

PRINTING 3D

TUTORIAL

PAFSE: Partnerships for Science Education

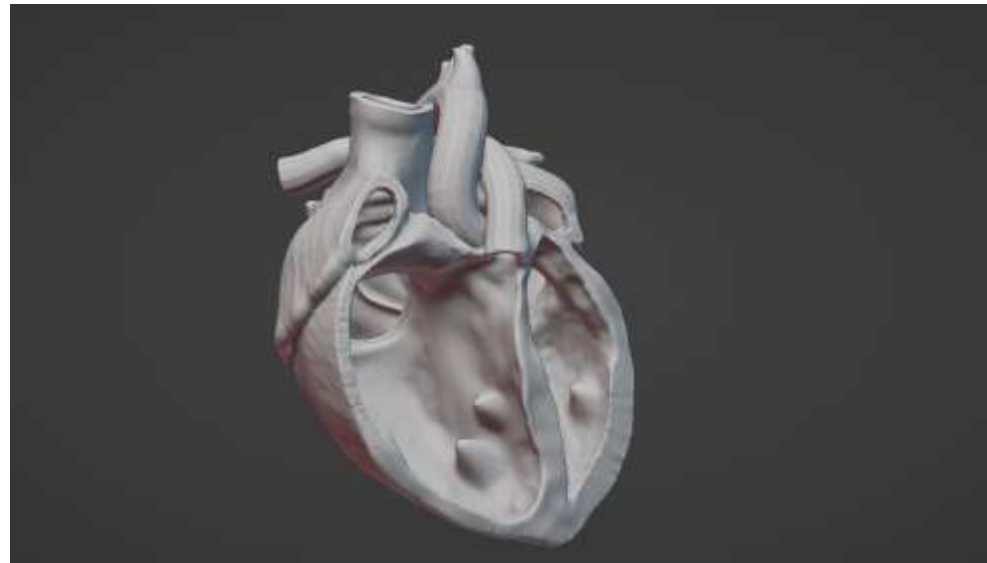
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Topic: Open schooling and collaboration on science
education

3D modelling

- The first step is to create or obtain a 3D model of the object you want to print. This can be done using 3D modeling software, such as Blender or other similar programs. You can also find ready-made models in online libraries or on specialized websites.



Preparing the model

Once you have the 3D model, you need to prepare it for printing. This involves carrying out a few steps, such as:

- Check the integrity of the model, ensuring that there are no problems such as holes, unconnected surfaces or overlapping edges.
- Scale the model to the desired size.
- Position the model correctly on the printing platform.
- To carry out these steps, you can use slicing software such as Cura, Slic3r or Simplify3D. These programs convert the 3D model into specific instructions for your 3D printer.



Printer configuration

Before printing, it is important to configure your 3D printer correctly. This includes:

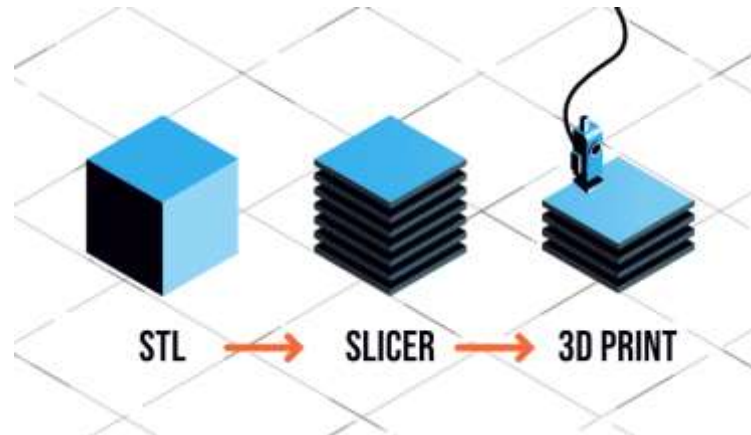
- Check that the print bed is level.
- Set the right temperature for the filament you are using.
- Calibrate the printer's X, Y and Z axes.

The exact instructions for configuration may vary depending on the model of your printer, so consult the manufacturer's manual for specific guidelines.



Slicer

Now it's time to use the slicer software to convert the 3D model into printer-understandable instructions. In this process, the software divides the model into thin layers and generates the G-Code needed for printing. You will need to transfer this G-Code file to your 3D printer.

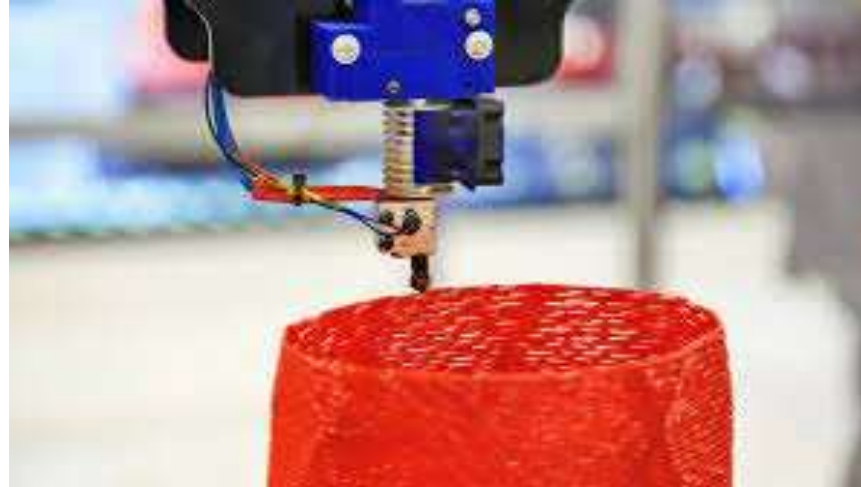


Printing

With the G-Code file ready, you can start printing.

Make sure the printer is connected to the computer or insert the G-Code file on an SD card or USB stick, if your printer accepts it.

Place the appropriate filament in the printer and start the printing process.



Post-processing

Once printing is complete, it may be necessary to carry out some post-processing steps, depending on the object and the desired finish. This may include removing media, sanding, painting or any other finishing technique required to achieve the desired result.

