

# 1. Ultimaker S5 3D Printer

[▶ Ultimaker S5 Features Explained - the most powerful, reliable, and versatile 3D printer](#)



Print head : Dual-extrusion print

Build volume (XYZ) 330 x 240 x 300 mm

Nozzle diameter 0.4 mm

Filament diameter 2.85 mm

Commonly used Material : PLA, Also Supported : ABS,Nylon,PETG, only PVA (in Nozzle B)

## Slicing of the model

- for slicing, we use the software Ultimaker Cura to slice the design

## Various parameters governing the quality of the print

- **Wall thickness: the distance between one surface of your model and its opposite sheer surface** . Wall thickness is defined as the minimum thickness your model should have at any time.
- **Supports:** The support structure is **the added part that supports the overhanging structure or bridge structure when slicing the model** , which needs to be removed after printing.
- **Infill density:** The infill density **defines the amount of plastic used on the inside of the print** . A higher infill density means that there is more plastic on the inside of your print, leading to a stronger object. An infill density around 20% is used for models with a visual purpose, higher densities can be used for end-use parts.

## Preparing a print with Ultimaker Cura

 [Cura 3D Slicer For Beginners! In Depth Tutorial](#)

1. Load .STL file("Export as " option in modeling Software  
<https://www.autodesk.com/products/fusion-360/overview>)
2. Select the printer and material(4mm nozzle)
3. Setup the layer height(quality) and Infill
4. Add supports and Brim if needed
5. Slice
6. Use Preview toolbar to see the outcome print
7. Save .gcode to Removable disk or Directly print via cloud

## Loading/Changing Filament

 [How-To Loading And Unloading Ultimaker S5](#)