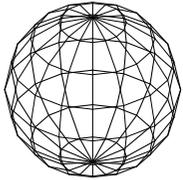


SECTION 5 : FDM PRINTING MESHING BASICS

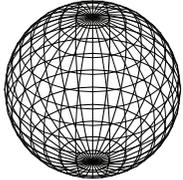
SECTION 5.1 : MESHING RESOLUTION

Prior to exporting a model to .STL a mesh resolution must be selected. Here you can see the differences between a low, medium and high resolution mesh.



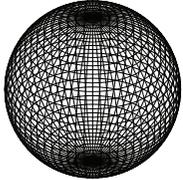
Low Resolution Mesh:

Will result in a mesh with a low polygon count, resulting in a smaller file and a less smooth or precise model. (good option for rectilinear forms)



Medium Resoluion Mesh:

Will result in a mesh with a medium polygon count, for most FDM printing this is the recommended mesh option. (good option for non-rectilinear forms)



High Resolution Mesh:

Will result in a mesh with a high polygon count, this file is often much larger and is best saved for models with lots of small and intricate details.

SECTION 5.2 : EXPORTING FOR FDM PRINTING

3 AUTODESK 3DS MAX

3DS Max Application Menu > Export > StereoLitho (*.STL)

F AUTODESK FUSION 360

File > 3D Print
under 'Refinement'/'Refinement options' select 'Export Settings'
Output > uncheck 'Send to 3D Print Utility' > OK > Save

M AUTODESK MAYA

File > Export Selection
In the 'File as type', select OBJexport
Keep all export options at default settings
Click 'Export Selection'

SketchUp

Download Sketchup to DXF or STL plugin.
Load SketchUp
Tools > Export to DXF or STL

SOLIDWORKS

File > Save As...
Set Save As... file type to STL
Options > Resolution > [select mesh resolution] > OK

Rhinoceros

Ensure you have converted your model to a mesh
this can be done with the following method:
enter command 'Mesh'
select desired polygon count in 'Polygon Mesh Options'
(the higher the polygon count, the more detailed or
high resolution your stl will be)
select 'OK'
enter command 'SelLast' to select your newly made mesh.

File > Save Selected...
In the 'Save as type', select STL (Stereolithography) (*.stl).