

3D PRINTING ESSENTIALS

What to do in CAD

Repairing non manifold models in Rhino



1 EVERYTHING NEEDS A THICKNESS

Points, lines and surfaces do not exist in the real world, hence they are not printable. The printer can't print thicknesses below 2mm.

2 DIMENSIONS

Remember that your object has to fit into the dimensions of the printer, which are 9*11*20 [cm]. Don't go over the edge and leave some margin.

If all the general design rules for 3D printing are followed, export your object as an **stl file**.

In the Prusa Slicer

If you don't know what Prusa Slicer is, get info here!



3 IMPORT THE STL FILE

watch video: "The Masterplan"



4 OBJECT MANIPULATION & PLACEMENT

Think about the efficiency of your prints, the less time you spend on the printer the more time you have for other things.

Is the print optimally oriented on the print bed?

Does it make sense to split the object?

Is it possible to fit several objects on the print bed?

watch video: "The Bridge" & "The Colonnade"



5 PARAMETERS & CONFIGURATION

Again, try to really think about how to make the print more efficient in time and material.

Can the infill/amount of top/bottom layers be reduced?

Is the support structure really necessary?

Is the skirt switched on?

Is the brim really necessary?

6 CHECK THE SLICING

Can the first layer be printed/ Is the first layer operable?

Make sure your object is not flying.

Export your model as a **g-code** and name it correctly: Name_Atelier_Printer_Print Time

At the 3D printer

Solving first layer issues



7 ALWAYS CHECK THE FIRST LAYER

Does the first layer properly adhere to the build-plate? Remember the Hamburger Section!

If not: Alter the distance between print-bed and build-plate!

If nothing works

WE ARE HERE!

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