How-To Print and Set Up Frame

How-To Print Frame

Printer settings to be mindful of

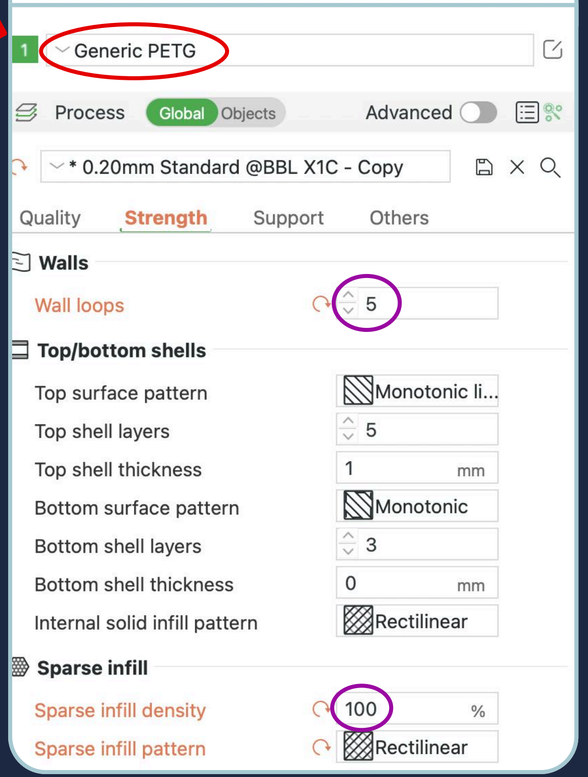
1. Import file into your preferred slicer program.

2. Settings to be mindful of:
   a. **Filament**. Recommended to use PETG or PETG-CF. These work well in saltwater.
   b. **100% infill vs. open model and gyroid infill**
   To prevent implosion in deeper waters, the parts should either be 100% infill **or** open to let water run through. Which setting you should use when depends on the desired durability, and which one we recommend for which part is specified in the guides on the next slides.

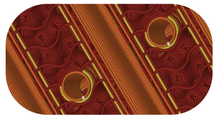
Note:
The examples are from the bamboo slicer but equivalent settings will exist on every slicer program. You only need to change the specified settings, the rest is fine as-is.

Airtight and 100% infill

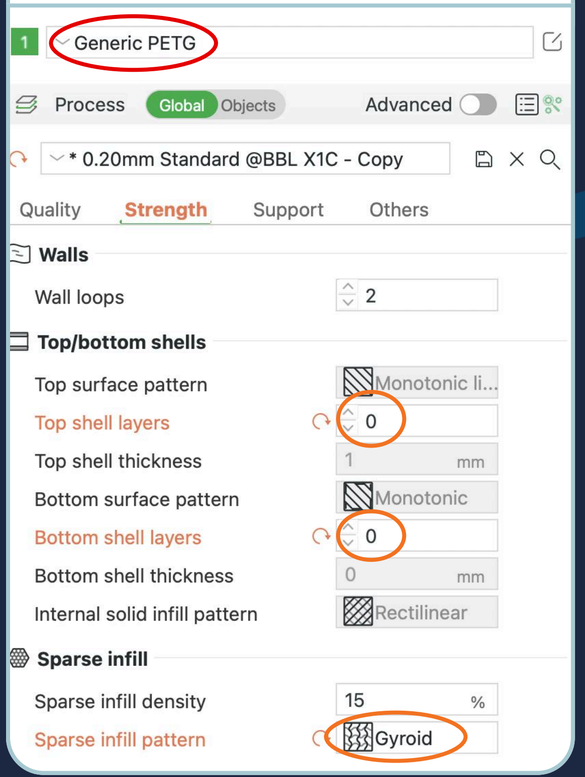
To make the parts airtight increase infill density to 100%. It is also recommended to set wall loops/ thickness to 5 for increased durability.



Open model and gyroid infill



To make an open solution, set top and/or bottom shell layer to 0 and change sparse infill pattern to “Gyroid”.



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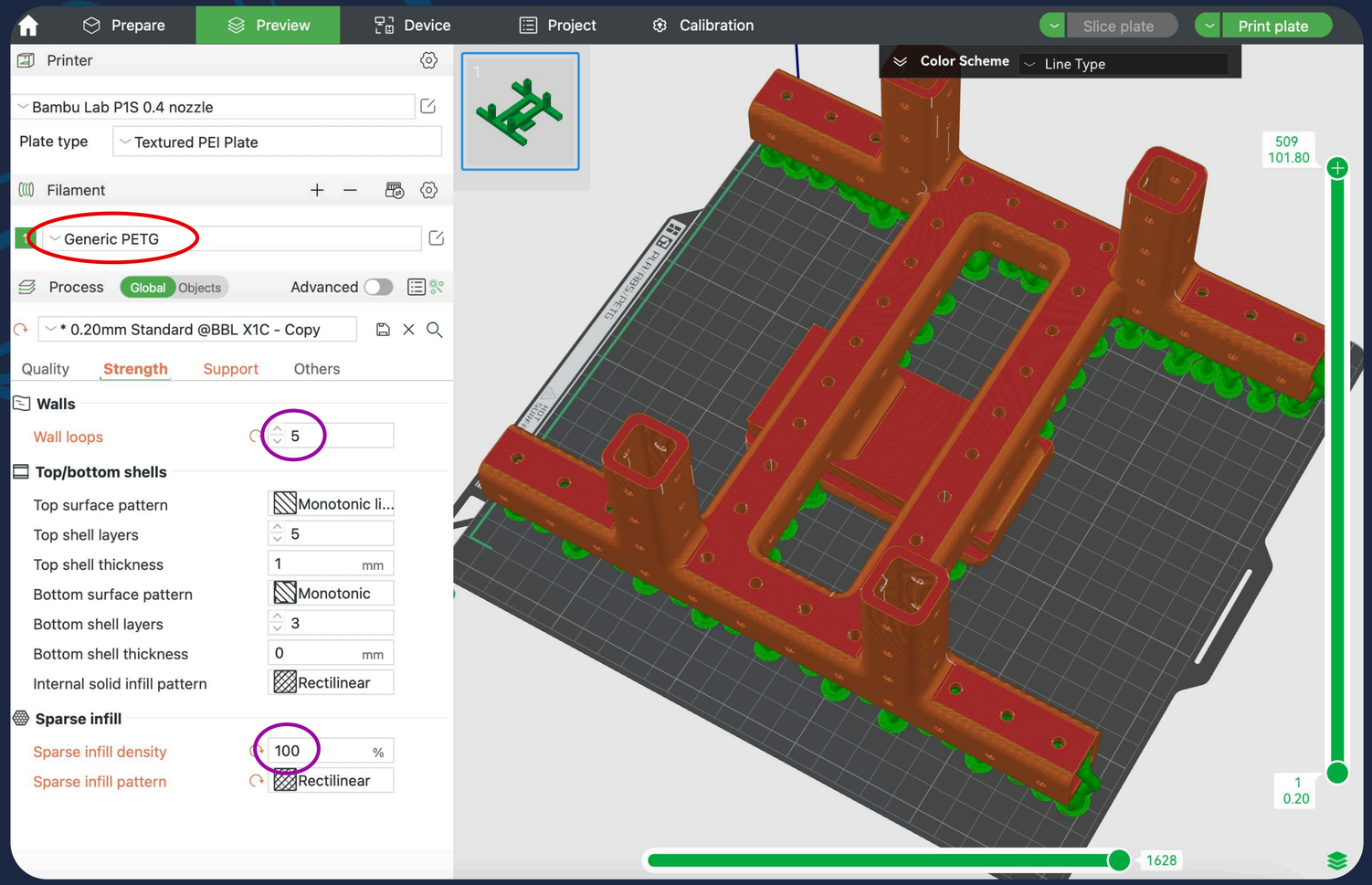
Middle piece



Amount: 1
Time: ca. 22 hours

Edited printer settings

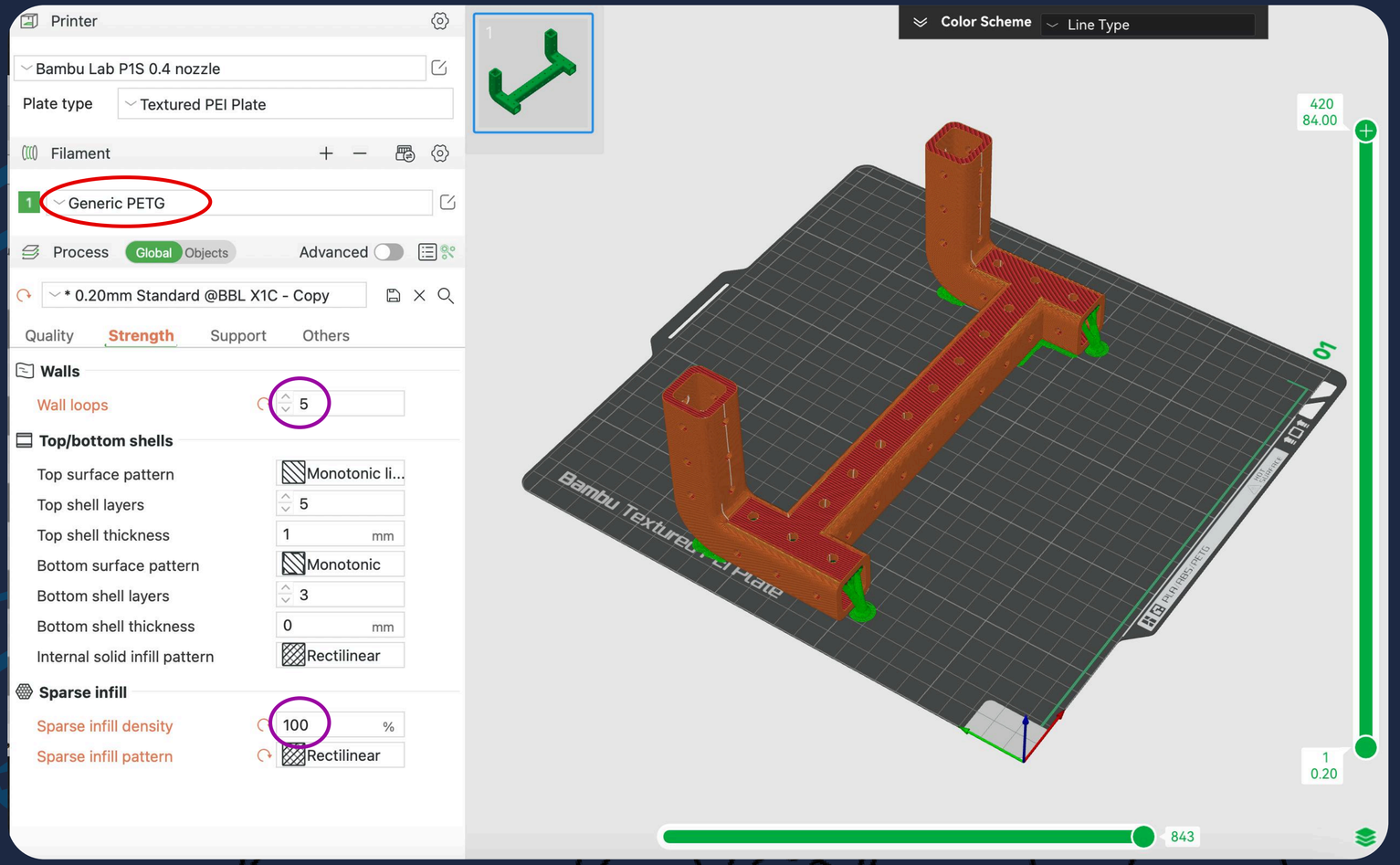
Recommended to use the
Airtight and 100% infill settings

Wall loop: 5
Sparse infill: 100%

(the rest is fine as is)

How-To Print Frame

Corners



Amount: 6
Time: ca. 6,5 hours per part
ca.39 hours together

Edited printer settings

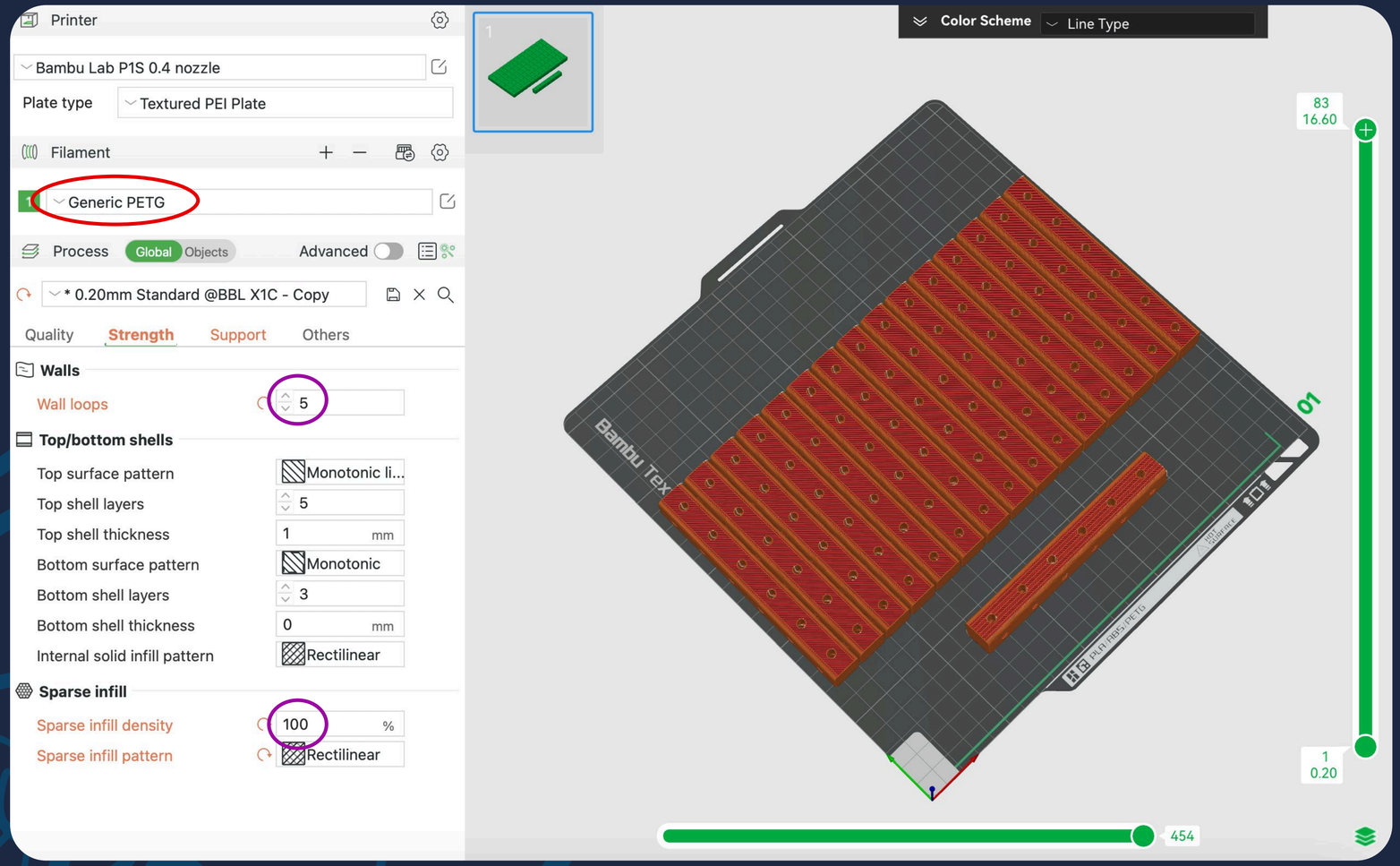
Recommended to use the
Airtight and 100% infill settings

Wall loop: 5
Sparse infill: 100%

(the rest is fine as is)

How-To Print Frame

Inside support



Amount: 16
Time: ca. 40 min per part or ca. 8 hours all together

Edited printer settings

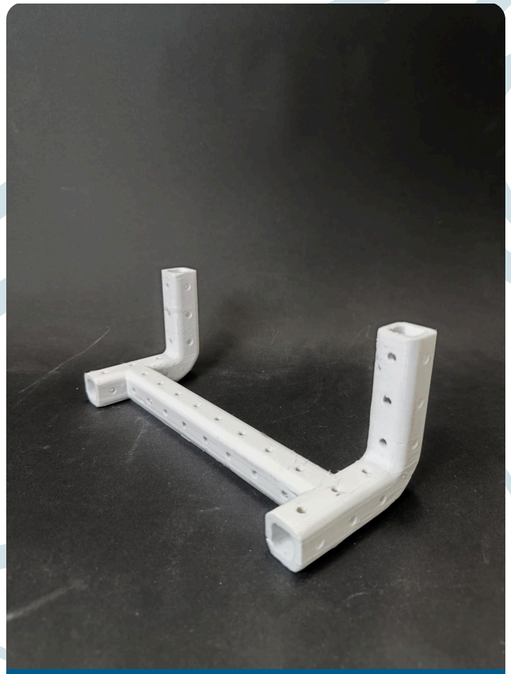
Recommended to use the **Airtight and 100% infill** settings

Wall loop: 5
Sparse infill: 100%

(the rest is fine as is)

How-To Set Up Frame

Pieces



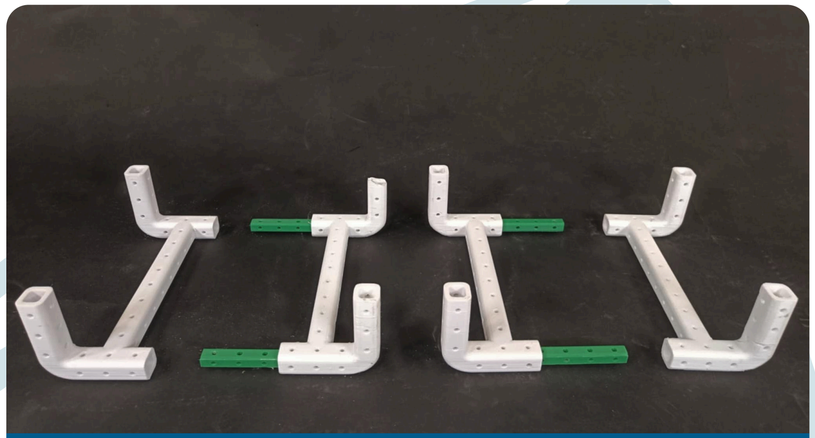
Corner pieces x 6

Top middle piece x 1

Connecting pieces x 16

How-To Set Up Frame

1st piece



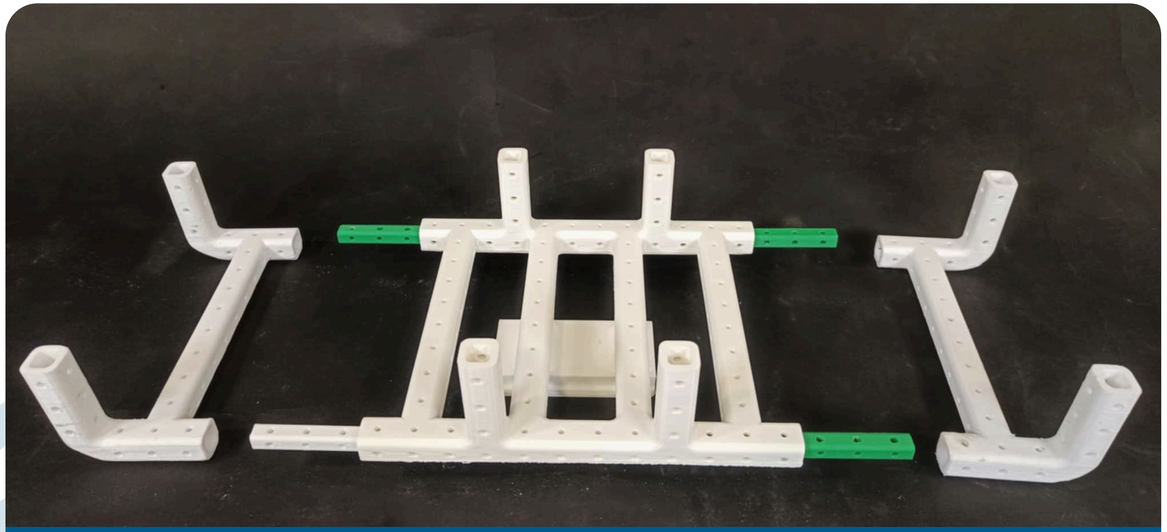
Step 1

Step 2

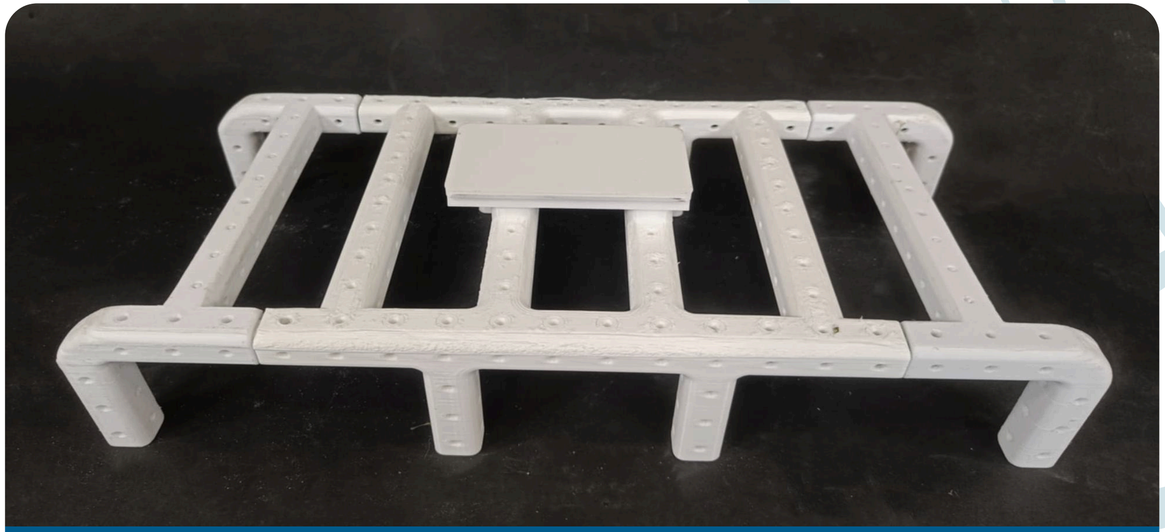
Step 3

How-To Set Up Frame

2nd piece



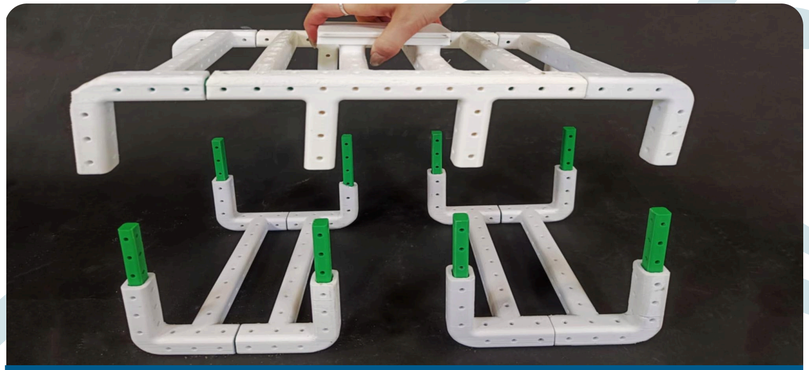
Step 4



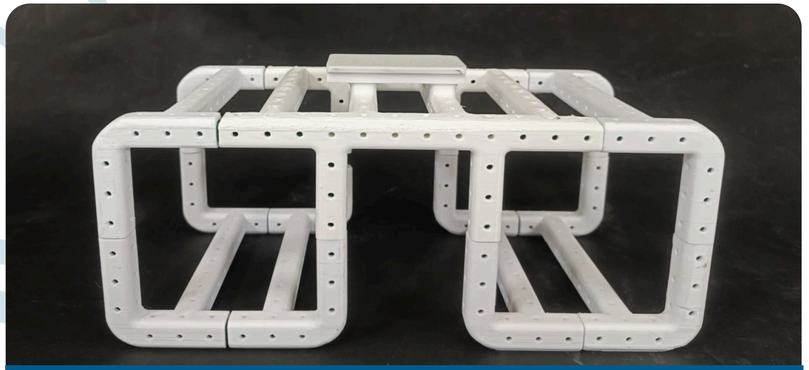
Step 5

How-To Set Up Frame

Connecting the pieces



Step 6



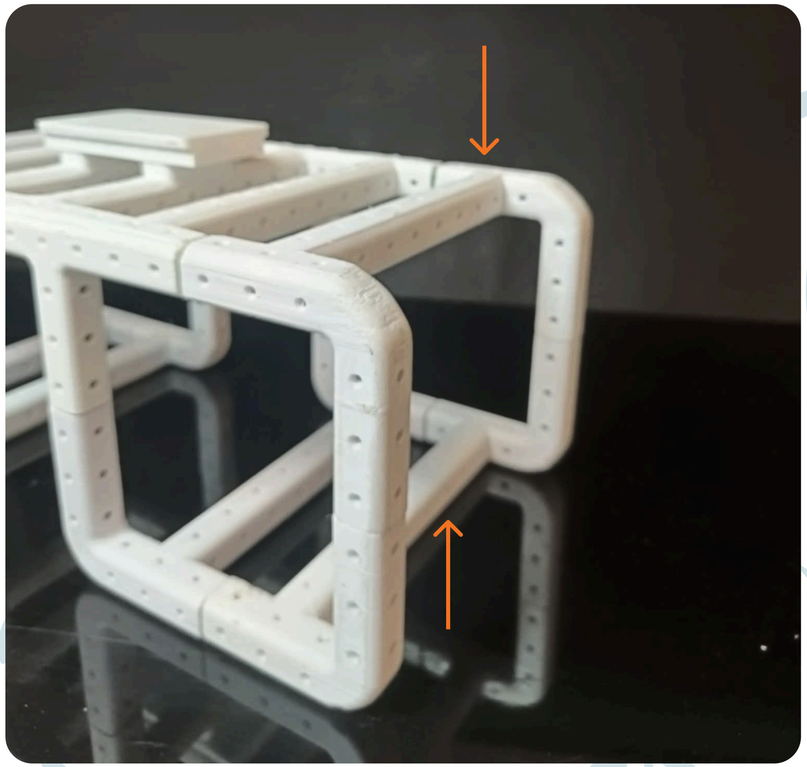
Step 7

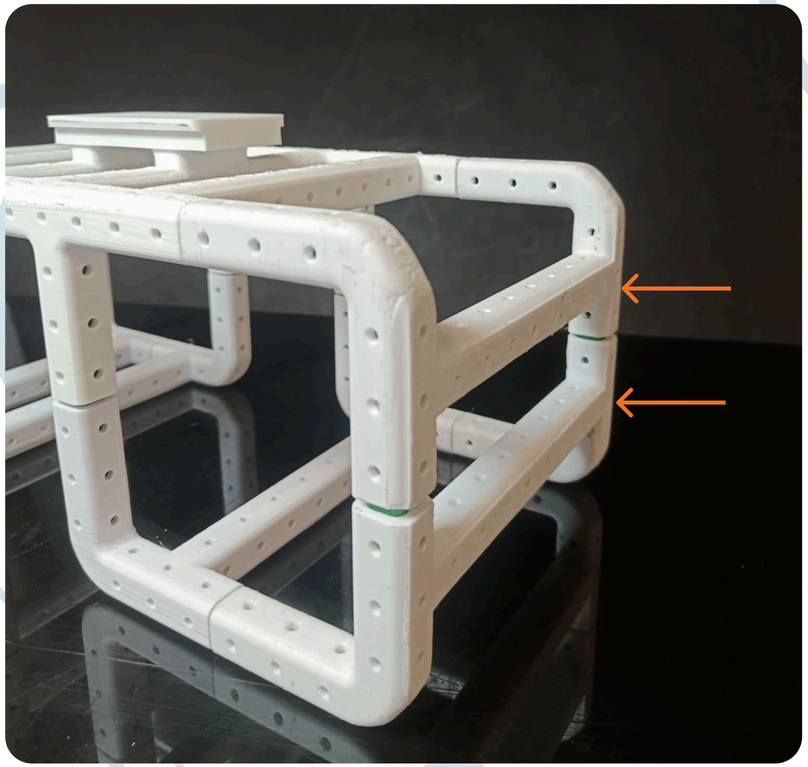
Step 8 – attach the feet

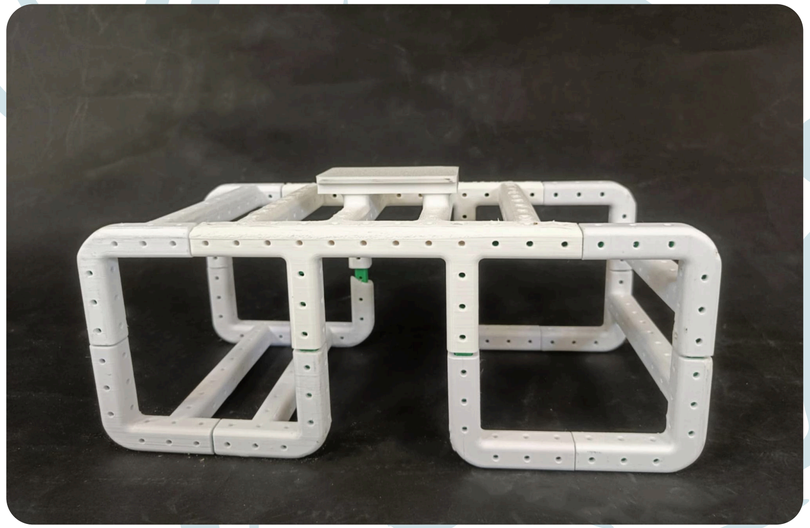
How-To Set Up Frame

Variations

You can flip the corner pieces to fit your needs, without the overall dimensions changing. Make sure to do this before fastening anything







How-To Set Up Frame

Screws and nuts

M4 screws of 35 mm and M4 nuts are good for fastening the frame. You need at least 24 screws.

screws: https://no.rs-online.com/web/p/socket-screws/1247349
nuts: https://no.rs-online.com/web/p/hex-nuts/0189579?gb=s