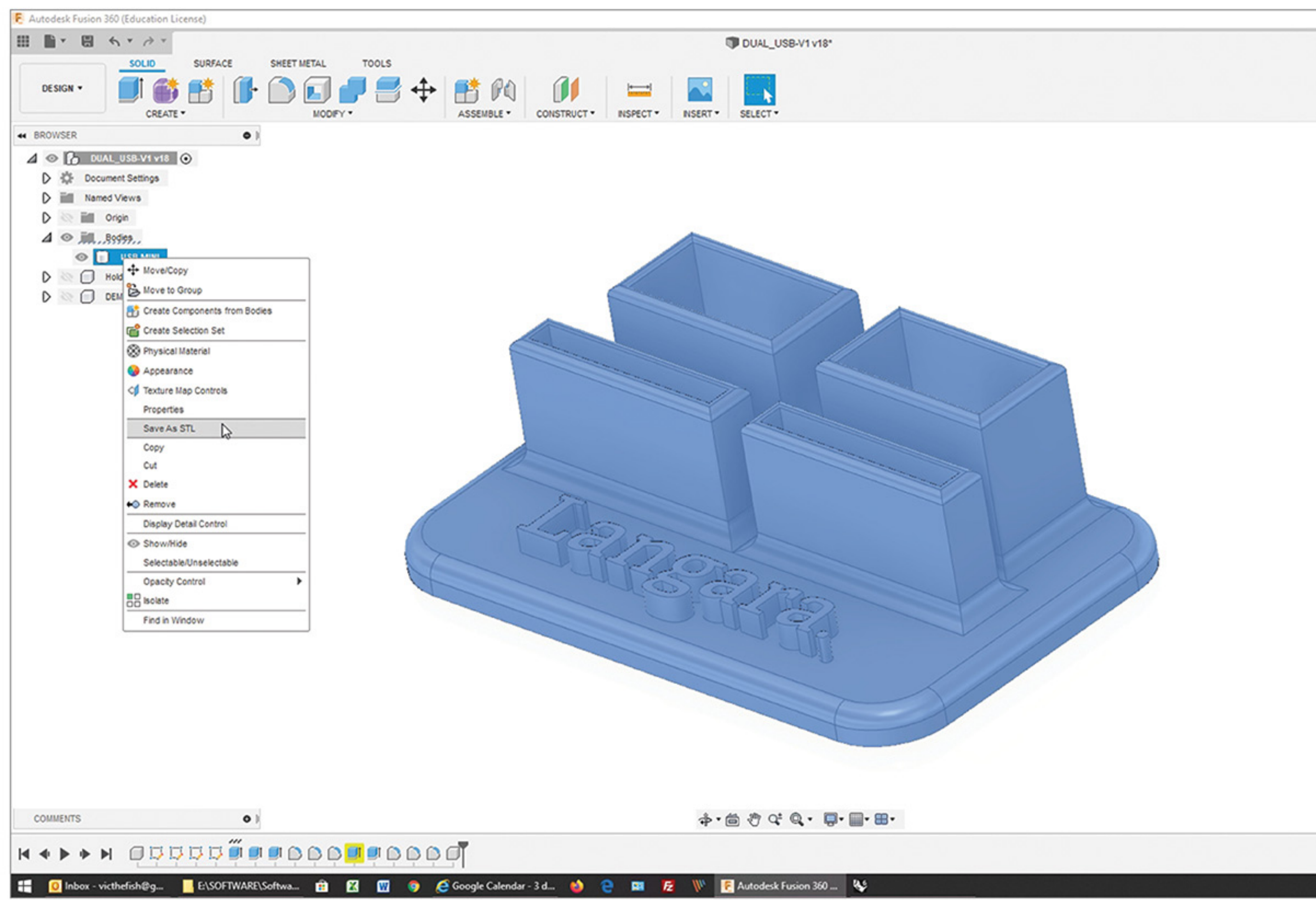


HOW TO EXPORT YOUR 3D OBJECT & PROCESS IT TO PRINT ON THE TINKERINE DITTO PRO 3D PRINTERS

V3

APRIL 2024



1

Create A File

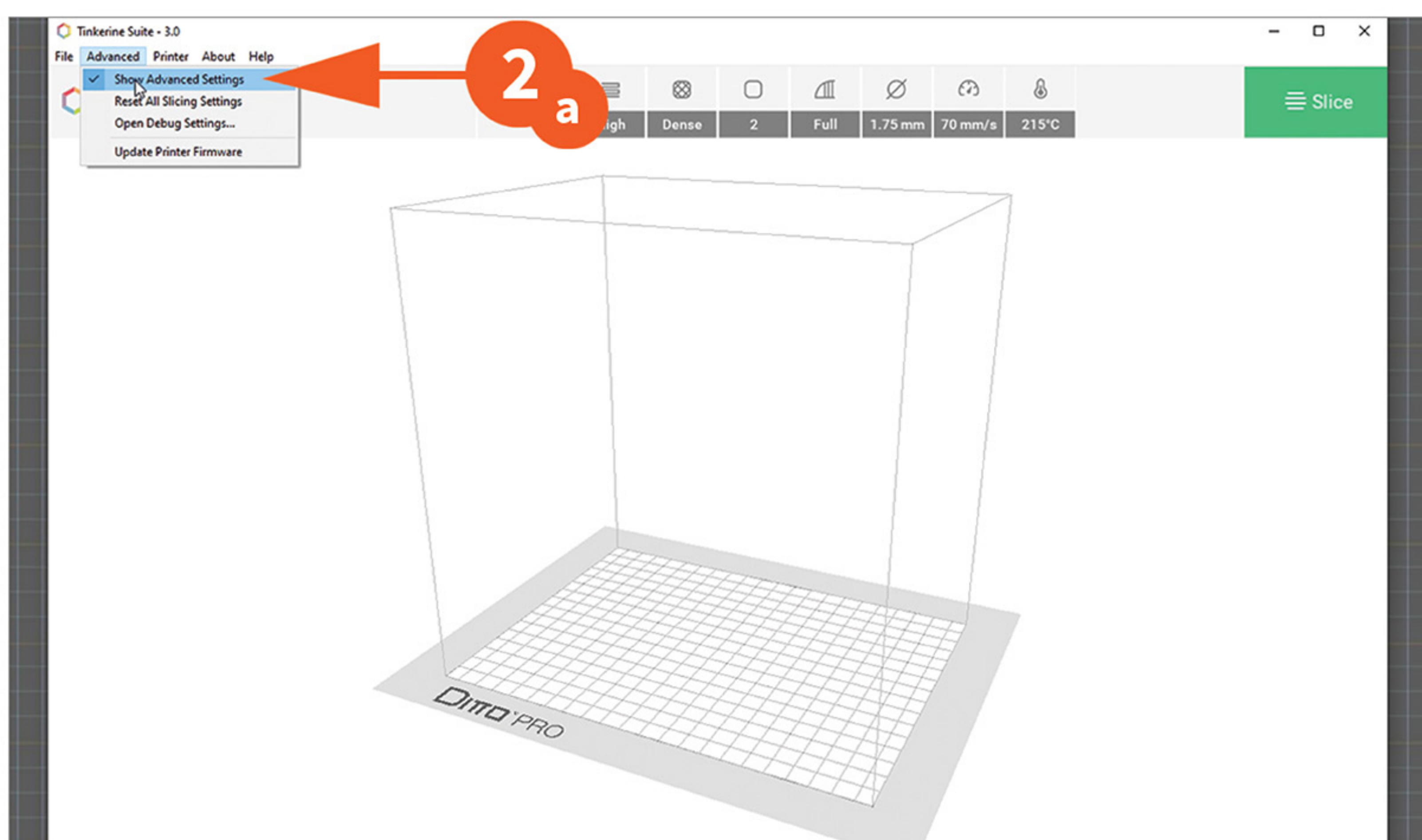
Open your 3d program with your 3d object. To import your file at the correct scale, your 3d Programs Units should be in mm (millimeter).

You need to save or export your object as an STL file.

- To do this in Fusion360 see Appendix 1, page 6.

- To do this in Rhino 3D see Appendix 2, page 7.

- For other programs please use the programs help menu.



2

Open Tinkerine Suite 3 & Your File

Open up Tinkerine Suite 3.

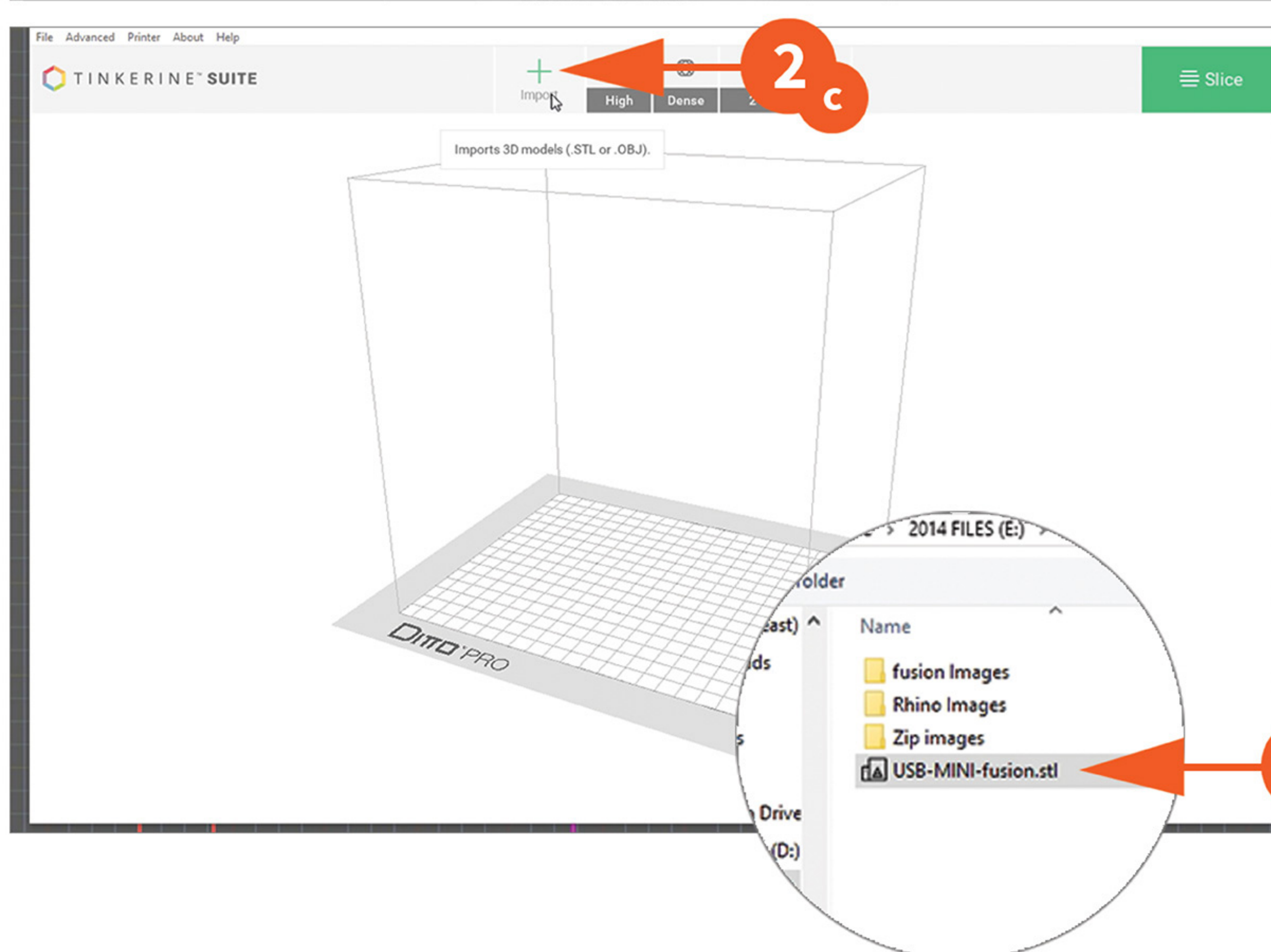
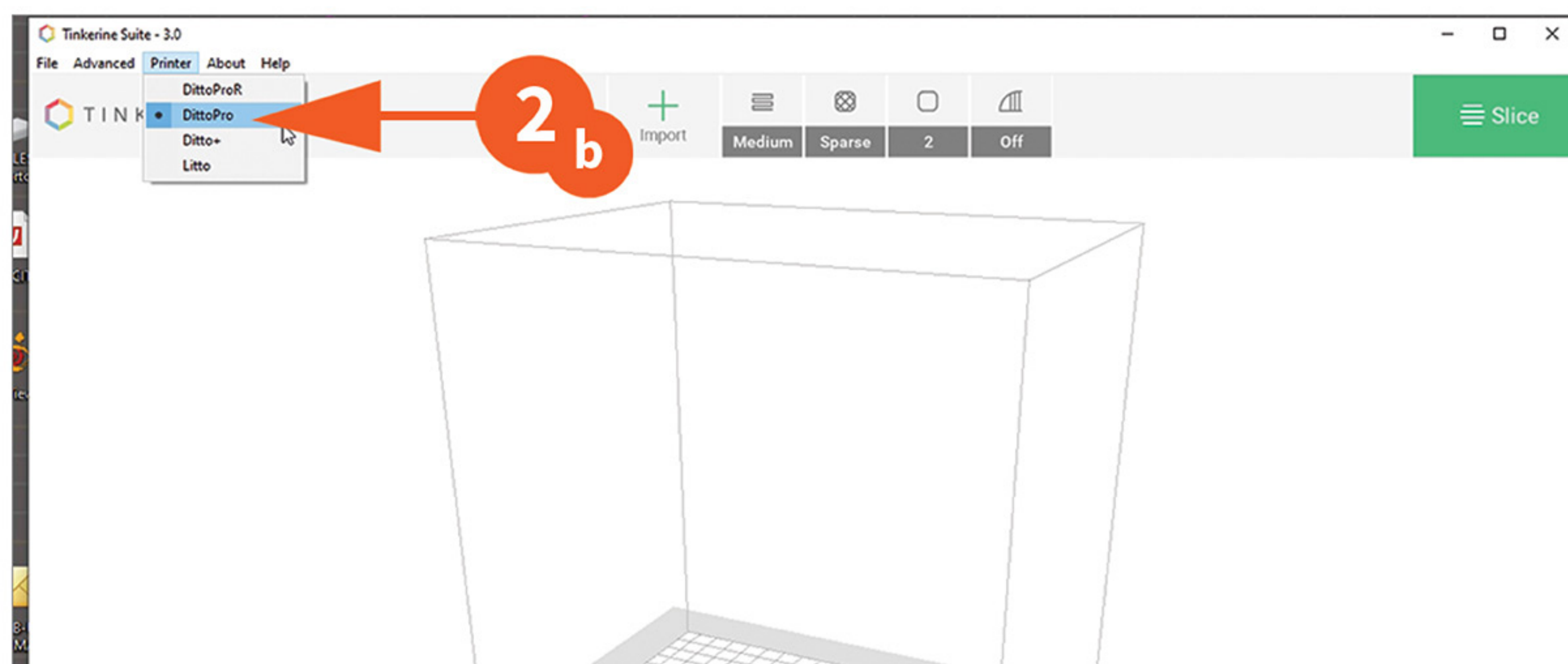
2a - Click on the Advanced tab, and uncheck Show Advanced Settings.

2b - Click on the Printer Tab and select:

For Dittos 1 to 5: Ditto Pro

For Dittos 6 & 7: Diitto Pro R

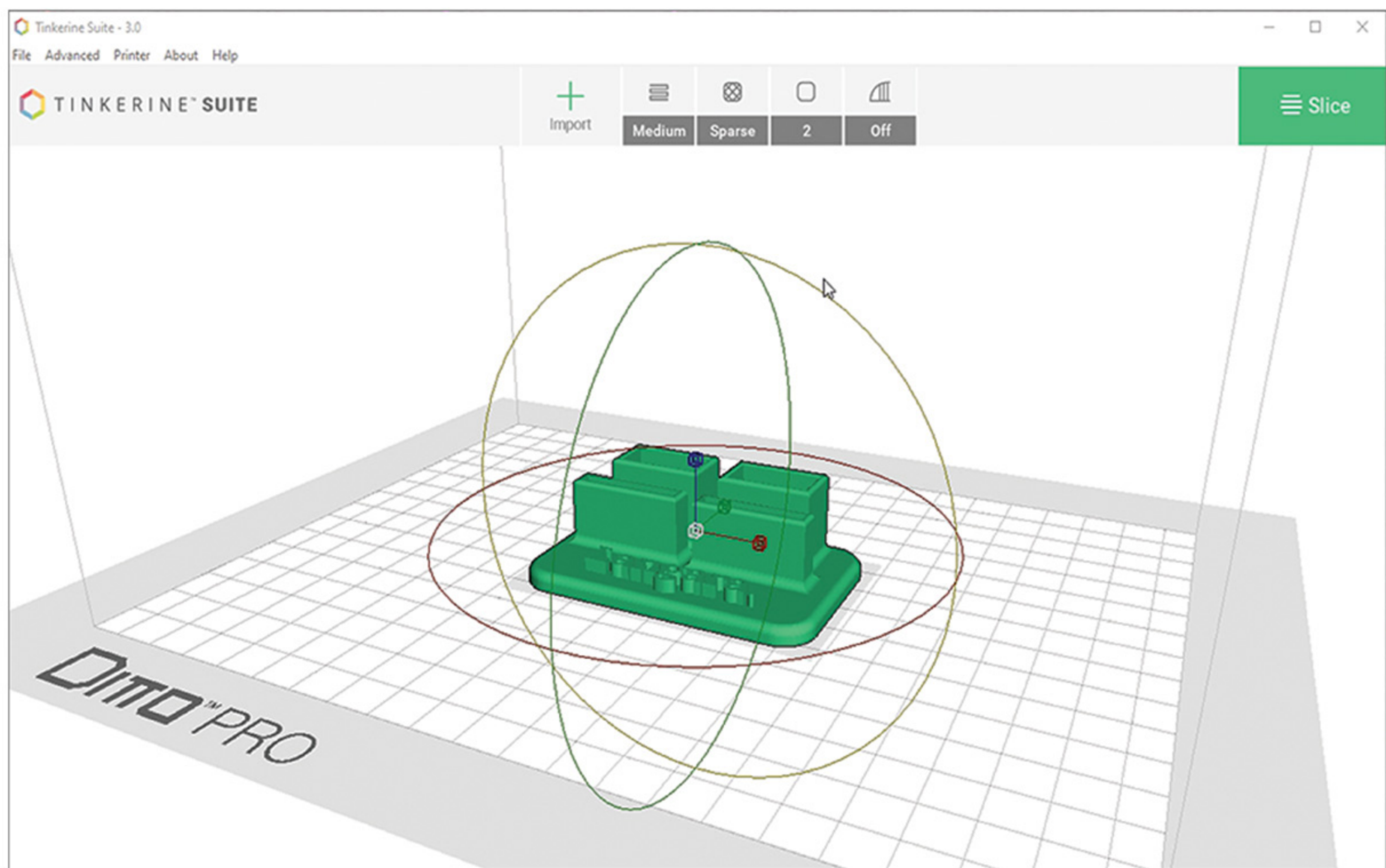
2c - Click on Import....



2d - Select your STL file MAKE SURE you only import 1 object at a time. If you exported 2 or more objects as the same STL, you need to go back to the 3D program and export each object as it's on STL

If you want to print more than one object at the same time, then just repeat the step 2d

*If the program crashes, just reopen it and start over.



3

Your View Point & Rotating Your Object

Hold your right mouse button down to rotate your view point around the object.

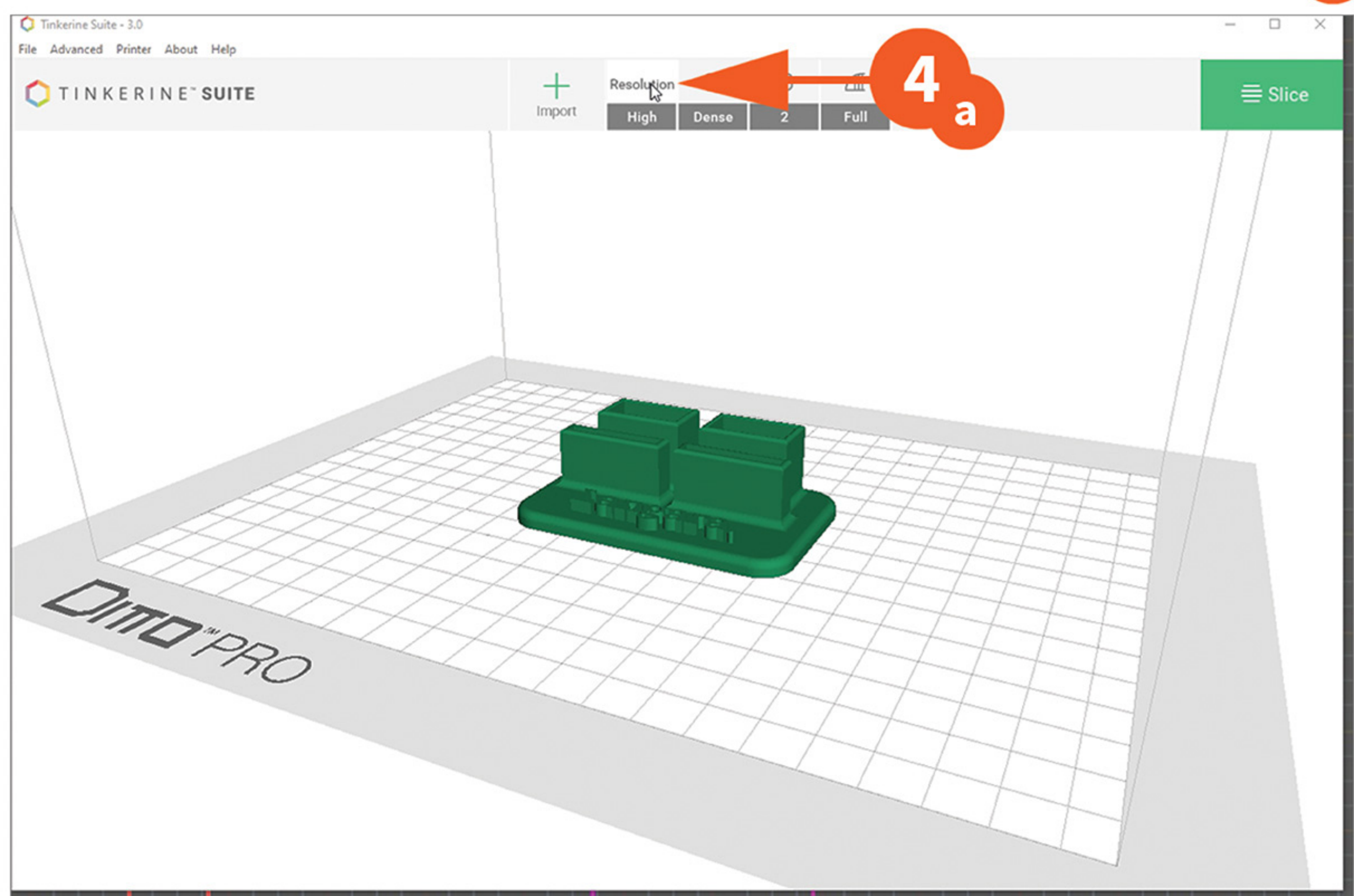
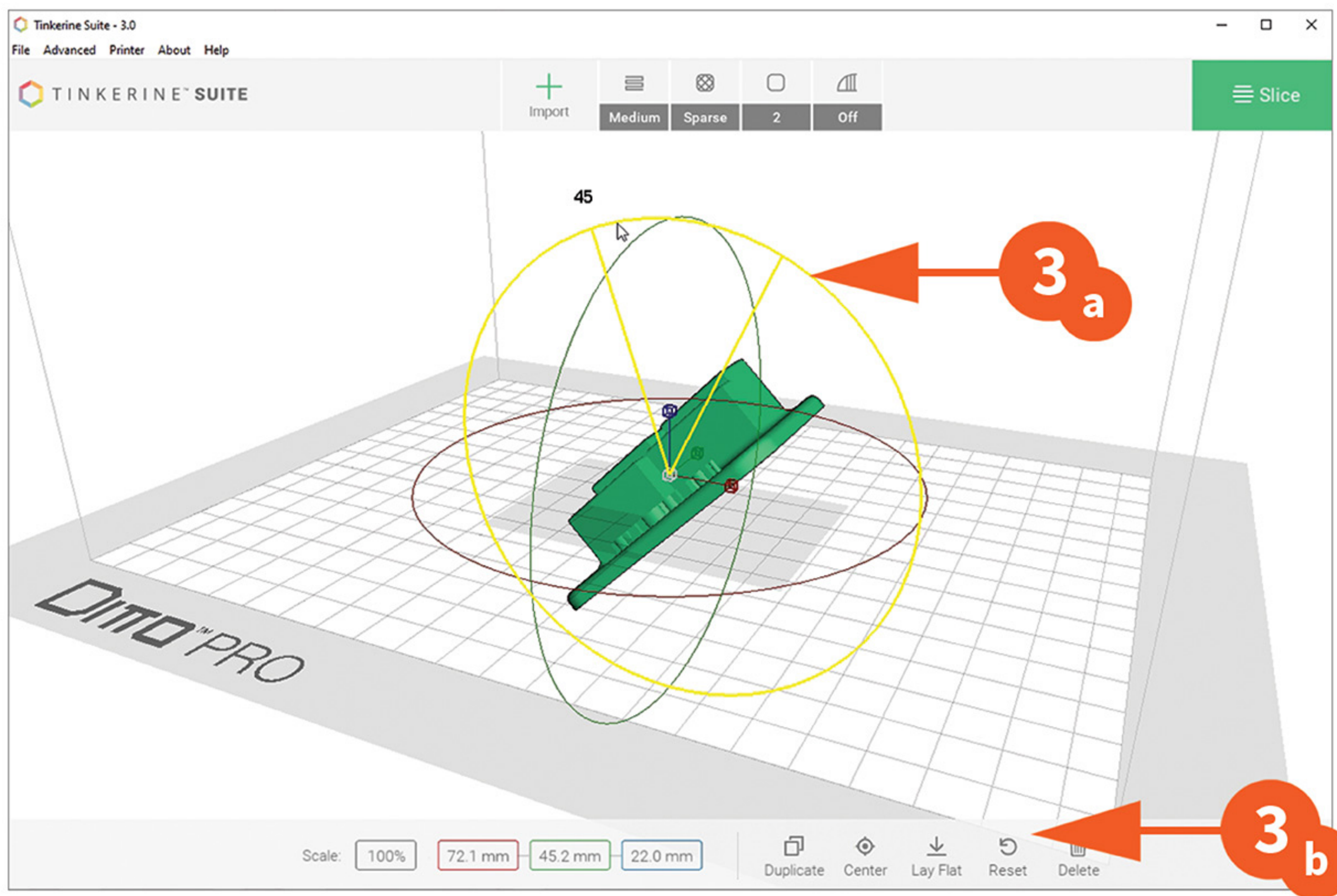
3a - If you need to rotate your object just Left Mouse Click on one of the coloured circles around your object and hold while you drag it.

Hold down the Shift key while rotating it to keep to 45 degree increments.

3b - Click on the Reset button to go back to the original position.

Tips:

- The bottom prints the worst quality.
- Text quality is best printed on the top.



4

Print Resolution

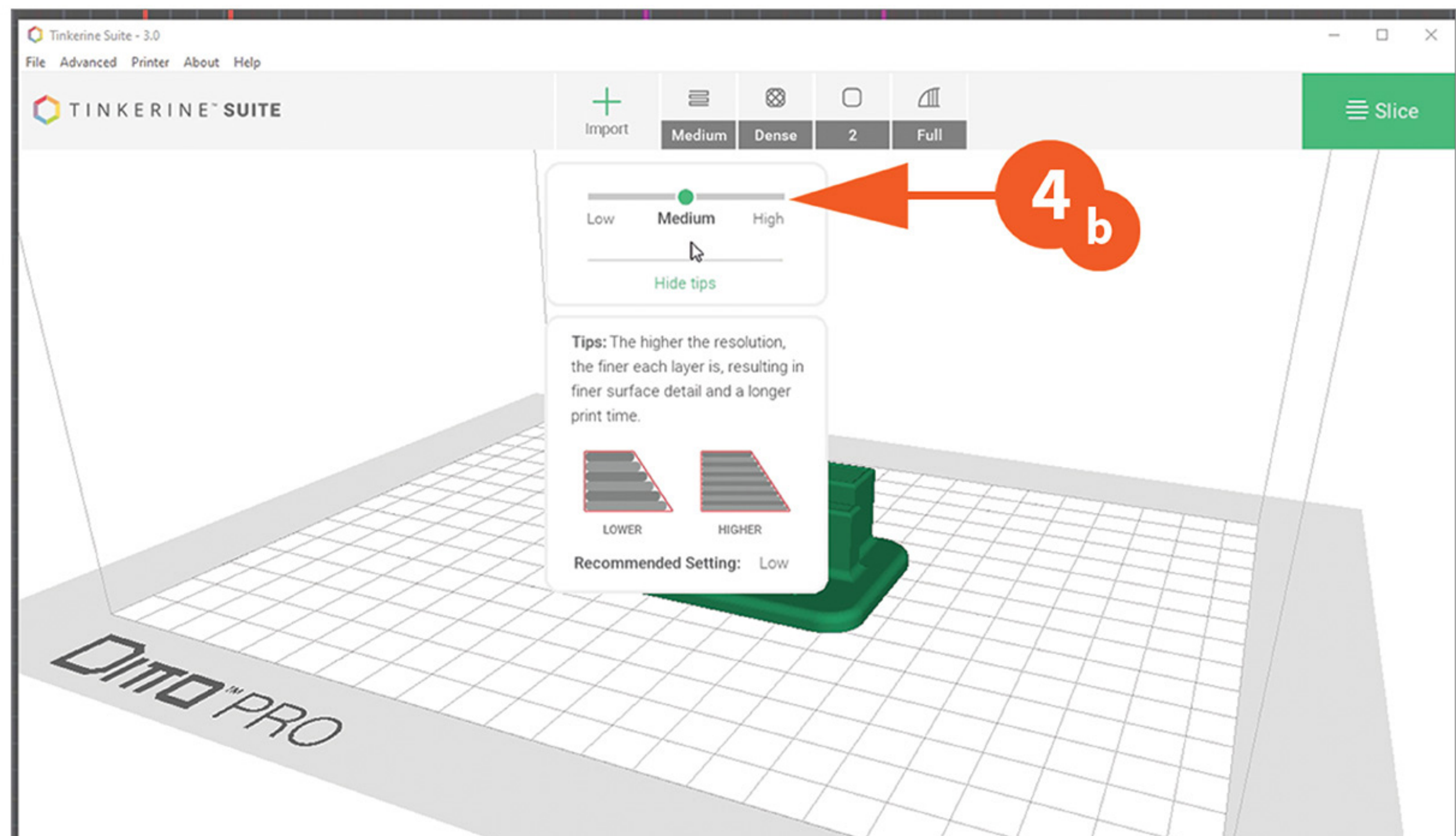
4a - Click on the Resolution button

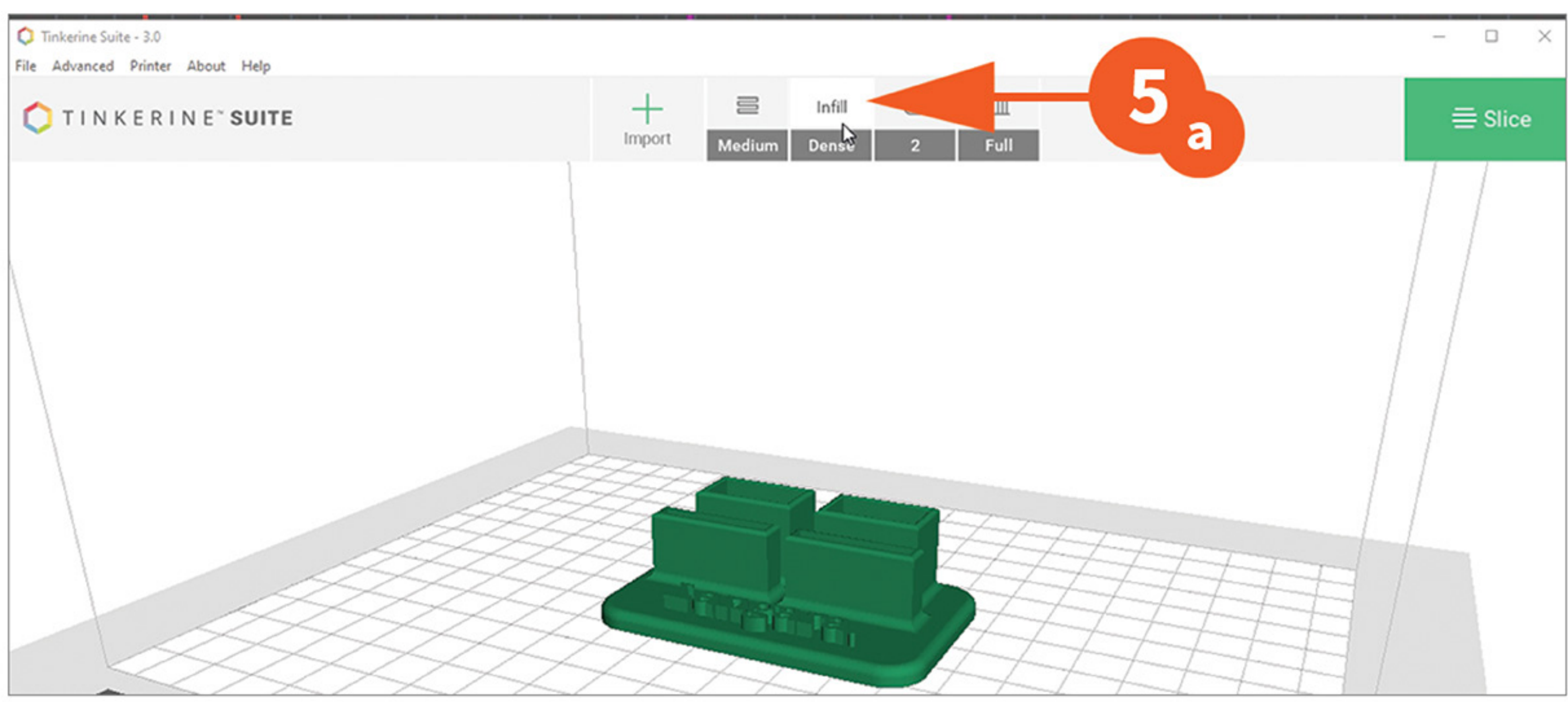
4b - Set to Medium* Resolution

* Unless your object has very small details, Medium Resolution will work well.

Tip:

The higher the resolution, the longer the print will take.





5

Print Density

5a - Click on the Density button

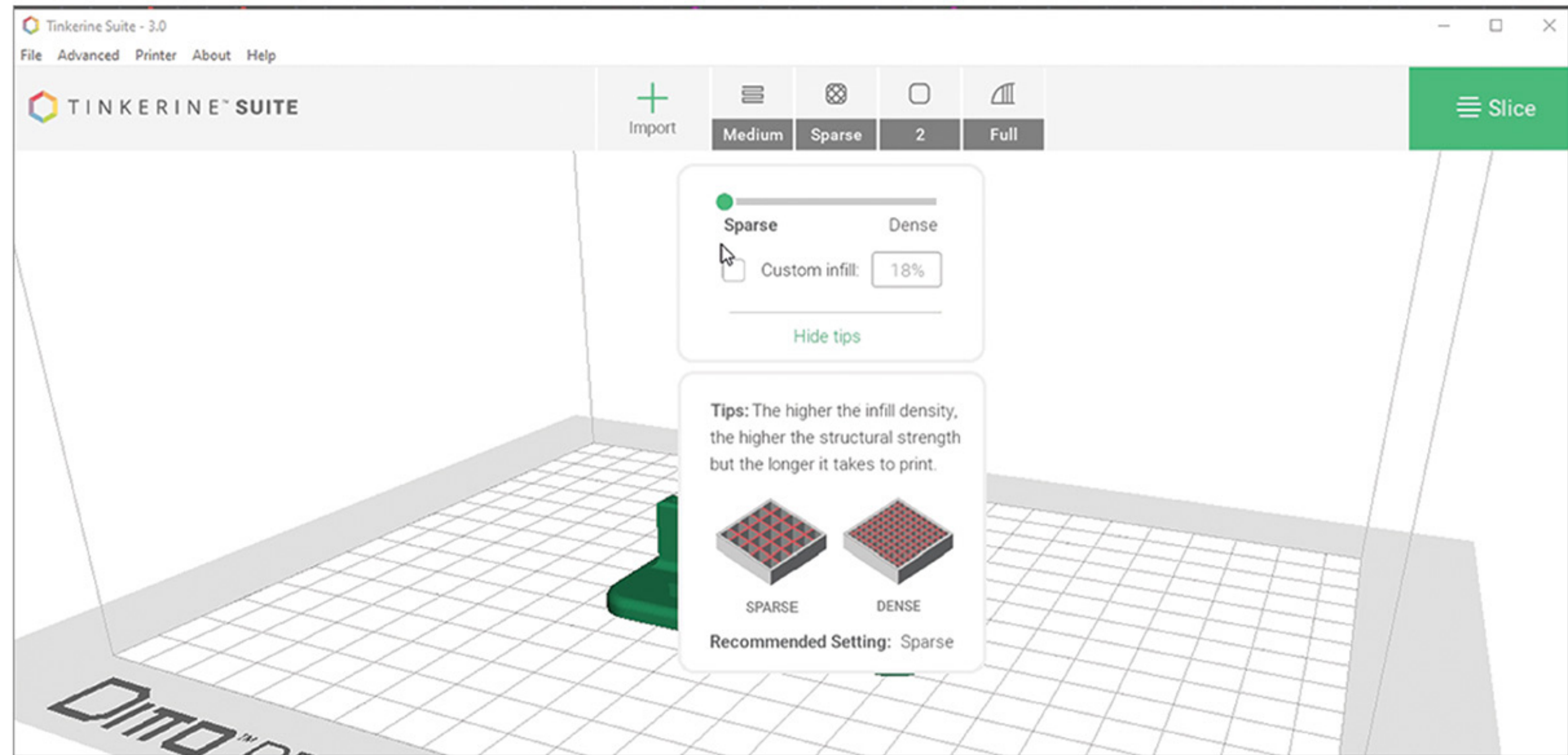
5b - Select Sparse*

* Use Dense if your object is one of the following:

- A very thin object.
- An object that requires strength and may be under stress or bent during use

Note:

The print will take longer is Dense is selected

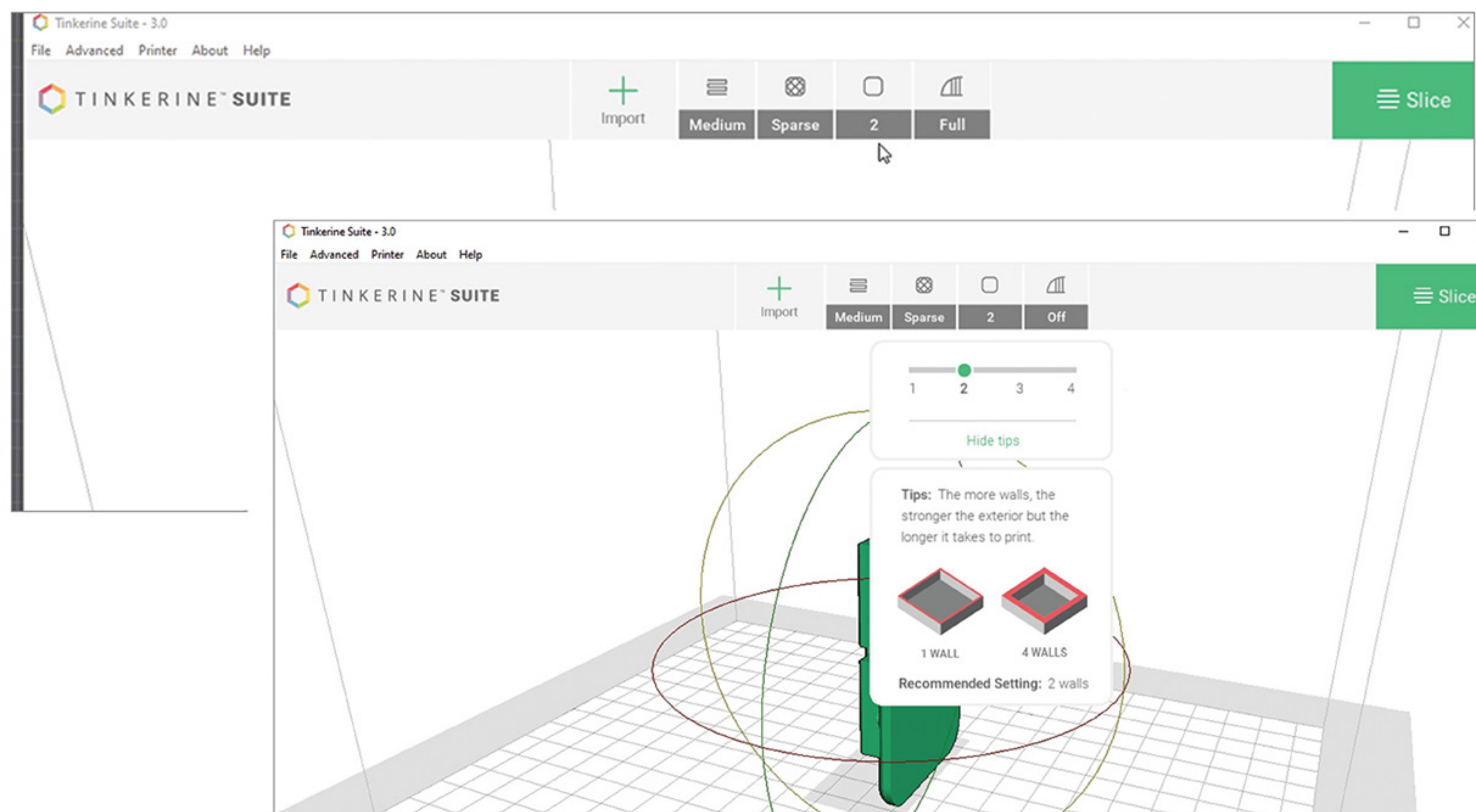


6

Wall Thickness

6a - Click on the Wall Thickness button.

6b - Unless your object is hollow or very small use #2.



7

Scale

7a - To scale your object up or down, enter a new percentage number.

i.e. 110% would make your object 10% larger.

i.e. 90% would make your object 10% smaller.

Conversions:

1" = 2.54 mm

1cm = 10mm

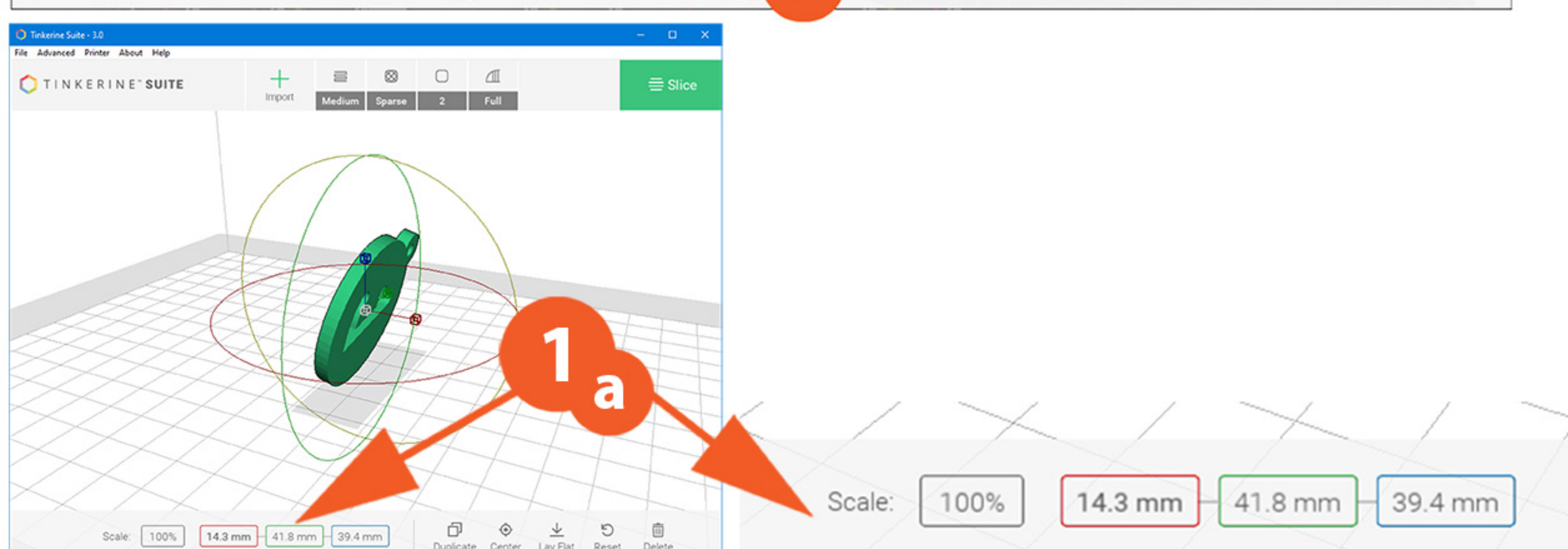
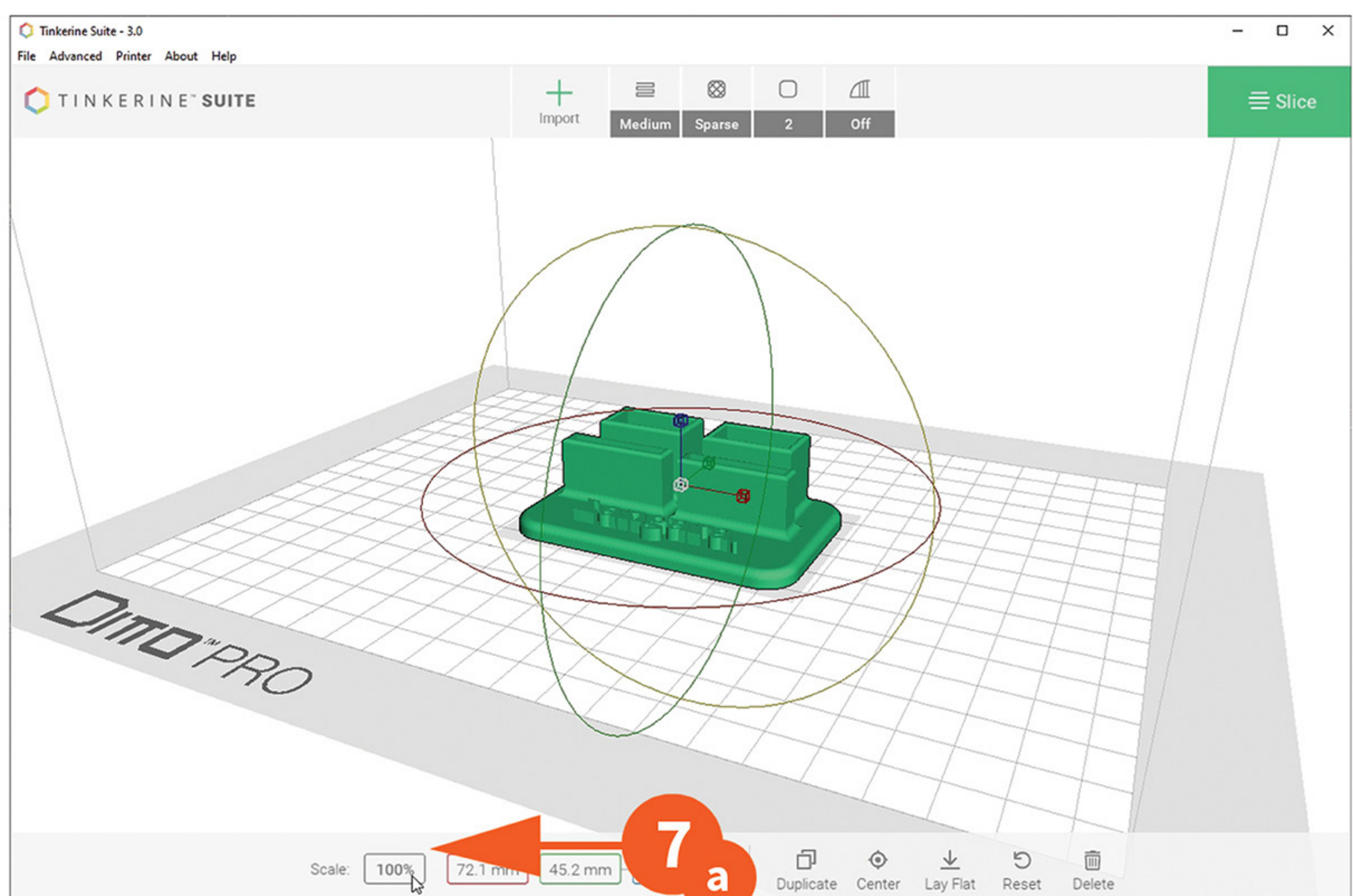
7b - You can also scale up if you want a specific height, width or depth to be a specific dimension.

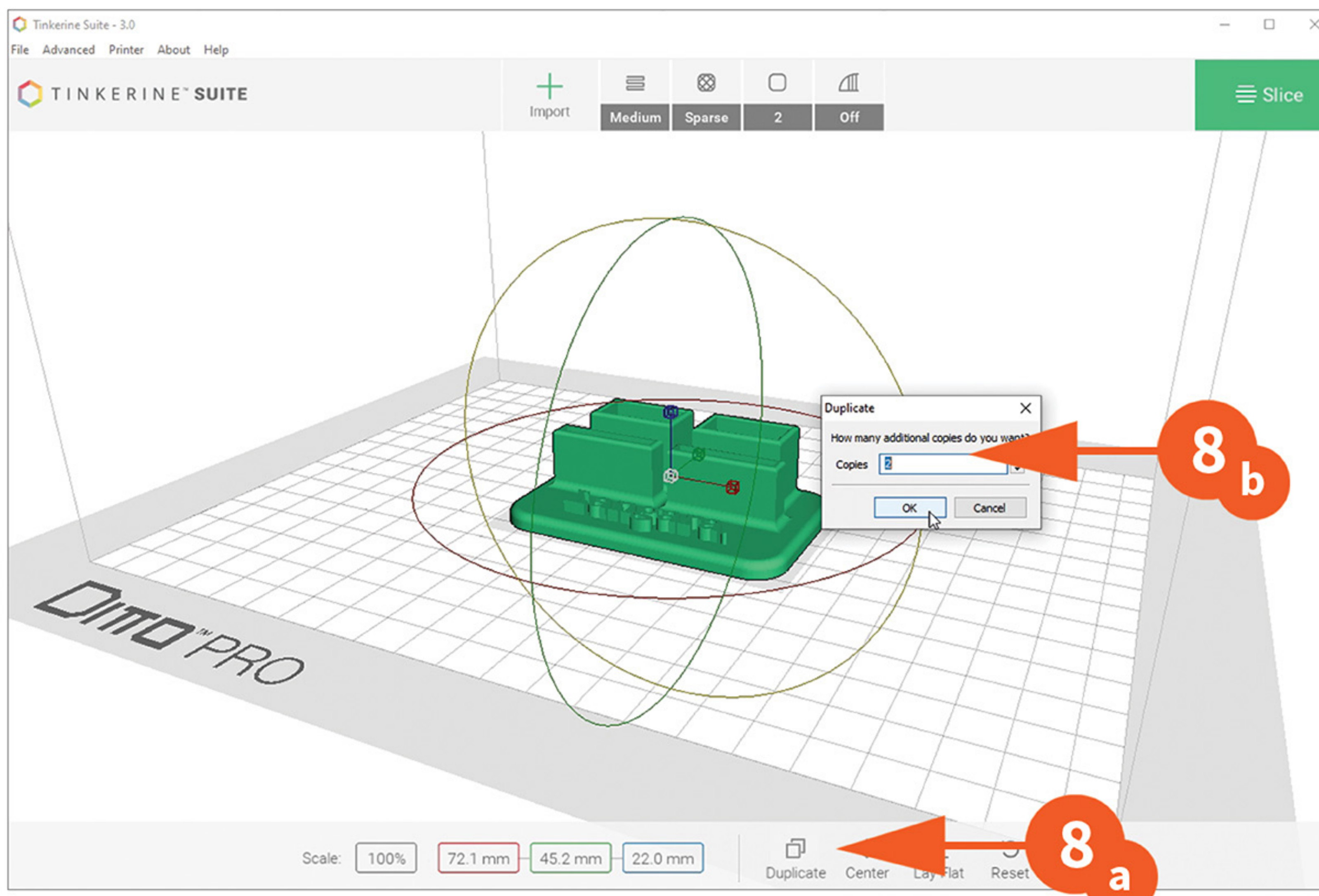
Make sure your object is selected, and then just enter the dimension in one of the 3 coloured boxes. All the dimensions are linked, so it will scale up evenly.

RED is X (Width)

Blue is Z (Height)

GREEN is Y (Depth)





8

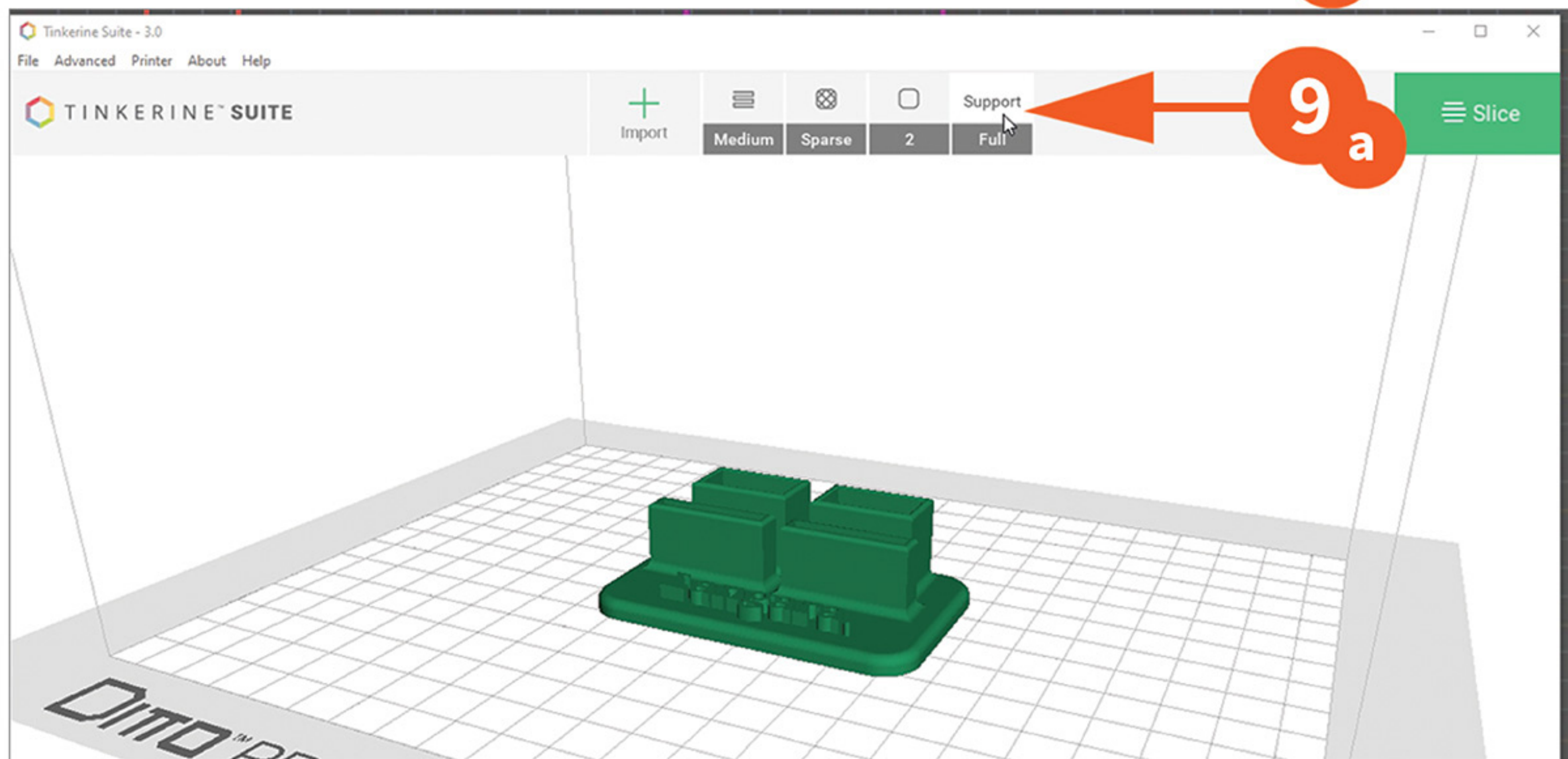
Duplicating Your Object

To duplicate your object, click on it (it should turn green)...

8a - Then click on the Duplicate button

8b - And enter the number of copies you would like.

i.e. 1 would make 1 more copy, 2 would make 2 more.

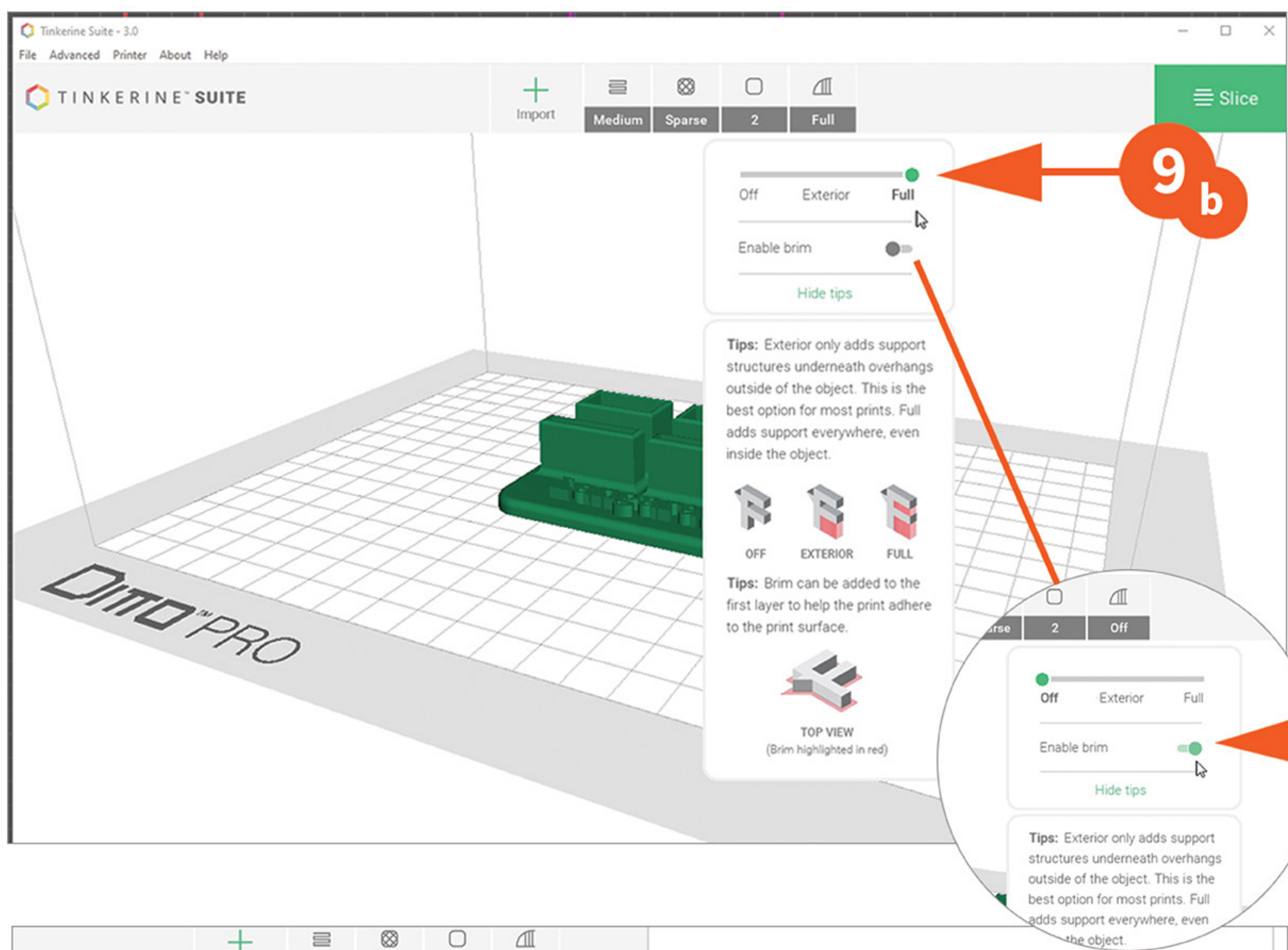


9

Print Supports & Brim

9a - Click on the Support button.

9b - If your object has any overhangs* use Full Support, otherwise use No Support. Supports can leave a rough edge after removed, so it is best to avoid them if possible.

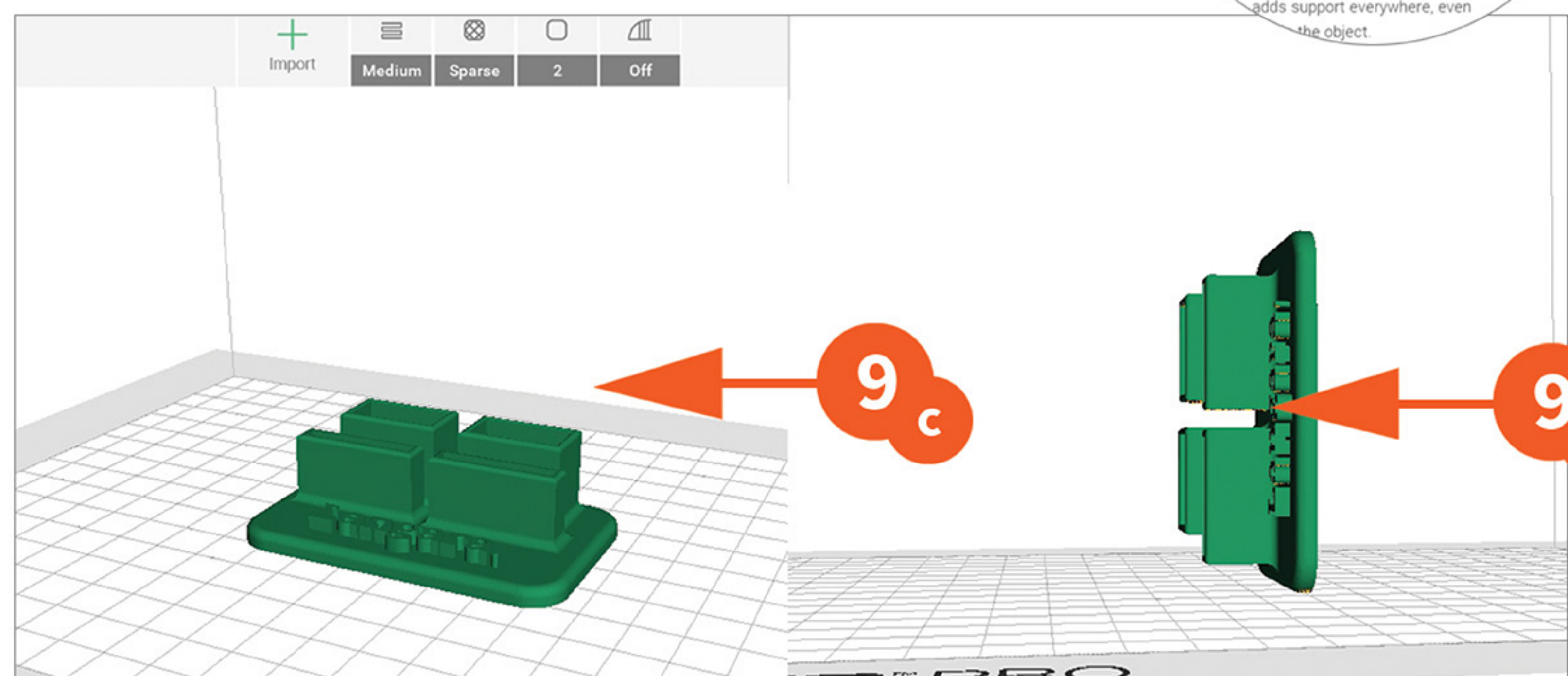


* To understand an overhang: stand upright, both arms to your side... this would be No Overhangs. Now stand with one of your arms extended out fully, this would be Overhangs.

9c - An example of No Overhangs.

9d - An example of Overhangs.

9e - Only if your object has a small bottom area or base, should you use Brim. Brim lays down a foundation layer that can be hard to get off later.



10

Slicing Your Object & Saving Your Code

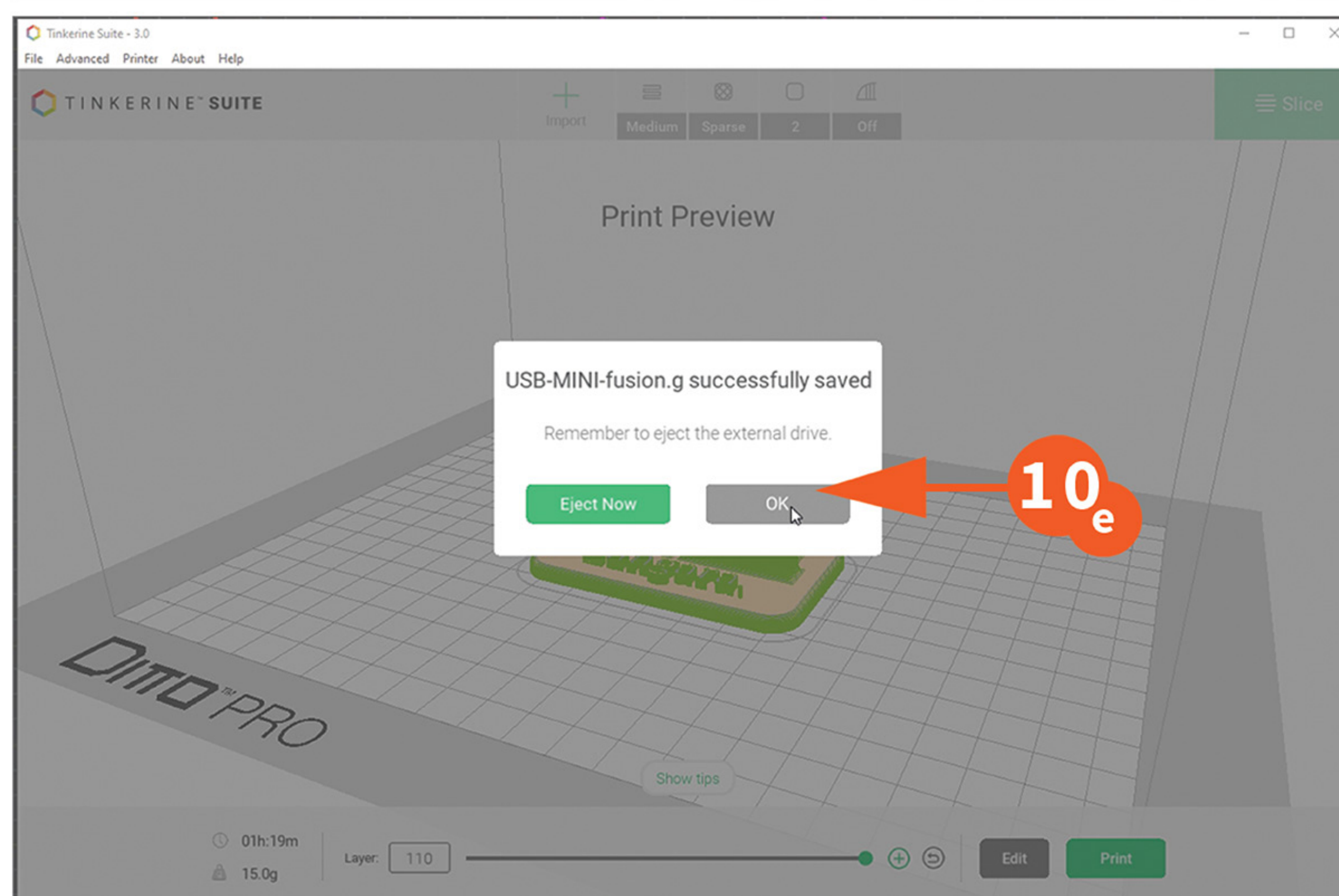
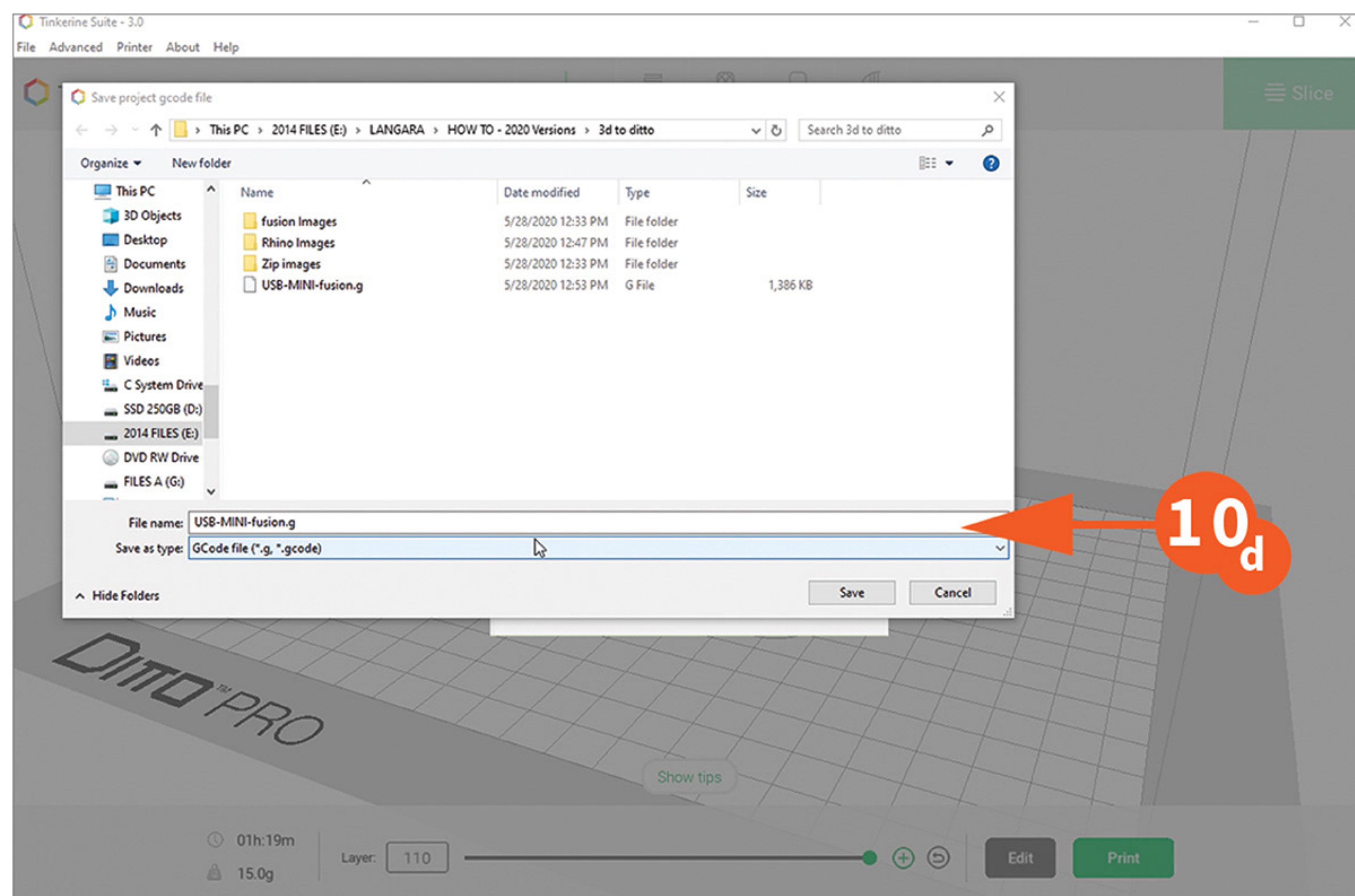
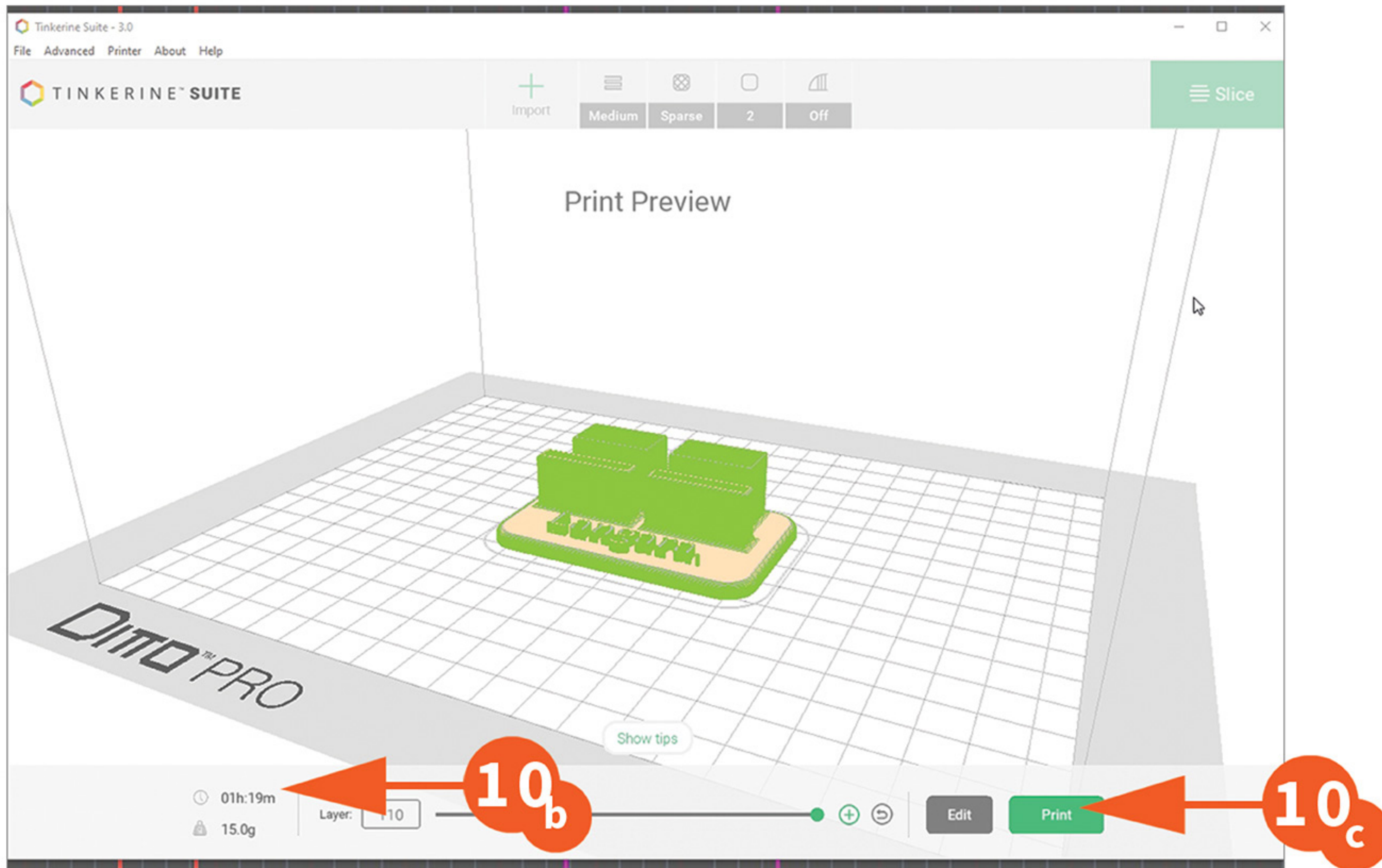
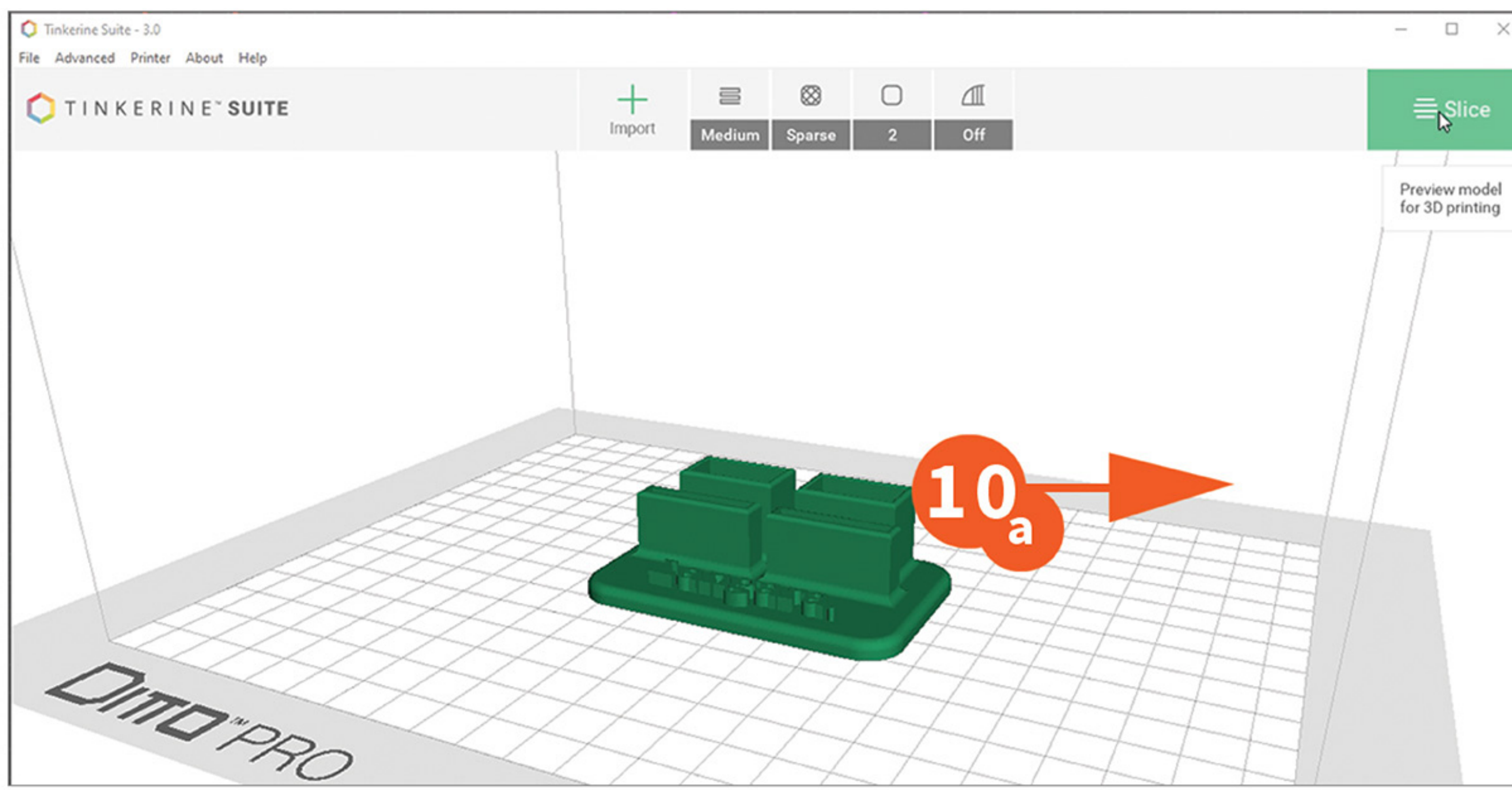
10a - When your object is ready, click on the Slice button.

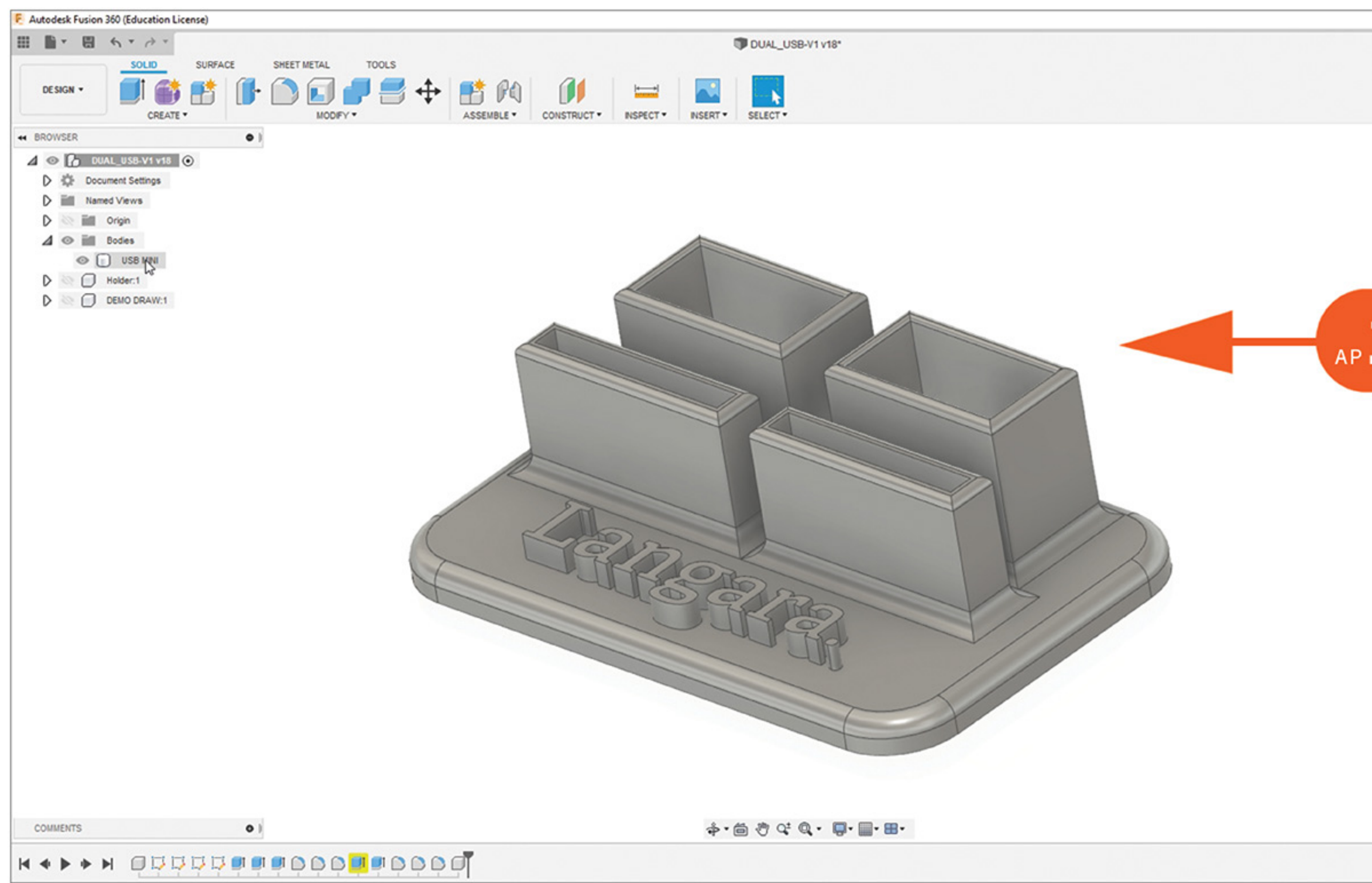
10b - The estimated Print time.

10c - Click on Print, this will save the G code for the Tinkerine DittoPro printer.

10d - Save your file to a folder or USB.

10e - Click on eject to eject your SD card. Also eject your USB from the computer





AP 1

Appendix - STL from Fusion 360

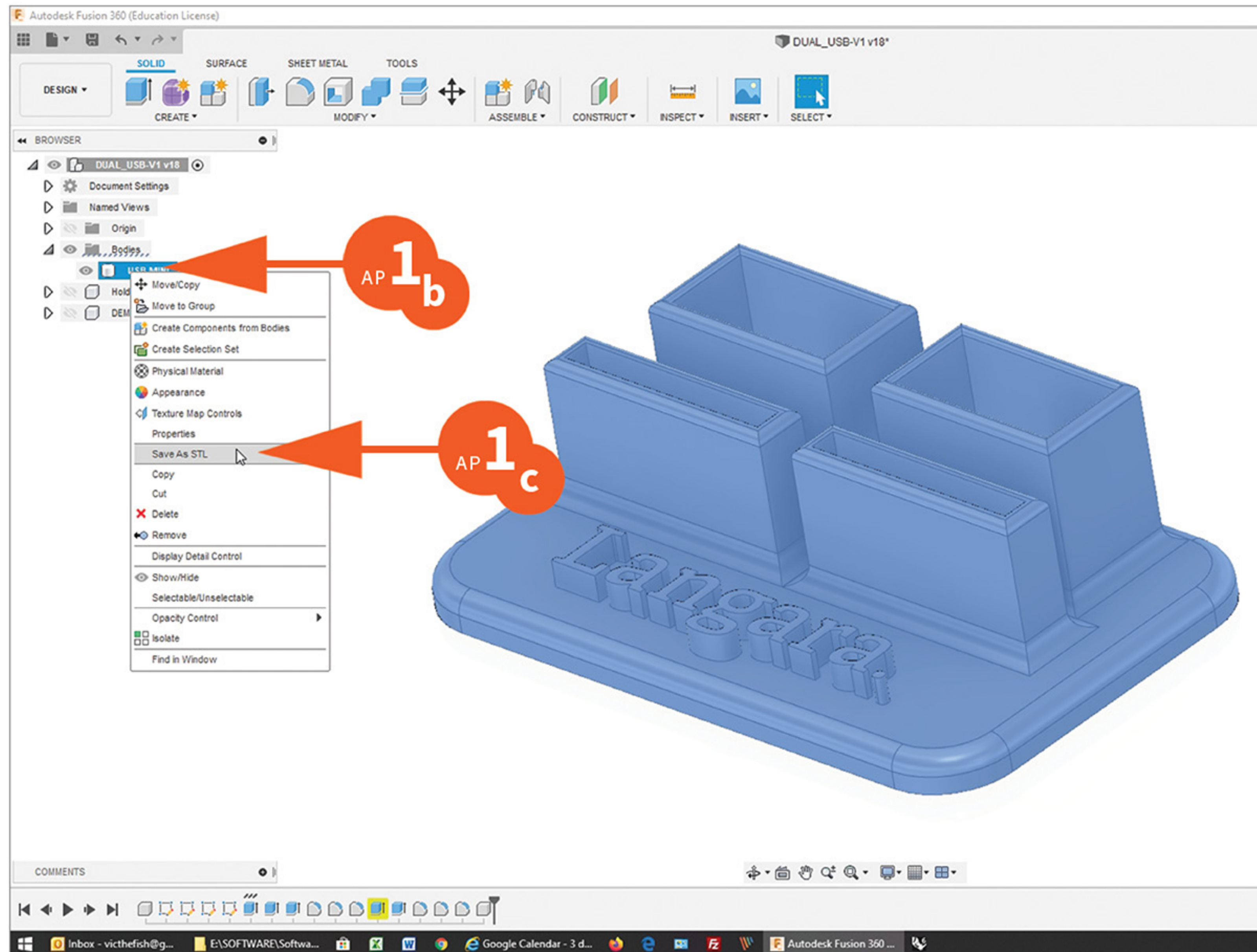
AP1a - Open up your file in Fusion 360.

AP1b - Select the object you want to print.

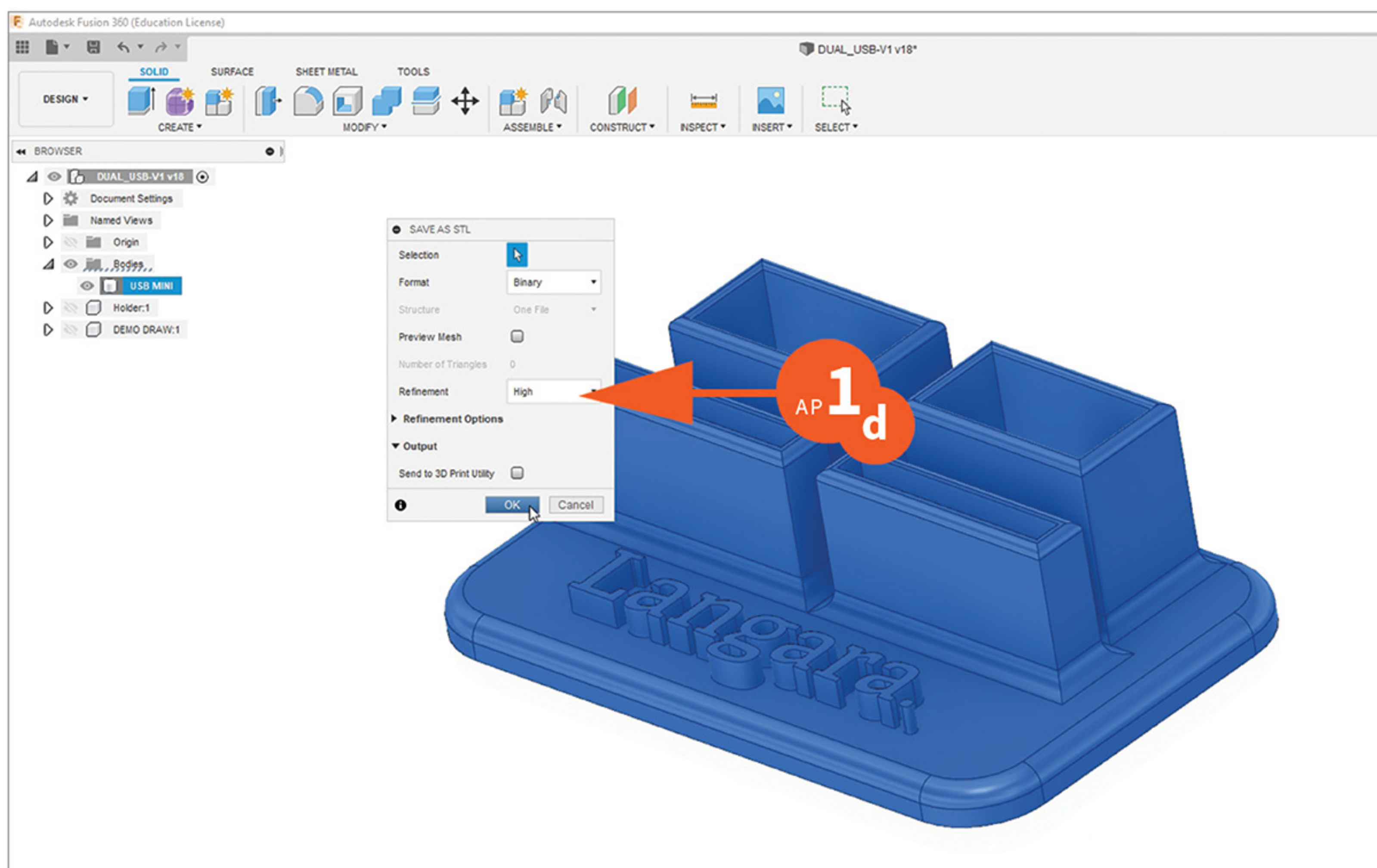
AP1c - Click on Save As STL from the pop up menu.

AP1d - Set Refinement to High, and click OK. Save the STL file where you can find it.

You will need to Zip Compress your STL, if you are uploading it to the Makerspace.



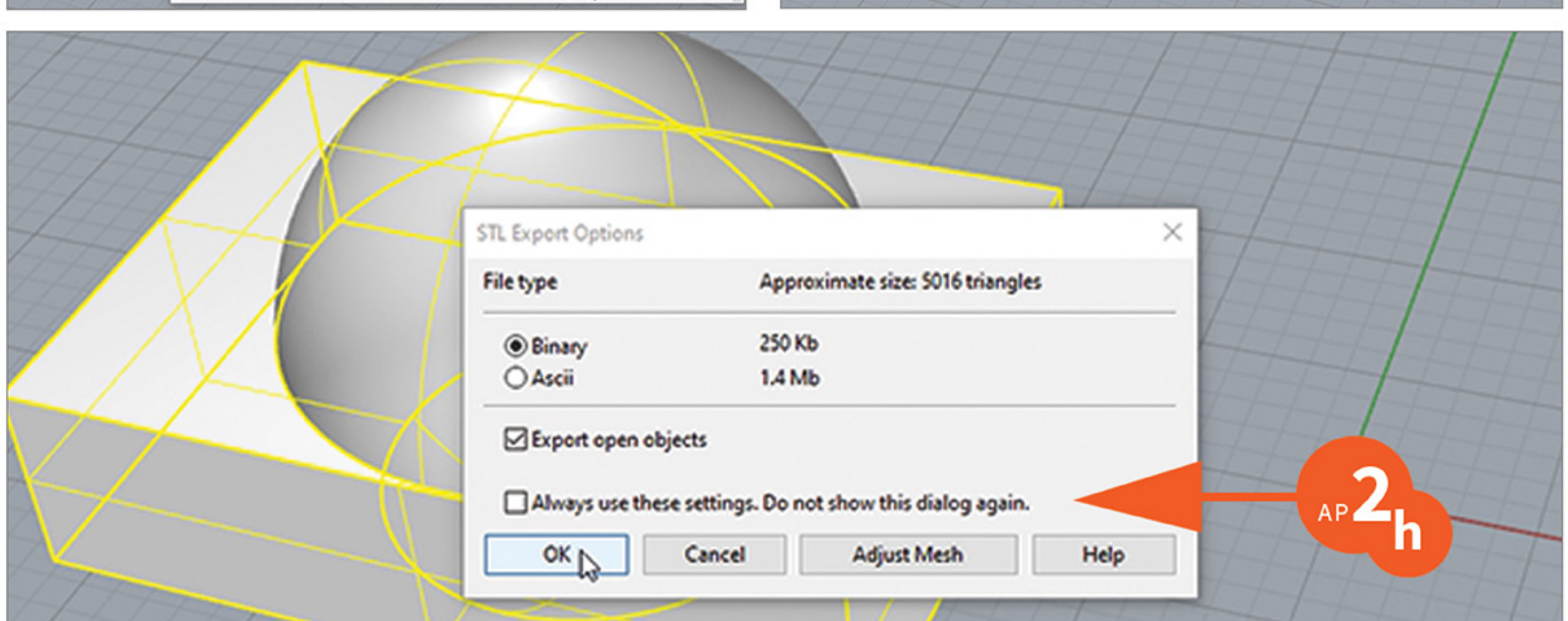
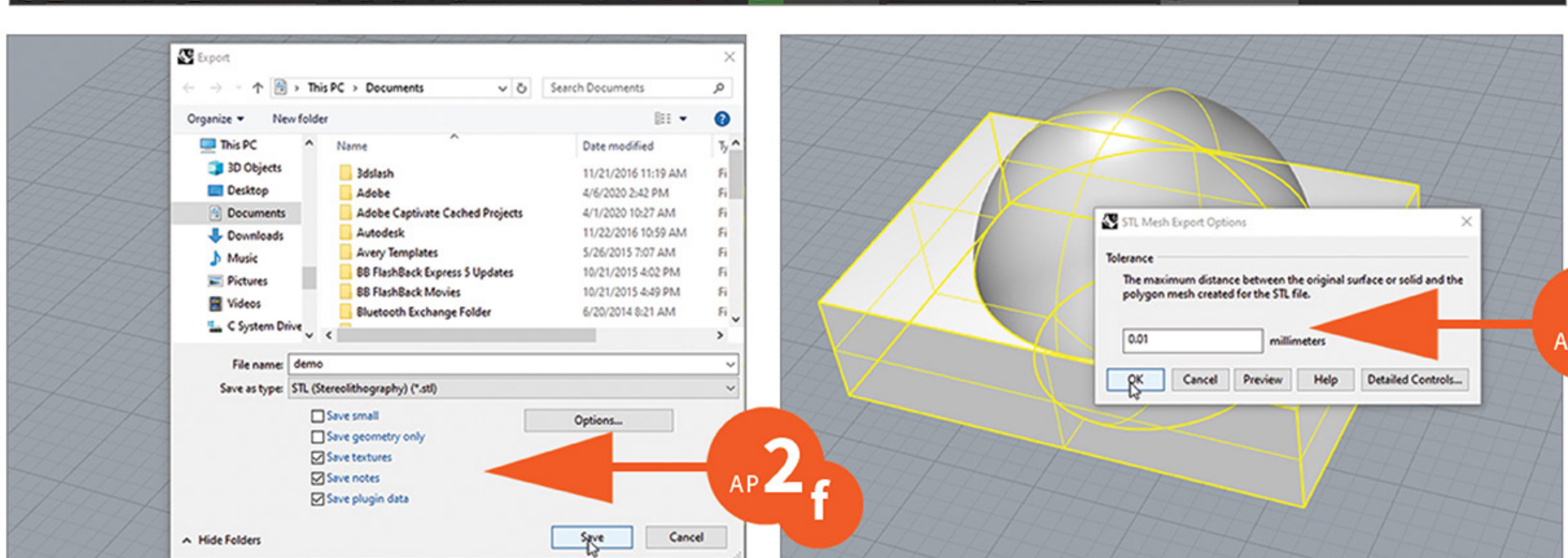
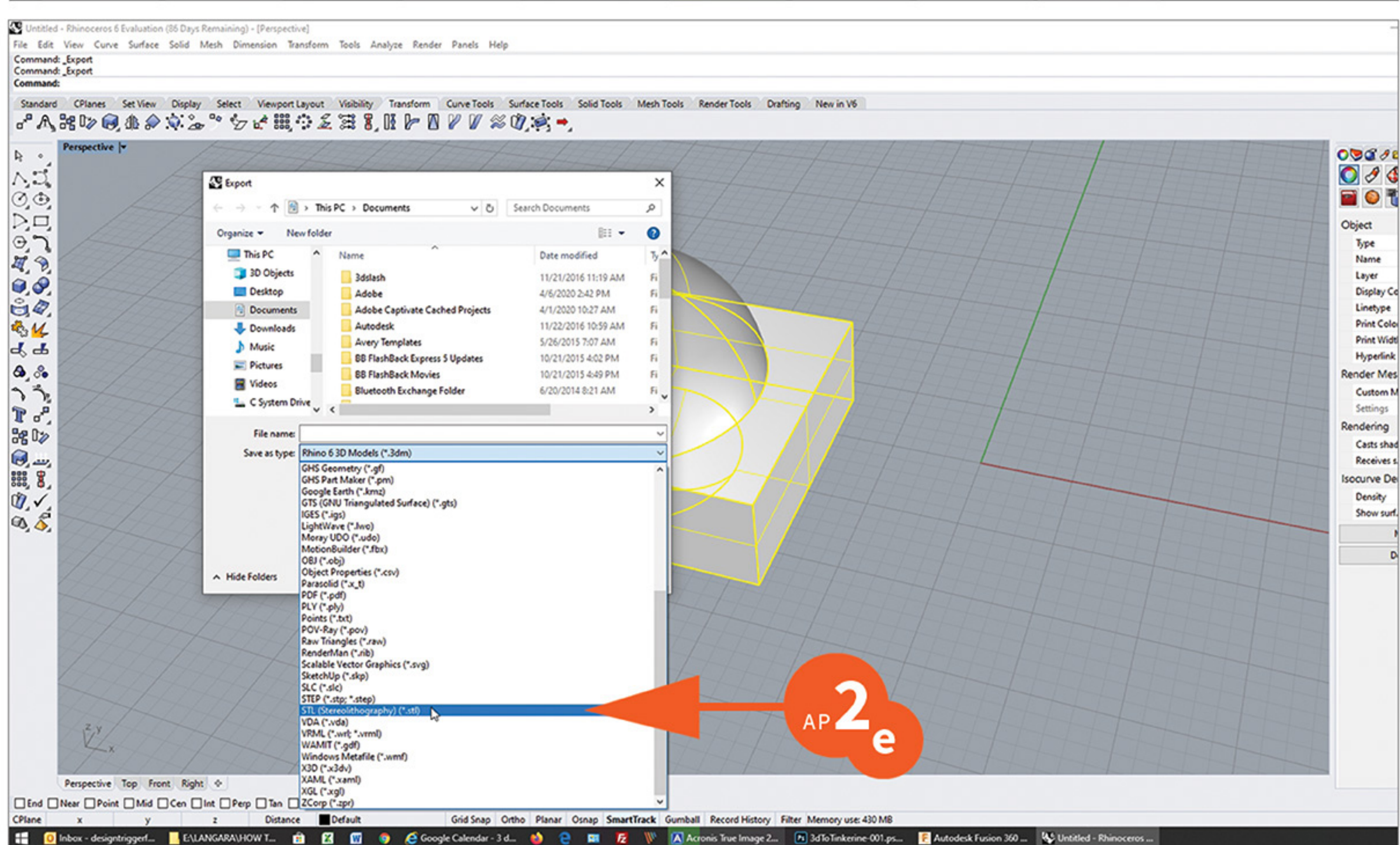
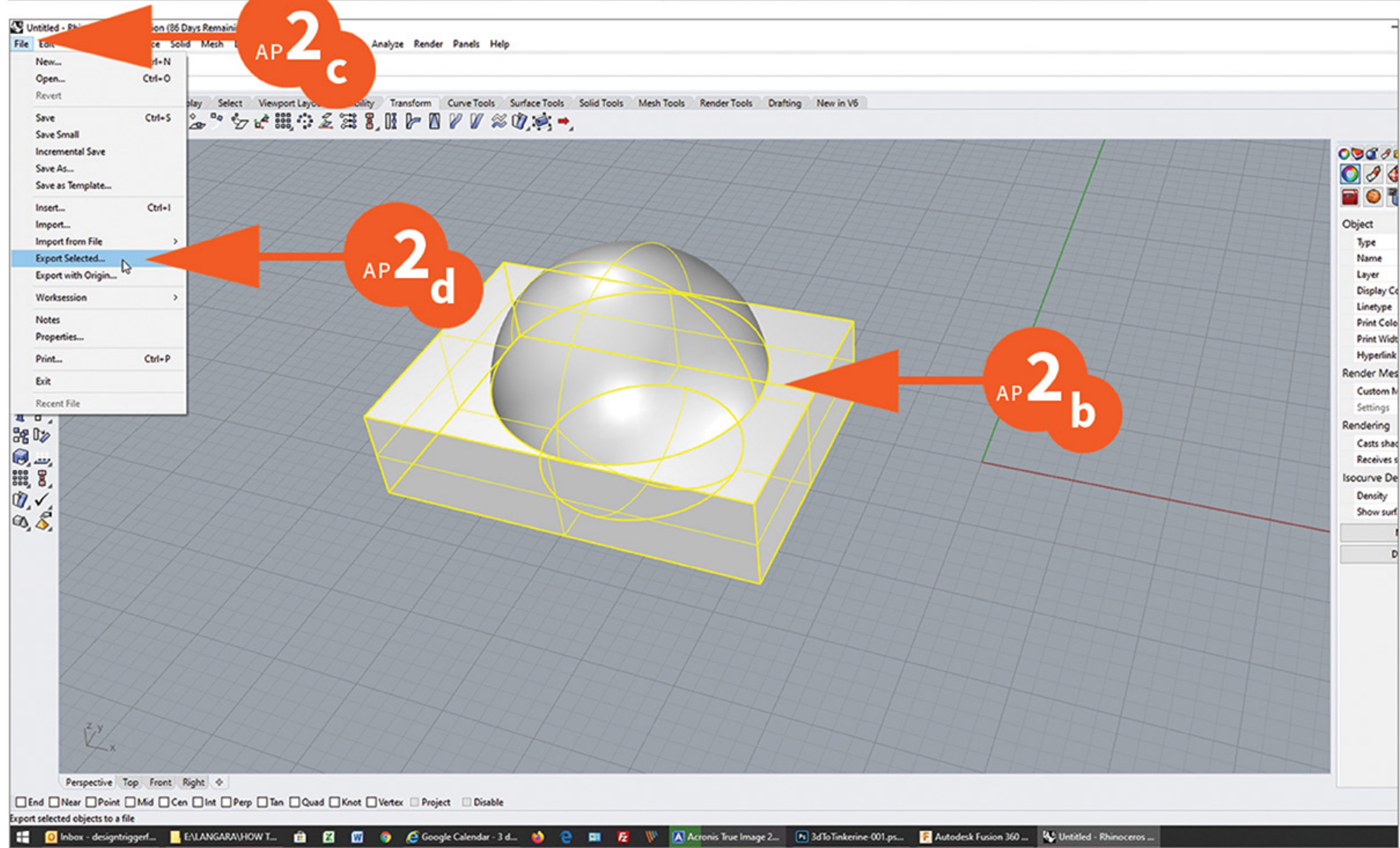
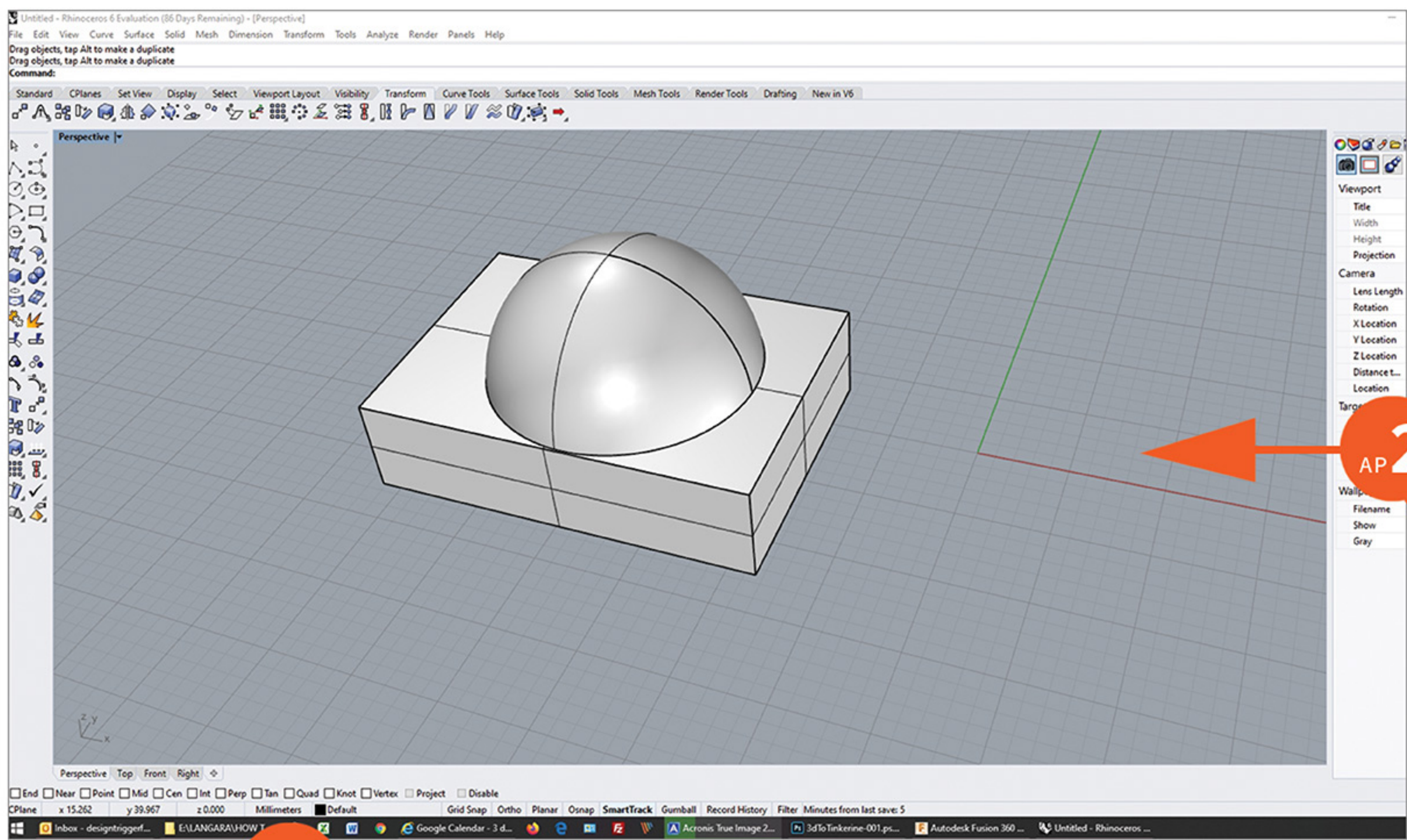
ONLY SAVE 1 OBJECT for each STL. You can print more than 1 object at a time, but they need to be brought in as individual STL files.



AP 2

Appendix - STL from Rhino 3D

- AP2a - Open up your file in Rhino 3D.
- AP2b - Select the object you want to print.
- AP2c - Click on the FILE tab.
- AP2d - Select and click on Export Selected.
- AP2e - Select STL from the drop down menu.
- AP2f - Save with Check Boxes as shown.
- AP2g - 0.01 mm, Click Ok.
- AP2h - Binary, Click Ok.



ONLY SAVE 1 OBJECT for each STL. You can print more than 1 object at a time, but they need to be brought in as individual STL files.