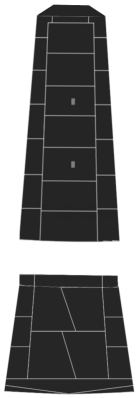
ESA Intermediate eXperimental Vehicle - IXV

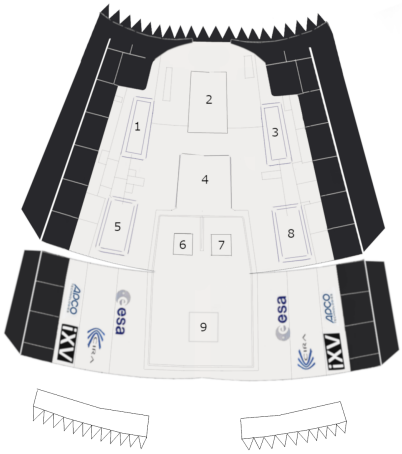
1:96

BOTTOM TPS

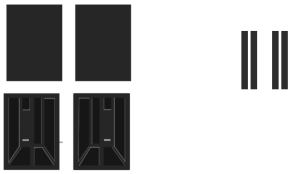


NOSE

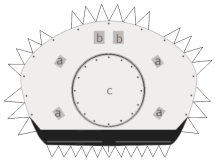
BODY



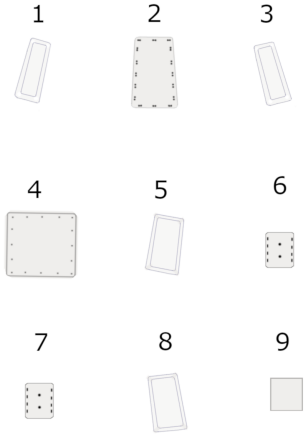
FLAPS



BACK



BODY DETAILS

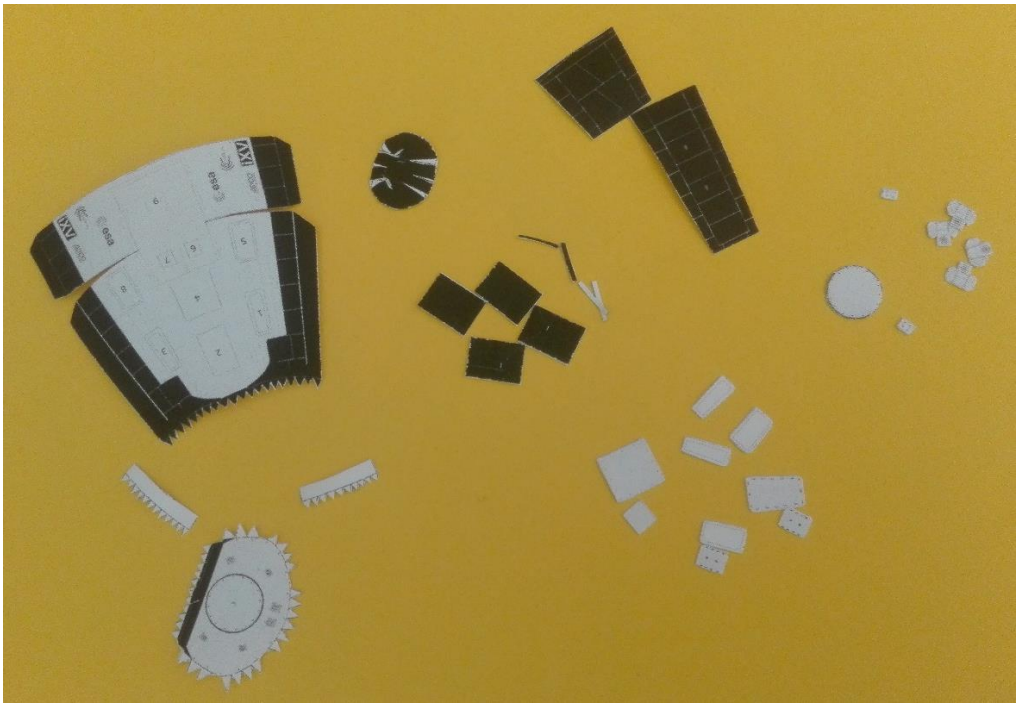


BACK DETAILS

2018 - Designed by G. Di Pasquale - Not for commercial use

Intermediate eXperimental Vehicle
Instruction Manual

This model, in scale 1:96, is composed by 31 parts. It can be printed on regular A4 paper but is better to go for slightly thicker paper.

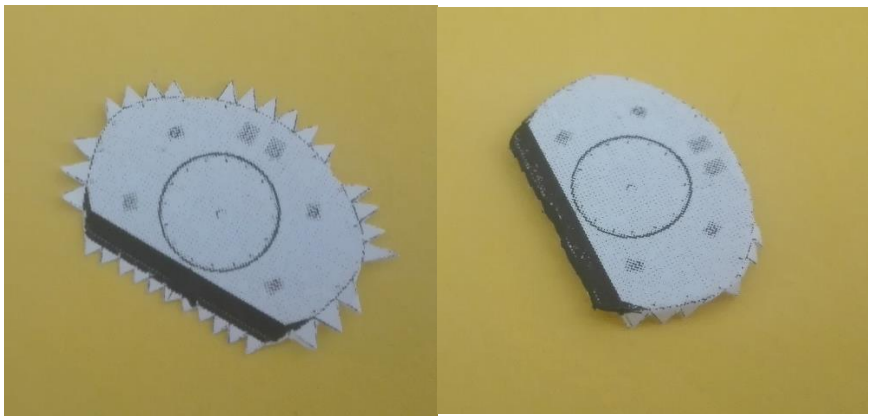


The nose has integrated flaps (white areas) that must not be removed. Is necessary tough to perform a cut on each flap near the black area like shown in figure.

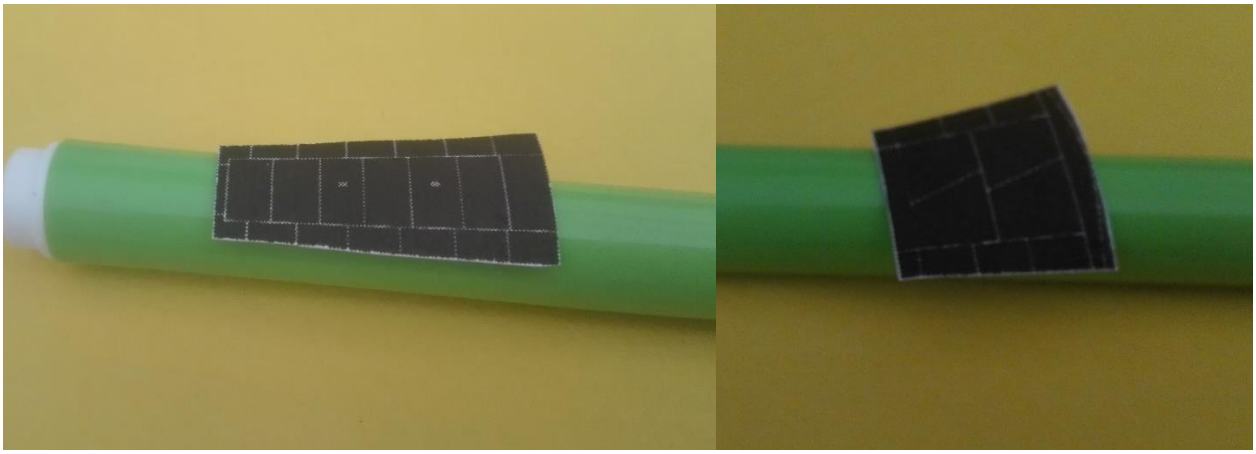
The nose is to be curved in order to cover all flaps. If done properly should bring to a shape like the following.

With a black marker is possible to make the model more realistic, covering the white lines caused by folding and paper borders.

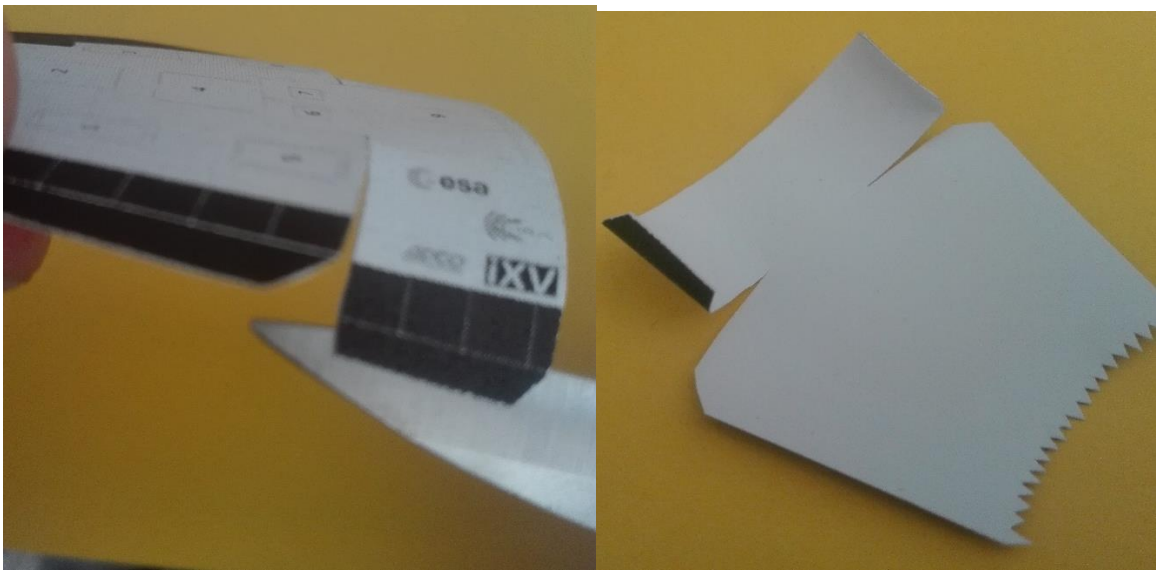
The back section has flaps that need to be folded a little bit more than 90°, as shown in the following picture.

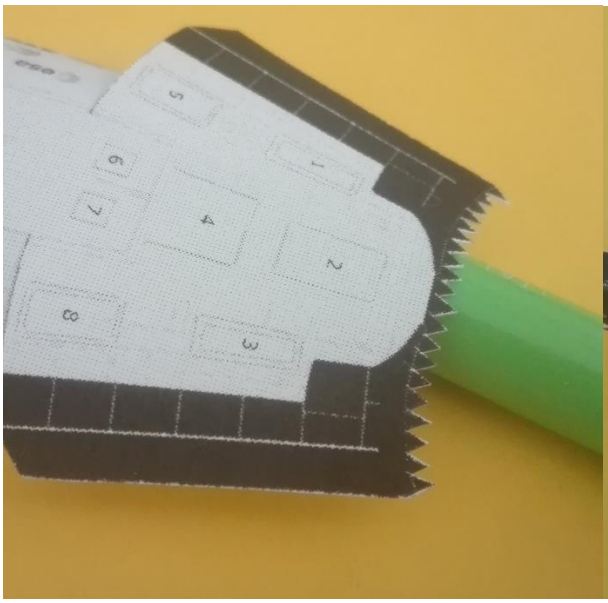


Both two TPS bottom parts need to be very slightly curved near the long ends, for instance by means of a pencil.



The body, on the other hand, needs a much more accentuated curvature, and also needs an angle on the white parallel lines using for example a pair of scissors.

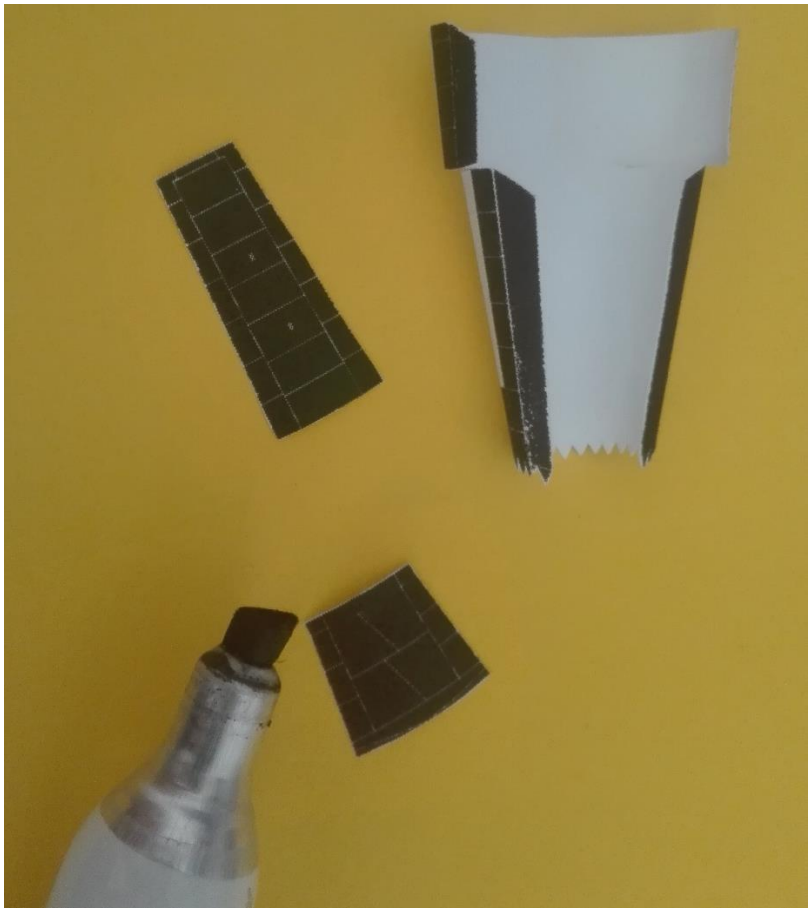




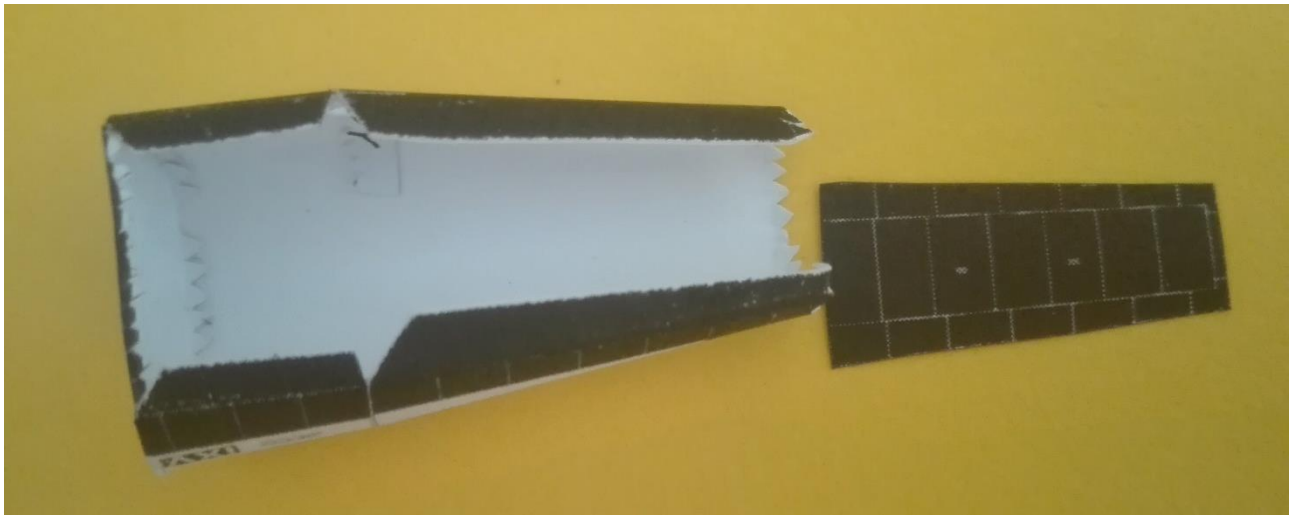

Attach the two connectors to the body as shown in figure.


Glue the back part to the body by using the flaps folded previously, and apply glue also to the connector to hold in place the two parts of the body.

Colour with black the borders for body and TPS where needed.



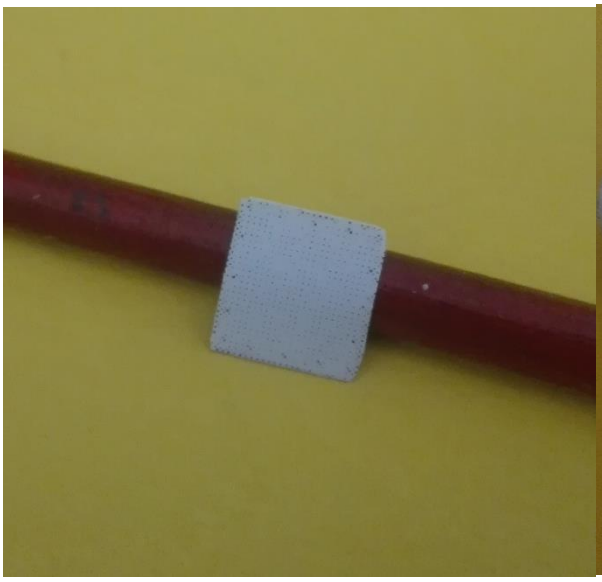
Starting from the longer TPS part, glue it to the body, aligning the white transversal lines.



Curving toward the inside the black flaps on the front side of the body, will allow the connection of the nose as in figure. The nose correct orientation can be seen in the pdf.

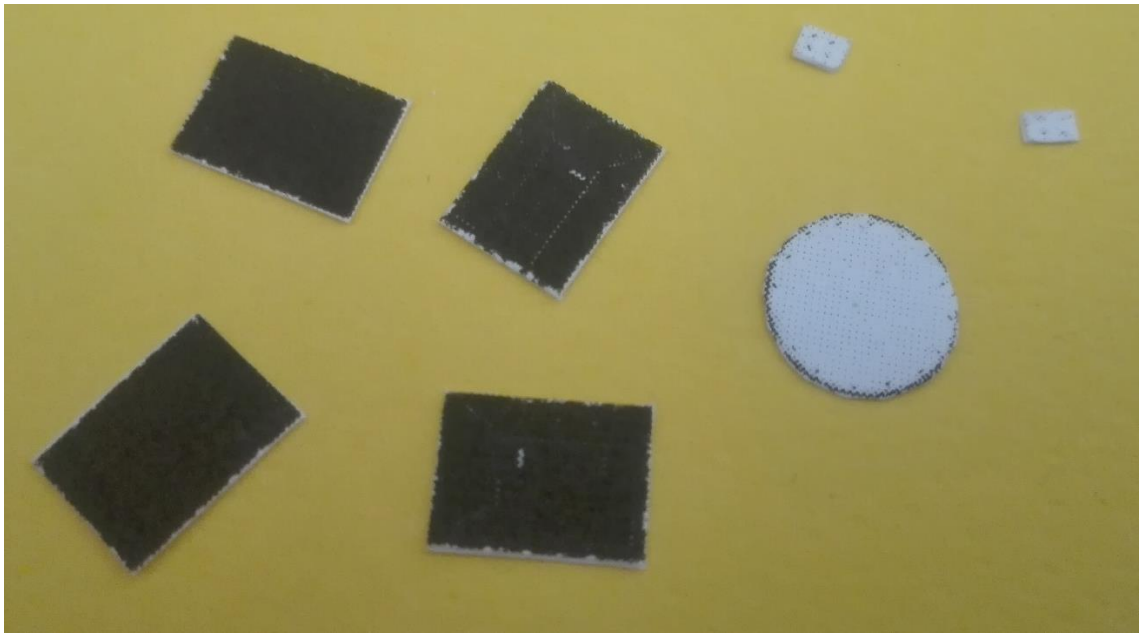
Then glue the shorter TPS part, which will overlap with the longer one, as in picture.

Apply a slight curvature to all body details (1 to 9), using a small diameter pencil or similar, and glue them to the body.

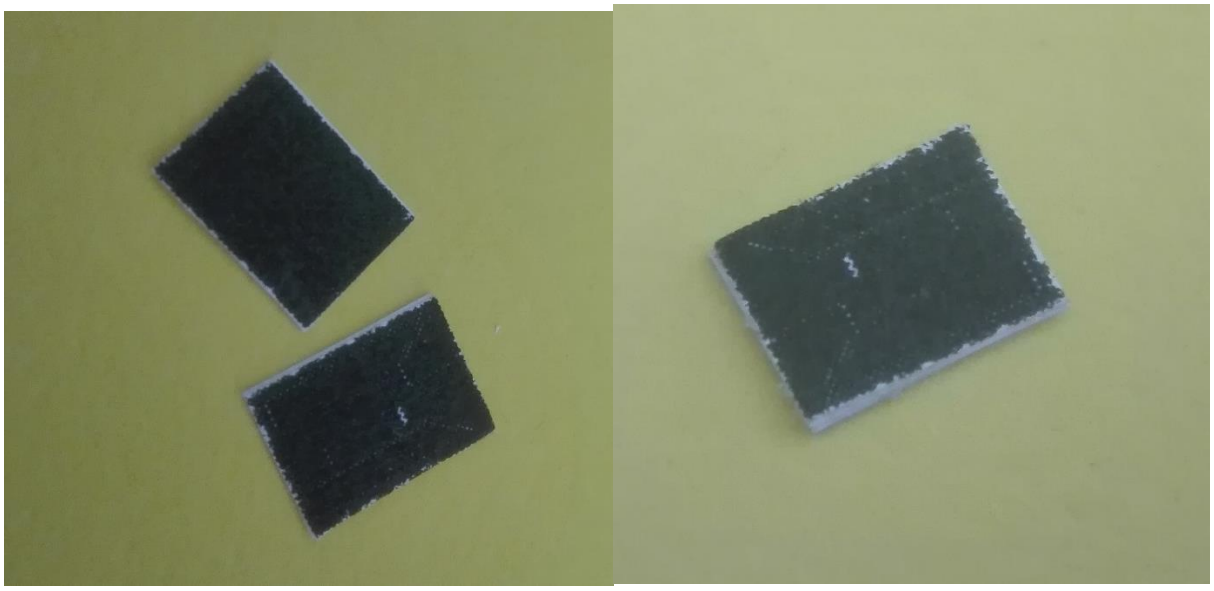


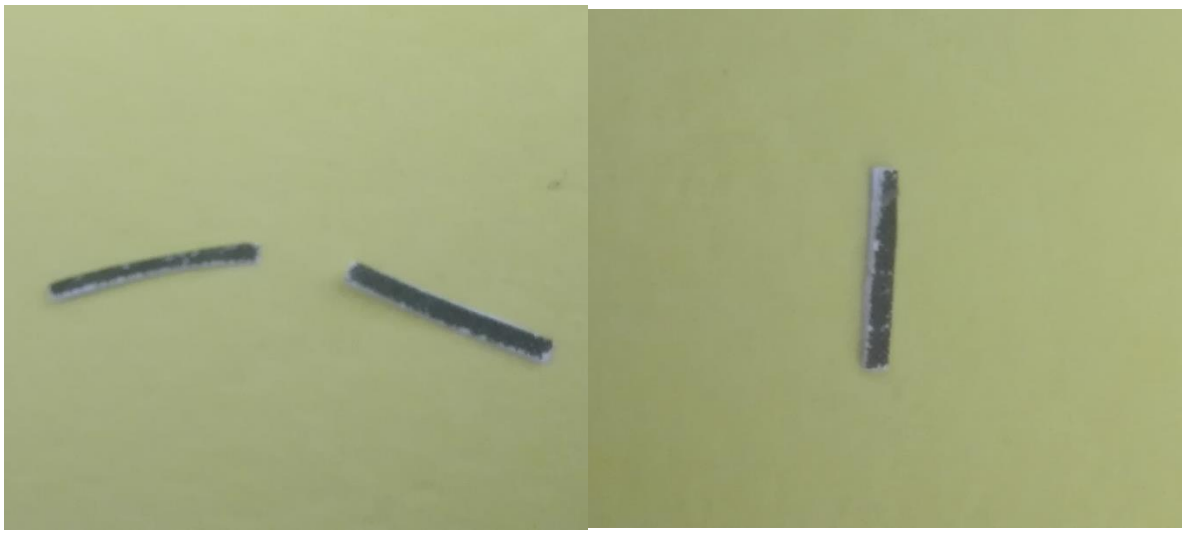
The result should be the following.

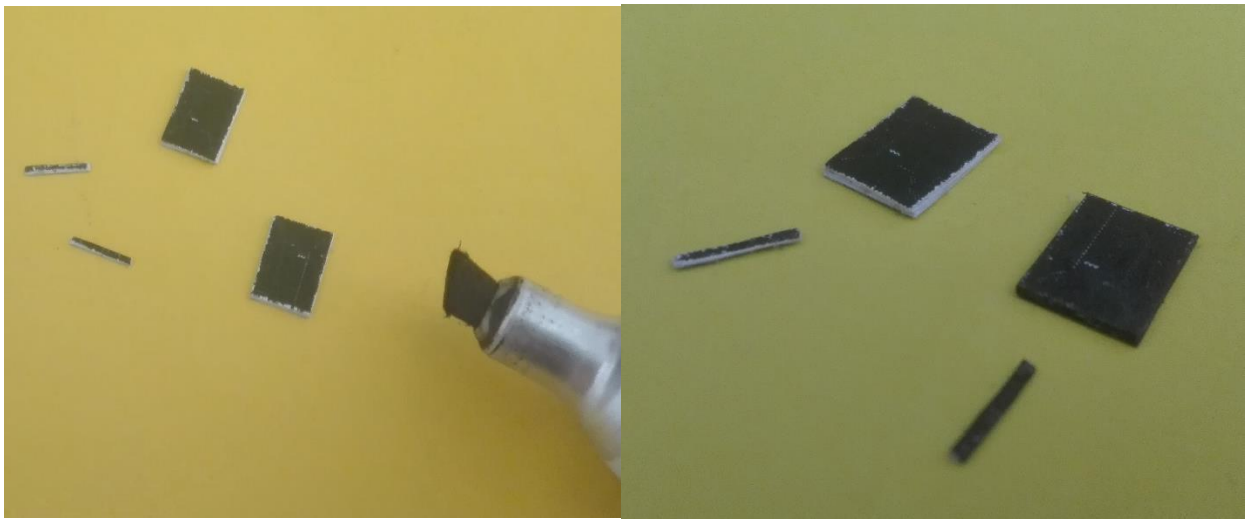
Flaps and back details **b** and **c** should be thickened by using extra paper.



Flaps and actuators (small black parts near flaps) need to be glued together and coloured on the borders.

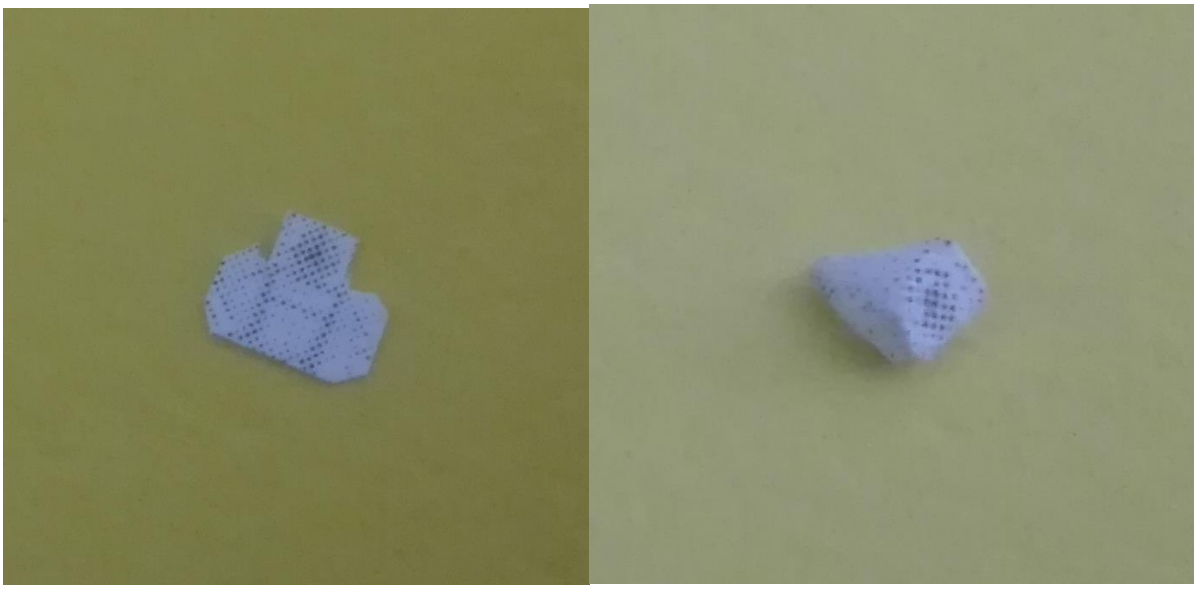






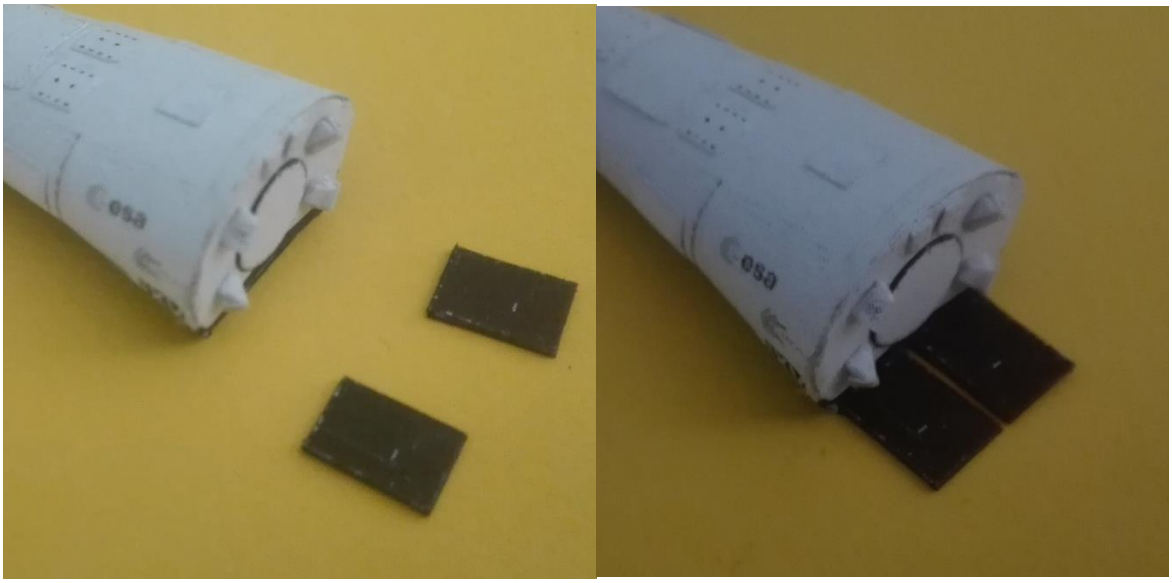
Attach **b** and **c** details to the back.

The detail **a** is the RCS and needs to be folded to form a triangular prism shape.



Then they must be glued to the back on the grey spots, oriented with nozzles facing out.

Glue the flaps to the bottom part of back (there are two light grey lines as reference), with the completely black side facing down.



Finally connect the two tiny black actuators, after having bent them as in picture.