6-Part Cubes from Sonobe and Corner-pocket Sonobe modules

These diagrams show you how to make 6-part Cubes from Sonobe and Corner-pocket Sonobe modules.

The Sonobe module and the 6-part Sonobe Cube were both first discovered by Mitsonobu Sonobe sometime in the late 1960s.

I found the Corner-pocket version for myself, in 1987, before I had seen the original Sonobe module design, but I have since discovered that it had previously appeared in Origami for the Connoisseur by Kunihiko Kasahara and Toshie Takahama, which was published in Japanese in 1985 and in English in 1987. In this book the module that I call the Corner-pocket Sonobe is called the Tomoko module.

The Sonobe and Corner-pocket Sonobe modules are the same size and shape when folded from the same size squares, which means that they can be used interchangeably to create Motley cubes.

All the 6-part Cubes explained in these diagrams are made from plain modules. However it is, of course, possible to fold them from contrast modules instead. If you combine contrast modules of different designs and colours you can easily create a multiplicity of irregularly patterned cubes.
6-part Cubes from Sonobe modules

1. You will need six basic modules for each cube, three in each of two contrasting but complementary colours. Begin by turning your first module over sideways.

2. Fold the right and left points inwards as shown, then unfold at right angles.

3. The finished module should look like this. You will need six to make a cube.

4. The arrows indicate the location of the pockets.

5. Three modules go together like this to form one face of the cube.
6. The other four modules are added in a similar way until all the arms are tucked fully into the pockets. This is the original Sonobe Cube.

7. Alternatively, you can arrange the modules so that modules of the same colour are adjacent to, rather than opposite, each other like this.
8. Or you can arrange the modules so that the modules of one colour are opposite each other while the modules of the other two colours are adjacent to each other, like this.

9. You could also create a 6-part Sonobe Cube using three modules in each of two colours like this.
6-part Cubes from Corner-pocket Sonobe modules

11. You will need six basic modules for each cube, three in each of two contrasting but complementary colours. Begin by turning your first module over sideways.

12. The finished module should look like this. You will need six to make a cube.

13. The arrows indicate the location of the pockets.

14. Three modules go together like this to form one face of the cube.
15. The other four modules are added in a similar way until all the arms are tucked fully into the pockets.

16. You can, of course, also make Corner-pocket Sonobe Cubes using any of the other colourings that are possible using Sonobe modules.