24-part Cubes from parallelogram modules

These diagrams show you how to make 24-part Cubes from Sonobe and Cornerpocket Sonobe modules using four modules in each of six colours. Many other modular course, possible.

The finished 24-part Corner -pocket Sonobe Cube is similar in appearance to a 12-part Sonobe Cube, and can be coloured in all the same ways. This would, however, be rather wasteful



of the effort of folding the extra modules.

In the 12-part Sonobe Cube the visible surface of each module is shared between two faces of the cube whereas in the 24-part cube visible surface of each module only forms part of one face. This means that, in terms of the modular colourings, each face is independent of each other, which greatly increases the possibilities available for varying the design.

The basic form of the various modules is diagrammed elsewhere on this site.

Michael Naughton discovered the 24-part Sonobe Cube either in or sometime prior to 1989 and included it in his notes on uses of the Sonobe module, first published in that same year. This may well have been the first discovery of this design.

From Sonobe modules



1. Begin by turning your first module over sideways.



3. The finished module should look like this. You will need four in each of six contrasting but complementary colours.



2. Fold the bottom left point inwards as shown then unfold to right angles.



4. The arrows indicate the location of the pockets.



5. Four modules go together to form one face of the cube like this.



6

6. Two further modules can be added like this to create a corner. Continue adding modules in a similar way until the cube is complete.

3

5

7



7. The finished six colour 24-part Letterbox Cube should look like this. Each of the colours forms a continuous band around the cube.

8

8. This is what a 24-part Sonobe or Darwin cube would look like if you made it from eight modules in each of three colours with each colour arranged in a double band around the cube.

From Corner-pocket Sonobe modules



1. Begin by turning your first module over sideways.



2. Fold the bottom left point inwards as shown then unfold to right angles.

3



3. The finished module should look like this. You will need four in each of six contrasting but complementary colours. 4

4. The arrows indicate the location of the pockets.

5

7



5. Four modules go together to form one face of the cube like this.



6

6. Two further modules can be added like this to create a corner. Continue adding modules in a similar way until the cube is complete.



7. The finished six colour 24-part Cornerpocket Sonobe Cube will look like this.