

How to build a *Braarudosphaera bigelowii* coccosphere



## Materials (from a 3D printer):



60 irregular elements

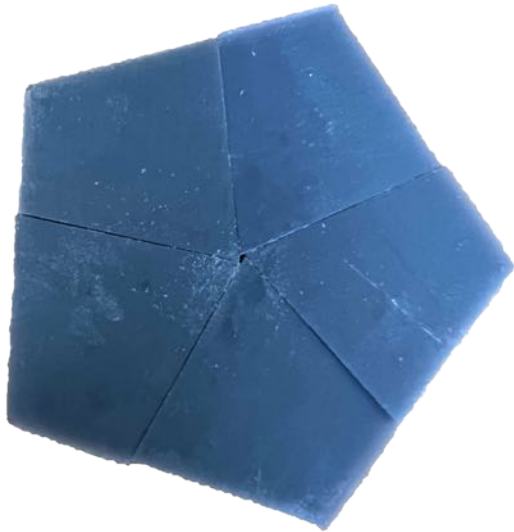


32 discoidal connecting pieces

Goal:

To assemble the 60 irregular elements to produce a regular pentalith dodecahedron, in 5 steps.

Notice that each side of the pentalith is composed of a long and a short section, such as in *Braarudosphaera bigelowii* (see figure on the right from Nannotax – J. Young ©).



Distal view



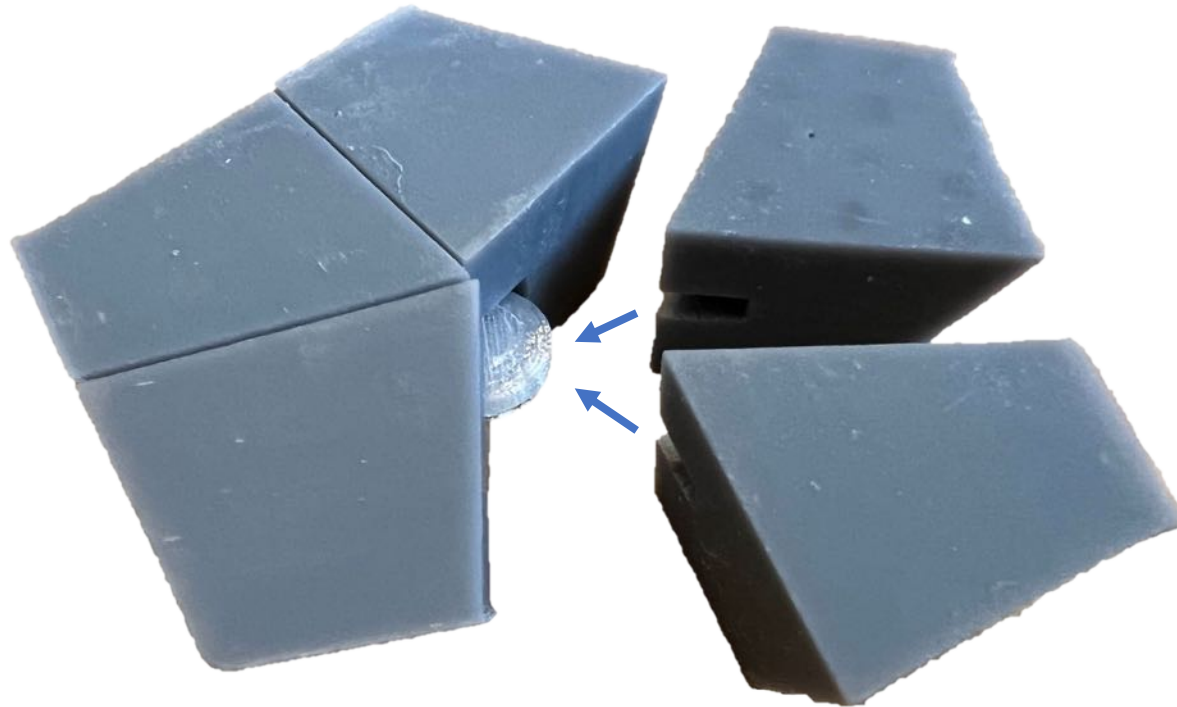
Proximal view



Coccosphaera of *B. bigelowii*

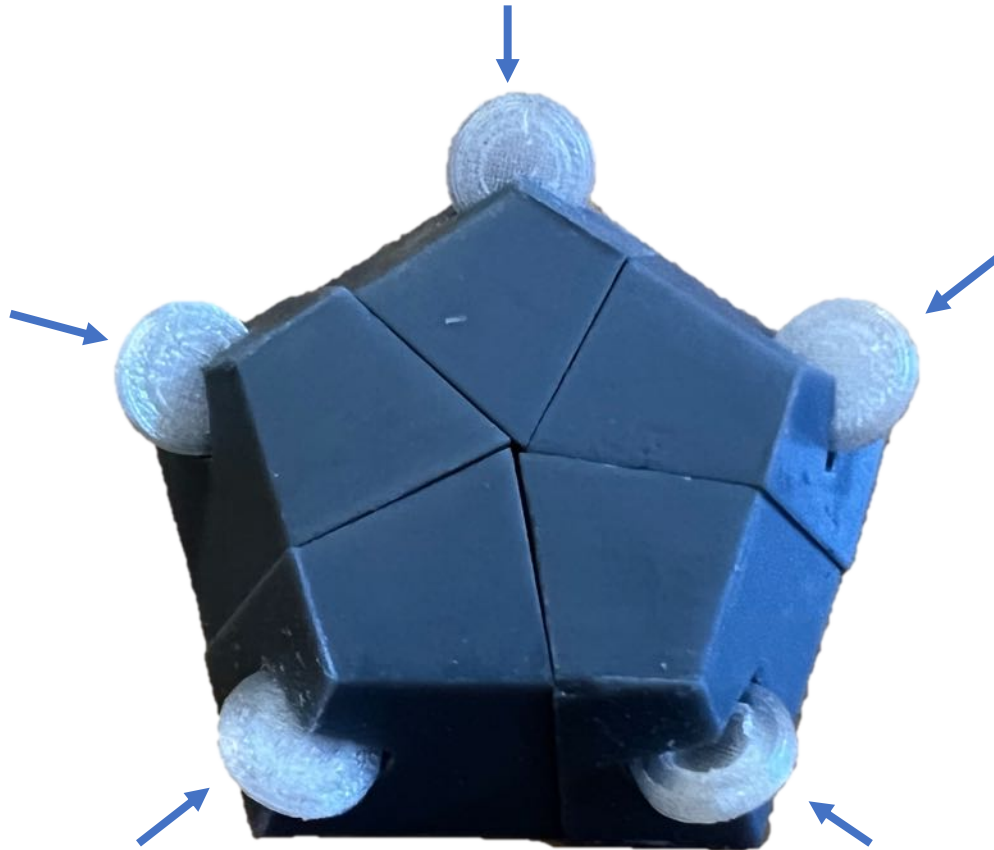
Step 1:

Insert a discoidal piece in the common inner slit as shown and join the 5 elements together to assemble the pentalith. Repeat it twelve times for each one of the twelve sides of the pentagonal dodecahedron.



Step 2:

Insert discoidal pieces around the lateral slits of one of the pentalihs.

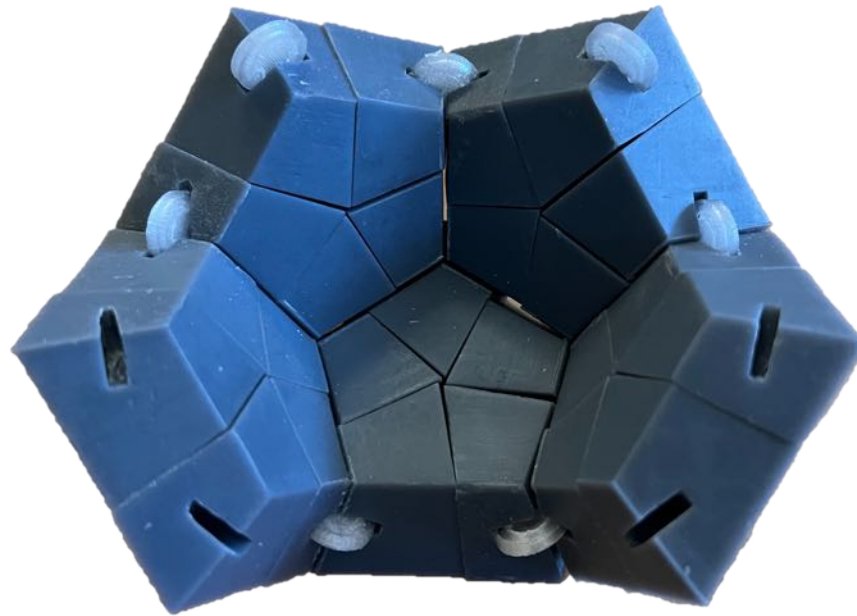


Step 3:

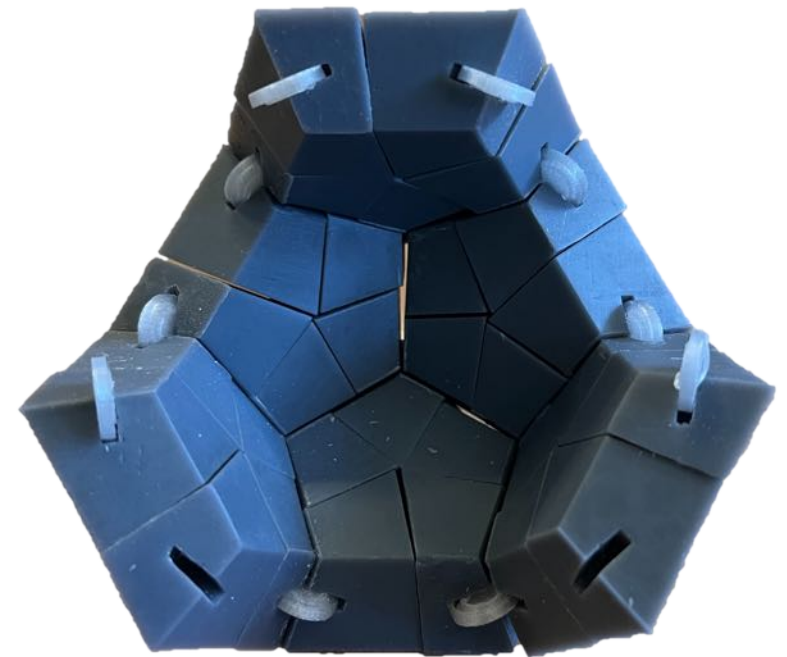
Gradually assemble the other pentaliths together interlocking by means of the lateral discoidal pieces.



3.1



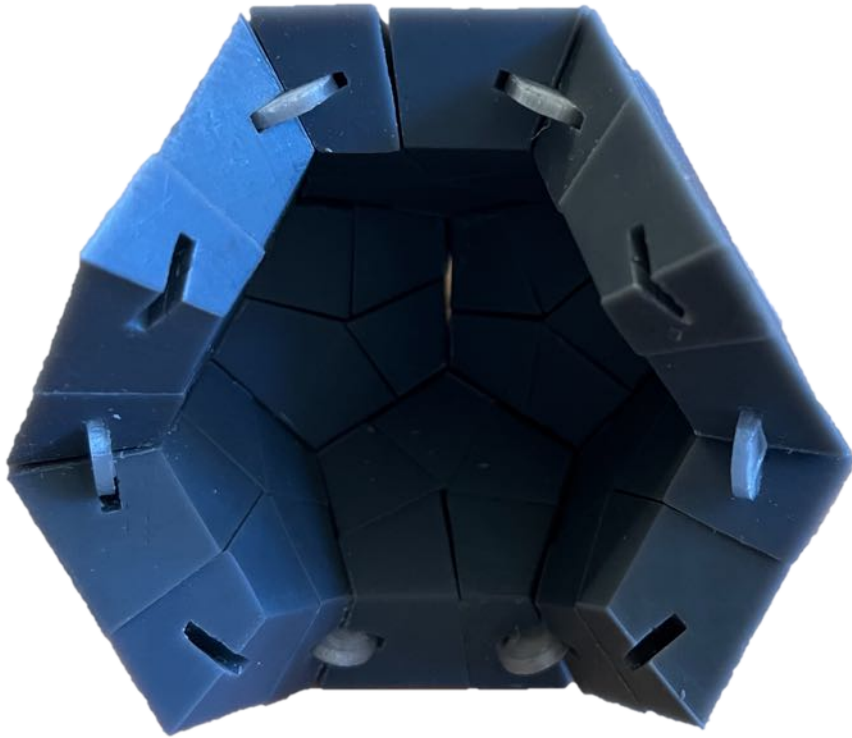
3.2



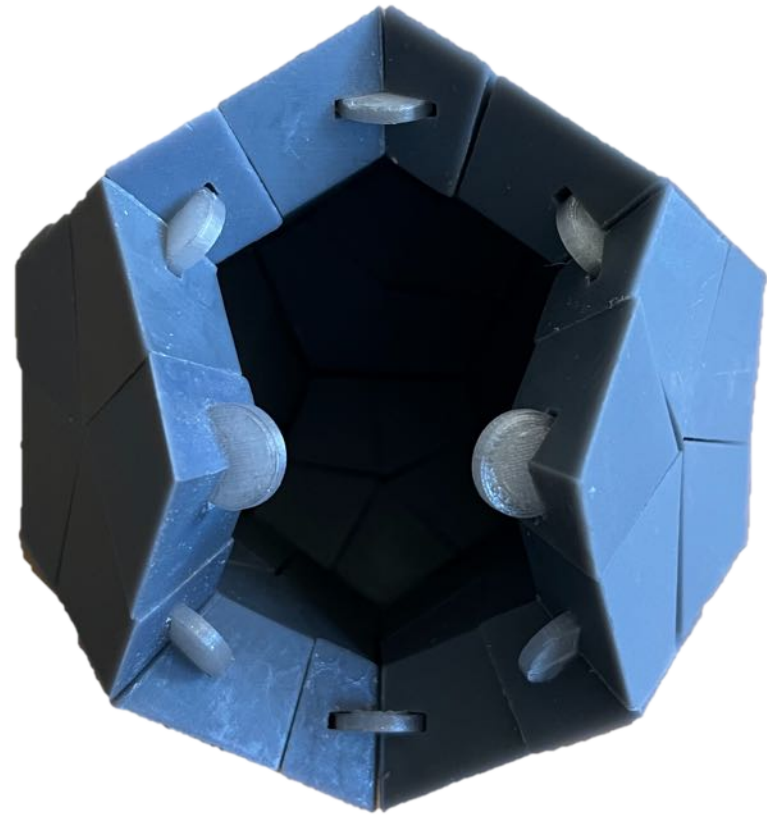
3.3

Step 4:

Continue assembling the remaining pentaliths together.



4.1



4.2

Step 5:

Assemble the last pentalith to final reconstruct *Braarudosphaera bigelowii*'s coccosphere.

