The Whirlpool Cube

In 2001 I spent some time experimenting with modular cubes and noticed that as the number of modules used to make a cube increases there is a tendency for the centre of the faces to sink inwards. I wondered whether I could turn this design weakness into a strength and experimented some more. The result was the Whirlpool Cube.

The modules for the Whirlpool Cube are a simple variation of the Corner-pocket Sonobe module. I have not played around to see what the result of using this particular variation in other configurations and combinations would be.

The Whirlpool Cube is made from twelve squares of irogami, paper that is coloured one side and white the other. The instructions show you how to make it using four squares in each of three colours but many other colourings are possible. Begin with your paper arranged white side up.

1. Fold in half upwards, then unfold.
2. Fold both the top and bottom edges into the centre.
3. Fold both the top left and bottom right corners diagonally inwards like this.

4. Open out the folds made in step 3.

5. Open out the folds made in step 2.

6. Make fold a then fold b using the existing creases. The result should look like picture 7.

7. Fold the sloping right edge of the front layers diagonally inwards as shown.

8. Fold the top corner of the front layer on the right hand side diagonally downwards as shown.
9. Fold the bottom corner out of sight behind.

10. Repeat step 6 on the left half of the paper then repeat steps 7, 8 and 9 as well.

11. Tuck the front layers (marked with a circle) into the pocket immediately behind them. This will also entail making a tiny fold in the bottom point.

12. The result should look like this. Fold all twelve modules to this stage. Turn over sideways.

13. Configure the modules by folding them in half at right angles.

14. Turn over sideways.
15. The finished module has two tabs and two pockets (marked with arrows here).

16. The twelve modules go together like this.

17. Each face of the Whirlpool Cube should resemble a vortex. The centres of the faces should sink naturally as you push the modules together but you can accentuate this by the judicious use of an index finger. The Whirlpool Cube is finished.