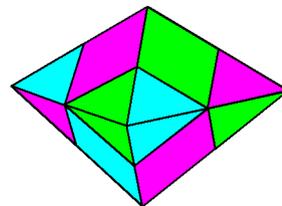
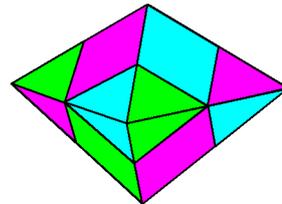


Alpha and Beta Sonobe 6-Part Silverhexahedra

It is logical that if you can make 12-part Sonobe Cubes you can also make 6-part Sonobe Silverhexahedra.

Author Meenakshi Mukerji mentioned this possibility in her 2007 book *Marvellous Modular Origami* but left it as a puzzle for her readers, only publishing the solution in 2015 in issue 28 of *The Fold*. As far as I know the beta module version has not been published before.

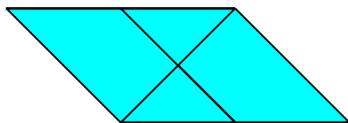


The alpha and beta versions are identical in appearance, though not, of course, in their modular structure.

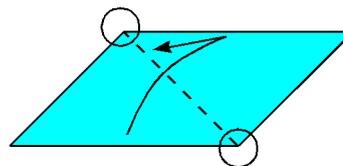
Both hexahedra are folded from six squares of paper. Diagrams for the basic form of the Sonobe module can be found elsewhere on this site.

From alpha modules

1



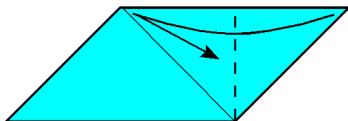
2



1. Begin by turning the basic module over sideways.

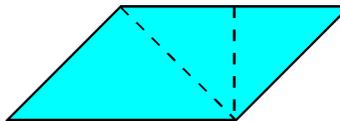
2. Fold in half diagonally from corner to corner as shown, then unfold.

3



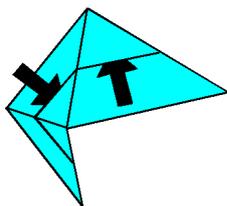
3. Fold the top right corner inwards as shown, then unfold.

4



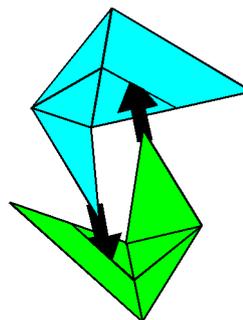
4. Use these creases to collapse the module into the shape shown in picture 5.

5



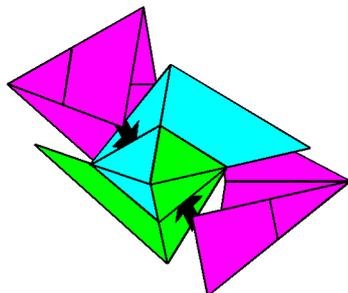
5. The finished modules should look like this. You will need six. The arrows indicate the location of the pockets.

6



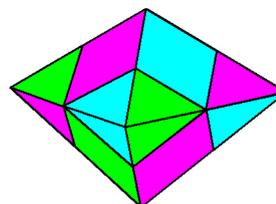
6. Begin the assembly phase by putting two modules of two different colours together like this.

7



7. Add a further two modules of the third colour like this. Continue adding further modules in the same way.

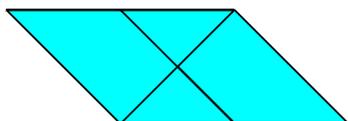
8



8. The finished alpha module silverhexahedron will look like this.

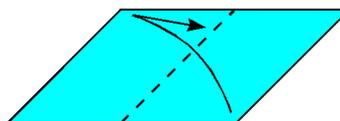
From beta modules

1



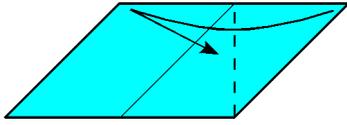
1. All three types of module are configured in the same way. Begin by turning your module over sideways.

2



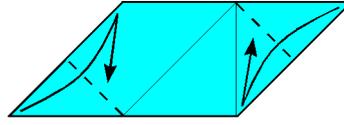
2. Fold in half diagonally, corner to corner, then unfold.

3



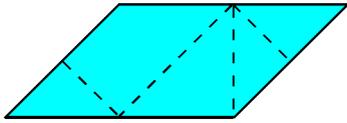
3. Fold the top right corner inwards as shown, then unfold.

4



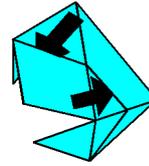
4. Fold the top right and bottom left corners inwards as shown, then unfold.

5



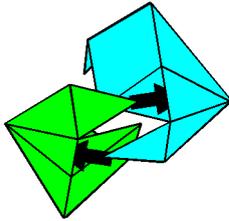
5. Use these creases to collapse the module into the shape shown in picture 6.

6



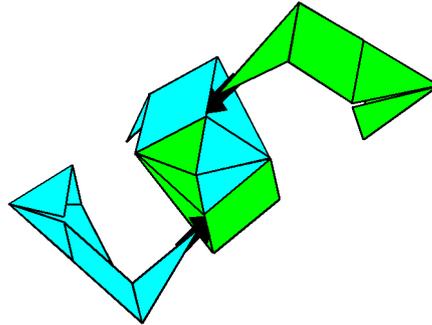
6. The finished modules should look like this. You will need six. The arrows indicate the location of the pockets.

7



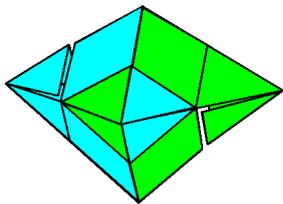
7. Begin assembling your tetrahedron by putting two modules of two different colours together like this.

8



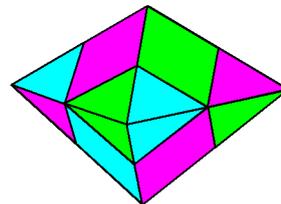
8. Add a further two modules of the same two colours like this.

9



9. Continue adding modules in this way until the design is complete.

10



10. The finished beta module silverhexahedron will look like this.