## PROBA-1

## **Description of the PROBA-1 paper model elements:**

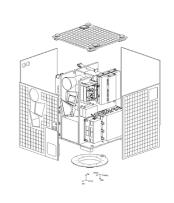
Part 1: spacecraft body (first half).

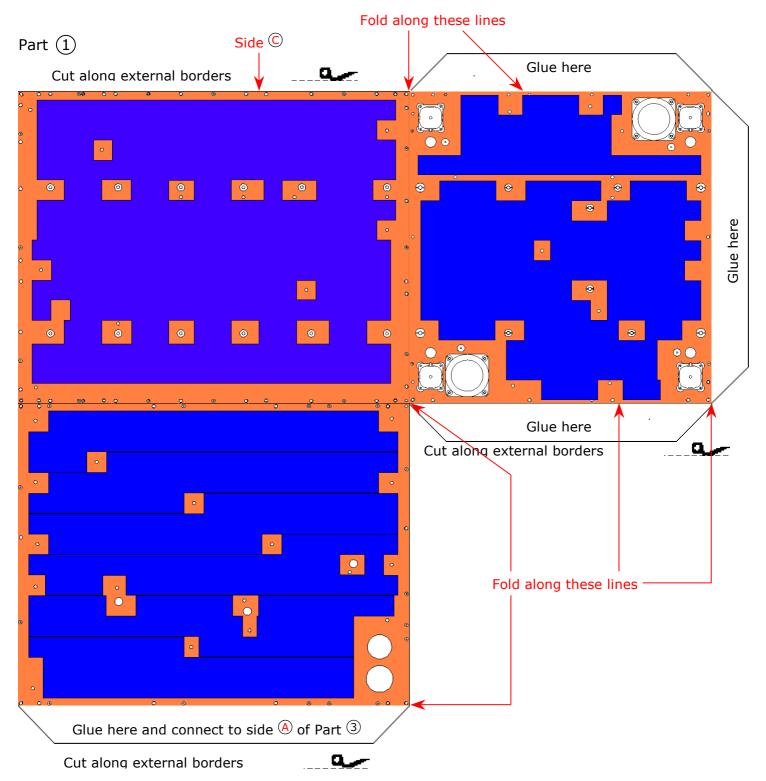
Part 2: spacecraft/launcher interface ring.

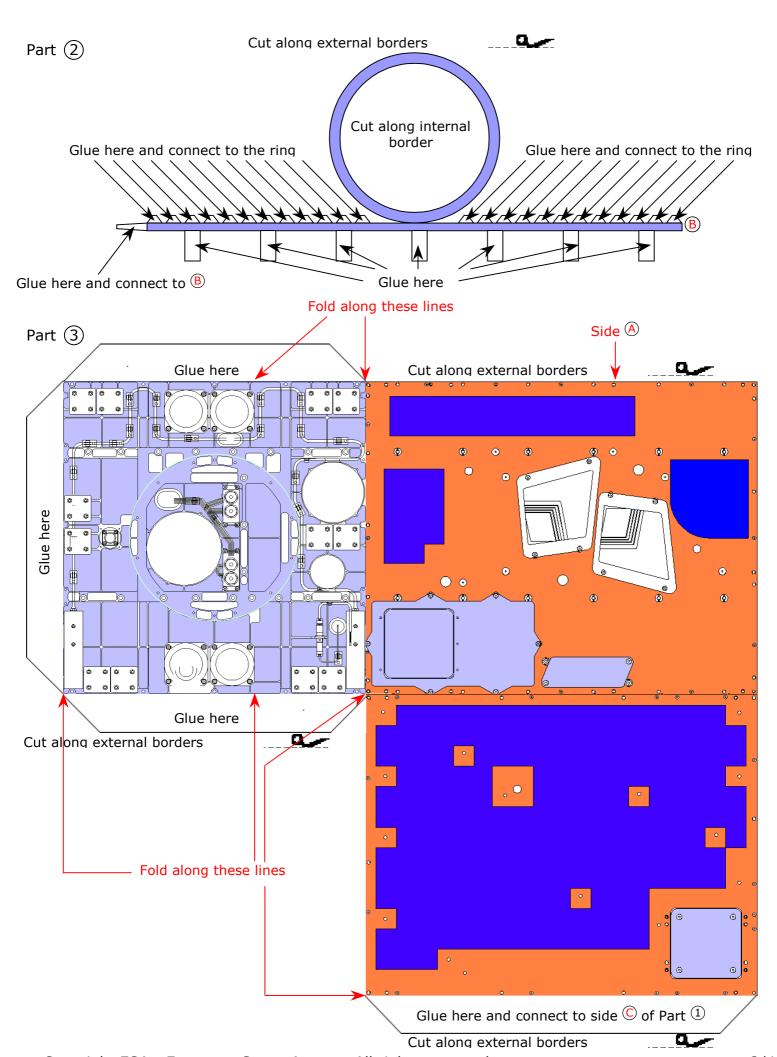
Part 3: spacecraft body (second half).

Part 4: spacecraft support arm.

Part 5: spacecraft support base.

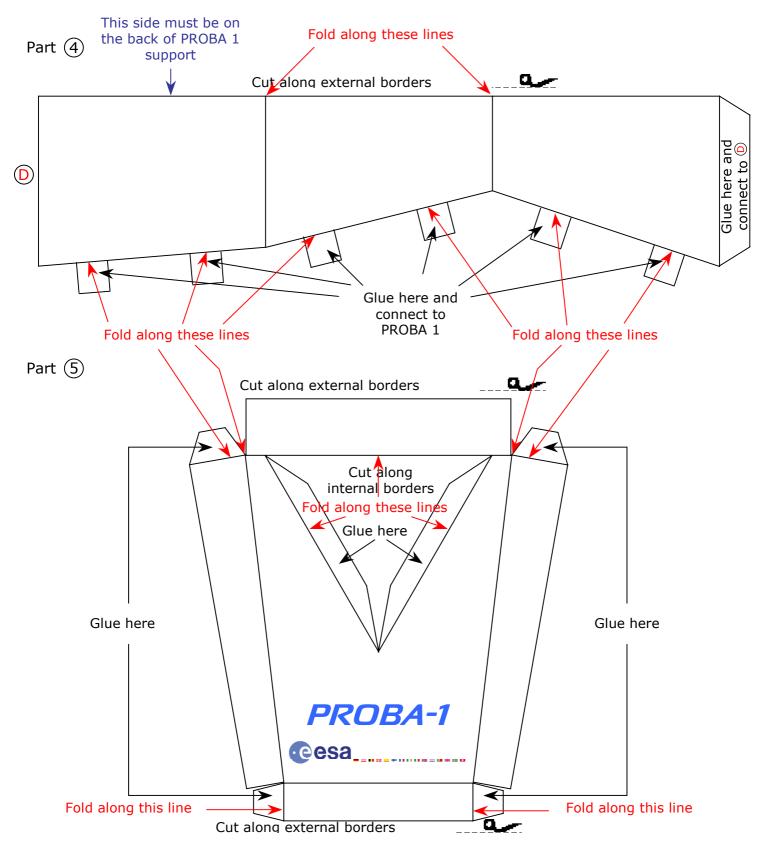






## PROBA-1 paper model building tools kit:

- 1 colour copy of the paper model, possibly printed on stiff paper or card. A second PROBA-1 paper model printout could also be useful as a reference during PROBA-1 construction.
- A knife.
- A pair of scissors.
- A ruler.
- Glue.



## PROBA-1 paper model building instructions:

Carefully read all these instructions before starting the construction.

Carefully cut-out (with the help of the knife and the ruler) the various components of PROBA-1 spacecraft and support as indicated.

This is the most difficult (and time consuming) part of the entire procedure. Take Part 2 (the spacecraft/launcher interface ring). Fold the ring by 90 degrees with respect to the long strip underneath (that will form the side of the interface ring itself). Also fold by 90 degrees all the trapezoidal flaps at the top of the strip. Keeping the ring upside down (i.e. with its coloured side facing your working desk), glue all the ring's internal surface (its white side), as well as the flap at the left edge of the strip, as indicated. Carefully attach, with the help of the scissors tip, all the trapezoidal flaps to the previously glued ring back. Once you've finished closing the ring, connect the left edge of the strip to its right one (indicated with (B)), using the relevant glued flap. The PROBA-1 spacecraft/launcher interface ring is now ready to be attached to the spacecraft body.

Take now Part 3 of the paper model (the second half of the spacecraft body), and properly fold it along the lines, by 90 degrees, as indicated. Using the interface ring you've just finished, keeping it in its final position, incise, with the knife, the slots necessary for the insertion of the seven rectangular flaps of the interface ring, along the green circle on the grey side of the spacecraft body (its bottom panel). Connect the spacecraft body and interface ring, inserting the ring flaps in the just created slots, and turn the model over. Carefully pull the flaps to the inside (so that the interface ring is perfectly in position), fold them by 90 degrees towards the outside of the ring and glue them to the internal side of the spacecraft bottom panel.

Take now Part 1 of the paper model (the first half of the spacecraft body), and properly fold it along the lines, by 90 degrees, as indicated. Connect it to Part 3 as indicated. Connect then the various sides to obtain a cubic shaped spacecraft. Your paper model of the PROBA-1 spacecraft is now finished! The only remaining thing is to make the satellite support.

Take Part 4 (the spacecraft support arm) and fold it along the lines, as indicated. Connect then its left side to the right one, as indicated. As a result you should obtain a prismatic shape, with a triangular base. Fold the six flaps you find on top of the prism towards its inside.

Take now Part 5 (the support base) and fold it along the lines, as indicated. Glue then, wherever necessary (except the two flaps inside the support central triangular aperture), and properly attach the various sides, to obtain the support base.

Glue now the two flaps inside the support base central triangular aperture and carefully introduce the triangular prism into it, aligning it with the support base. The PROBA-1 spacecraft support is also completed.

Now attach the PROBA-1 spacecraft to its support. To do so, glue the six rectangular flaps on top of the support arm and place the spacecraft on top of it, keeping its bottom panel (the side with the spacecraft/launcher interface ring) on the lower right side, and the side with the star trackers heads/baffles (the two large white rhomboidal shapes) on the front.

Congratulations! Your PROBA-1 paper model is now finished!