Binary

Binary is a three-dimensional four-pointed star that I designed way back in 1988. It has been rediscovered by other paperfolders several times since.

These diagrams show you how to make modules that are equivalent to blintzed bird bases. The geometry of the design can be varied by altering the placement of the creases in steps 6 through 11 of these instructions. It is also possible to make an essentially similar design from two sheets of paper cut into Stars of David.

You will need two squares of paper, preferably in contrasting but complementary colours.

If you are using irogami begin with your paper arranged coloured side up.

1. Fold in half edge to edge, then unfold, in both directions.
2. Fold in half diagonally, then unfold, in both directions.

David Mitchell / Binary
3. Fold all four corners into the centre.

5. Turn over sideways.

6. Fold the top half of the right edge onto the lower right diagonal crease, then unfold. Make sure the new crease starts from the point marked with a circle and does not extend into the left half of the paper.

7. Repeat fold 6 three more times to create a rhombus of creases like this.

8. Repeat fold 6 four more times to create a second rhombus of creases at right angles to the first.
9. Fold the top half of the right edge onto the top right diagonal crease.

10. Fold the right half of the top edge onto the top right diagonal crease.

11. Repeat folds 9 and 10 on the other three corners.

12. Check that you have made all these creases.

13. Push the corners inwards in front so that the paper collapses into a bowl like form.

14. Fold the front edges of two opposite wings of the bowl inwards so that the paper collapses into the form shown in picture 15.
15. This is what the paper should look like now.

16. Make a second module in another colour. Turn the second module over sideways and place it on top of the first. The two modules should fit loosely inside each other.

17. Close the remaining wings of the first module around the front of the second module.

18. Close the wings of the second module around the back of the first module.

19. Press all parts of the modules together so that they fit neatly around each other. Binary is finished.