

ariane 6

PAPER MODEL



Faint, light green botanical illustrations are scattered around the central text. These include a large sunburst-like plant in the top right, a fern frond in the bottom left, and several other leaves and plant motifs in the bottom right and middle right areas.

ariane 6

PAPER MODEL

Ariane 6

POWERING EUROPE INTO SPACE

Europe's new launch vehicle is the powerful Ariane 6. It will ensure Europe has secure and autonomous access to space.

Ariane 6 is made up of three main sections, or 'stages', to propel its cargo: two or four boosters, the lower main stage and the upper stage.

The boosters on the side of the main stage provide the main thrust at liftoff. Two or four boosters can be installed depending on the performance needed for each flight.

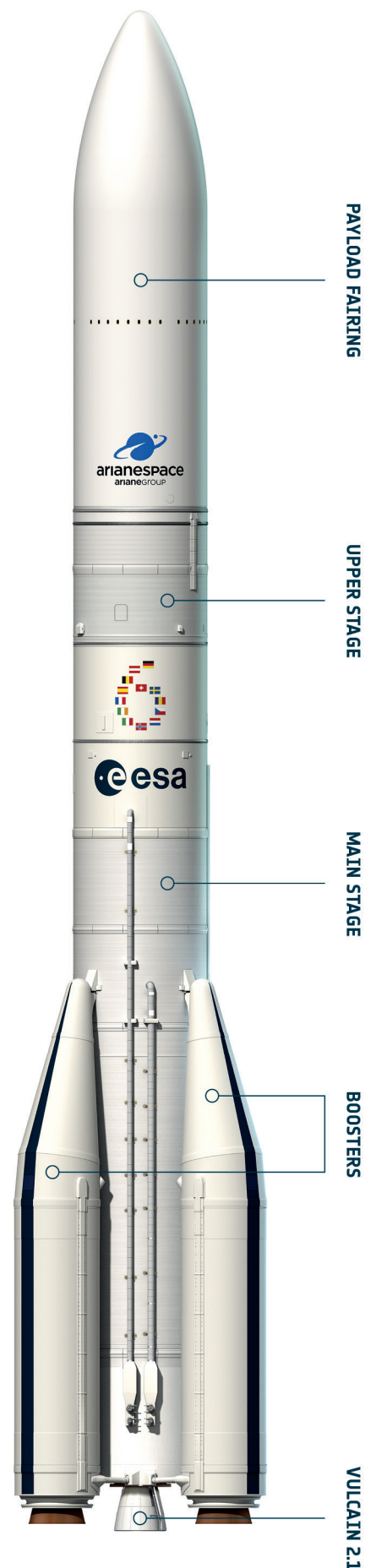
The main stage is powered by the liquid-fuelled Vulcain 2.1 – an upgraded version of Ariane 5's main Vulcain engine.

The upper stage is powered by a reignitable Vinci engine that runs on liquid oxygen and hydrogen, the same propellants used by the main stage. The Vinci engine allows Ariane 6 to place multiple satellites into orbit on a single mission. Once all payloads have been delivered, the Vinci engine burns a final time to dispose safely of the upper stage, ensuring it does not become space debris and threaten other objects in orbit.

The fairing at the top of Ariane 6 is like a nosecone that splits vertically to reveal the hardware underneath. The fairing comes in 14 m and 20 m lengths, both 5.4 m in diameter and made of a carbon fibre reinforced polymer. The fairing protects the satellites from the thermal, acoustic and aerodynamic stresses as Ariane 6 rockets to space.

GET READY TO BUILD AND LAUNCH YOUR ARIANE 6 ROCKET WITH THIS PAPER MODEL!

Perfect for all ages, it's a fun project that takes a few hours to complete. Young children should be guided by an adult.



Model assembly

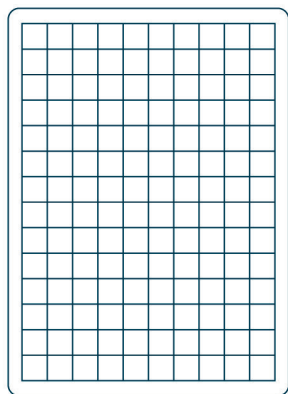
TOOLS

DIFFICULTY

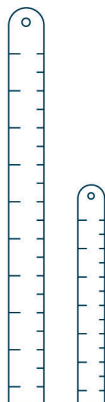


Medium-high level

Allow 6 hours



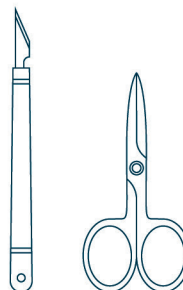
CUTTING MAT



RULERS
(15 and 30 cm)



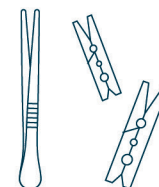
GLUE



CUTTER / SCISSORS

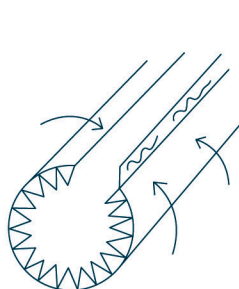


DOUBLE-SIDED TAPE

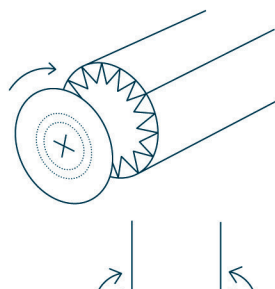


TWEEZERS / MINI CLIPS

PROCEDURE



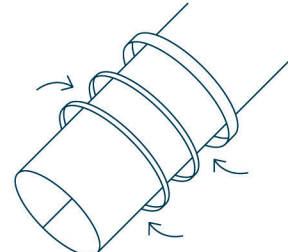
1



2



3



4

MAIN STAGE

Cut out the **Main Stage A** on page 7 and the small triangles at the bottom that will be used to attach the four boosters later on.

Join the ends to form a cylinder. You can use glue and double-sided tape.

Let dry.

Fold the teeth at the end to the inside.

Cut out circle No. 1 on page 9 and glue it to the base of the first cylinder. Leave the markings on the outside

Cut and glue horizontal strip No. 1 on page 9 to cover the joint.

Cut vertical strip No. 2, join and glue it to the base as per reference.

Cut the **Main Stage B** on page 5. Glue the ends together to form a cylinder.

Glue and join the two cylinders (main stage A and B) at the end.

Cut out form No. 3 (**Vulcain-2 Engine**) and glue the ends. Fold the teeth inwards and glue in the centre of the stage base.

Cut out and glue circle No. 4 on page 9 to the bottom. Help yourself with tweezers.

Let dry.

Cut and paste horizontal strip No. 2 on page 9 to cover the joint. This will make the stage more stable and the result visual result will be clean.

Cut all strips on page 9 and glue them onto the grey rails. (See the example on page 22)

Cut and glue elements (No. 1 and 2) on page 19 onto the vertical rails.

Let dry.

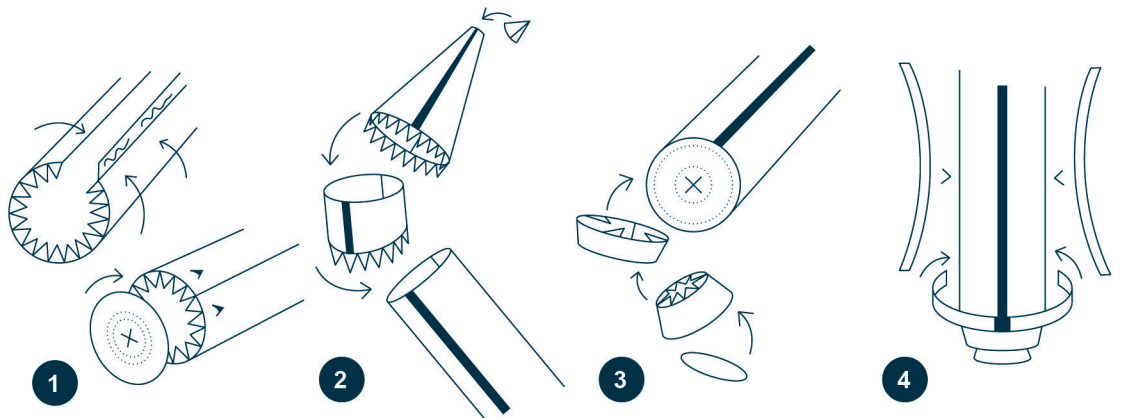
IMPORTANT!

In the event of errors (cutting or gluing), it is possible to photocopy the templates and thus have new pieces available. Choose an uncoated white paper between 150g and 190g because it is more absorbent and allows the glue to adhere sooner. The grammage used for this brochure is 170g.

Model assembly

PROCEDURE

BOOSTERS



1 Cut out shapes No. 1, 2 and 3 on page 11 (**Booster A**).

Take shape No. 1, join the ends to form a cylinder. You can use glue or double-sided tape and let dry.

Join and glue shapes No. 2 and 3 and allow it to dry.

Join and glue shapes newly assembled to cylinder.

2 To hold the pieces in place, help yourself with the mini clips while waiting for them to dry.

Fold the teeth at the end inwards.

Cut out circle No. 4 on page 11 and glue it to the base of the cylinder. Leave the markings on the outside.

Cut out circle No. 5 on page 11 and overlap the ends to form a small cone. Glue it to the top of the booster.

3 Cut out form No. 6, glue the ends and allow them to dry.

Glue to the base of the booster using the dotted reference.

Repeat the process with form No. 7. Fold the teeth inwards and glue to the centre of the booster.

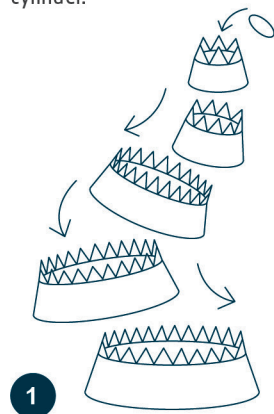
Cut out circle No. 8 and glue covering the bottom to the booster. Help yourself with tweezers.

4 Cut horizontal strips No. 9, 10 and 11 and glue them to the booster on the grey rails.

Cut and glue strip No. 12 to cover the joint of shapes No. 2 and 3.

Cut and glue vertical strips No. 13 and 14 onto the booster and allow it to dry.

Repeat the operation for the **Boosters B, C and D**.



PAYLOAD FAIRING

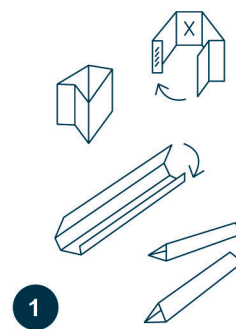
1 Cut out the six shapes on page 9. Glue the shapes individually (see example on page 21) and allow to them dry.

This part is a bit delicate, you should be careful and precise to get a good result.

Join and glue all the pieces, starting with the largest one. Apply light pressure to hide the teeth holes.

Glue the **Fairing** to the stage and let it set.

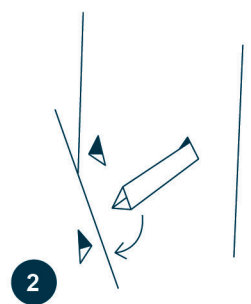
FINAL ASSEMBLY



1 Cut the upper hooks on pages 11, 13, 15 and 17. Fold the dotted lines by applying light pressure* with the cutter (we suggest you to test the pressure on another sheet of paper first).

Do the same with the lower hooks.

Fold and glue the upper hooks. Allow them to dry, then glue them to the stage as indicated by the grey placeholders.

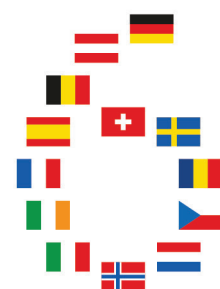


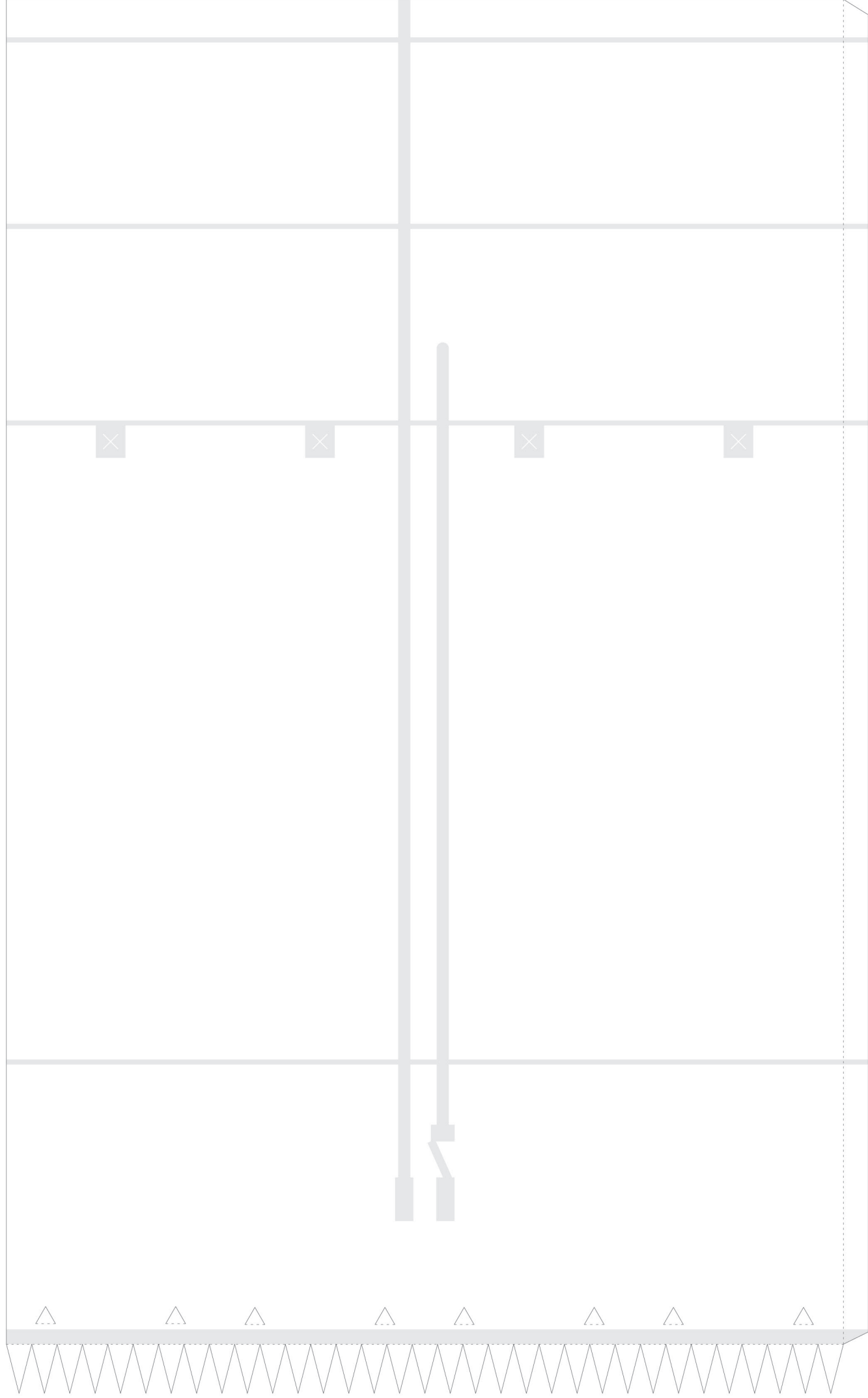
2 Thread the lower hooks between the stage slots and the individual boosters.

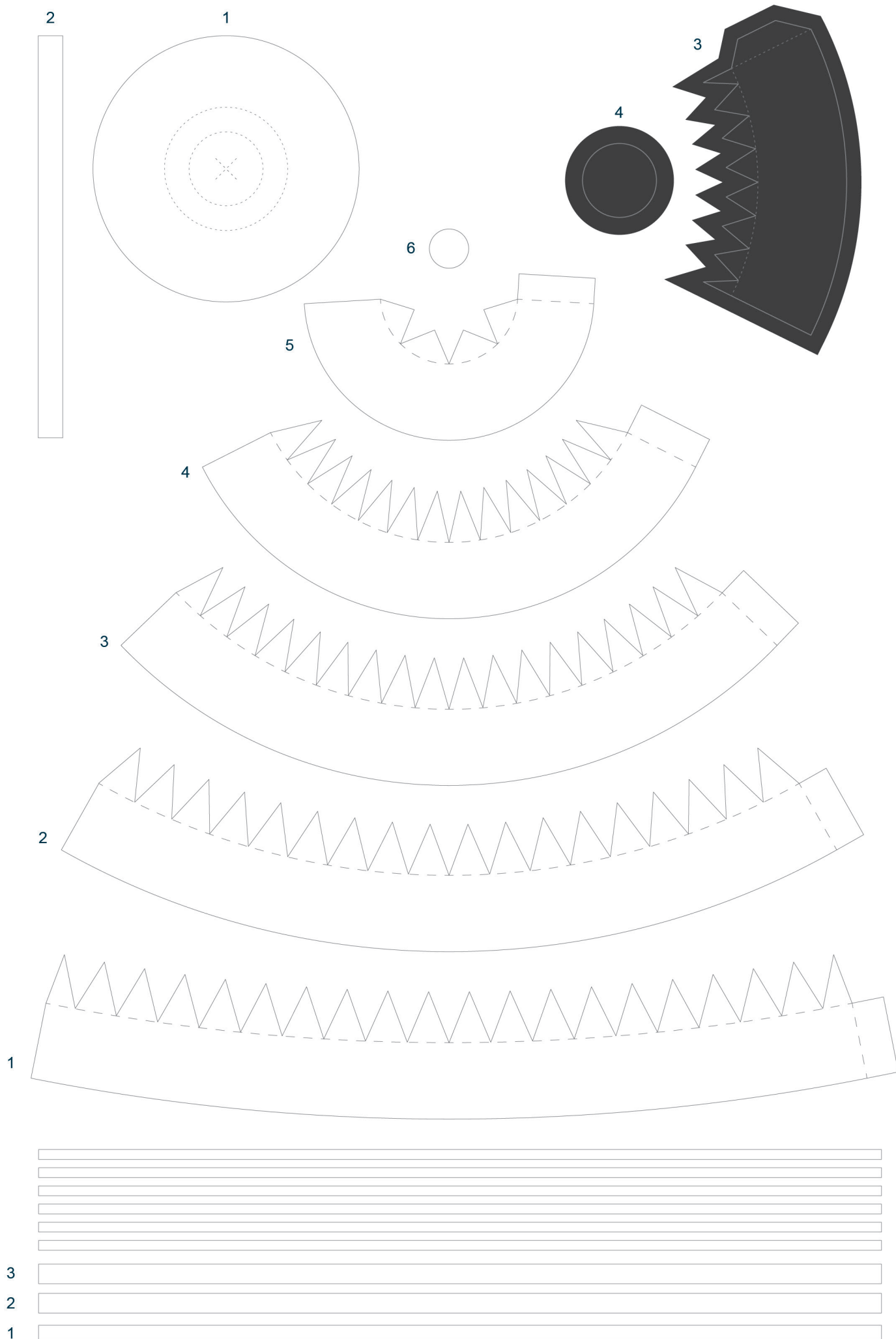
Glue the boosters to the upper hooks and secure the lower hooks by positioning them as best you can with a little glue and allow to dry.

Cut out the label and ribbon on page 19, then display your Ariane 6.

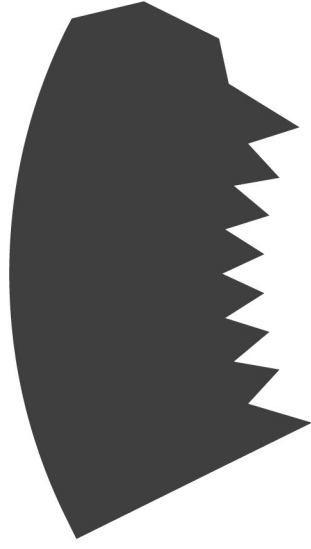
NOW YOU ARE READY TO LIFT OFF!

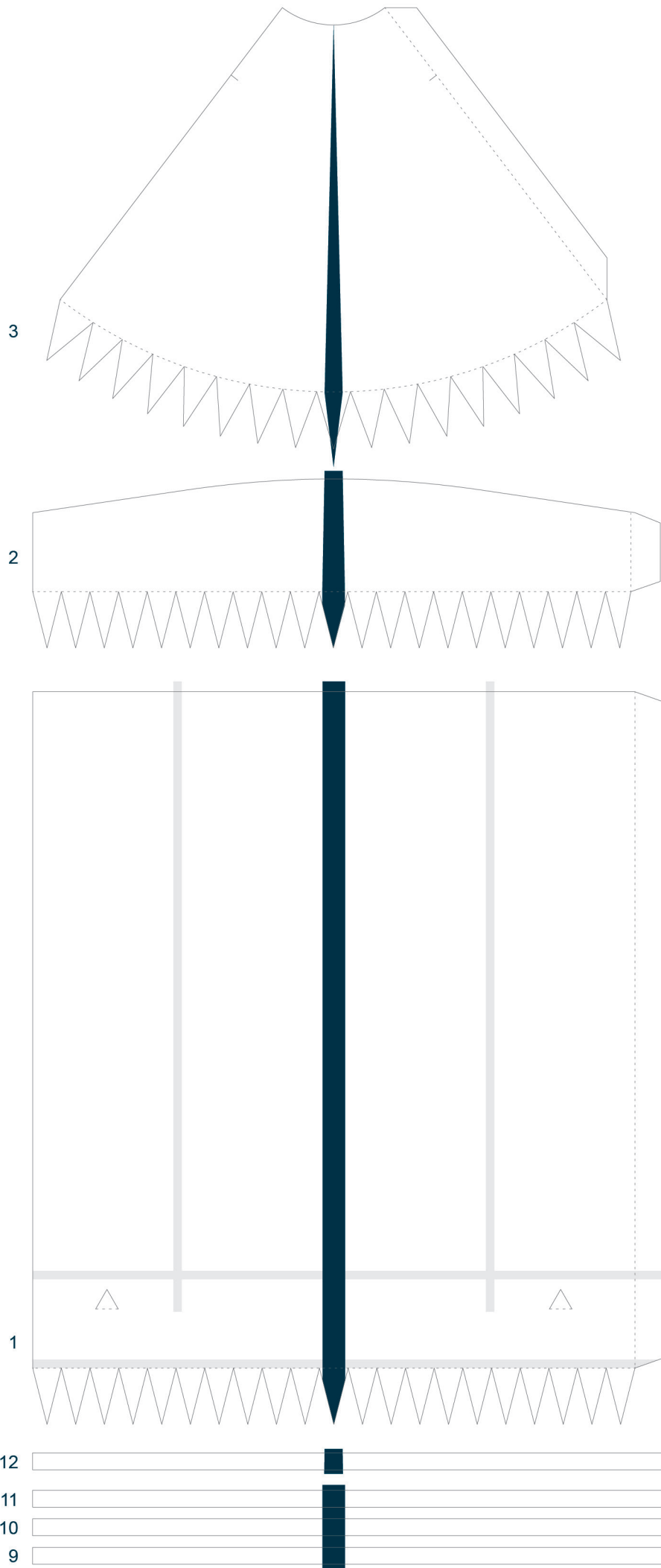




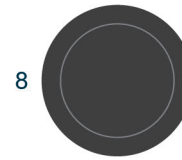
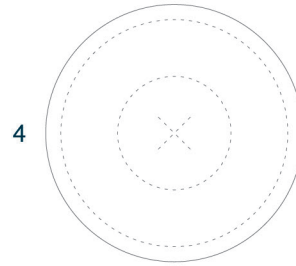
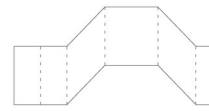


VULCAIN-2 ENGINE BACK

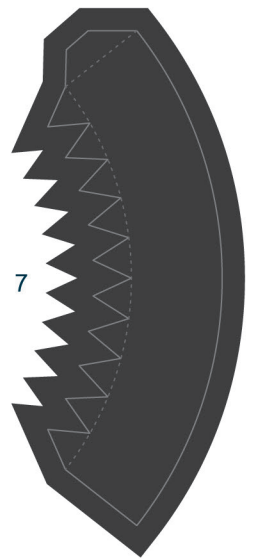
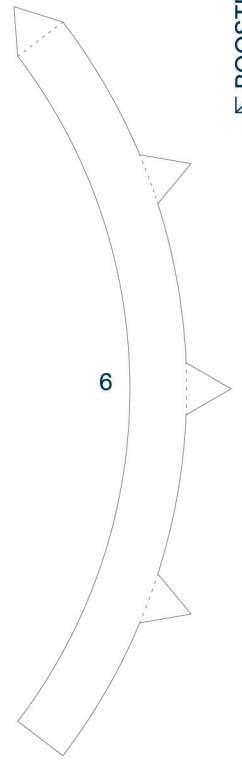
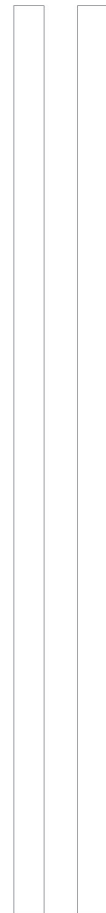




UPPER HOOK



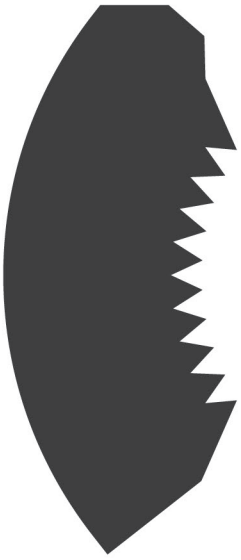
13 14

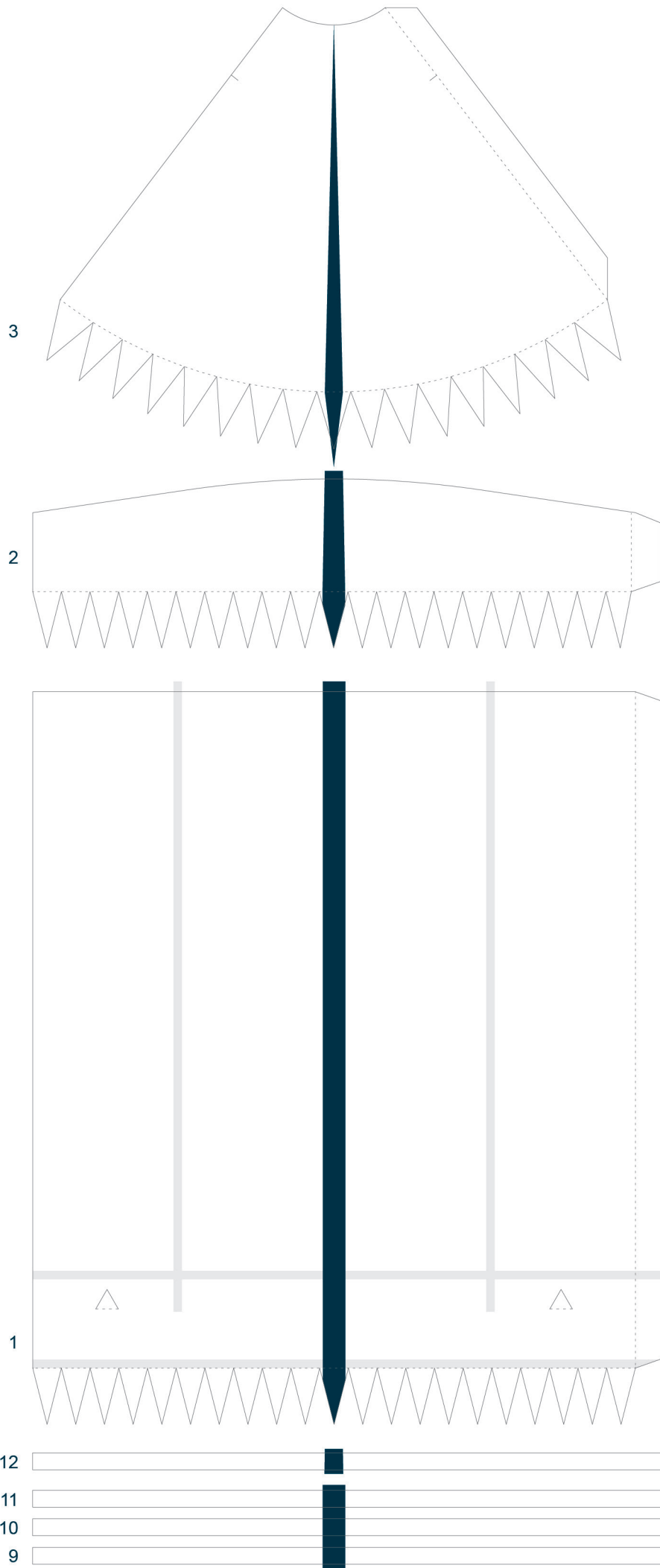


BOTTOM HOOKS

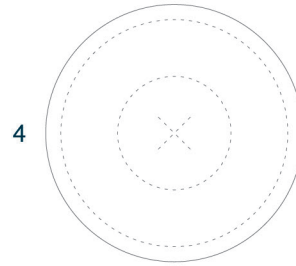
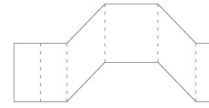


BOOSTER A

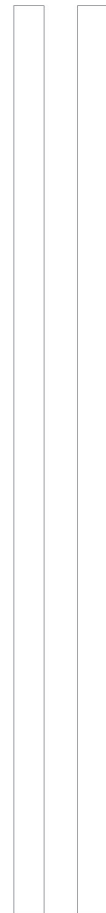




UPPER HOOK



13 14

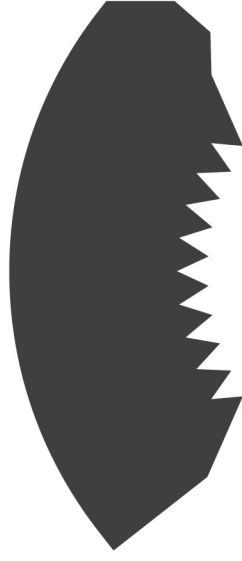


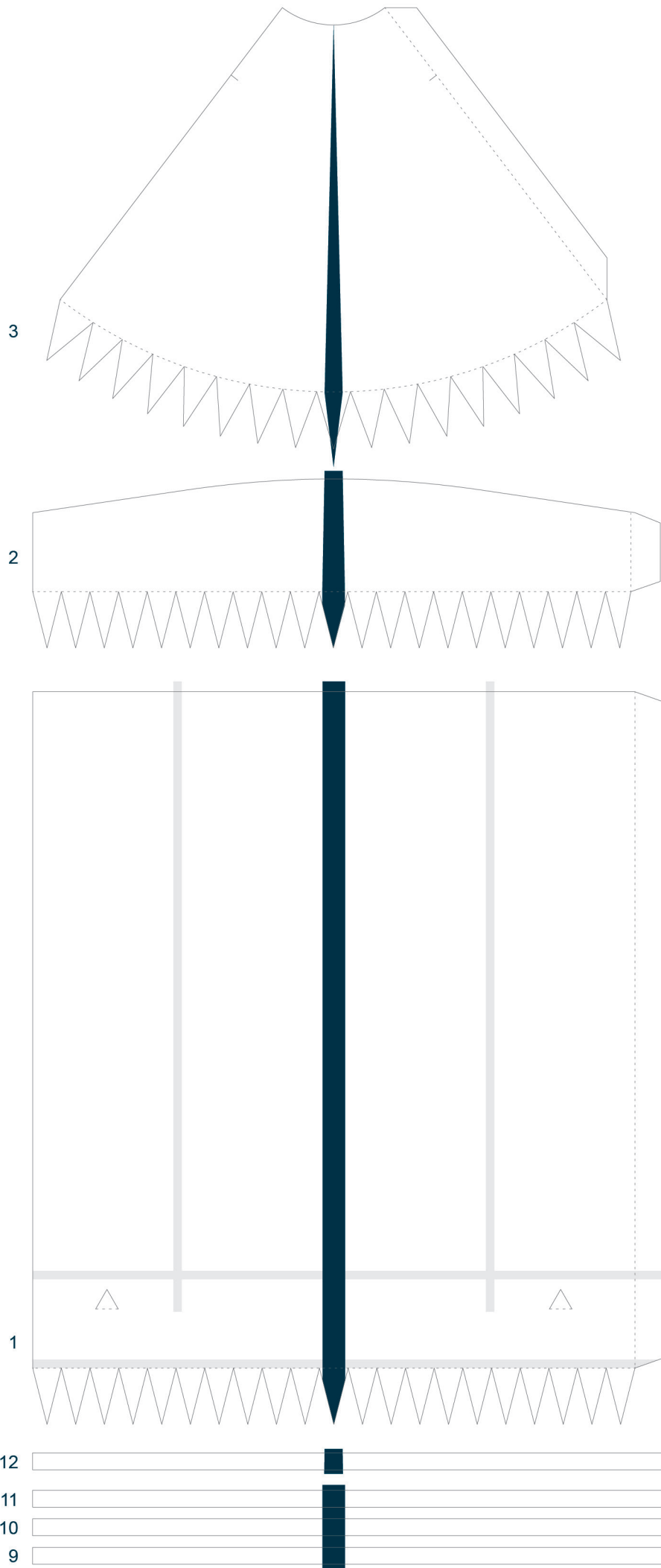
BOTTOM HOOKS



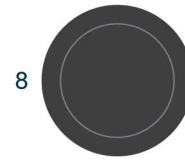
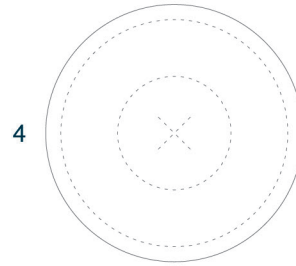
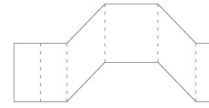
BOOSTER B

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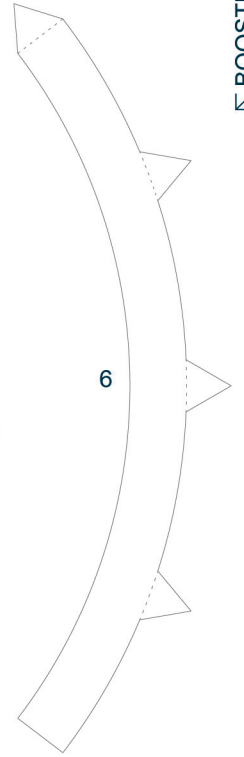
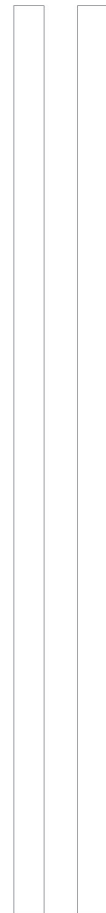




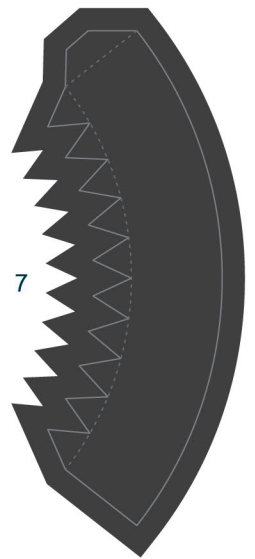
UPPER HOOK



13 14

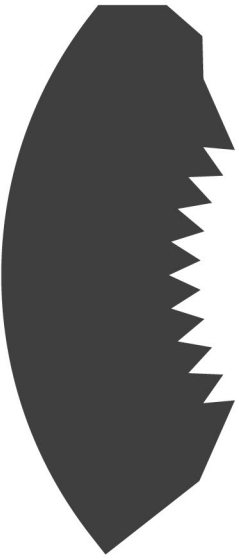


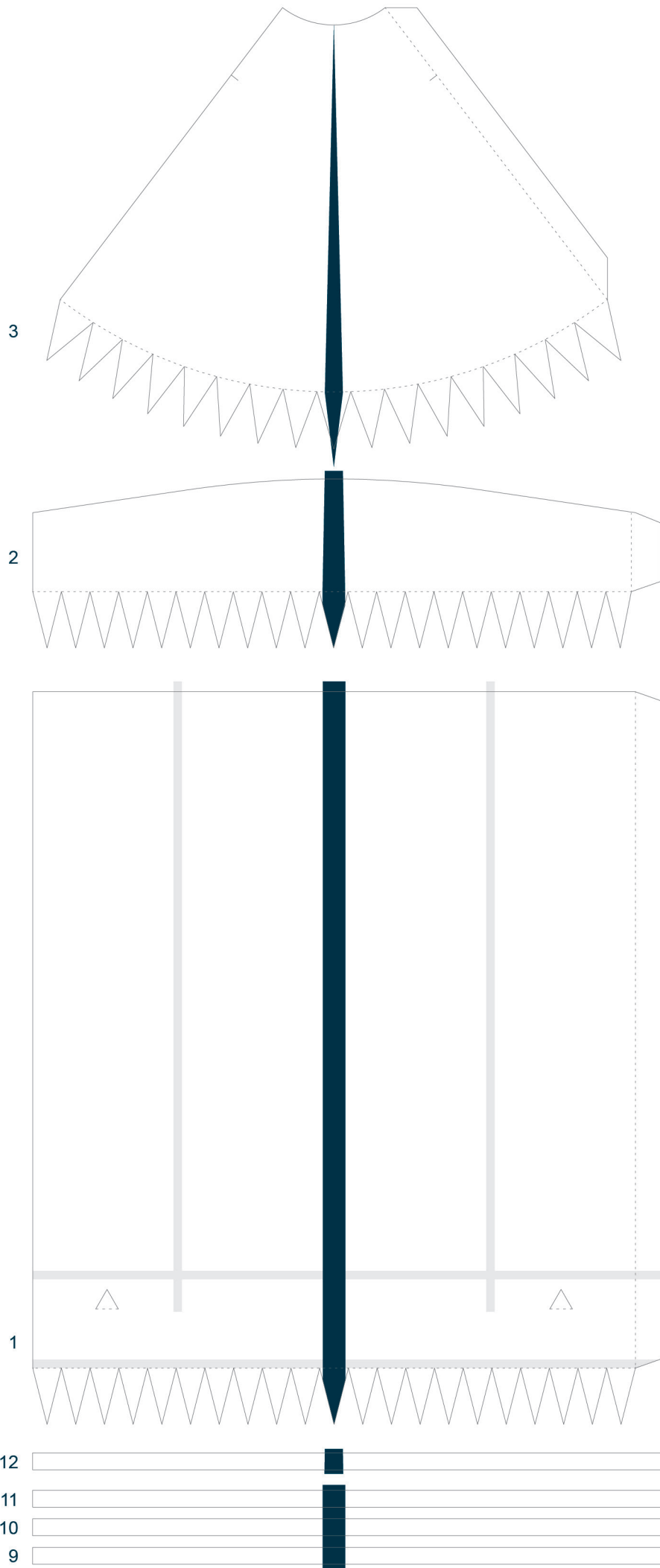
BOOSTER C



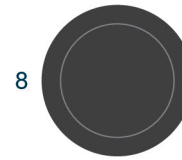
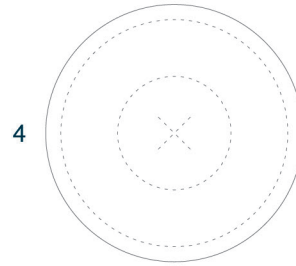
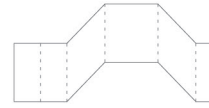
BOTTOM HOOKS



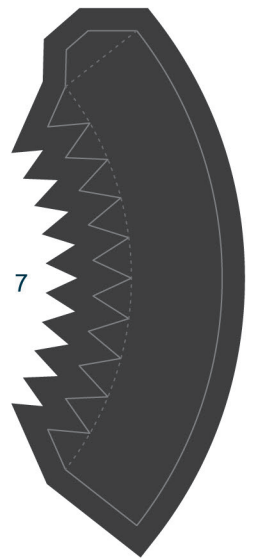
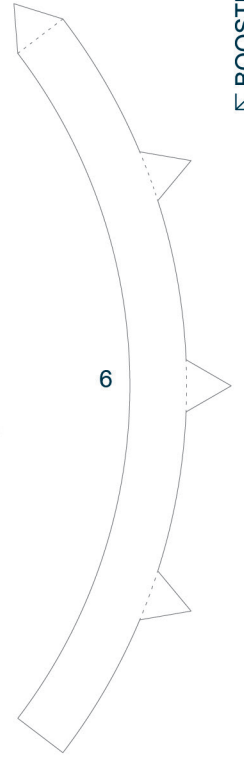
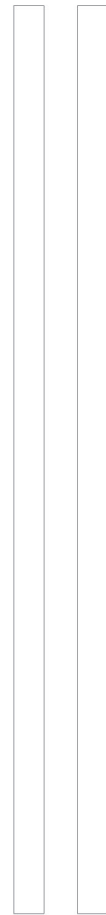




UPPER HOOK



13 14

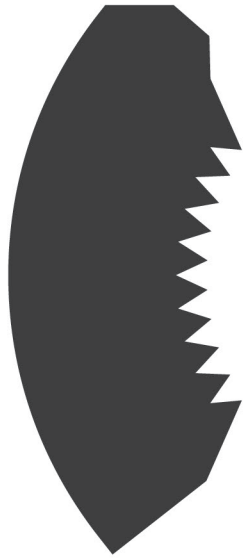


BOTTOM HOOKS



BOOSTER D

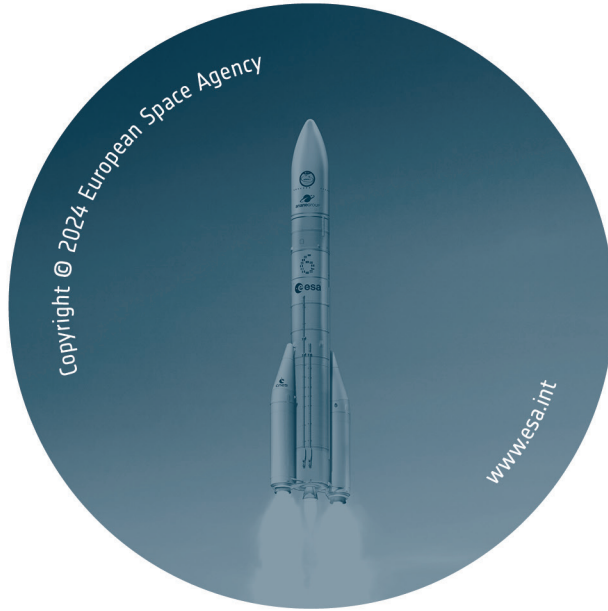
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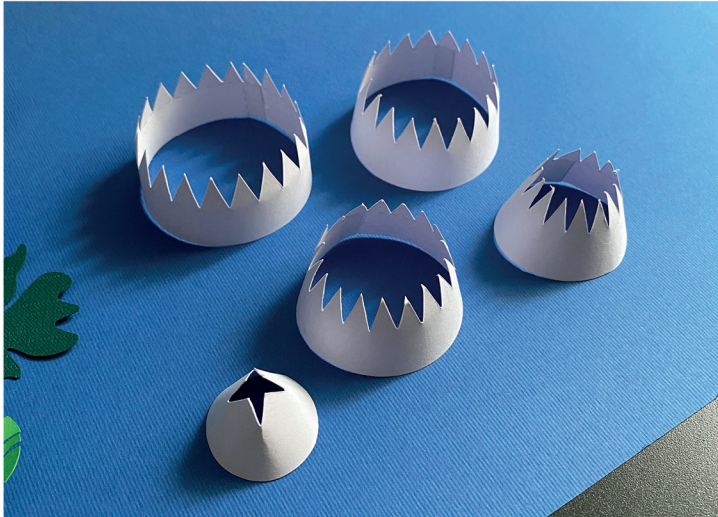
EXHIBITION LABELS

LABEL RIBBON





Assembly in pictures



Payload fairing construction



Payload fairing assembled



Booster construction

Assembly in pictures



SHOW OFF YOUR ARIANE 6 PAPER MODEL TO THE WORLD!

Share your photos on social media and join the community using **#MyAriane6**, **#esa** and **#Ariane6**. We can't wait to see your creation!

Main stage



Boosters and exhibition label



Fully assembled model

Printed on FSC-certified, biodegradable and recyclable paper.



