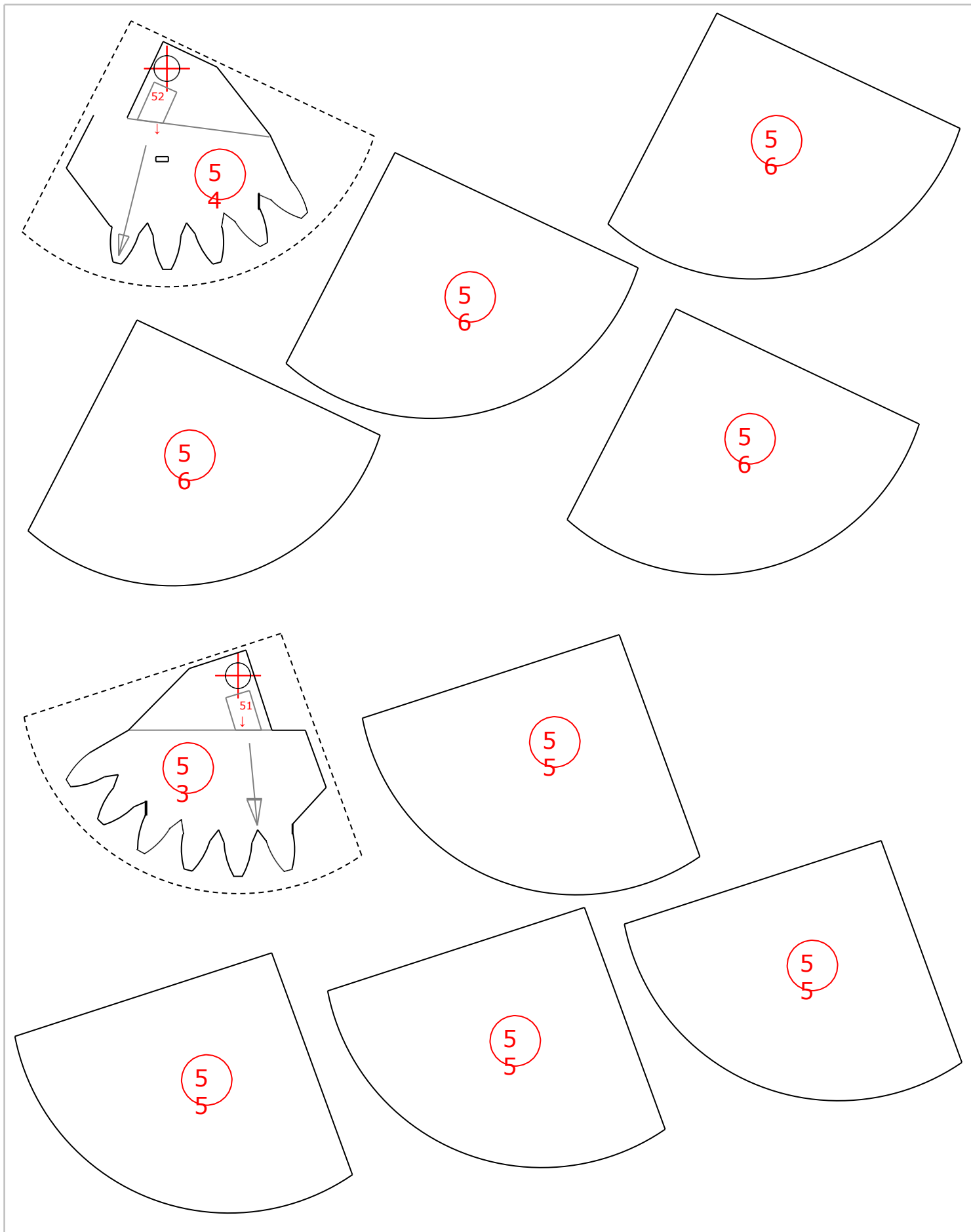




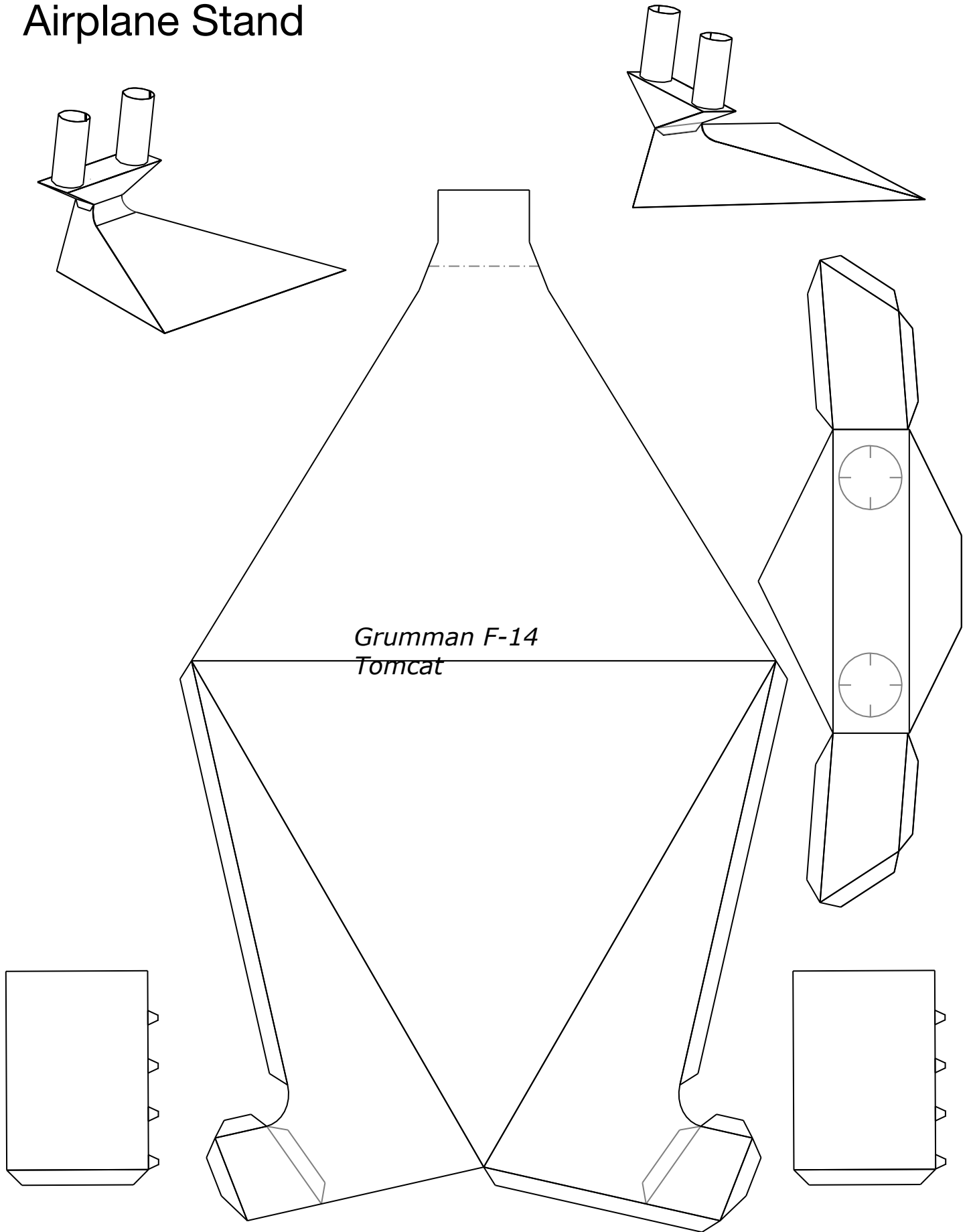




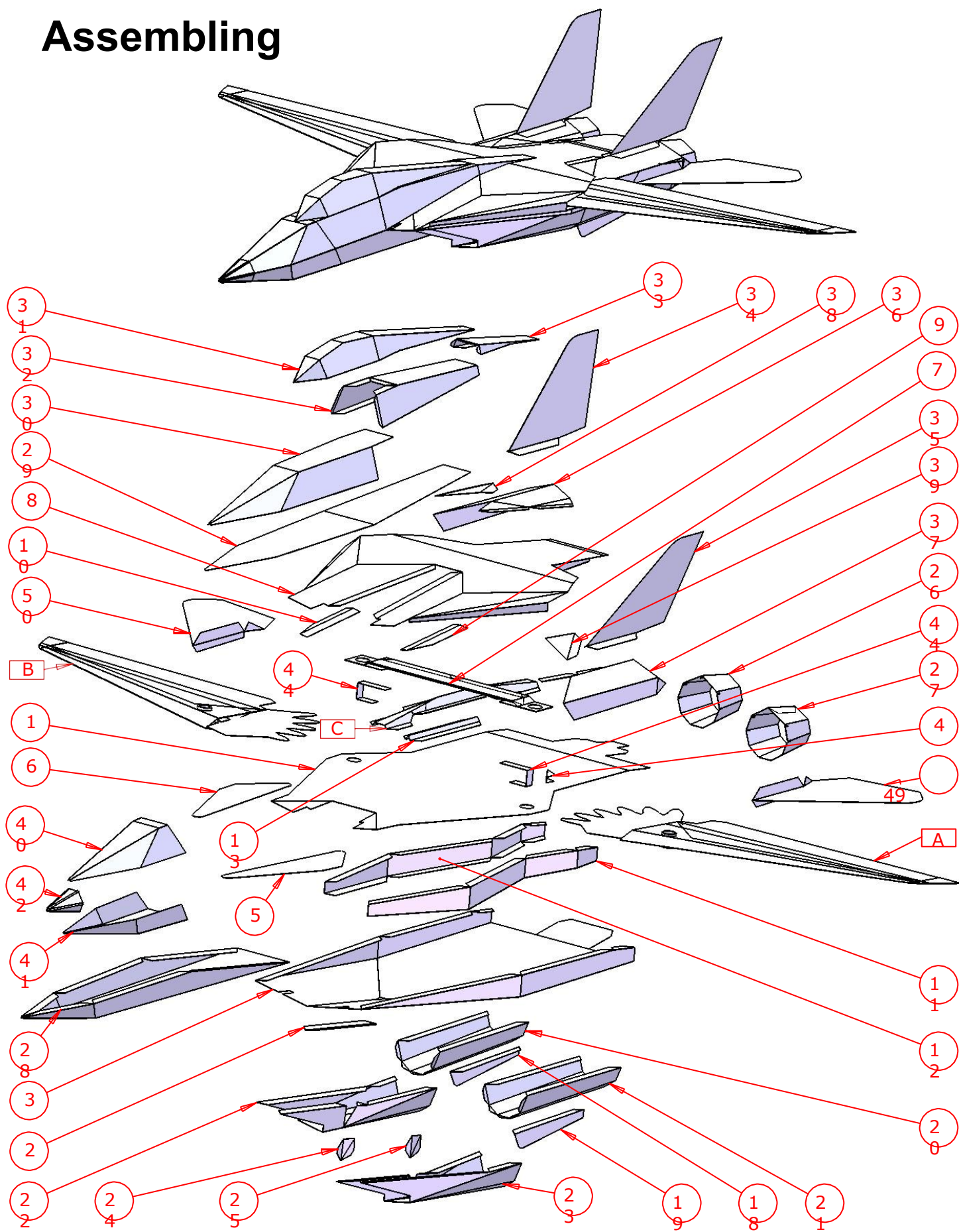


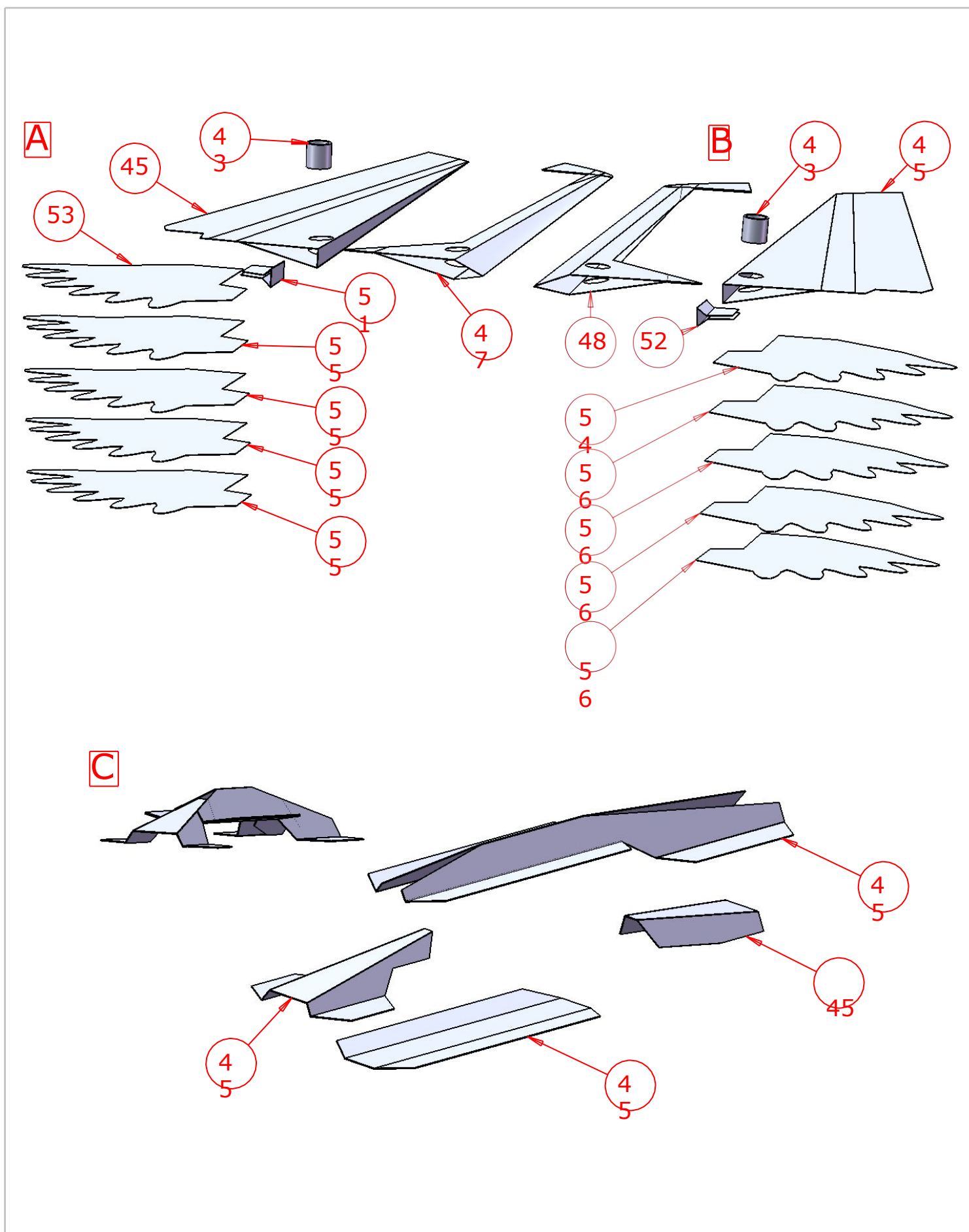


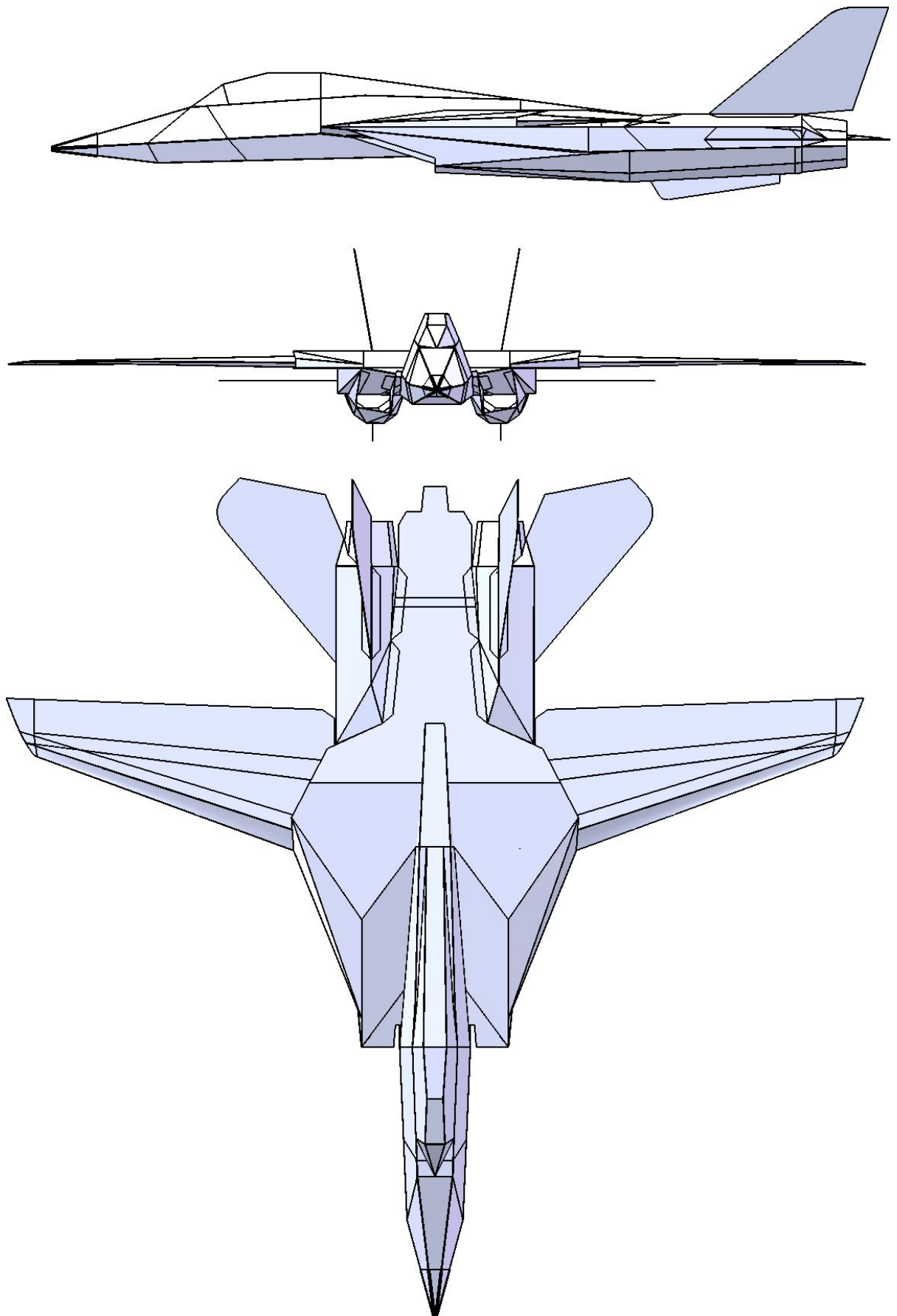
Airplane Stand



Assembling









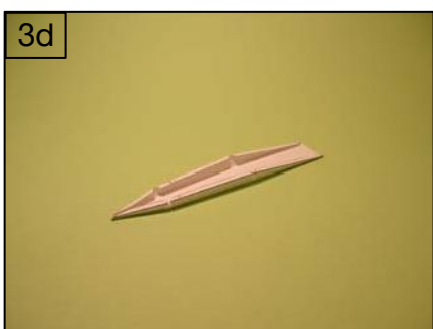
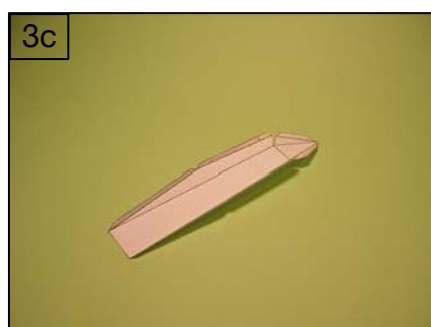
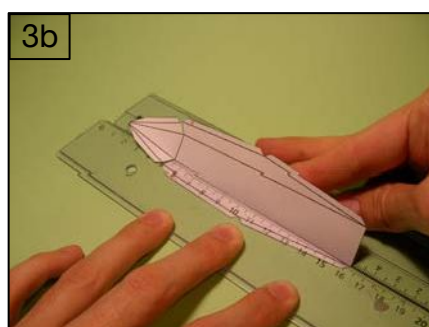
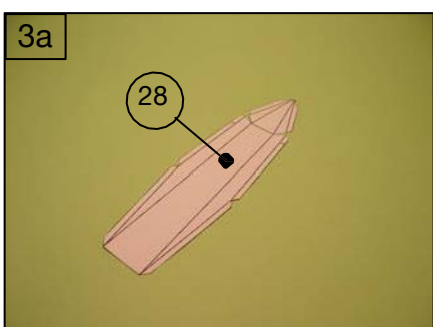
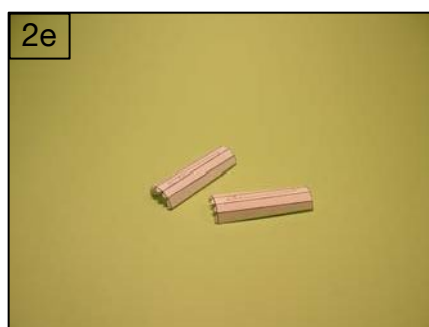
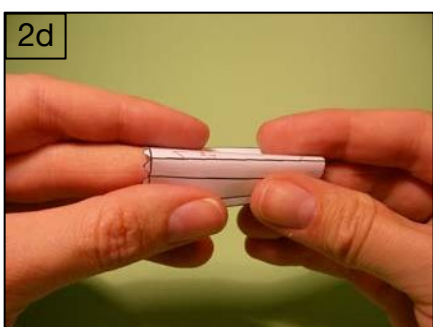
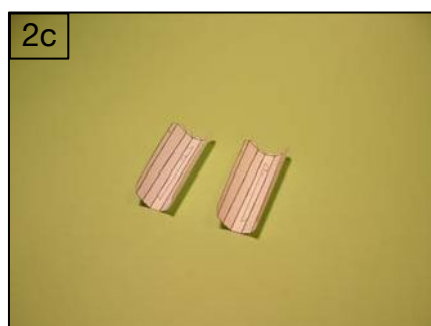
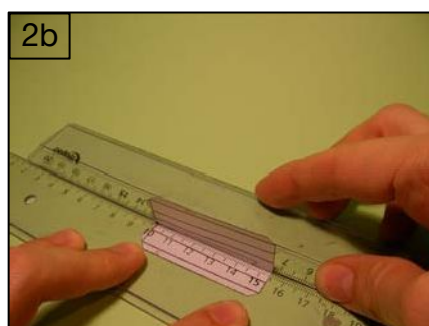
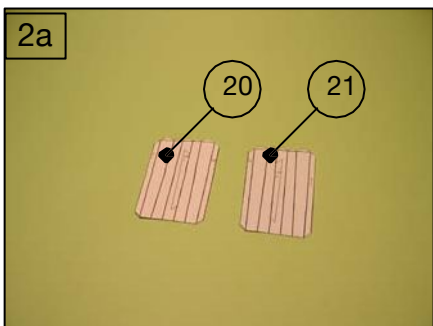
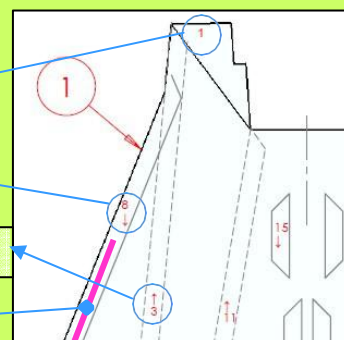
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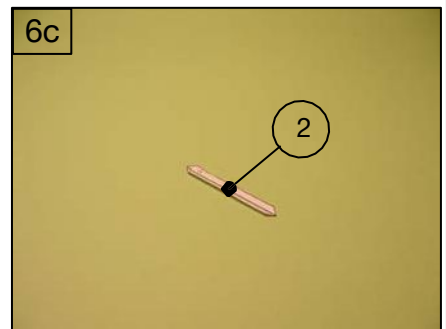
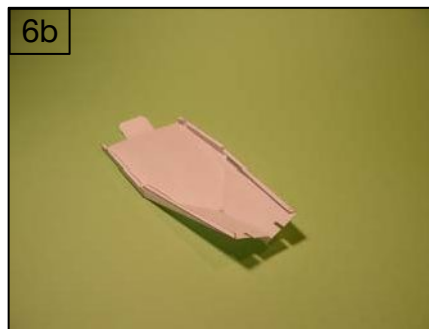
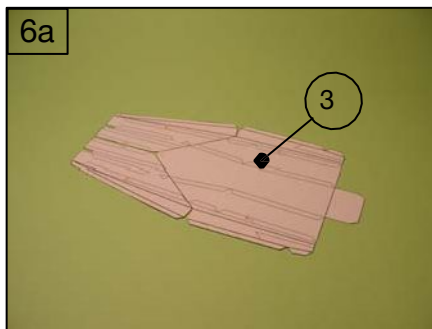
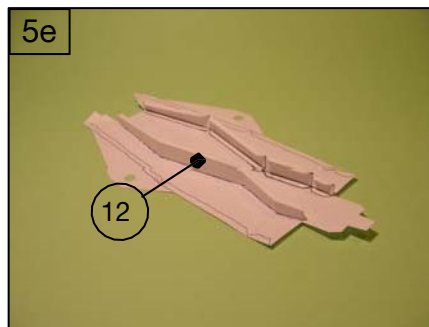
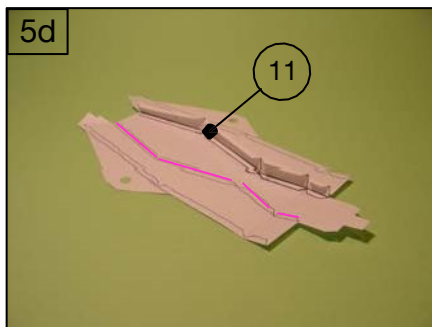
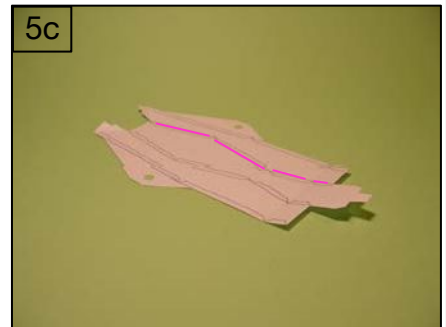
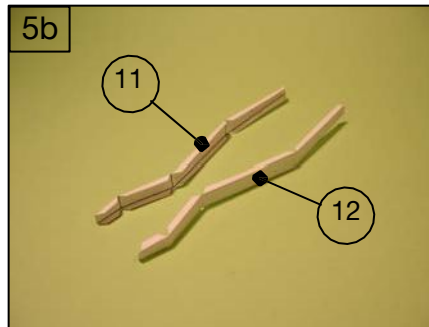
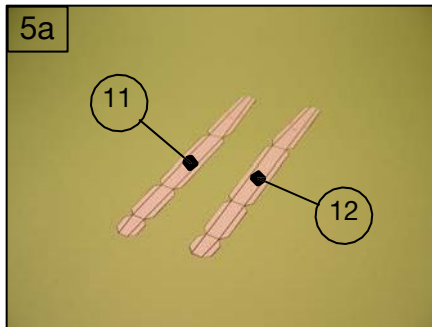
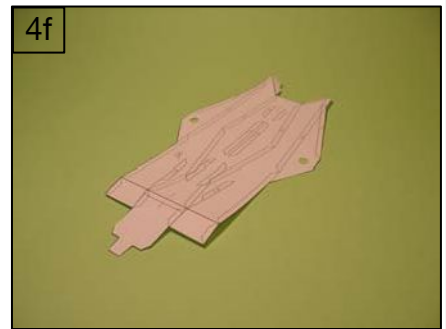
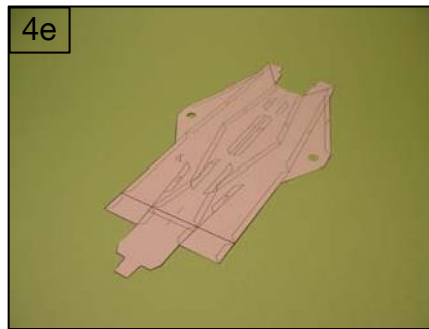
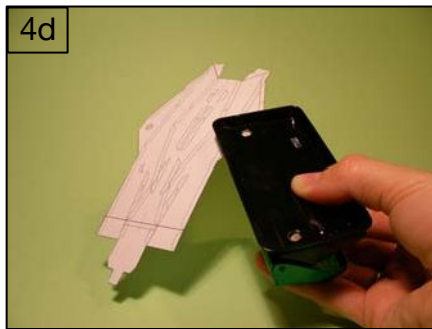
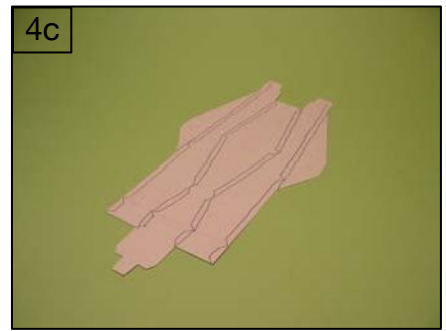
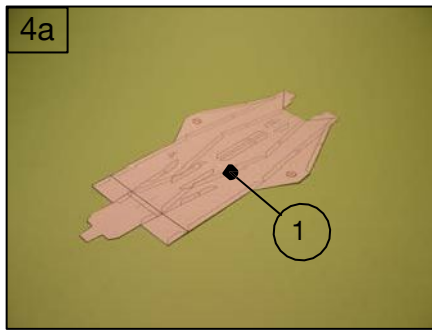
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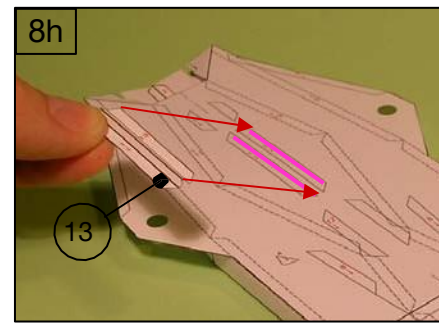
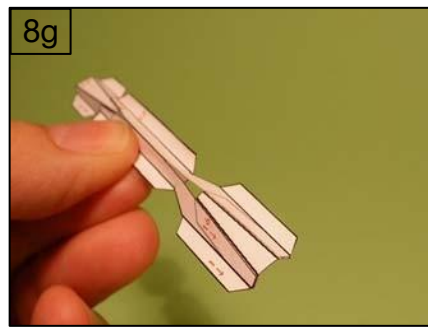
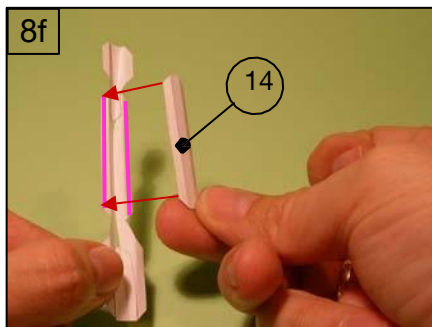
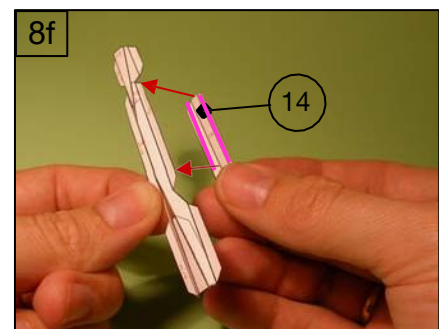
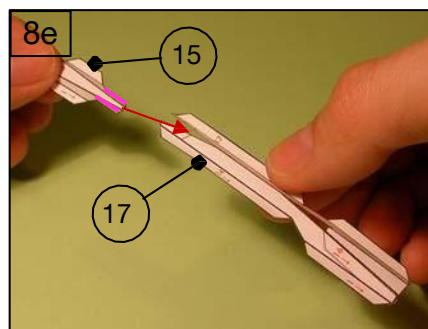
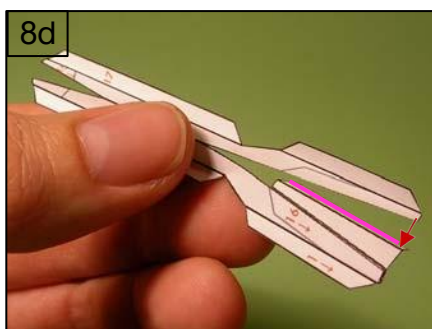
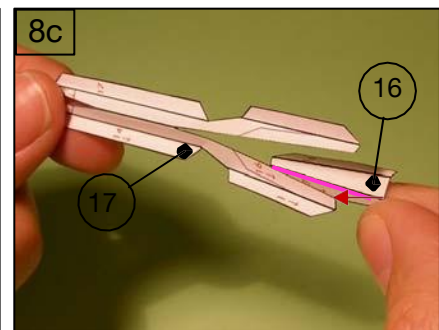
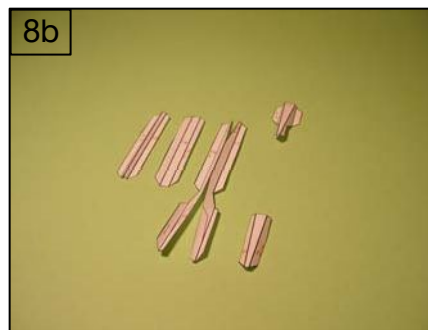
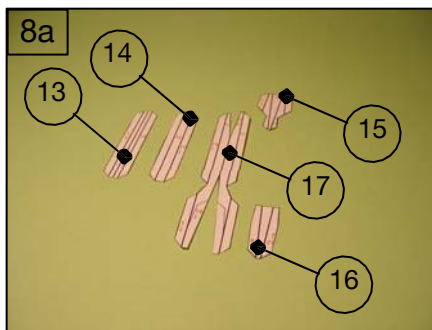
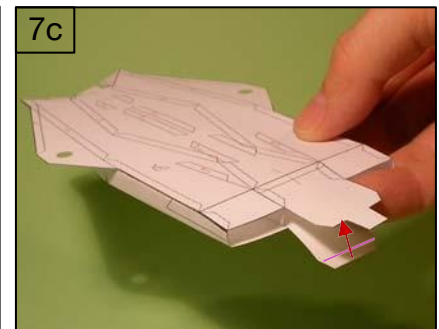
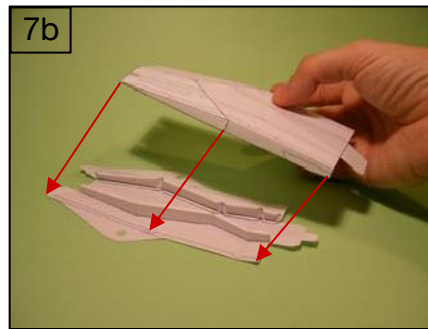
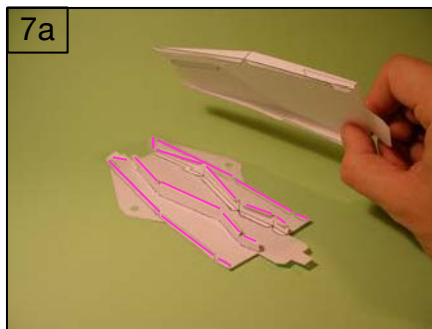
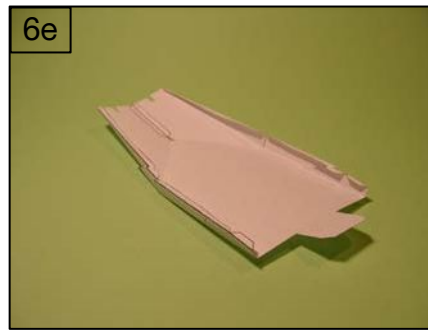
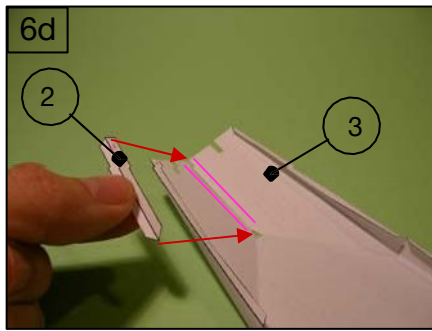
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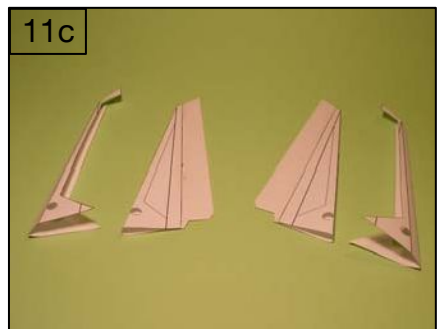
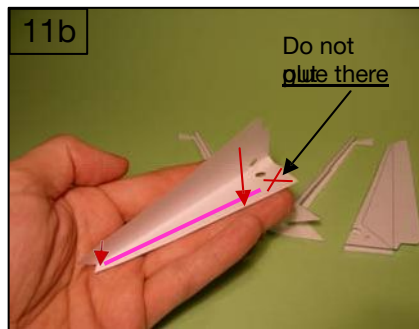
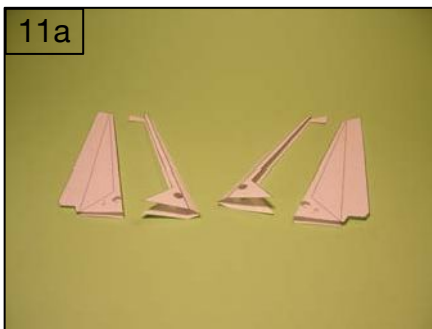
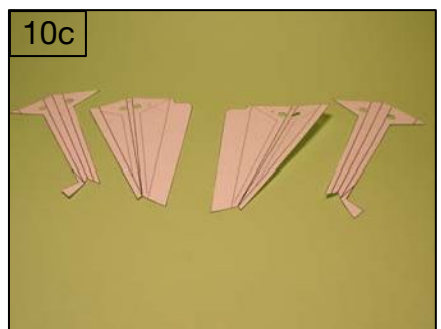
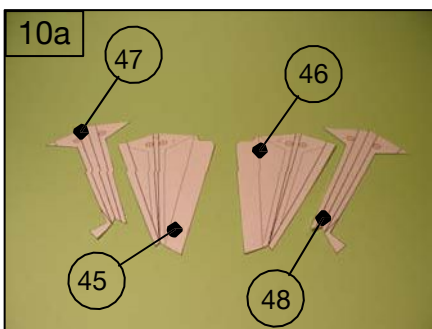
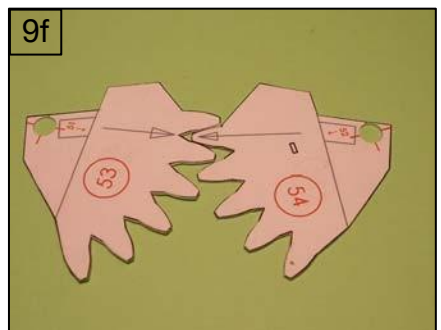
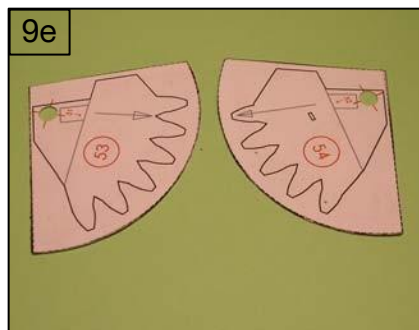
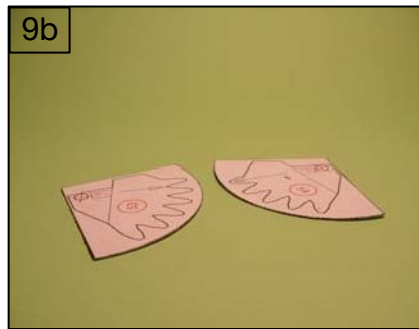
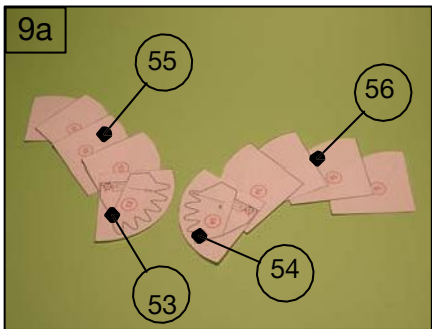
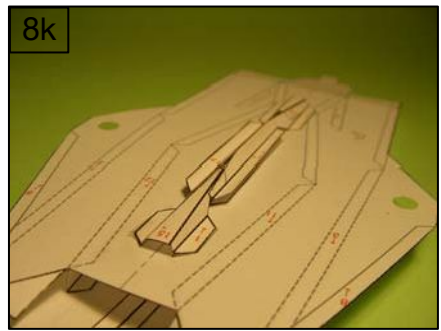
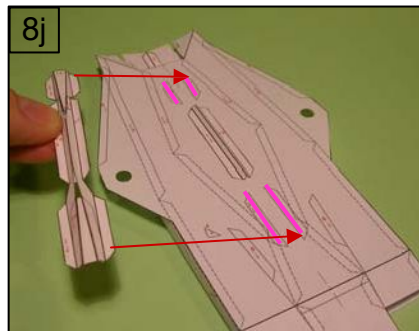
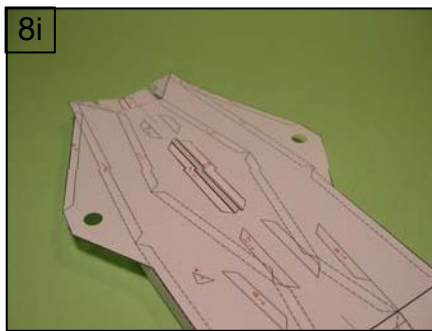
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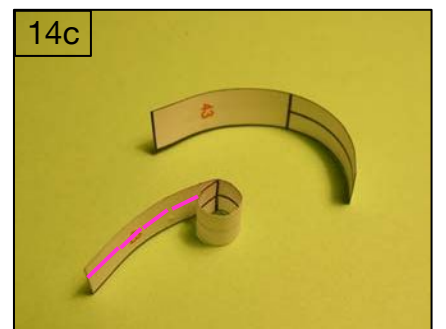
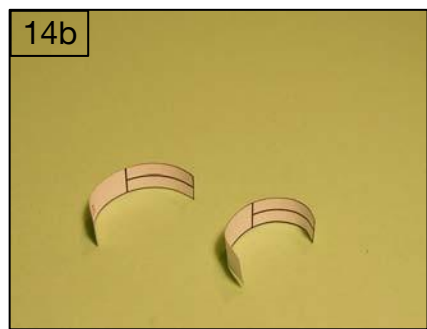
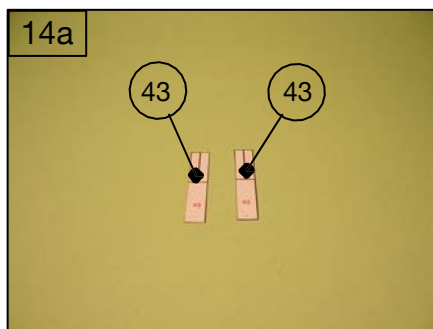
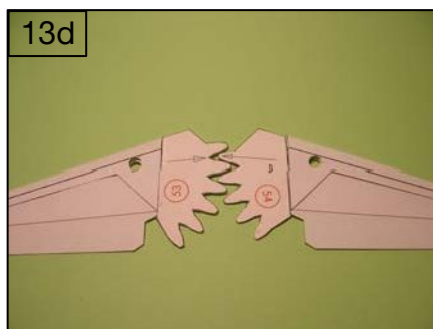
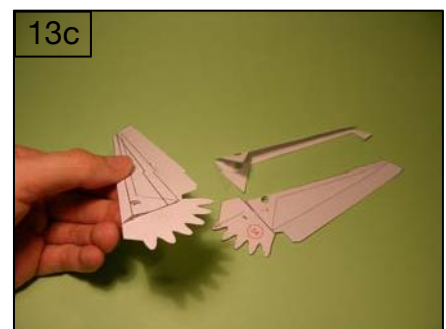
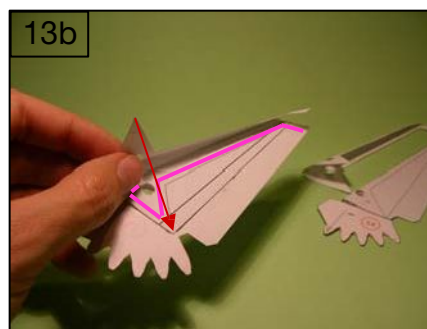
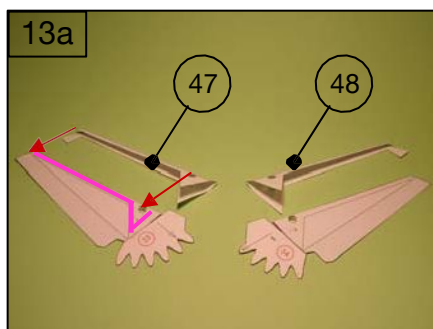
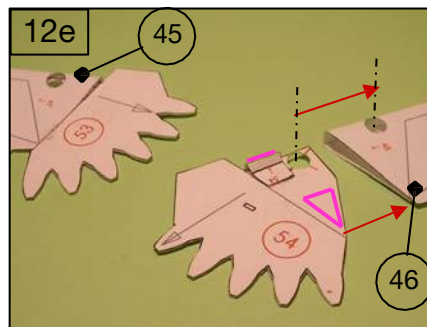
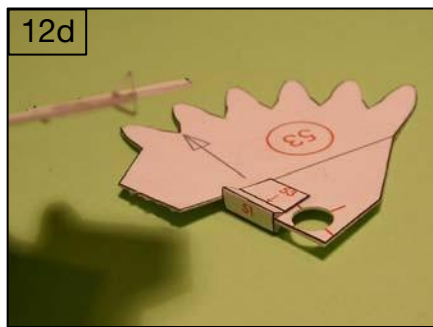
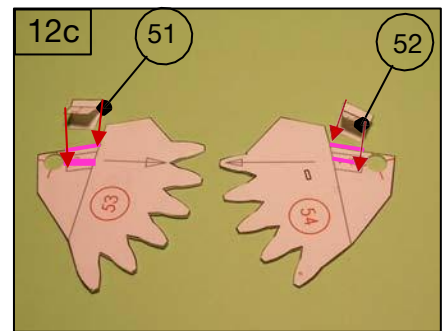
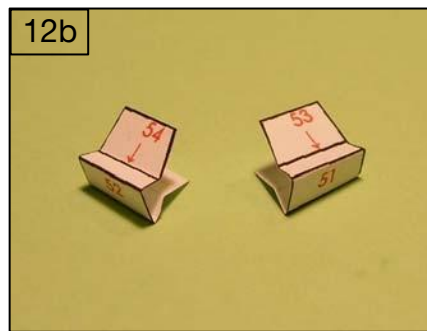
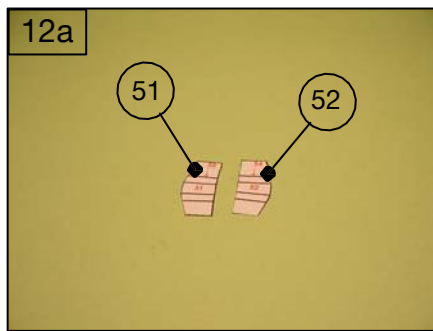
It means: line of glue

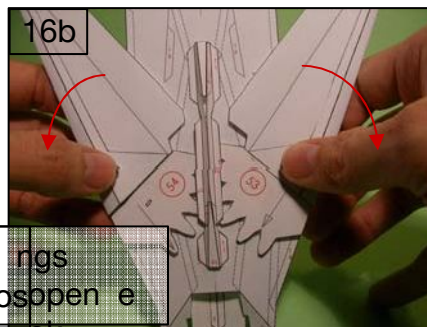
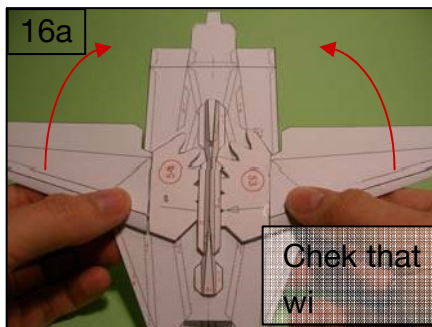
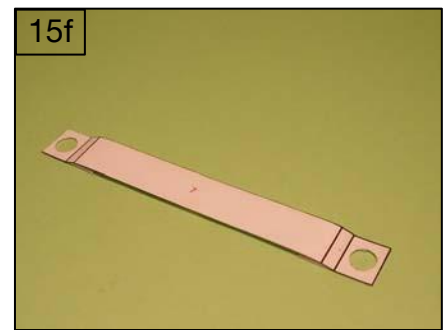
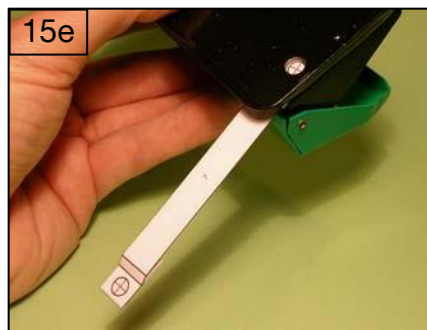
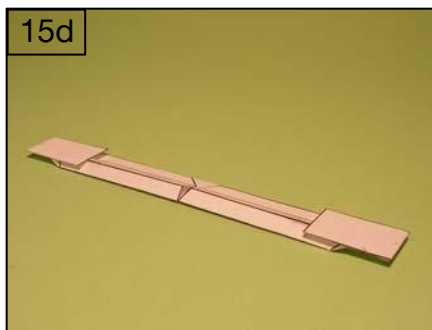
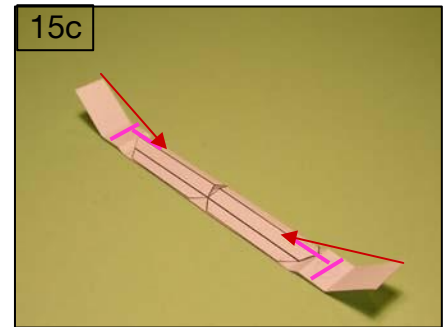
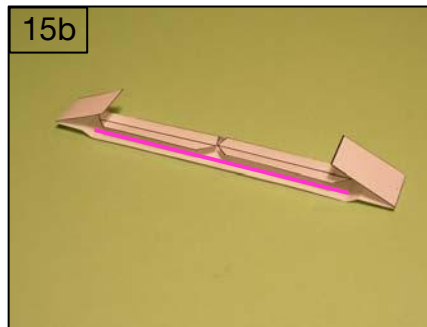
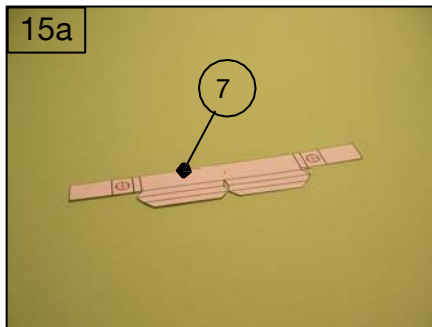
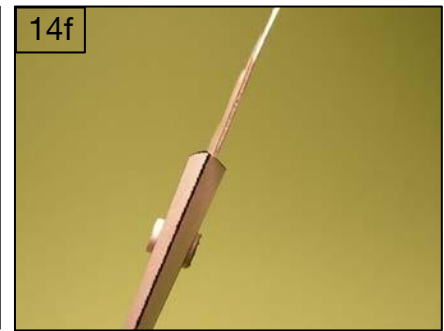
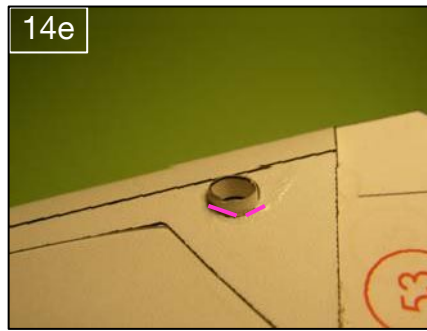
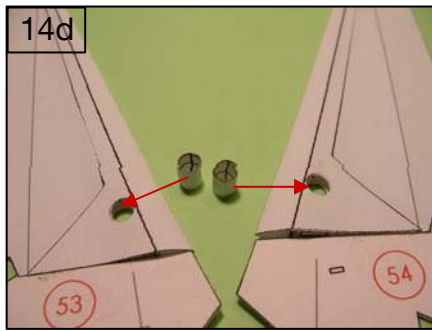




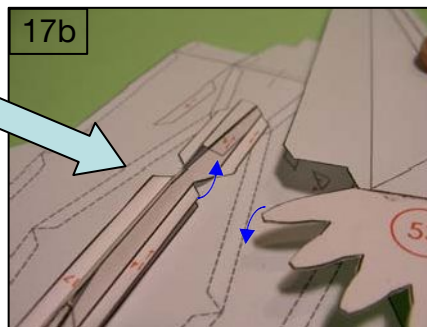
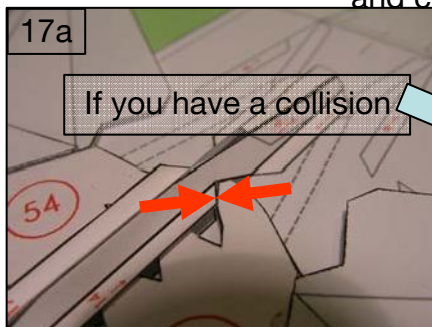




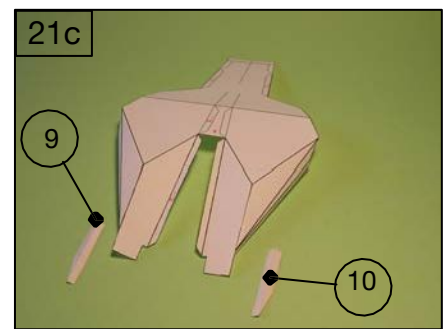
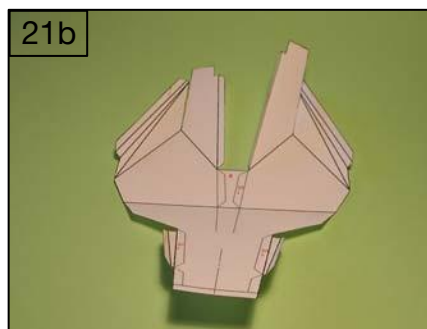
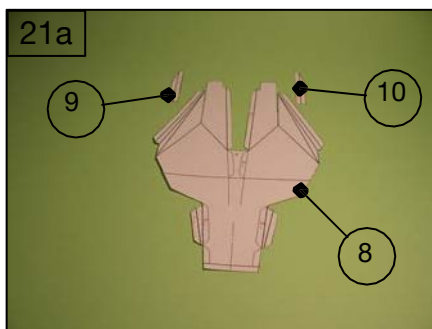
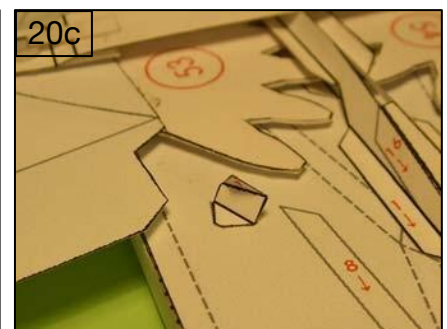
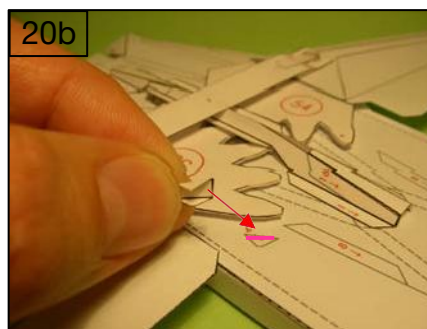
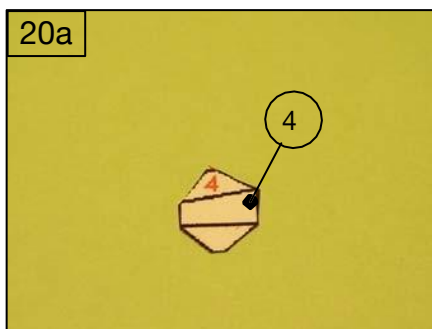
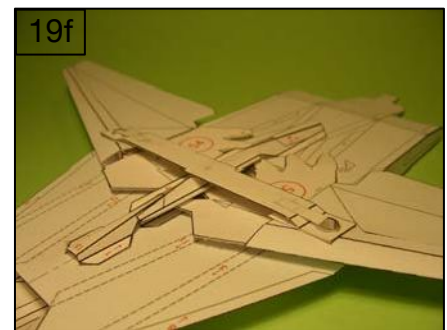
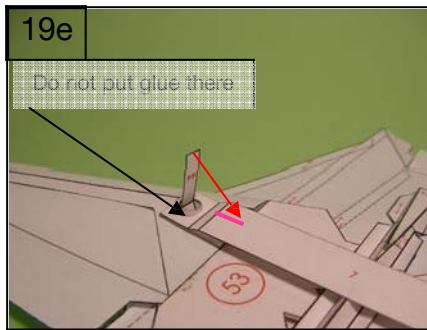
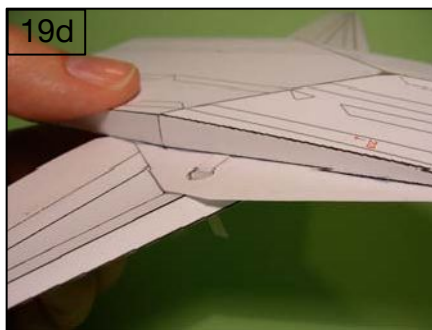
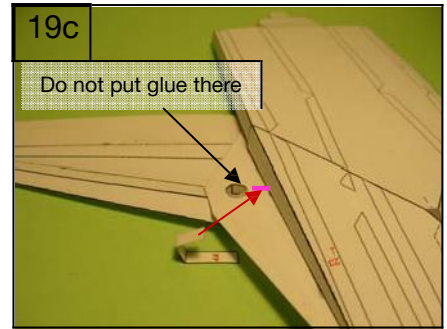
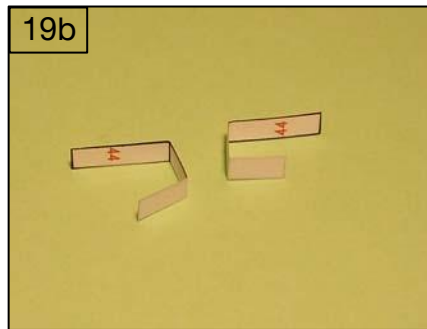
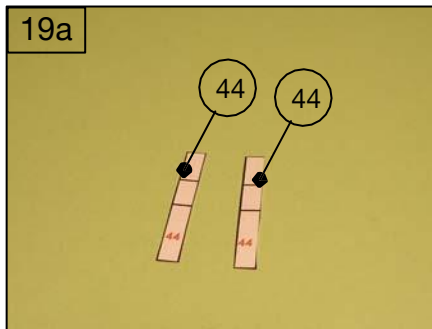
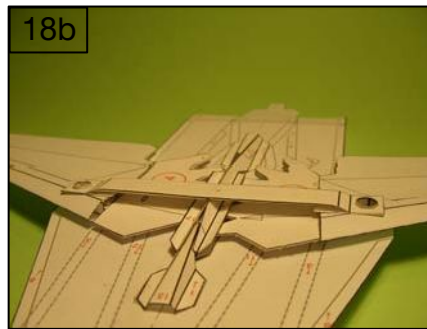
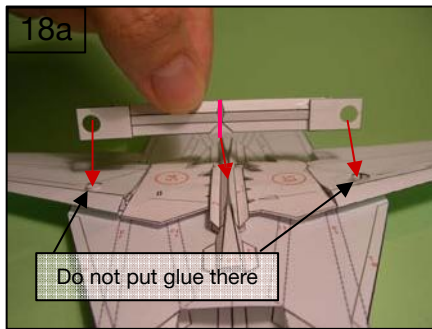


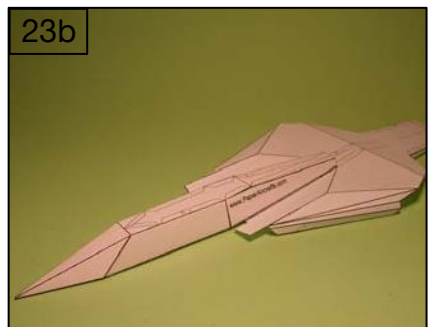
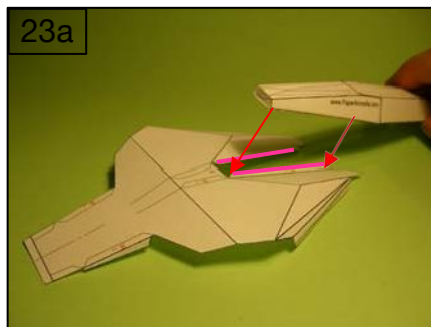
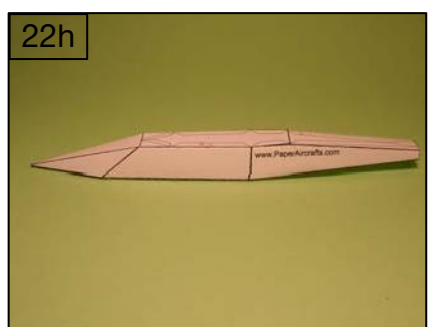
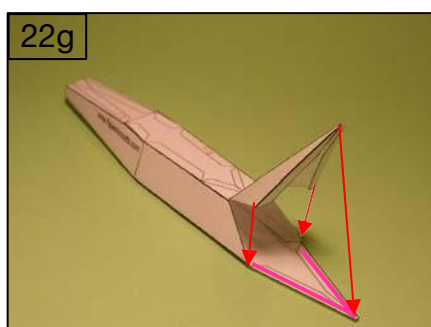
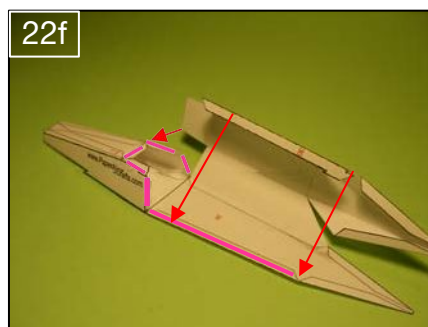
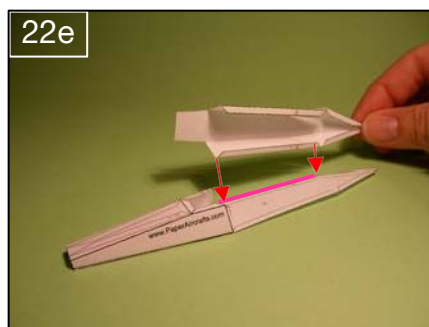
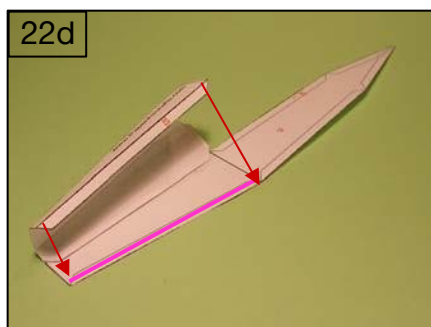
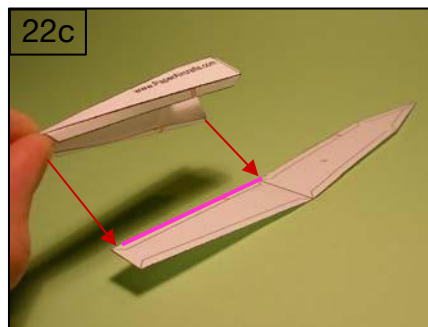
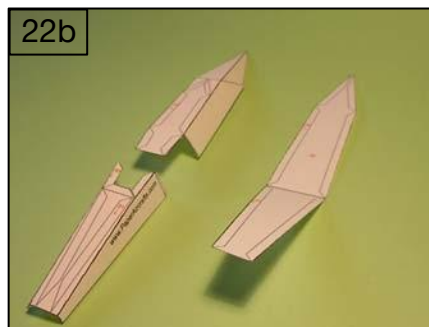
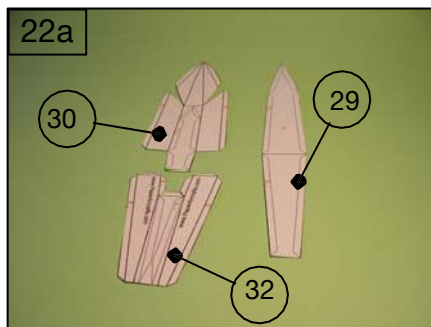
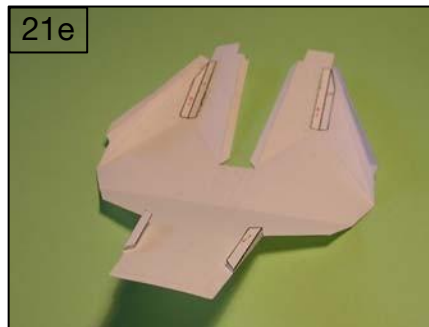
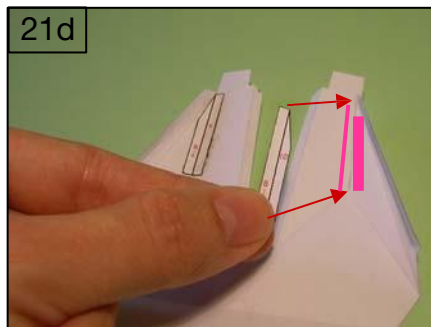


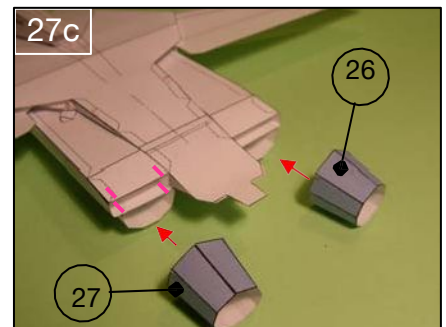
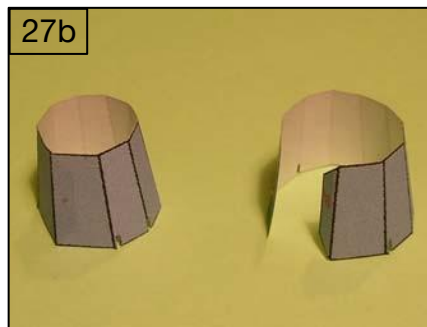
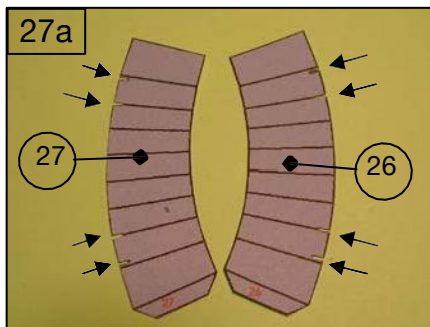
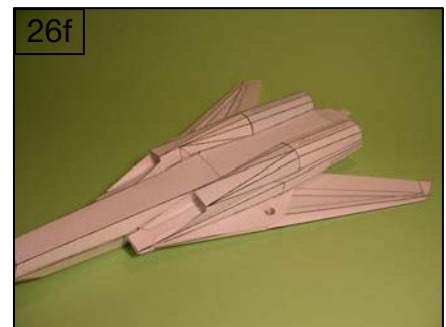
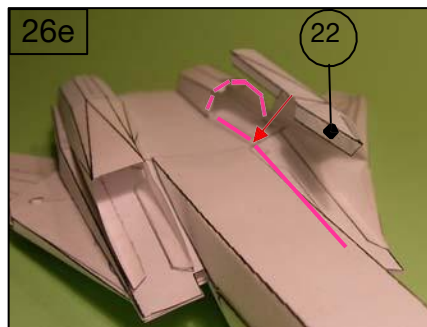
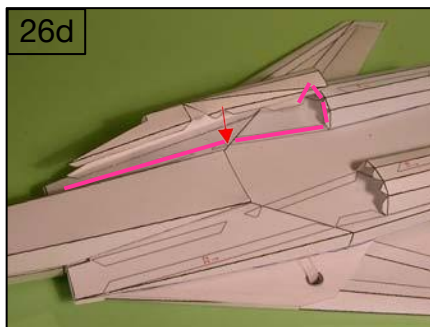
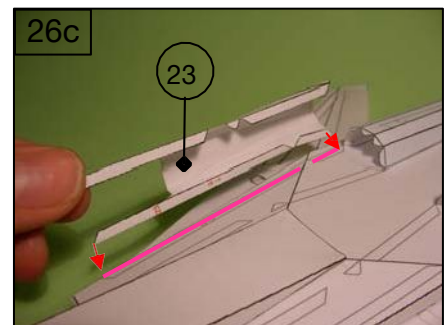
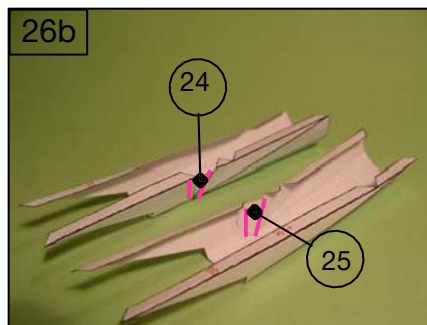
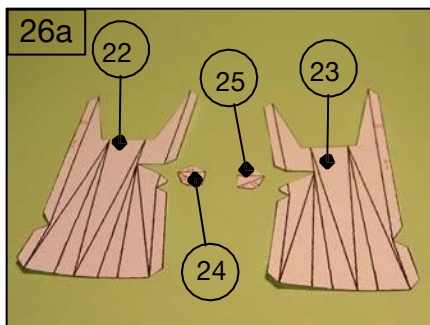
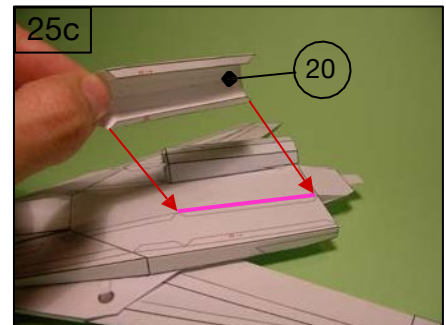
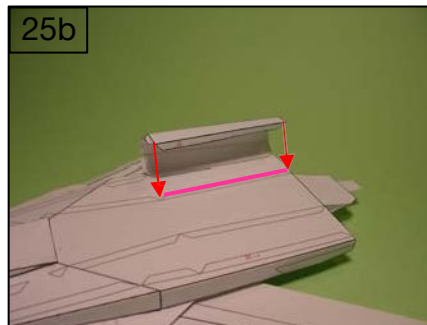
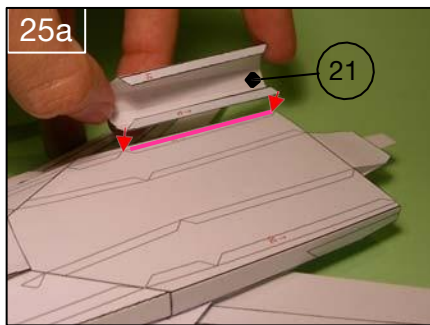
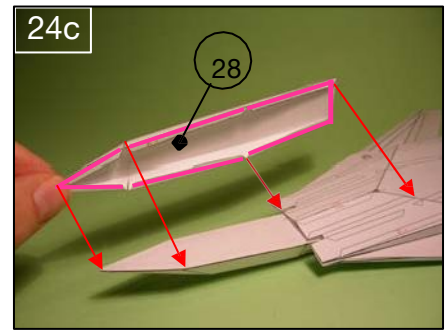
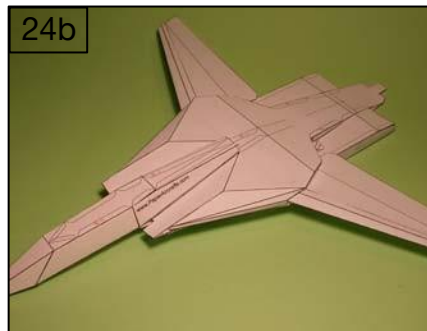
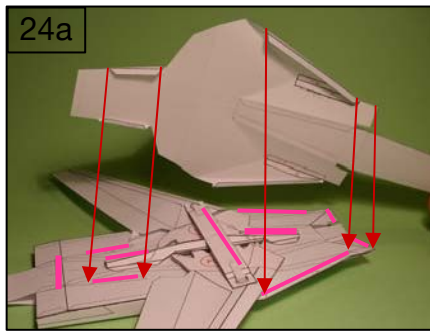
Check that wings
will close properly
and click

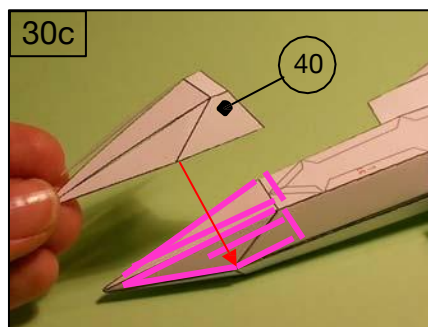
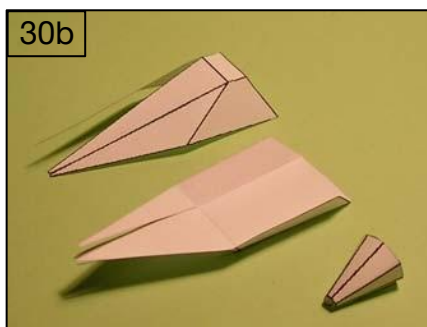
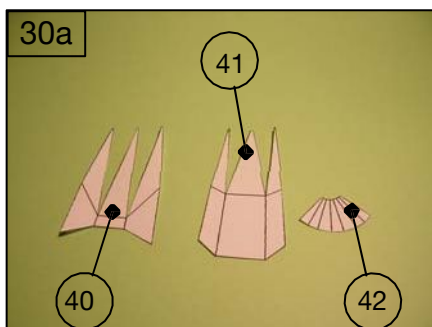
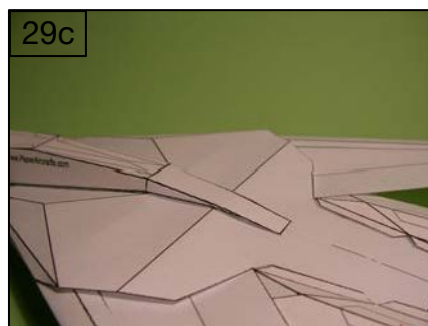
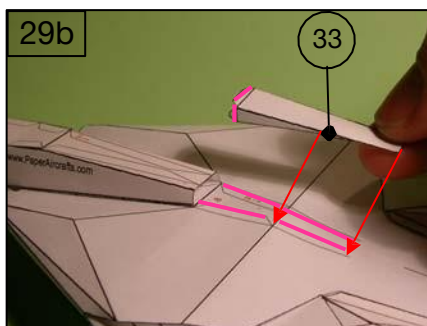
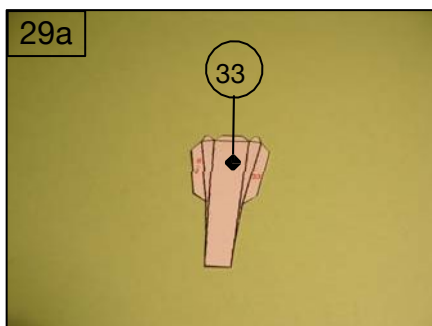
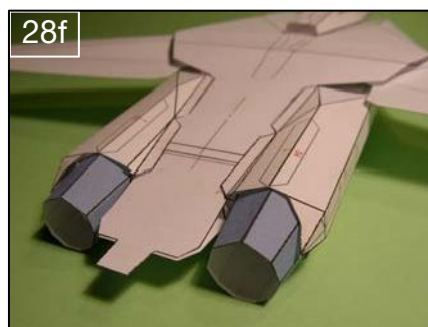
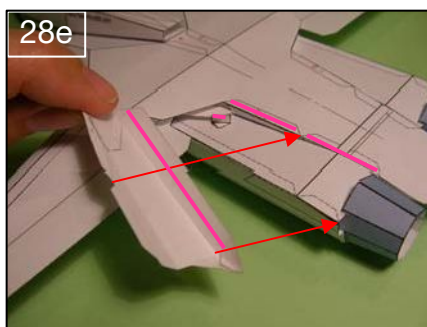
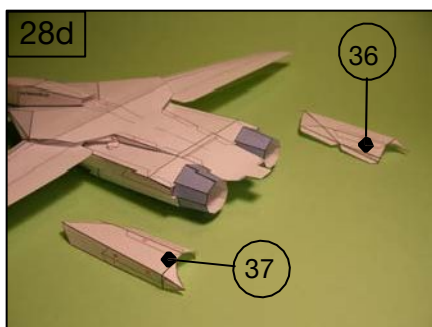
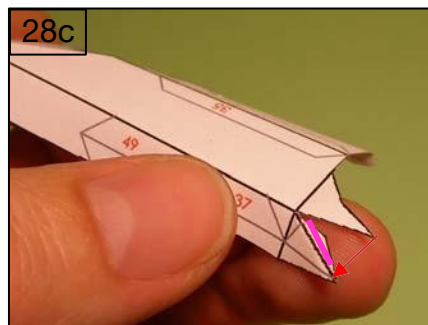
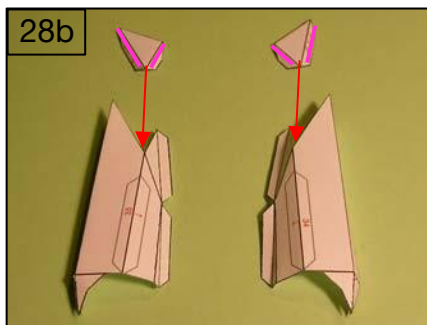
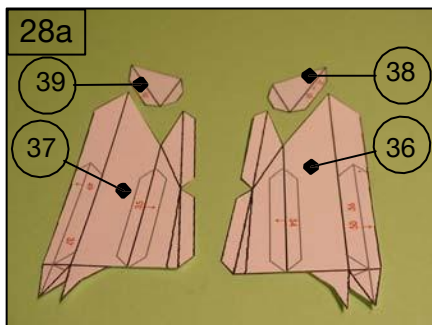
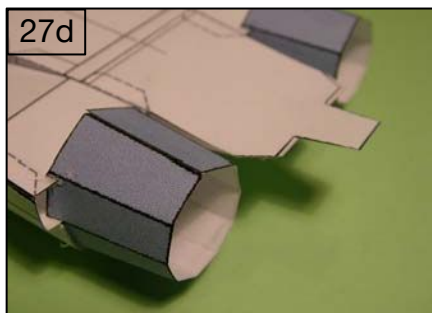


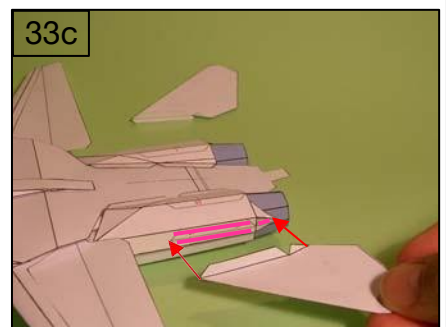
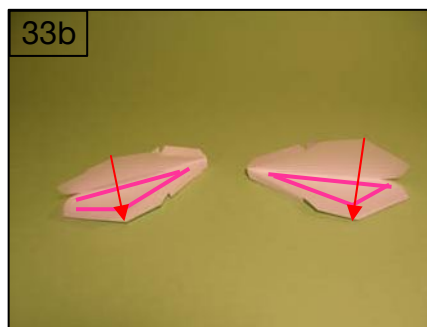
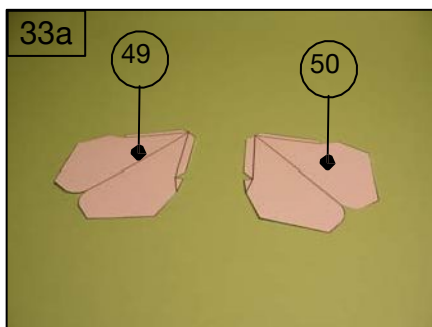
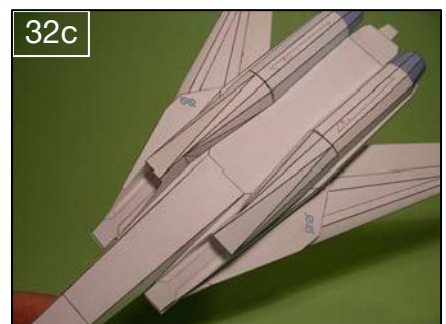
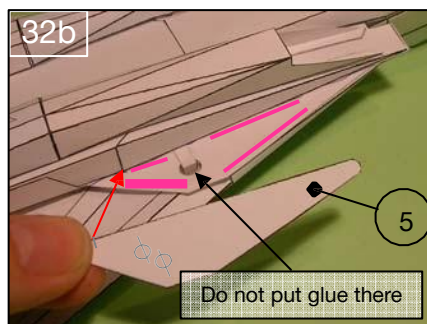
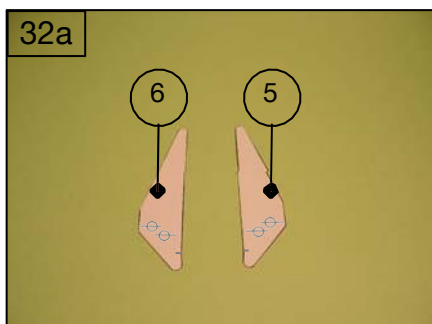
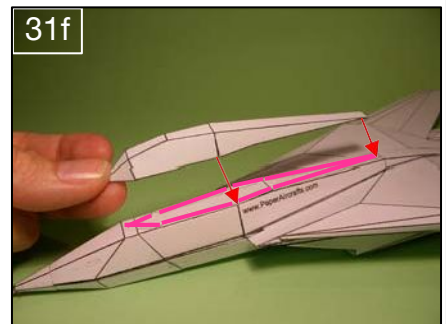
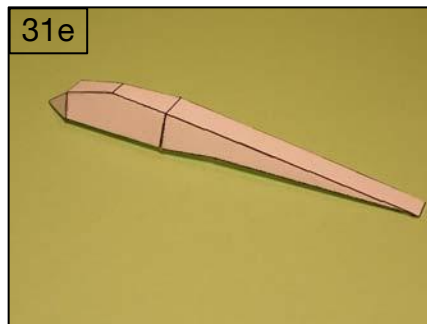
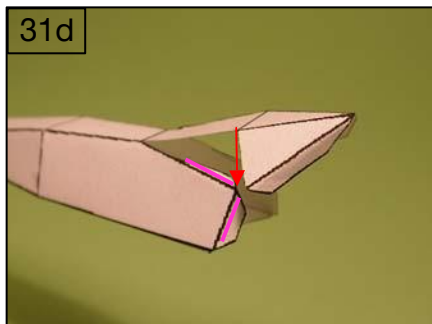
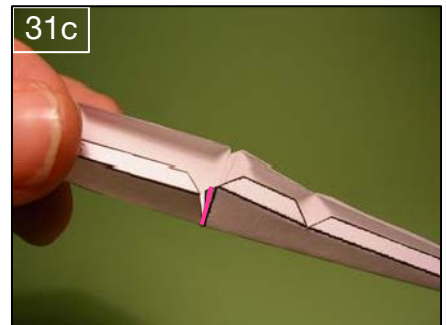
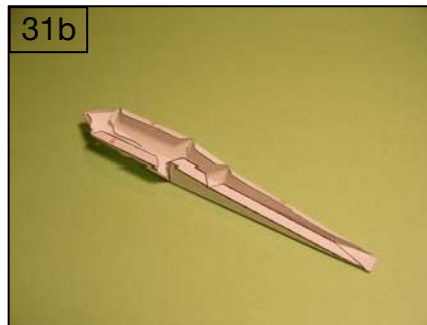
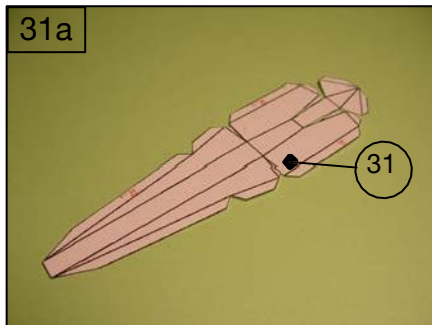
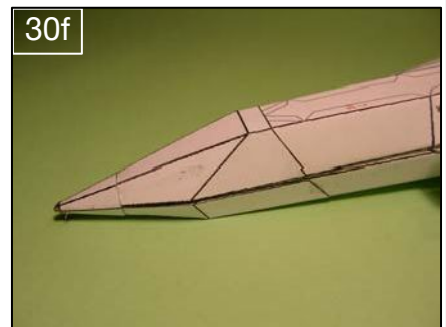
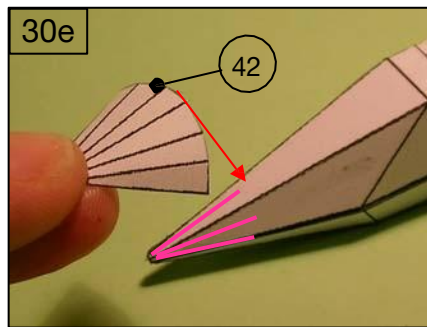
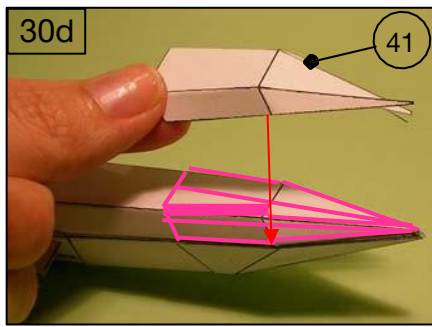
If you have a collision

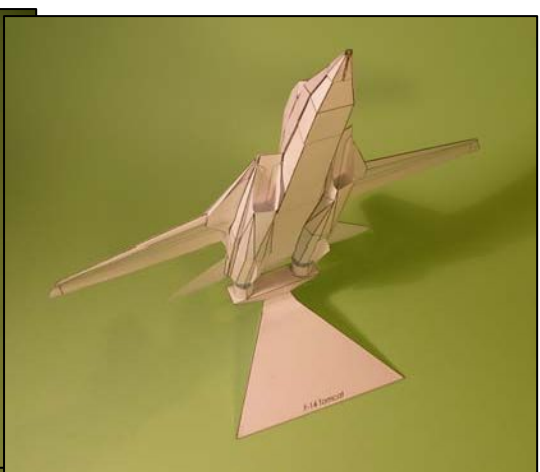
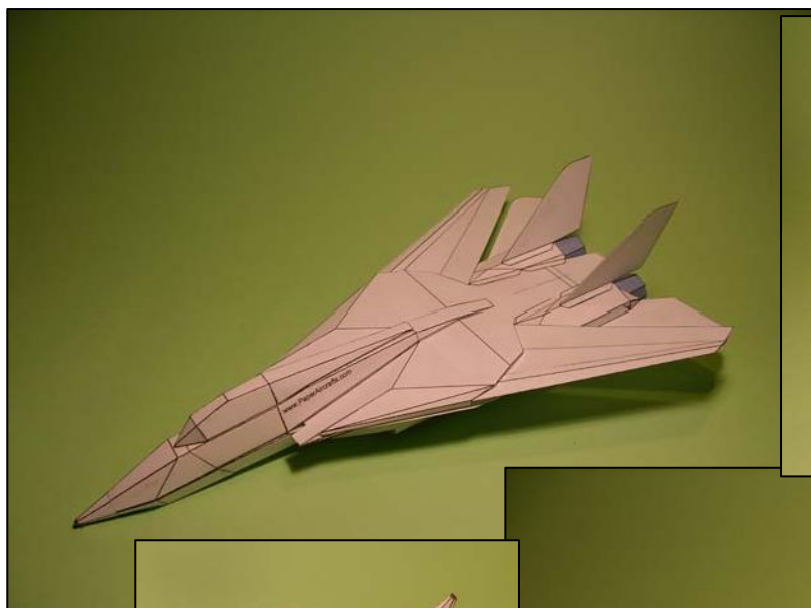
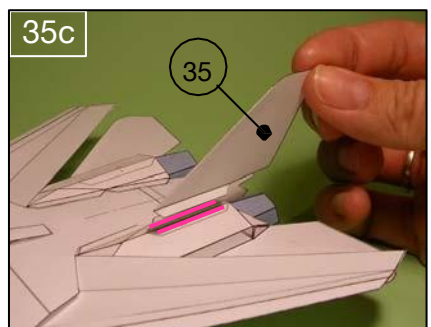
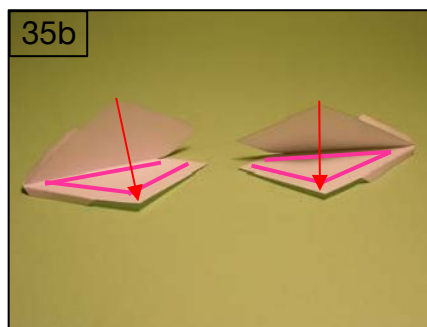
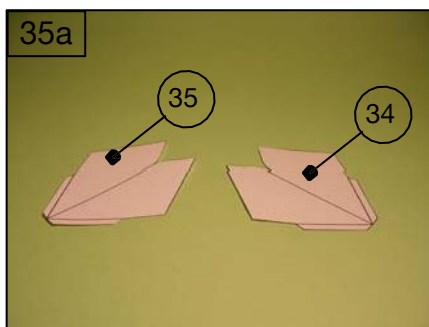
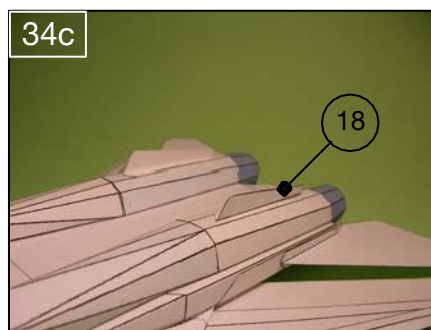
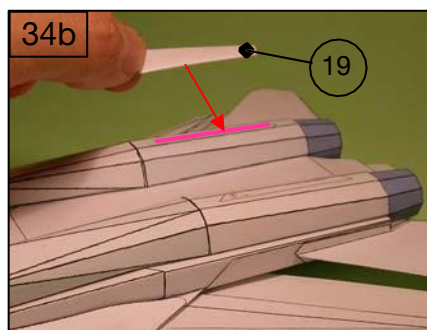
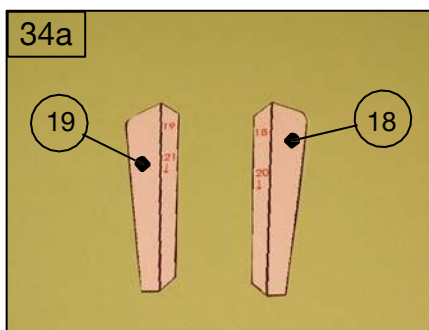




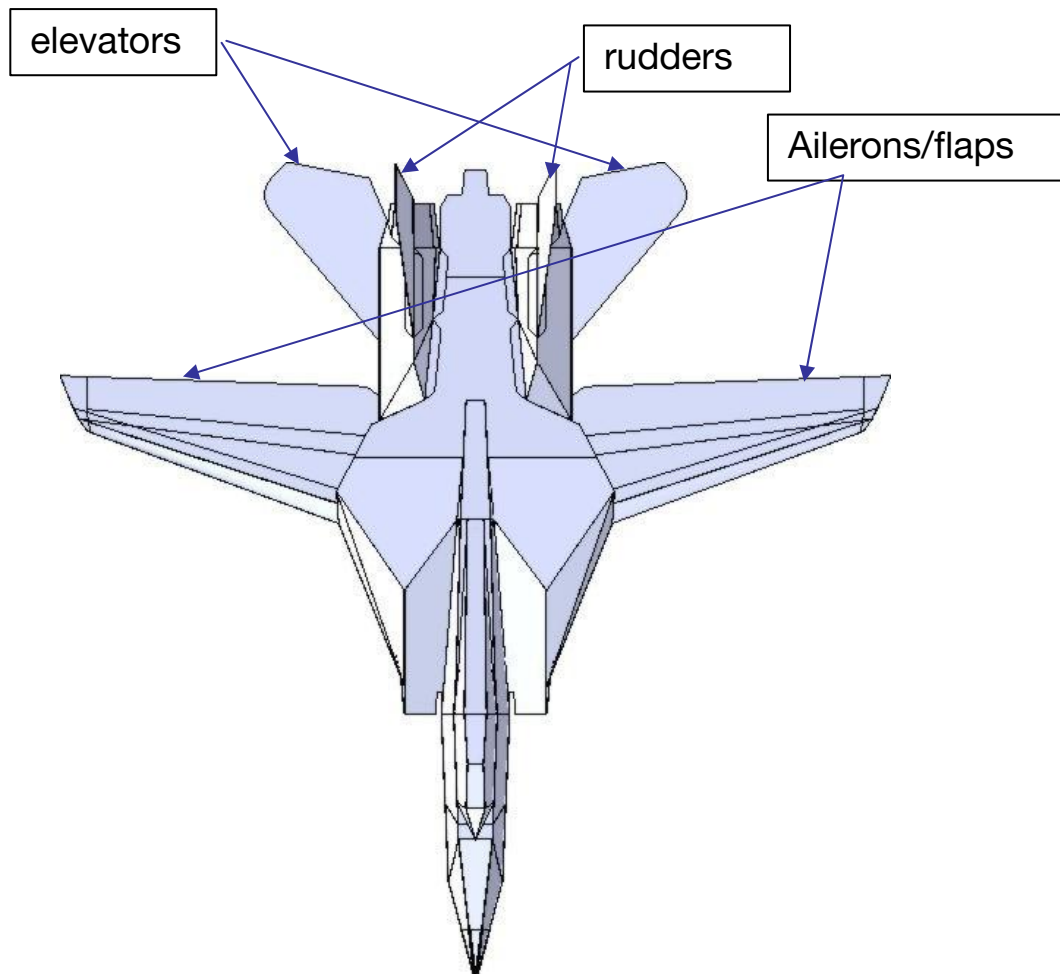




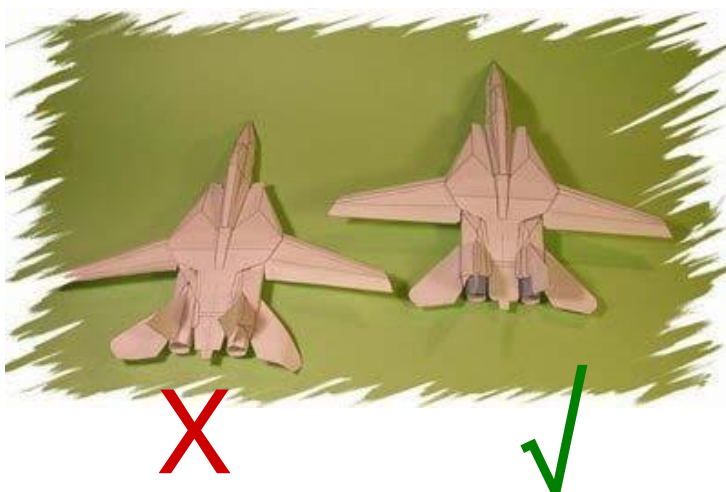




How to fly it



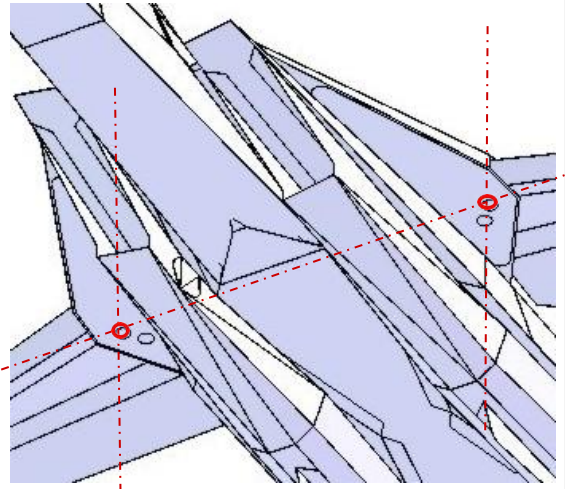
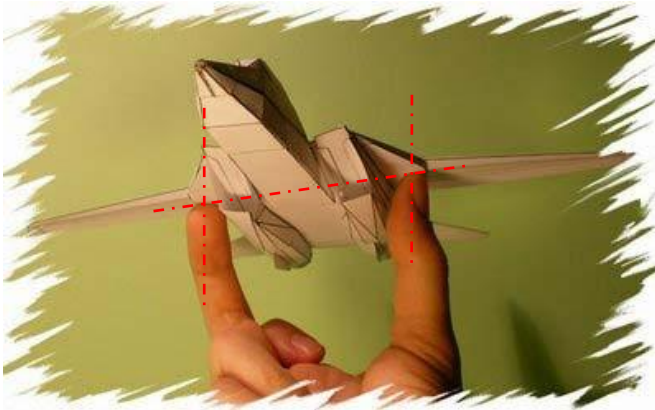
1 Aerodynamic cleanness



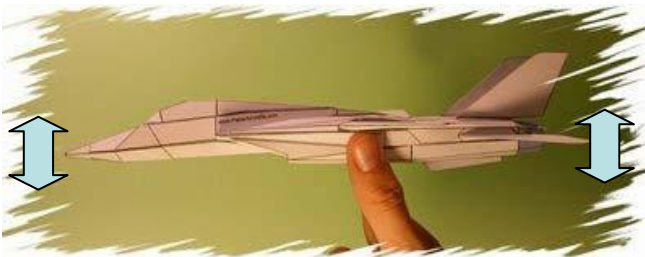
Elevators and wing must be parallel. If surfaces are bent, force the paper with your fingers trying to straighten them. The aircraft could have defects, but they must be symmetrical.

2

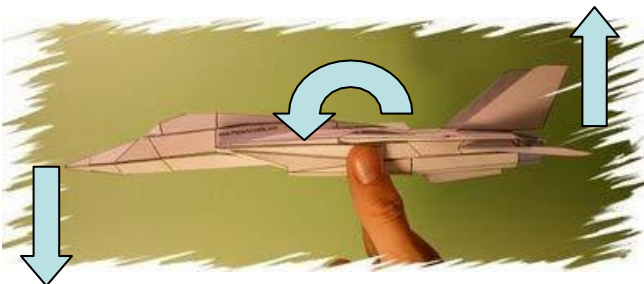
Aircraft balanced (wings opened)



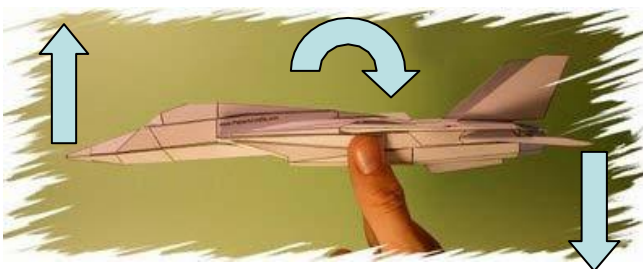
Rest the aircraft on two fingers so that the wing's forward circles get positioned just over them. If it keeps levelled and does not fall...it is balanced.



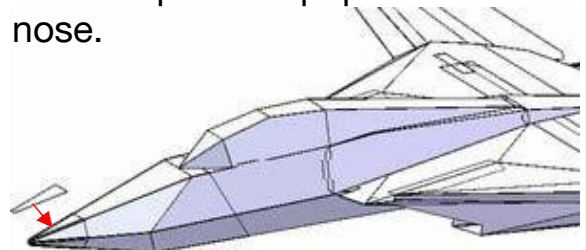
Ready to fly



If it falls forward, the nose is too heavy. Put a load in the tail.



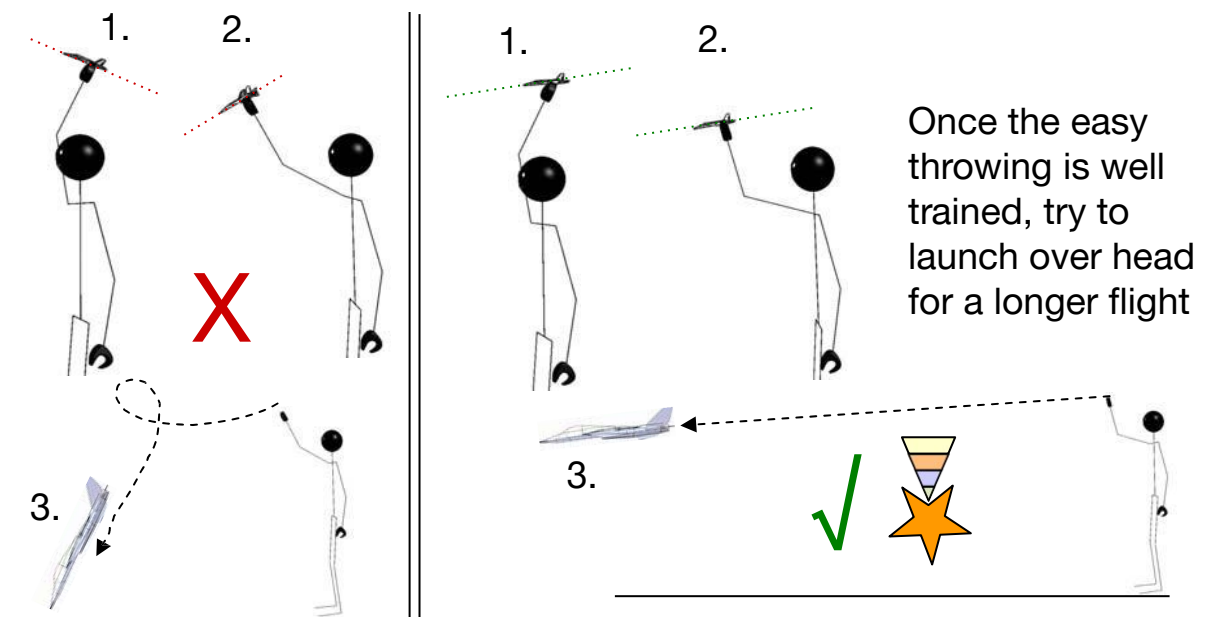
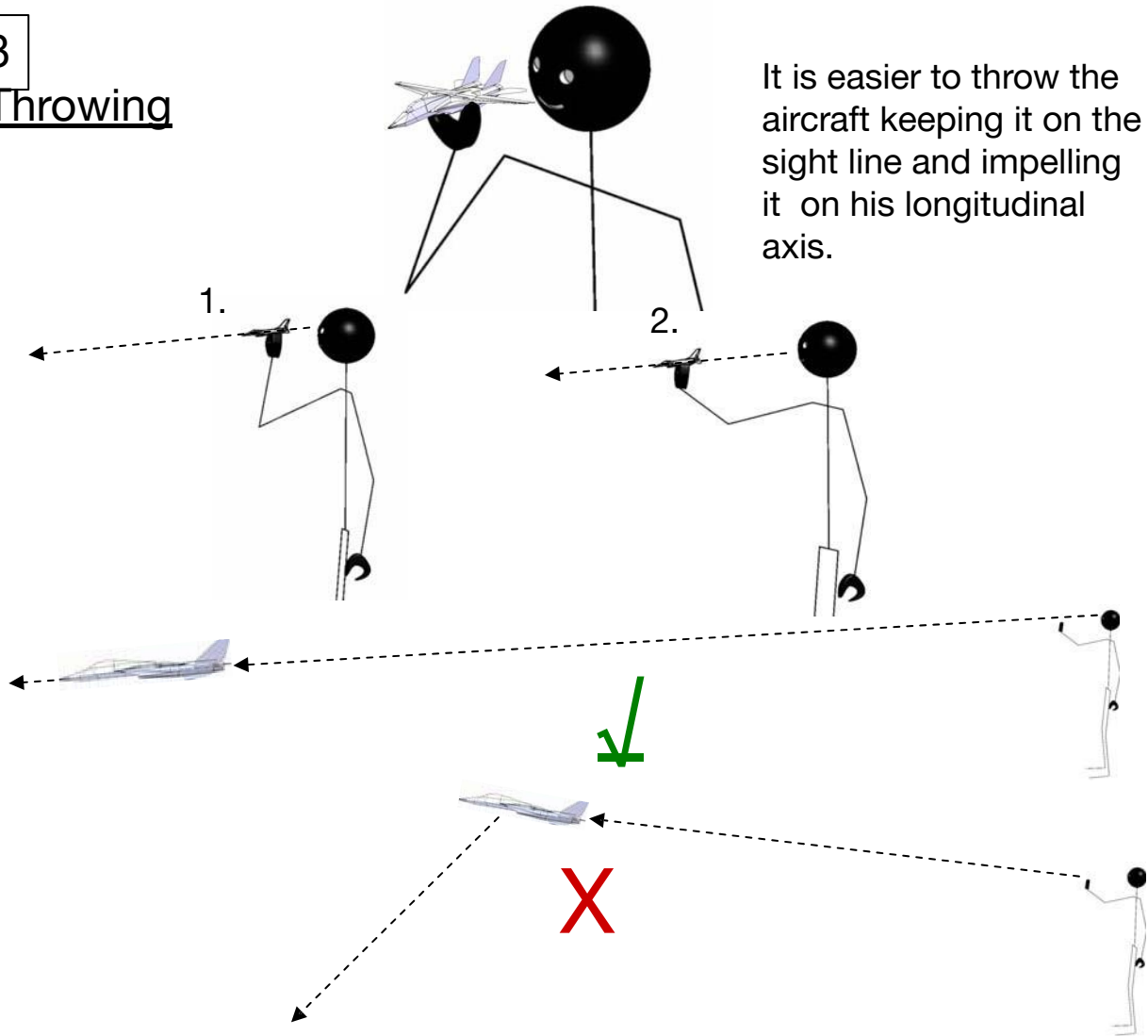
If it falls backward, it needs more weight in the nose. Did you paste parts 40, 41 and 42 ? Paste a piece of paper in the nose.



3

Throwing

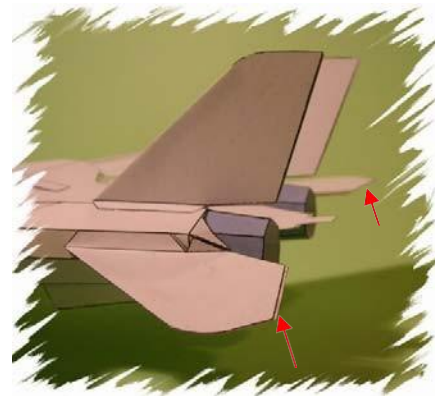
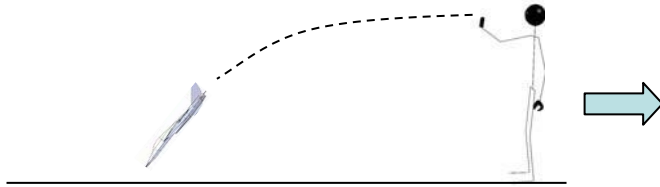
It is easier to throw the aircraft keeping it on the sight line and impelling it on his longitudinal axis.



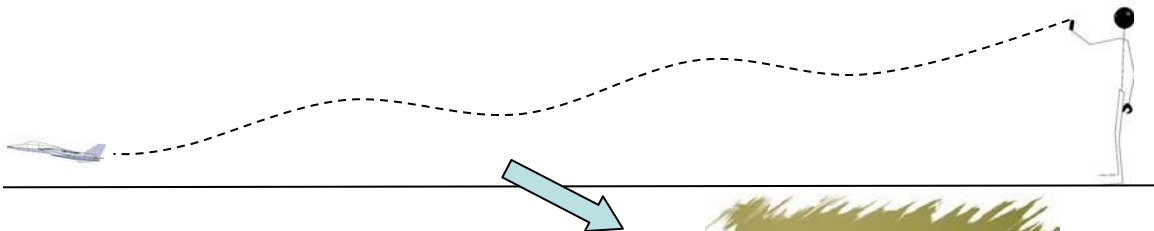
Once the easy throwing is well trained, try to launch over head for a longer flight

4

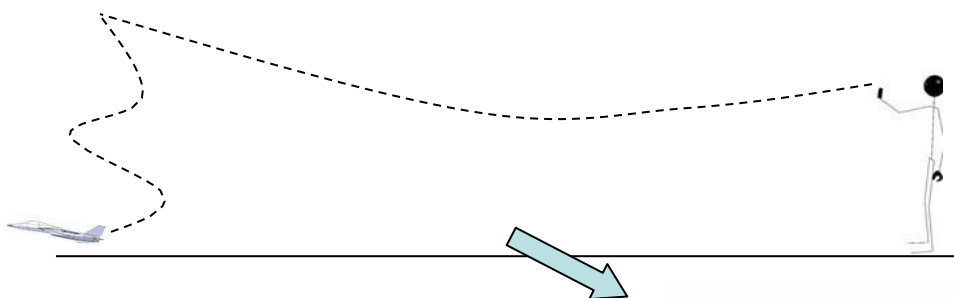
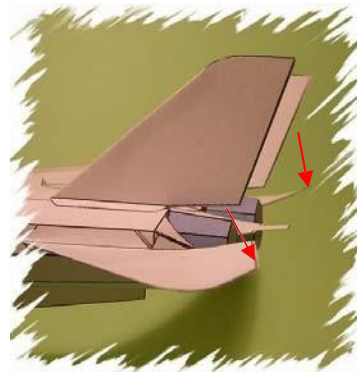
Correcting the flight path: Pitch



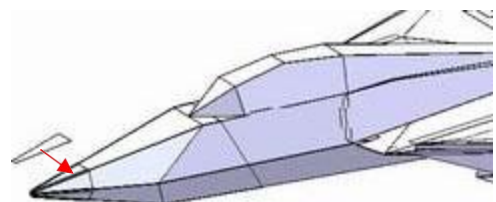
If the aircraft pitches down going to the ground, deflect upward gently the elevators. Repeat the flight. If it keeps going down, deflect the elevators upward a little more until the aircraft went straight gliding.

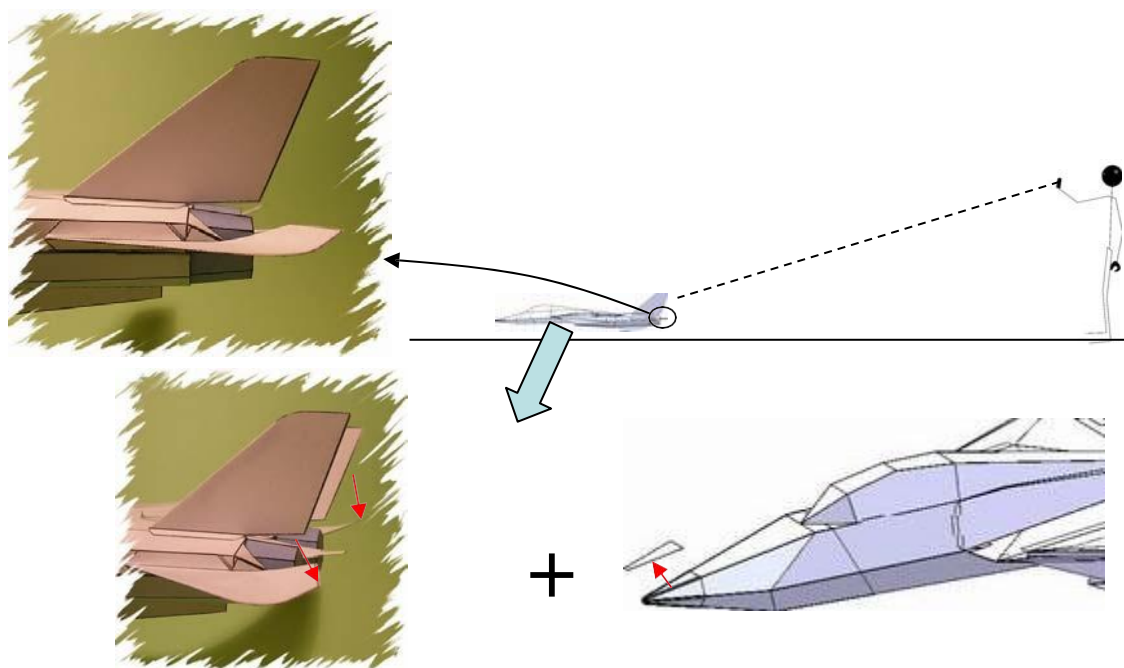


If the gliding path osciles like above... the elevators may be too much deflected upward. Reduce the elevators upward deflection.



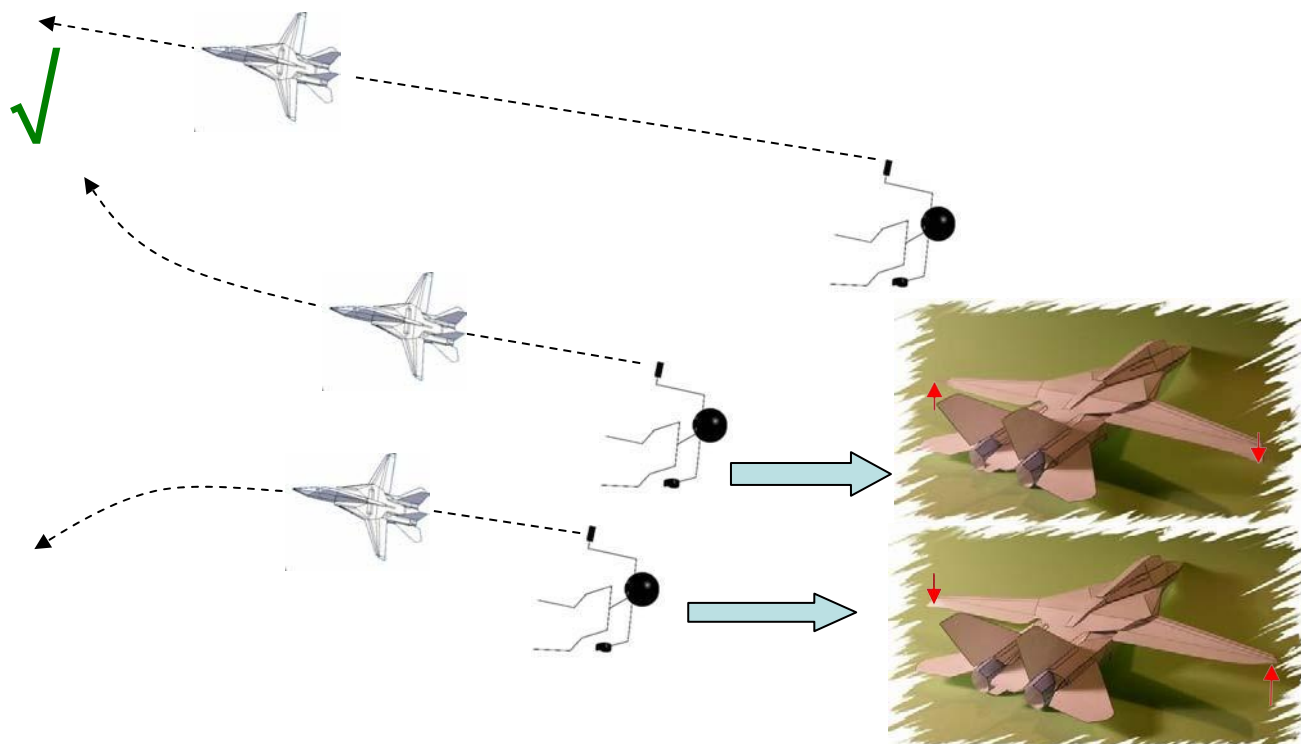
In this case the nose still needs a little more weight. Cut a triangular piece of paper and paste it in the nose





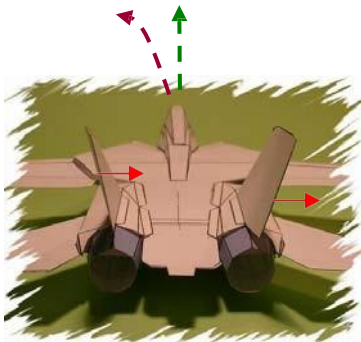
If you achieve to stabilize the glide path but it is too inclined downward... the nose may be too heavy. Try to remove part of piece 20 or put weight in the tail and reduce the elevators upward deflection.

Correcting the flight path: direction

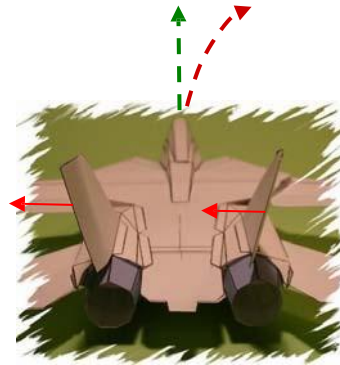


In order to correct the turn, deflect the ailerons asymmetrically like each picture shows but very gently. The deflection in the pictures is exaggerated; you would obtain the opposite effect.

In case of little corrections in direction, you can use the rudders. Deflect them very gently.



Correct left turns
deflecting the rudders
right

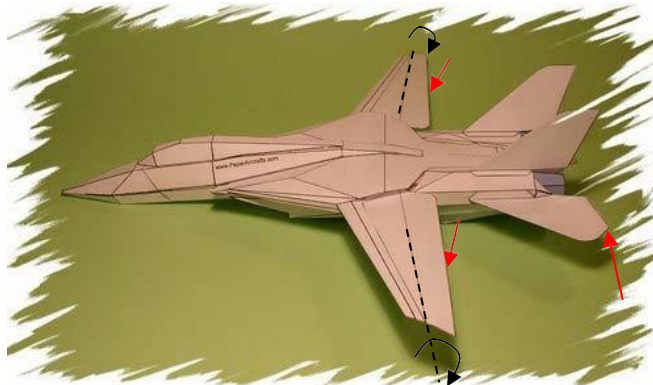


Correct right turns
deflecting the rudders
left.

5 Advanced Flight

Once you have calibrated the glide path in pitch and direction, you can try different aircraft performances.

“Cruise”
:



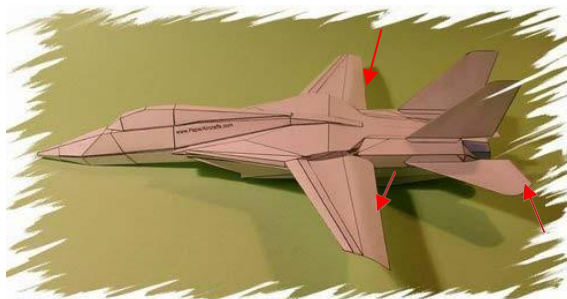
Deflect down
the flaps a little.

The aircraft will fly more
smoothly

The aircraft will
pitch down,
oppose it, rising
the elevators a
little.

“Approach”
:

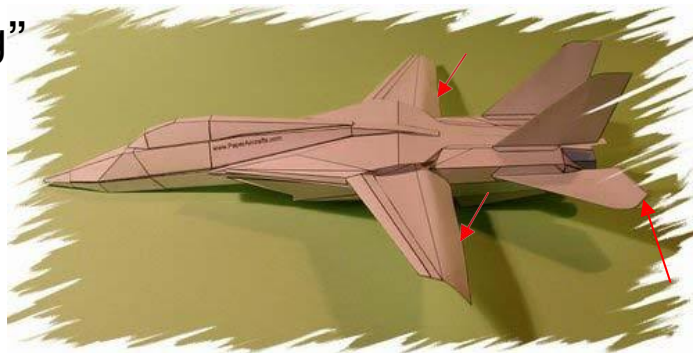
Deflect a little
more the flaps.



The aircraft will fly slower.

Compensate the
pitch down, rising
the elevators if
needed.

“Landing”

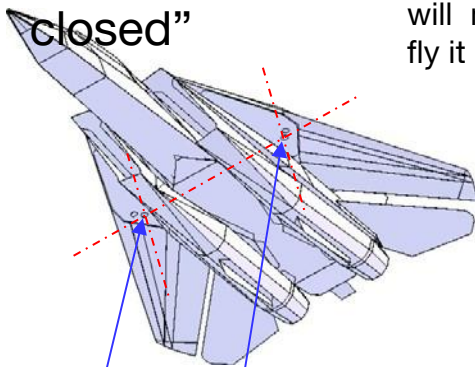


Compensate the pitch down, rising the elevators if needed.

Deflect down the flaps significantly, (both wings).

The aircraft will fly more slowly with a shorter glide path.

“Wings closed”

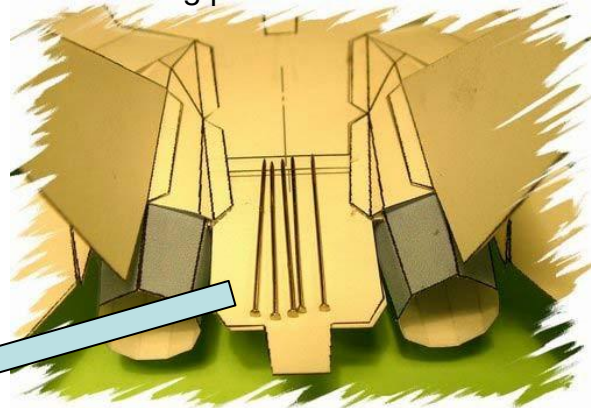
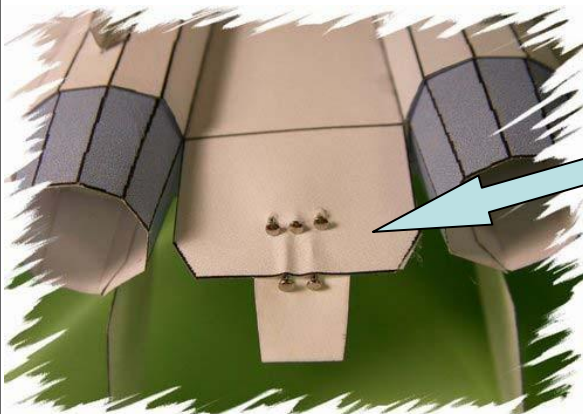


Backward circles

Since this is an unpowered subsonic glider, you will need to re-balance the airplane if you want to fly it with wings closed.

It should stay on your fingers, positioned below the backward circles, without falling.

In order to obtain that, you can fix four/five stitching pins in the tail.



Apply throwing and path correction the same way that already seen, but you may left flaps up.