



Mafra Ring 03

Creator: Wojtek Burczyk (2022)

Diagrams: Wojtek Burczyk (2022)

(37.5° / 37.5° / 15.0° 30.0° / 60.0°)

W22003

Difficulty level: Simple, 14 modules.

Diameter 27.8 cm out of 10 cm squares.

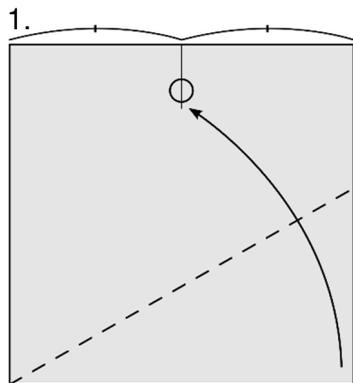
Recommended paper: any paper works fine,.

The model is derived from the Versailles Ring designed by Krystyna Burczyk.

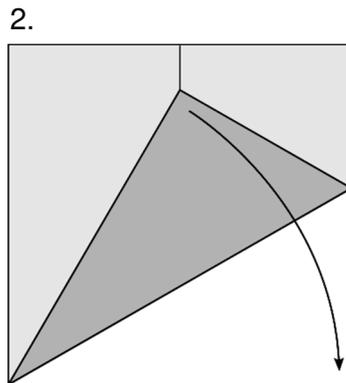
Module

We will start with a template to avoid unnecessary creases on the paper. The template saves also time. However all lines may be constructed and folded without the template.

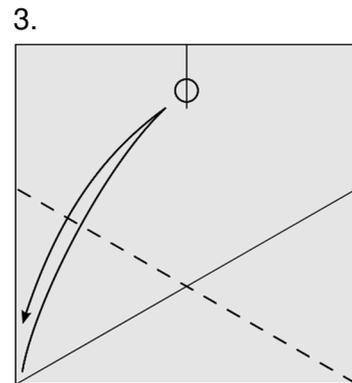
Make a template from a larger sheet of paper, the recommended side length of the template is two times larger than the side length of a sheet for a module.



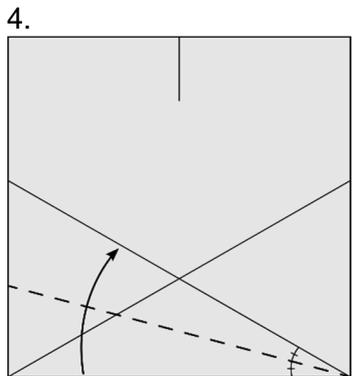
1. Fold a short line at the midpoint of the top edge and fold the bottom right corner of the paper to the line with folding line meeting the lower left corner (the right angle is divided into 60° and 30°).



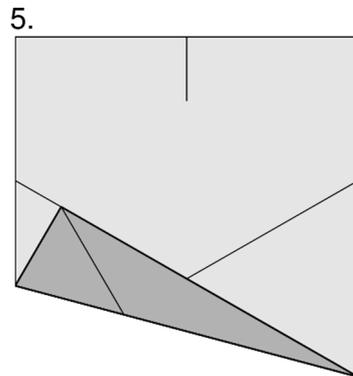
2. Unfold.



3. And repeat with the bottom left corner.

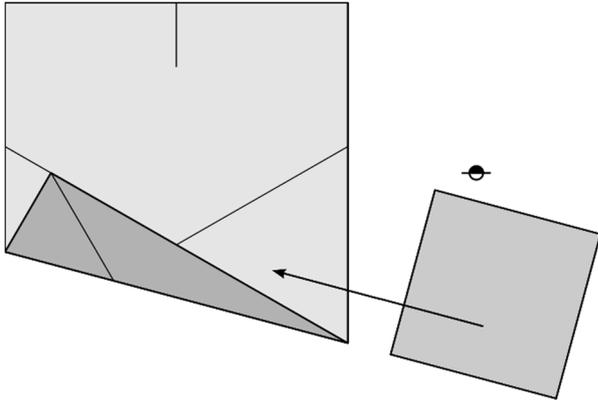


4. Fold a raw edge to the folded line (angle 15°).



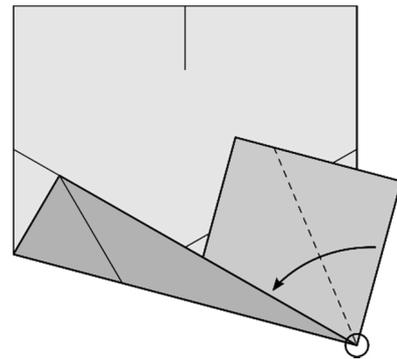
5. The template is ready.

6.



Place the template with the lower left corner folded and a square for a module right of the template, color side up. Insert the square into the pocket of the template.

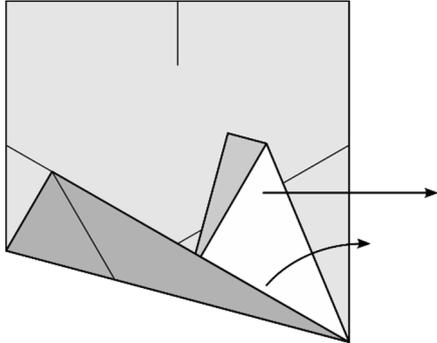
7.



Align the edge of the square with the folded edge inside the pocket. Align the marked corners.

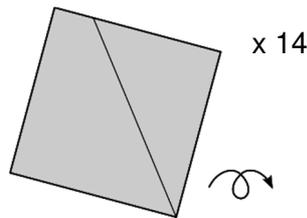
Fold an edge of the square to an edge of the template (angle 37.5°).

8.



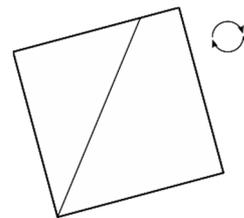
Unfold the flap and slide-out the square.

9.



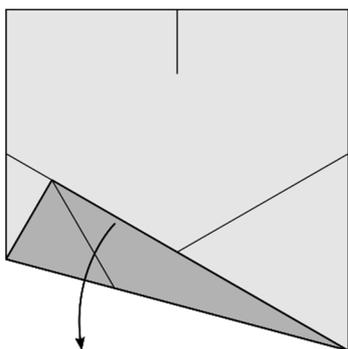
Fold all 14 squares the same way. Turn the paper over.

10.



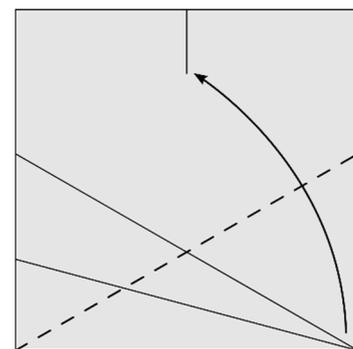
Rotate the square for a module to the position shown in the step 14.

11.



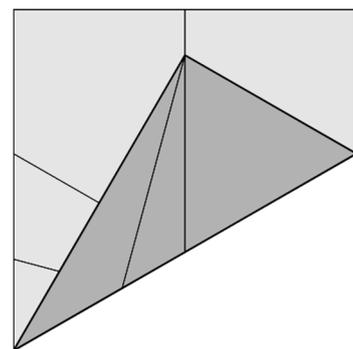
Rearrange the template. Unfold the flap of the template.

12.

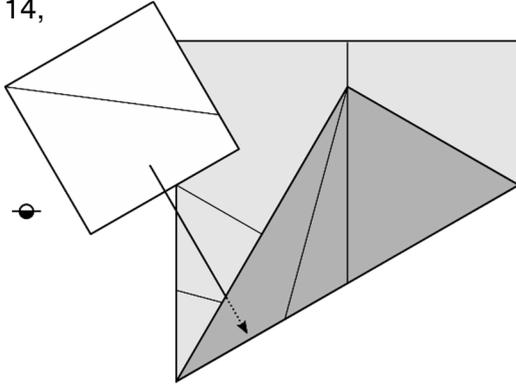


And fold the other flap.

13.



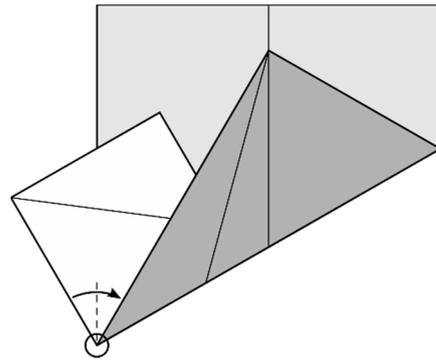
14,



Place the square, white side up, left of the template. The folded line should be almost horizontal.

Insert the square into the pocket of the template.

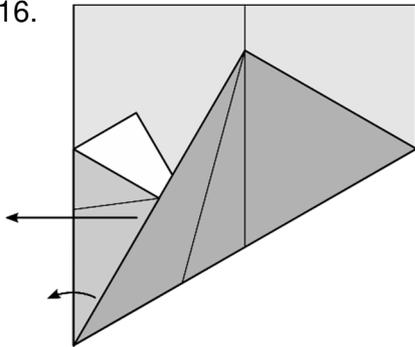
15.



Align the edge of the square with the folded edge inside the pocket. Align the marked corners.

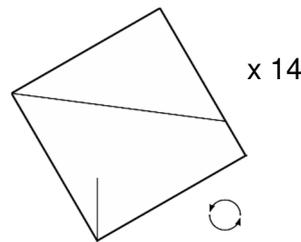
Fold an edge of the square to an edge of the template (angle 30°). Crease only about $1/3$ of the fold line (see also the step 19 for the reference).

16.



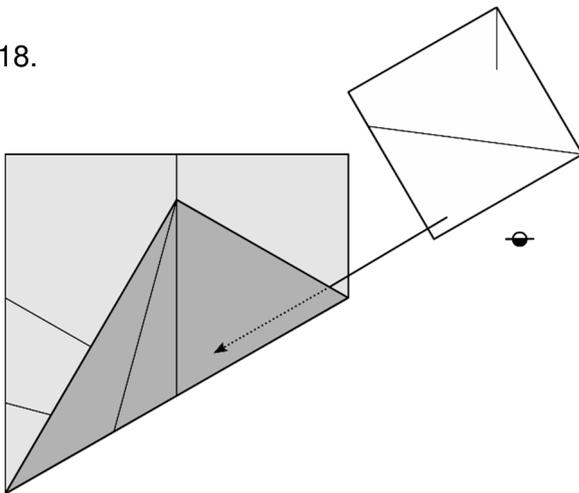
Unfold the flap and slide-out the square.

17.



Fold all 14 squares the same way.
Rotate the square by 180°

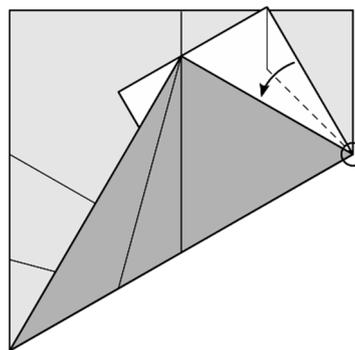
18.



Place the square, white side up, right of the template. The long folded line should be almost horizontal and the short folded line should be at the top corner.

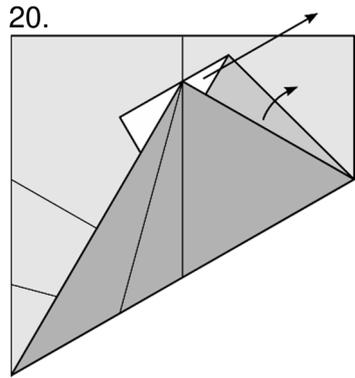
Insert the square into the pocket of the template. The long line hide completely in the pocket.

19.

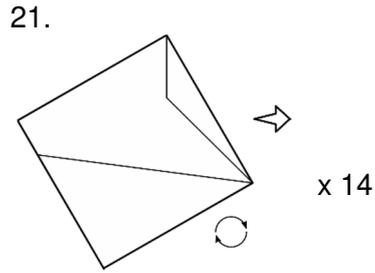


Align the edge of the square with the folded edge inside the pocket. Align the marked corners.

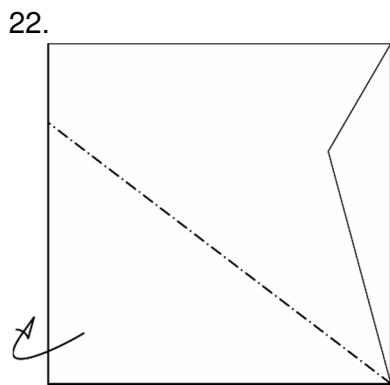
Fold an edge of the square to an edge of the template (angle 15°). Fold only to the short line at the top.



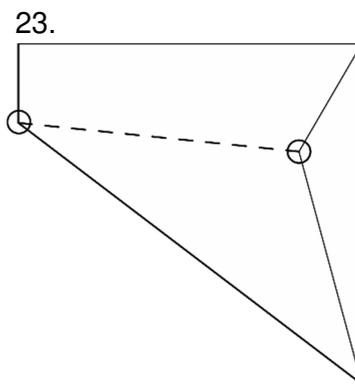
Unfold the flap and slide-out the square.



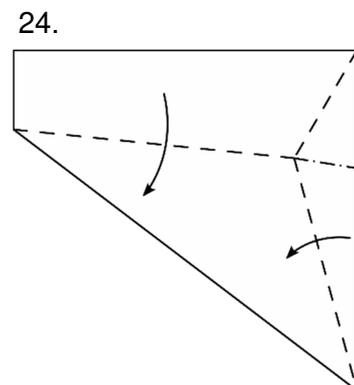
Fold all 14 squares the same way.



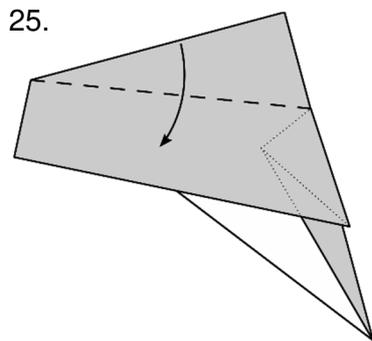
Fold backward over the existing line.



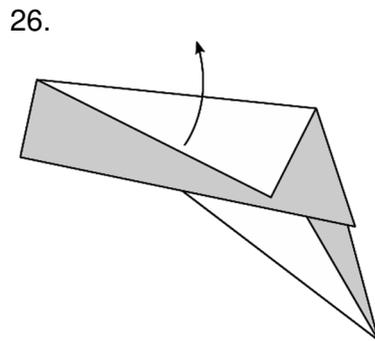
Fold between points.



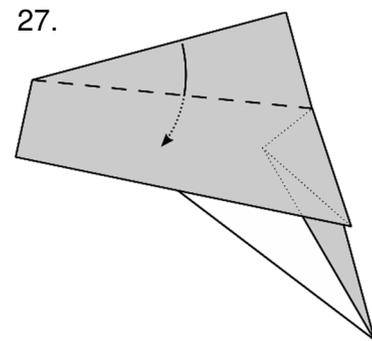
Fold a rabbit ear along the existing lines and collapse the module. A new line appears.



The collapsed module. Fold over the edge.

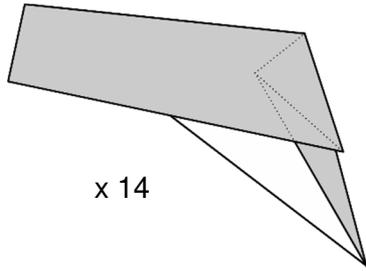


Unfold.



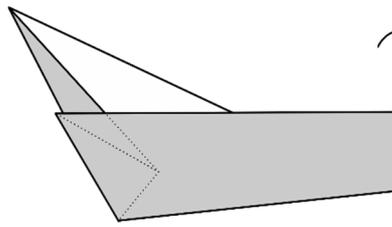
Tuck the flap into a pocket.

28.



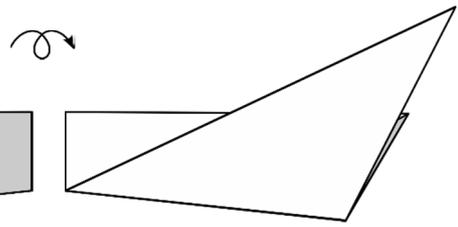
The module is ready.

29.



Back side.

30.

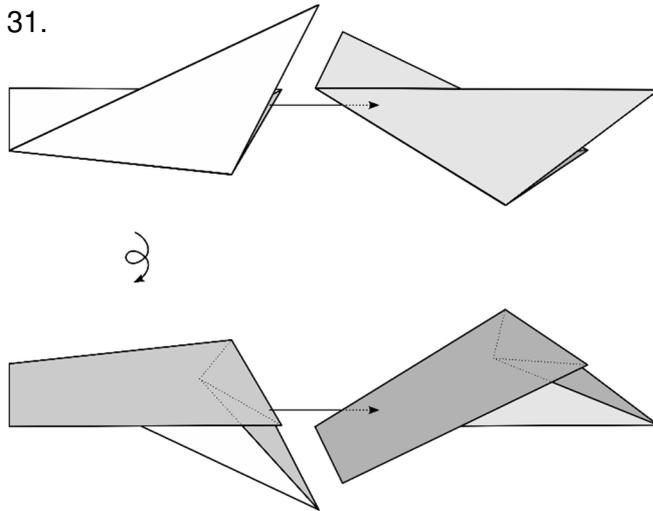


Front side.

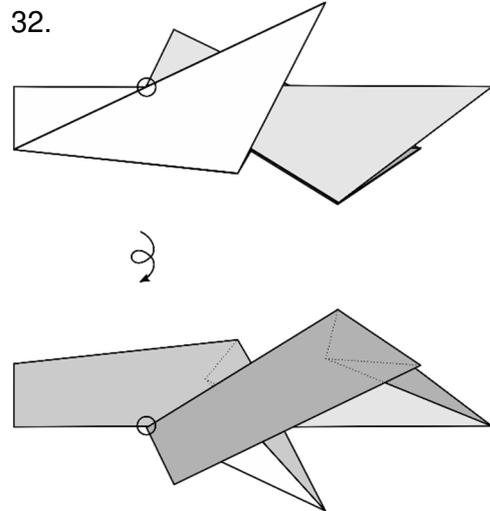
Joining

For better understanding of the assembly, both front and back side of the ring is shown in each step.

31.



32.

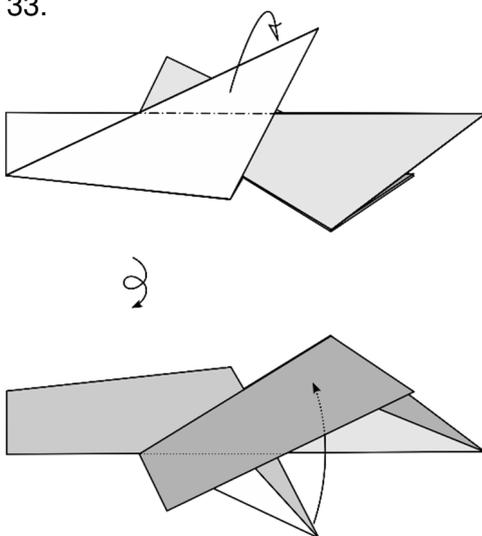


Align the marked points.

Align two modules as shown. The right module is rotated by 25.7° (1/14 of the full angle).

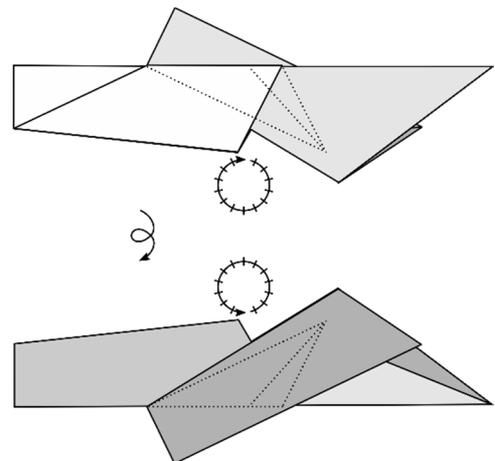
Insert the left module into the pocket of the right module as far as possible.

33.



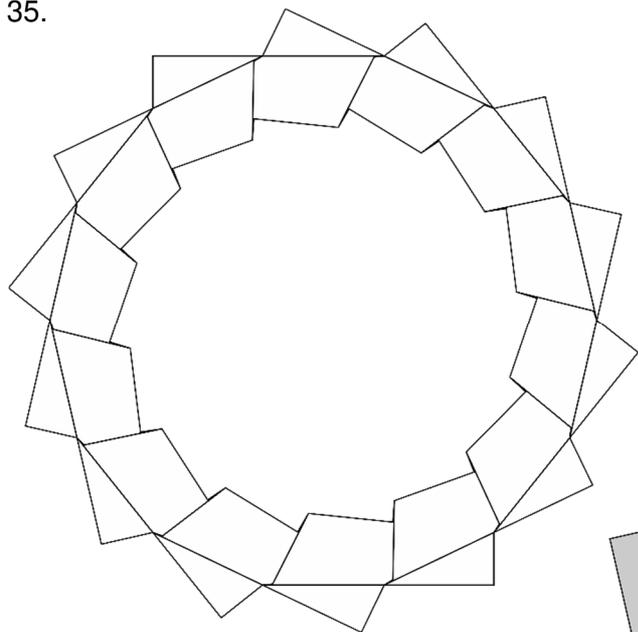
Fold the flap over a folded edge of the right module (the flap will not reach the bottom of the pocket).

34.



Continue to the right until the ring is closed.

35.



The finished ring
(front and back side).

36.

