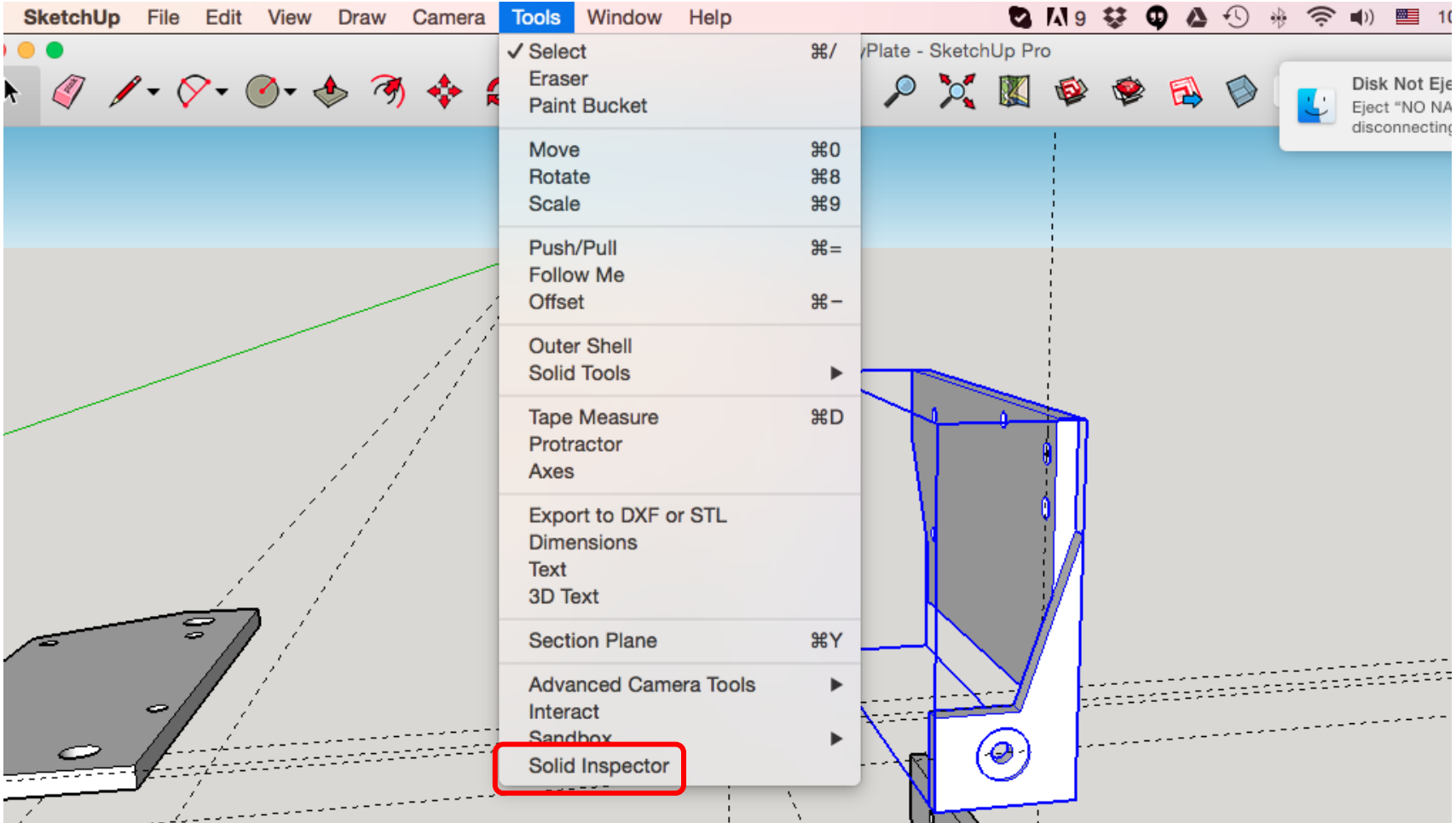
Preparing file for 3D printing

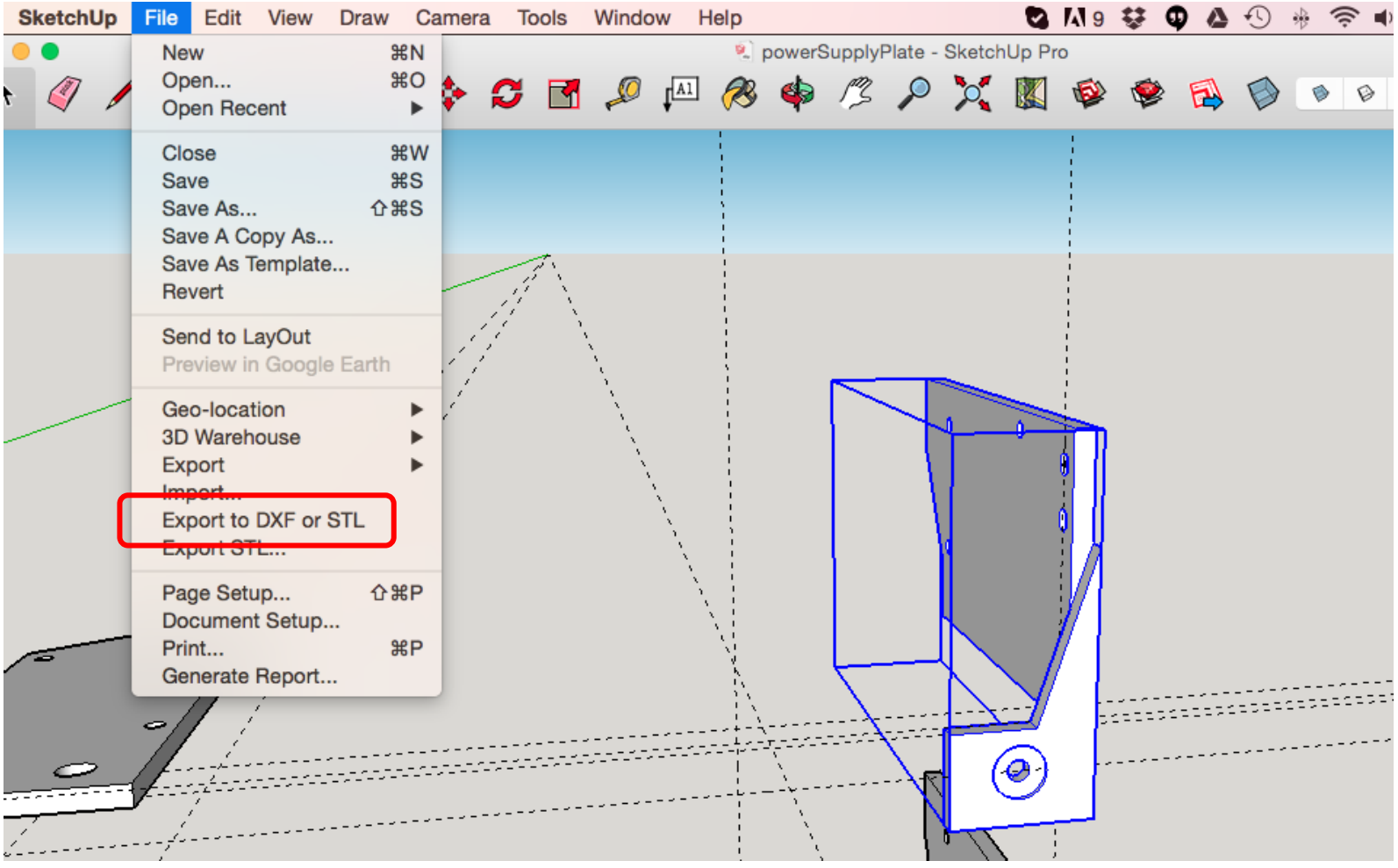
3d printing workshop
Varvara & Mar
http://varvara-mar.info

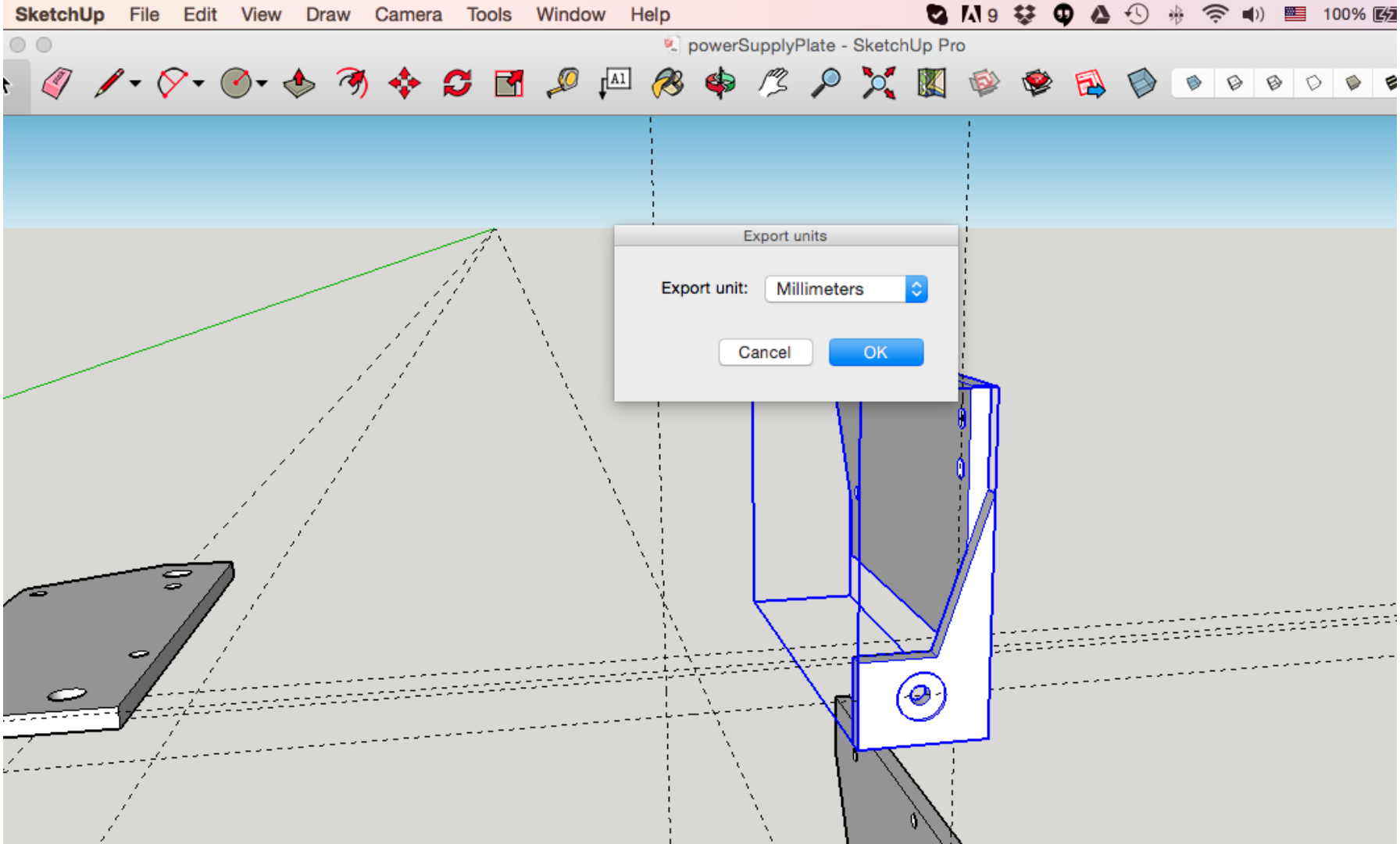
SketchUp

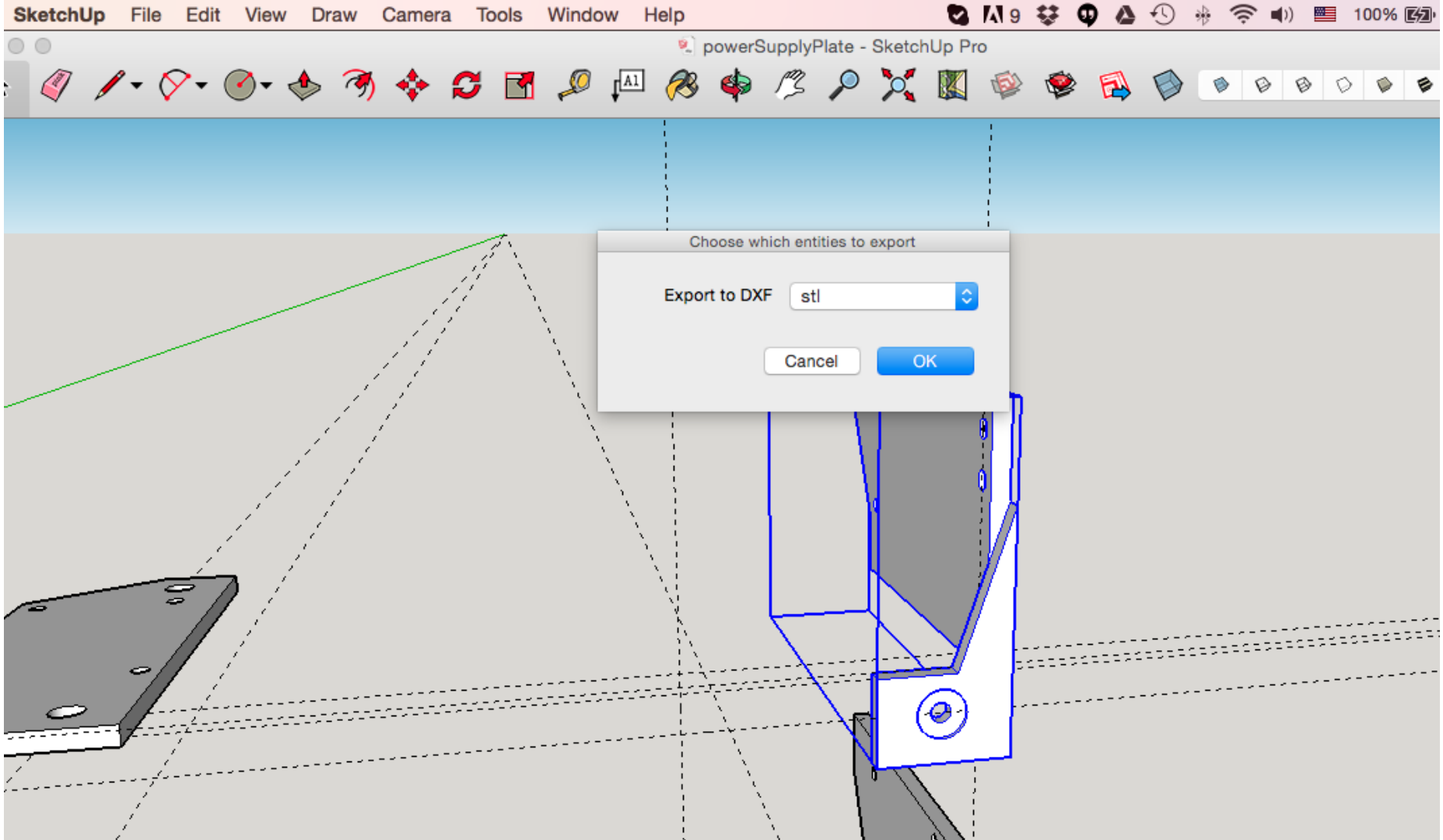
Install Solid Inspector extension to your Sketchup program. This expension will help you to check if the model is solid and if not where is the problem.
Mark the model and click Solid Inspector. If you don't see any red or orange cycles it means your model is solid.



for 3D printing you need STL file. Export your model from Sketcup as STL file.
If you don’t have this menue option, then you have to download and install Export to DXF and STL extension.

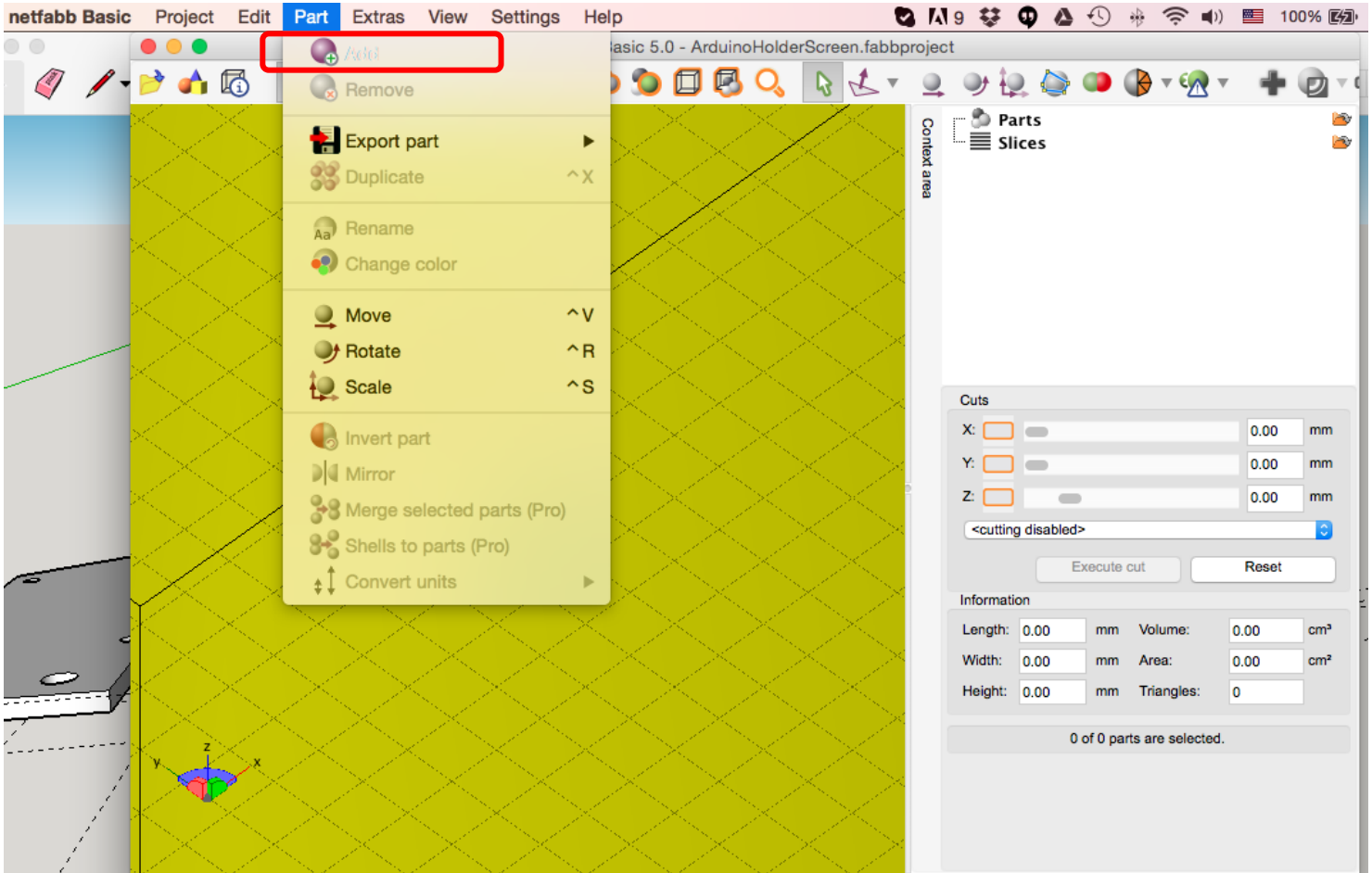



SketchUp File Edit View Draw Camera Tools Window Help
100%
powerSupplyPlate - SketchUp Pro
Export units
Export unit:
Millimeters
Cancel
OK

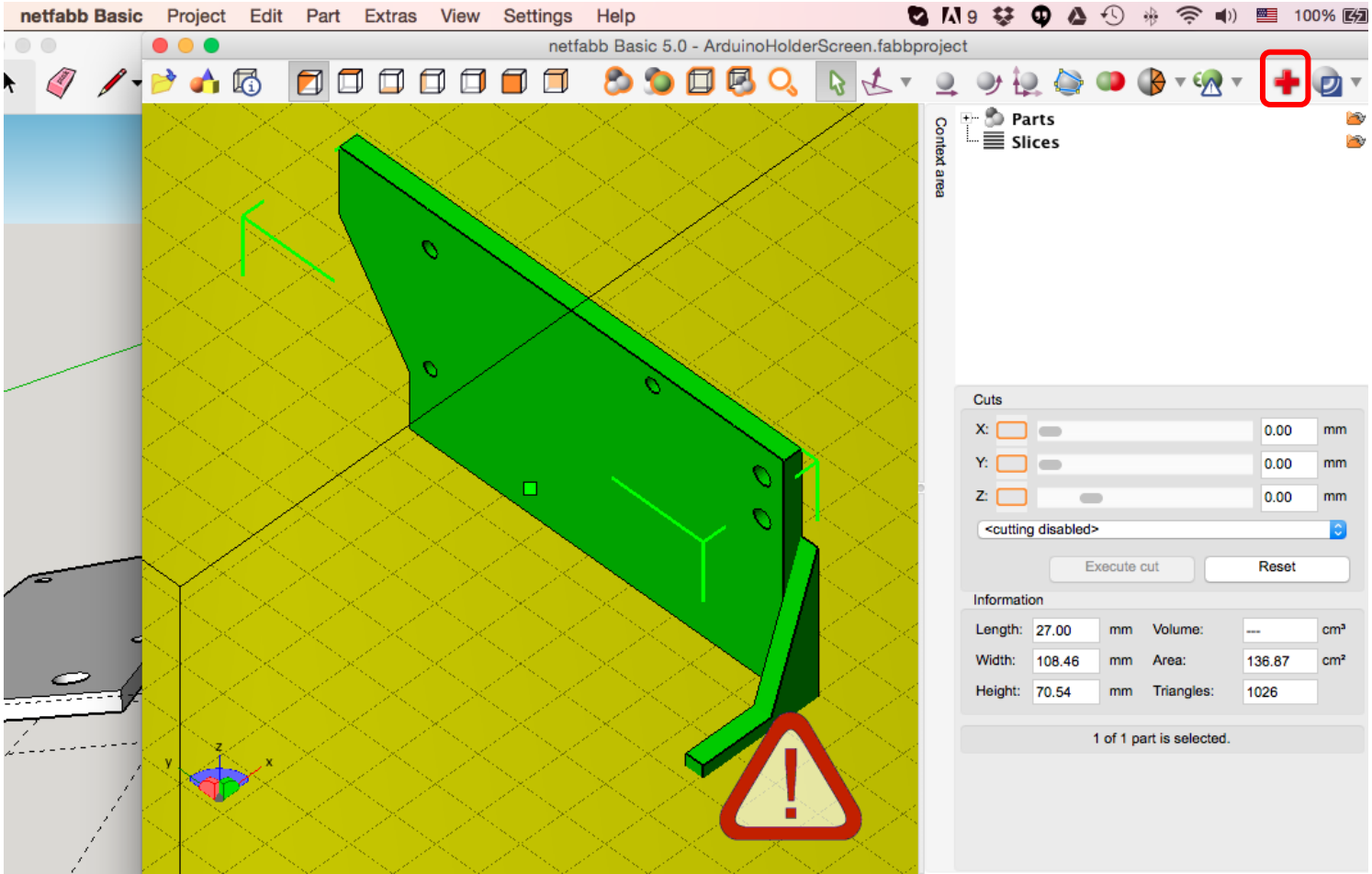

SketchUp File Edit View Draw Camera Tools Window Help
100%
powerSupplyPlate - SketchUp Pro
Choose which entities to export
Export to DXF
stl
Cancel
OK

netfabb Basic

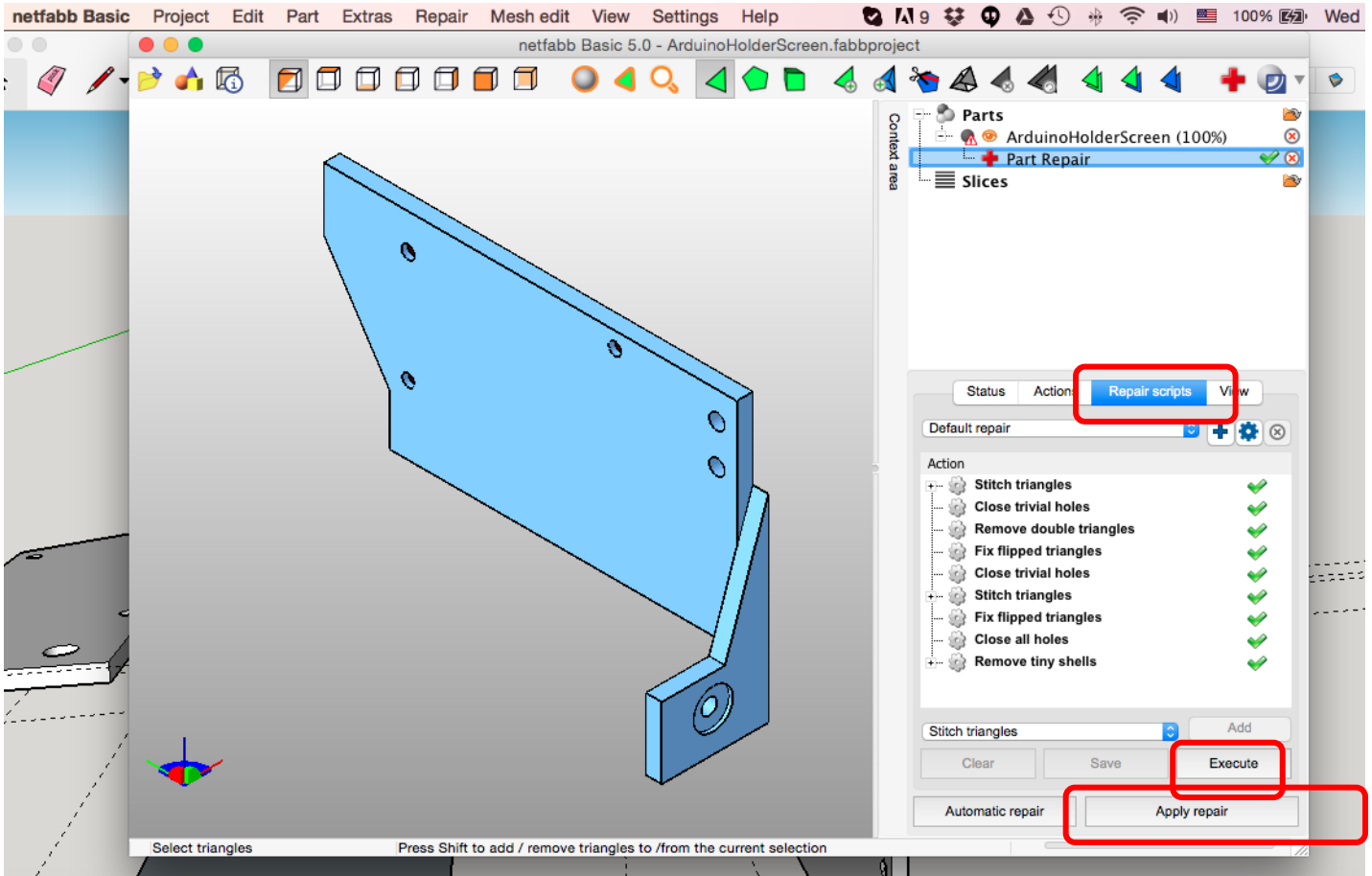
This program will check again your model mesh and corrected if needed.
Add STL file that you exported from Sketchup: Part->Add

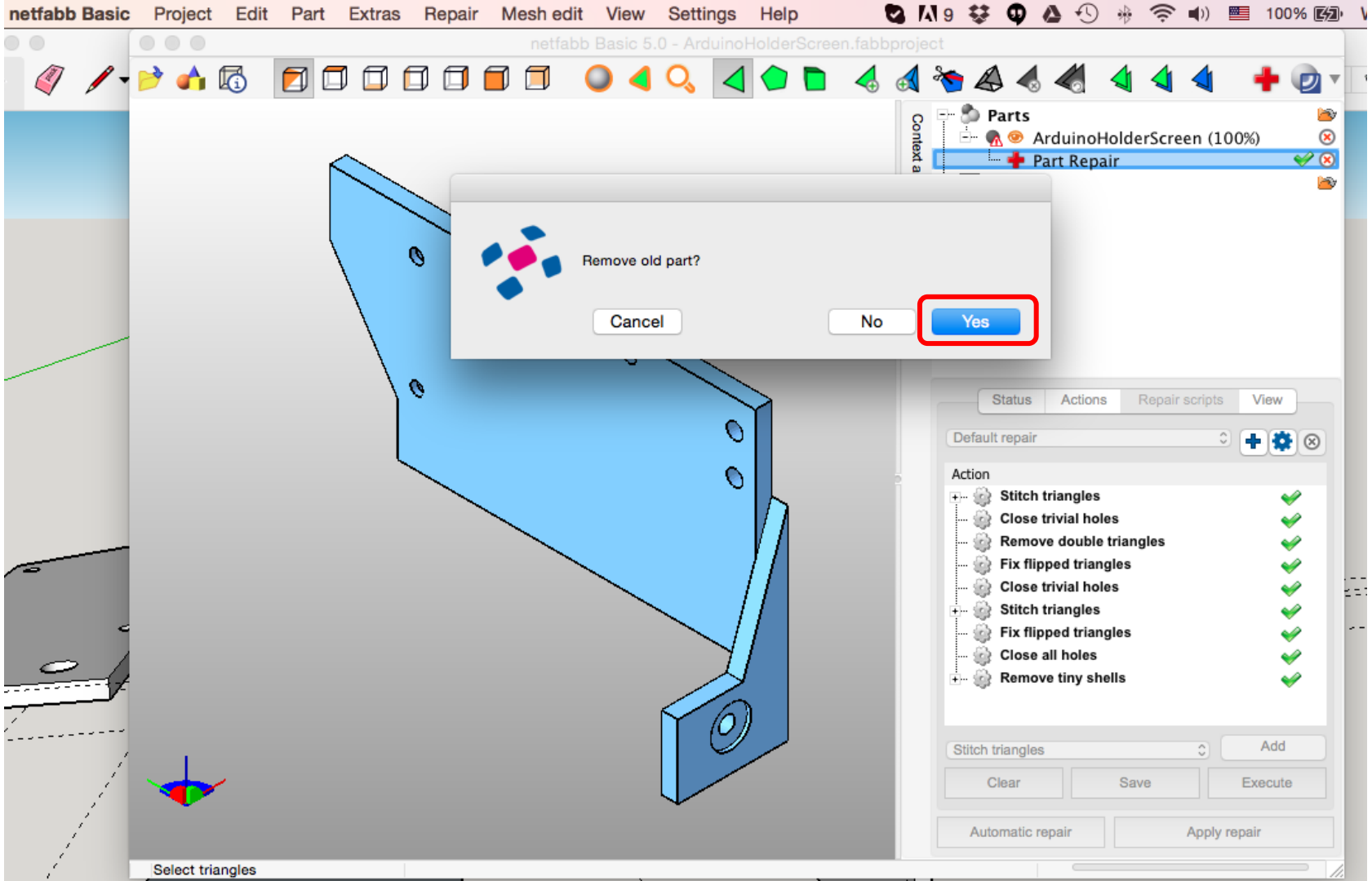


If your model needs reparation, you will see exclamation mark right next to the model. If you don't have it, then model is correct. For reparation press RED CROSS on your upper right corner.

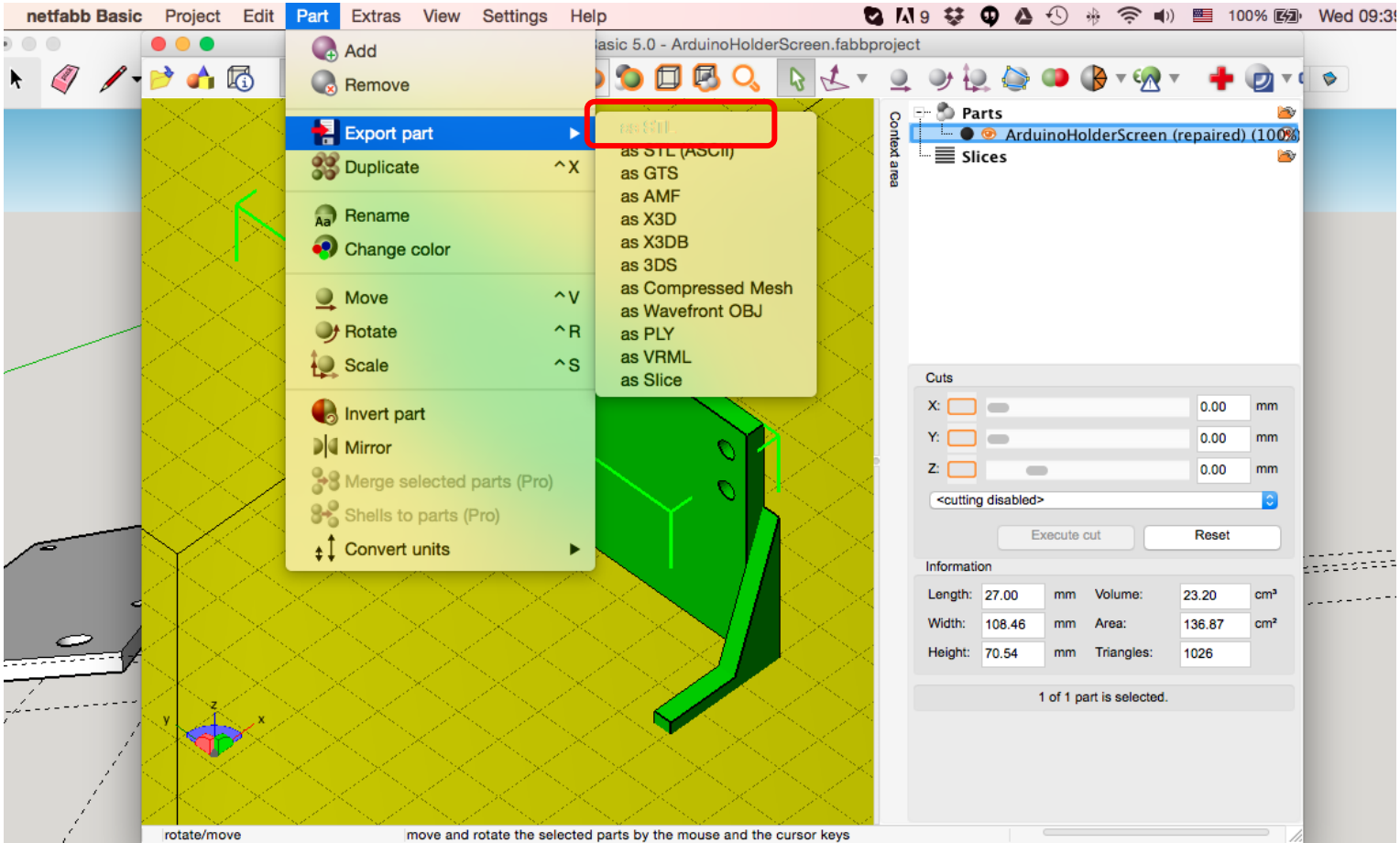


1. Repair script -> 2. Execute -> 3. Apply repair



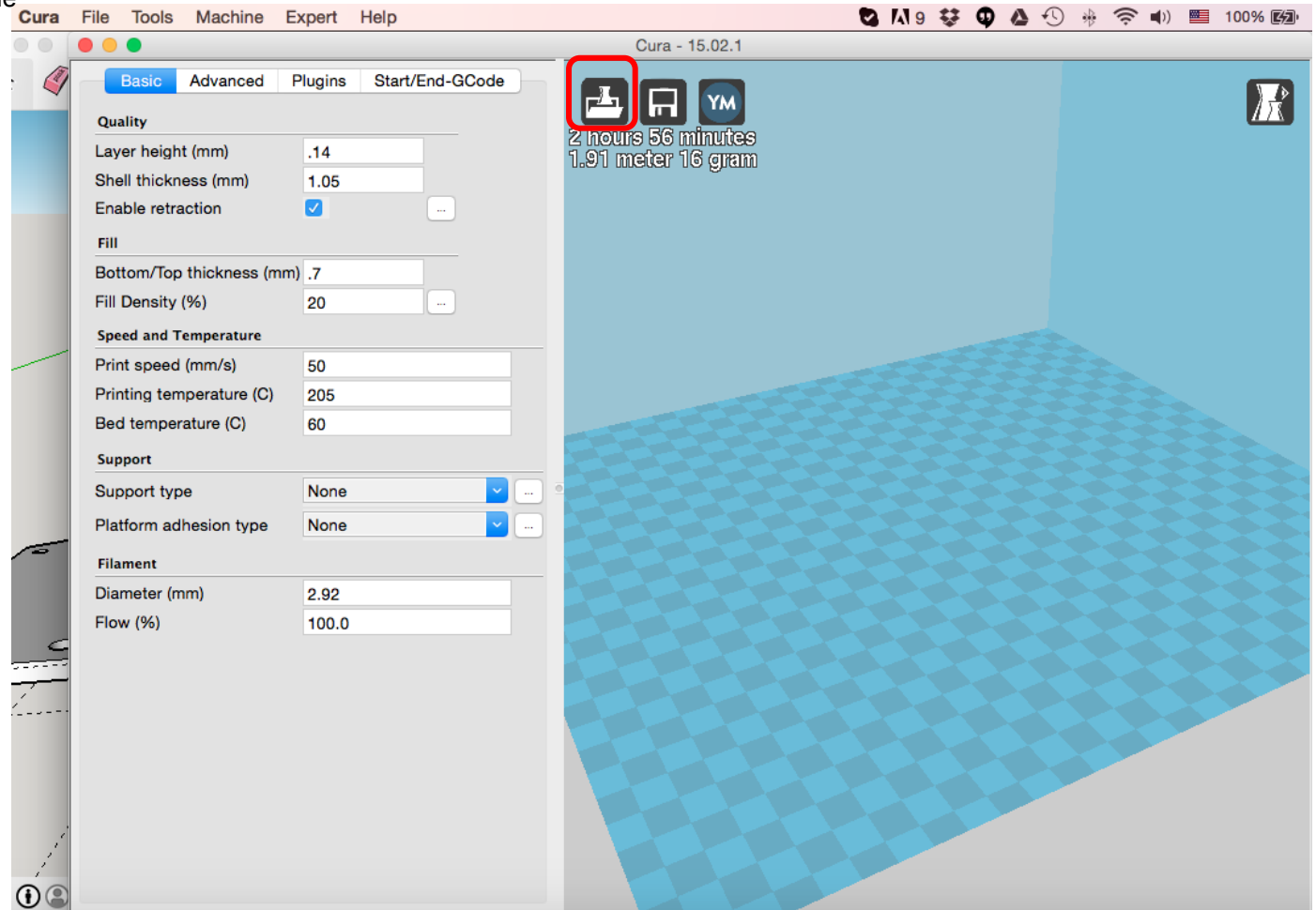

netfabb Basic
Project
Edit
Part
Extras
Repair
Mesh edit
View
Settings
Help
netfabb Basic 5.0 - ArduinoHolderScreen.fabbproject
Parts
ArduinoHolderScreen (100%)
Part Repair
Remove old part?
Cancel
No
Yes
Status
Actions
Repair scripts
View
Default repair
Action
Stitch triangles
Close trivial holes
Remove double triangles
Fix flipped triangles
Close trivial holes
Stitch triangles
Fix flipped triangles
Close all holes
Remove tiny shells
Stitch triangles
Add
Clear
Save
Execute
Automatic repair
Apply repair
Select triangles

Save repaired STL file: Part->Export part-> STL
Now you are ready for preparing GCODE for a 3D printer.



Slicer program.
Cura

Load your STL model to slicer program. If you use Ultimaker, then use Cura program. Check that the parameters are right in the left hand side



In slicer program you can also rotate your model and find the optimal position for 3D printing. When you are ready save model as GCODE and you are ready to print.