Darwin Yin Yang Modules and 6-part Cube

Designed by David Mitchell

These diagrams show you how to fold the Darwin Yin Yang module and how to use it to make a Darwin Yin Yang Cube. I use the term Yin Yang to describe a pattern in which a square is divided diagonally into white and coloured halves.

This 6-part cube is not the most attractive cube ever, but I found it interesting to design and construct.

Like all other parallelogram modules these modules can also be used to make more complex cubes, cube combinations and silverhedra. I have not experimented to find out how well these work or what the finished assemblies would look like.

The Darwin Yin Yang module and 6-part Cube were designed and first published in 2001.

The Darwin Yin Yang module is folded from a square which is first divided into a 3x3 grid. You will need another square of the same size to use as a template to help you achieve this division.
1. Fold the template in half upwards, crease, then unfold.

2. Fold both the top and bottom edges to the middle, crease, then unfold.

3. The template is finished.

4. Begin by laying your square on top of the template like this, making sure the corners are aligned to the edge of the template and the crease in the way marked with circles here.

5. Fold the right hand corner inwards as shown. Make sure the two squares don't slip out of alignment as you make this fold.
6. Open out the fold made in step 5 and remove the square from the template.

7. Fold the left hand edge onto the crease made in step 5, crease, then unfold.

8. Your paper is now divided into thirds. To divide the paper into thirds in the other direction as well, rotate the paper through ninety degrees and repeat steps 4 through 7.

9. This is the result. The paper is now divided into a 3x3 grid of smaller squares.
10. Fold the top right corner inwards as shown, then unfold. Do the same thing with the bottom left corner.

11. Fold all four corners inwards like this.

12. Fold the top edge downwards using the existing crease.

13. Make fold a using the existing crease. Fold b will happen automatically as you flatten fold a.

14. This is the result. Open out these two triangular flaps.

15. Fold the bottom left corner inwards using the existing crease.
16. Fold the top right corner of the front flap diagonally downwards using the existing crease.

17. Turn over sideways.

18. Fold in half downwards.

19. Fold the bottom left corner diagonally upwards in front of the other layers using the existing crease.

20. Turn over sideways.

21. Fold both the right and left points inwards as shown then open up at right angles.
22. This is what the finished module should look like. You will need six to make the cube.

23. Three modules go together to form one face of the cube like this.

24. All six modules go together in this pattern to create the 6-part Darwin Yin Yang Cube,