

Ceiling Lamp



Project Goals

Create a light using a Recessed Ceiling LED Led.

The lamp is made by 2 body:

- Lamp Base: this is fixed to the wall or to the ceiling
- Lamp Case: this is the removable part where the Recessed LED Light is mounted.

The 2 body are connected with a thread, like a jar and his cap.

The resulting object is quite big the 2 part can be printed in one go.

This is the first project where I use 3D Printed threads.

Reference

These are the Recessed LED Lights I have used for the project.

<https://amzn.eu/d/hiAGEYF>



Tomosu Faretto LED da Incasso per Cartongesso, 5W 450LM Luci da Soffitto Interno, Luce Calda 2700-3000K, Faretto led incasso IP44, Diametro Foro Ø75-90mm, AC 220-240V, Set di 10 [Classe di efficienza energetica F]

Visita lo Store di Tomosu

4,5 ★★★★★ (1.276)

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Offerta a tempo

-5% **24²² €** (2,42€ / unità)

30gg - Prezzo più basso: 25,49€ ●

Prezzo mediano: 29,99€ -19%

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Recessed LED Lamp Size



Diameter: 72 mm

Maximum diameter: 98 mm

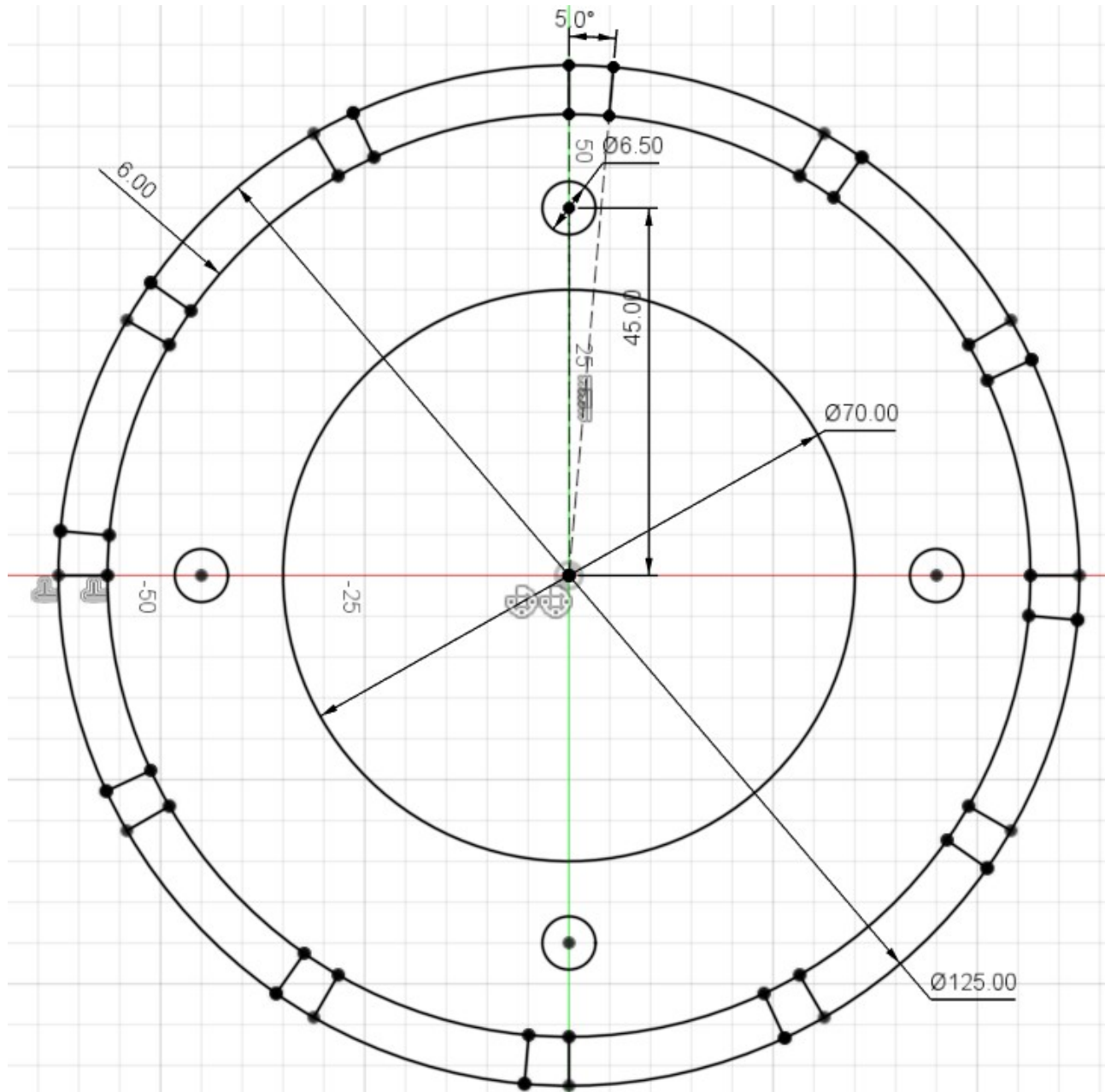
Height: 50 mm

Drawings: Lamp Base

The outer diameter is 125 mm

The outer wall is 6 mm thick to accommodate the thread.

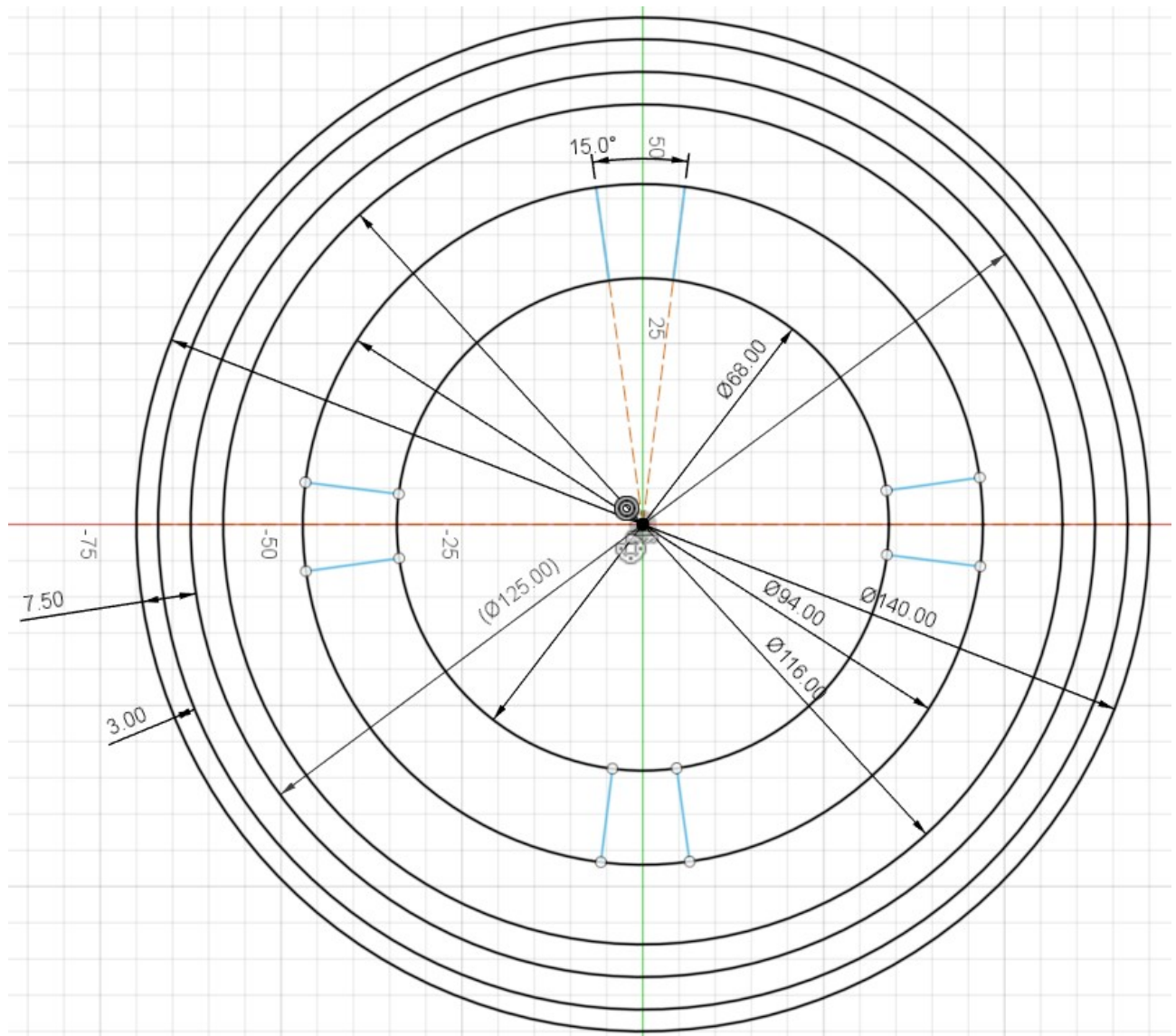
There are 12 slots on the side that are used to vent out the heat generated by the lamp.



Drawings: Lamp Case

This is the case for the recessed LED light.

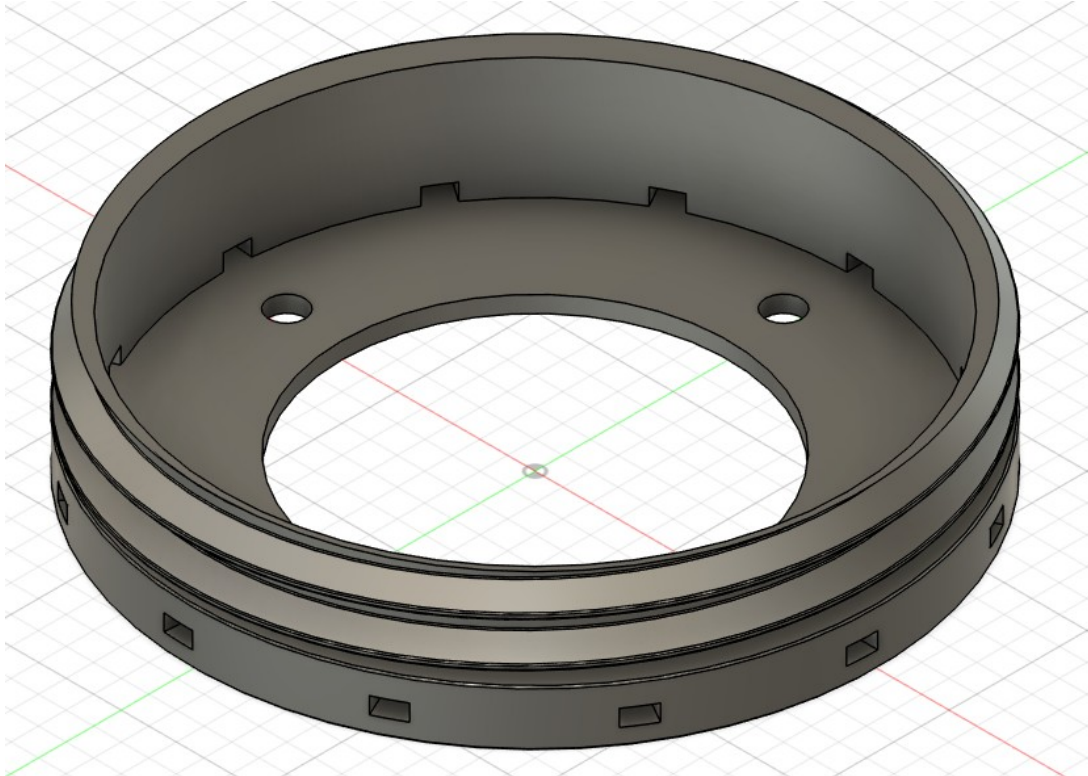
The maximum external diameter is 140 mm



3D Model: Lamp Base

The base thickness is 3 mm. The big hole in the center is used to accommodate the plastic tube with wires.

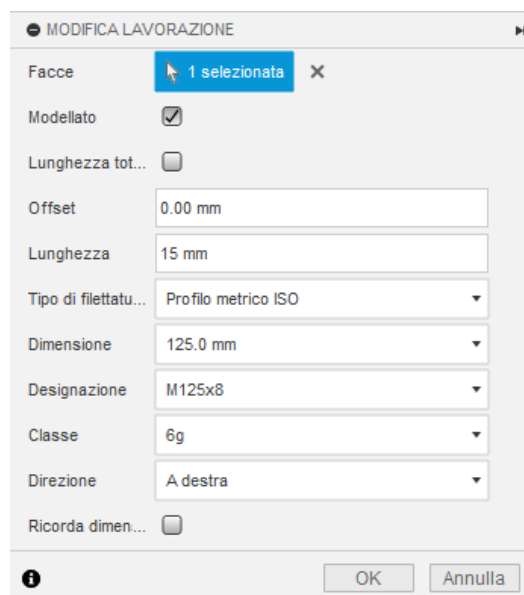
The wall height is 25 mm



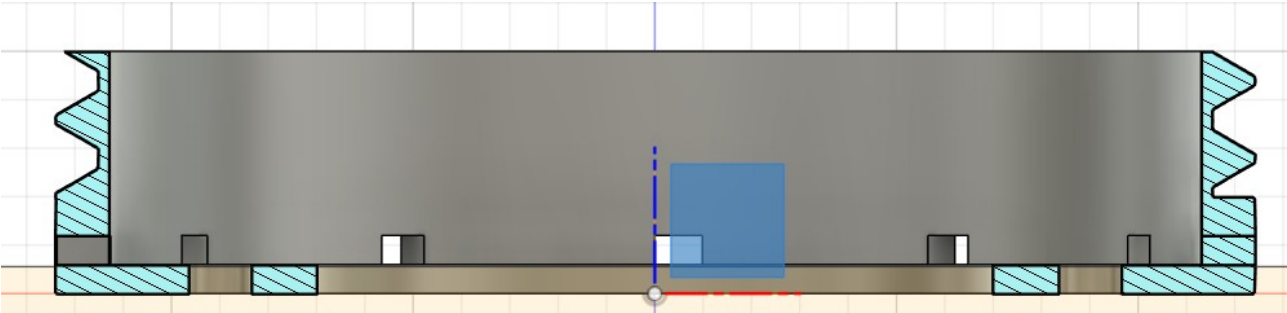
Side wall thread

The side thread is metric, 15 mm high and M125x8 mm.

In order to have a smooth coupling, the thread surface are recessed by 0.2 mm.



This is how the thread looks like using an section inspection.

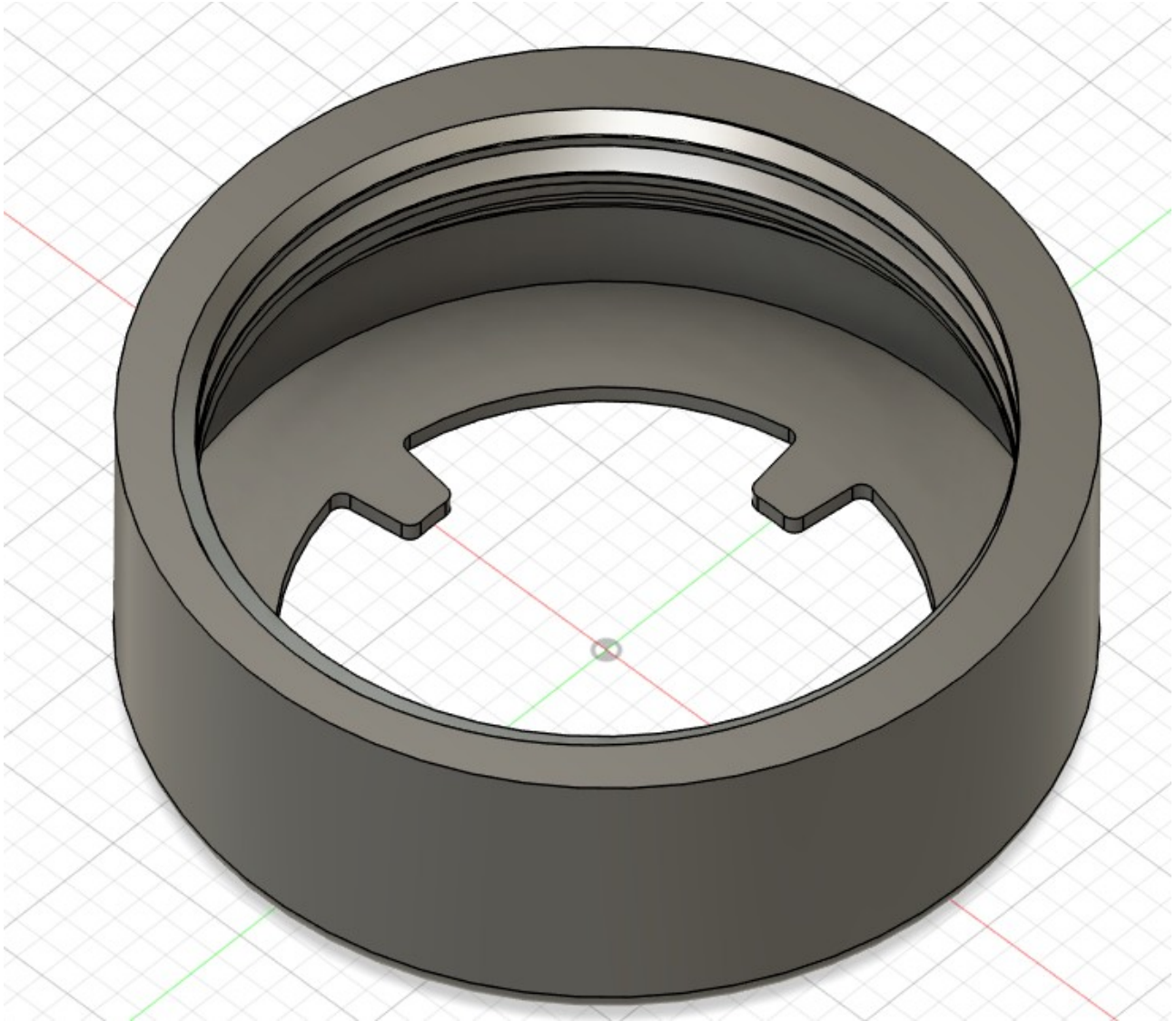


3D Model Lamp Case

Extrusion:

- Base 3 mm
- Body 5 mm

There are 4 parts that moves from outside to inside and are used to keep the recessed LED centered.



Threads

0,3 for Fillet and for offset of all faces of the male thread

MODIFICA LAVORAZIONE

Facce

1 selezionata

X

Modellato

☒

Lunghezza tot...

☐

Offset

0.00 mm

Lunghezza

25 mm

Tipo di filettatu...

Profilo metrico ISO

▼

Dimensione

110.0 mm

▼

Designazione

M110x6

▼

Classe

6H

▼

Direzione

A destra

▼

Ricorda dimen...

☐

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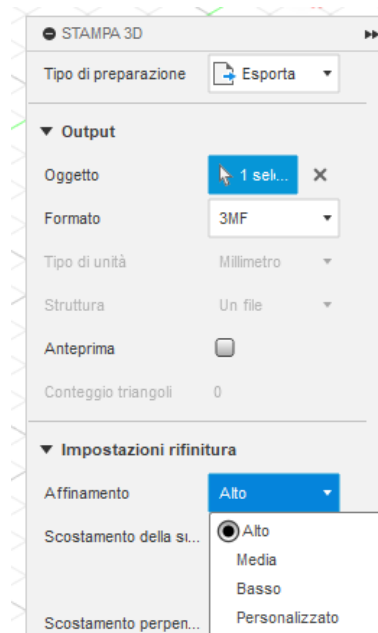
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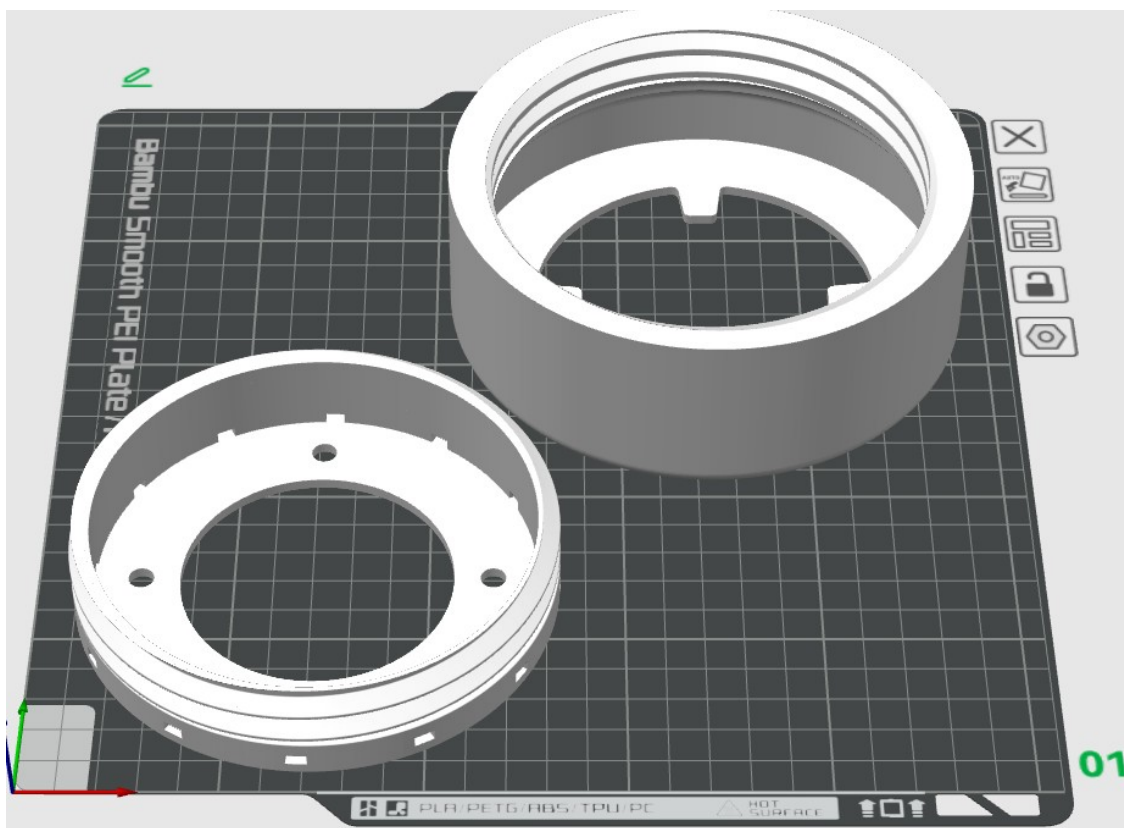
3D Printing

Export configuration

To achieve a good print quality it is mandatory to configure the export dialog for a high level of refinement.



Ready to print layout



Appendix

Reference about using Fusion 360 and Threads

<https://www.youtube.com/watch?v=aGWrFeu8Hv0>

3D Printed Threads - Model Them in Fusion 360 | Practical Prints #2