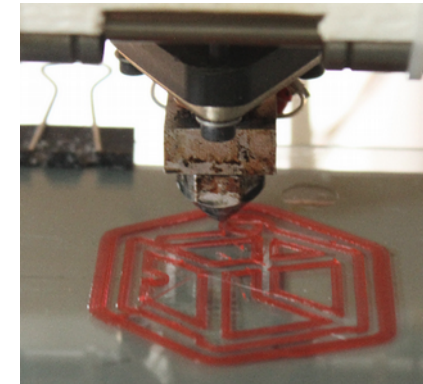
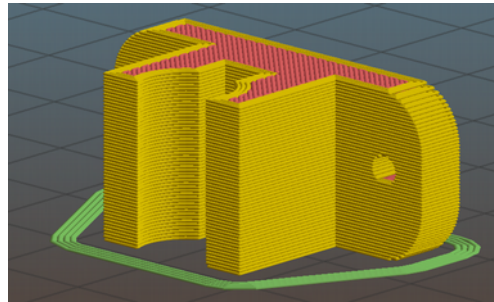
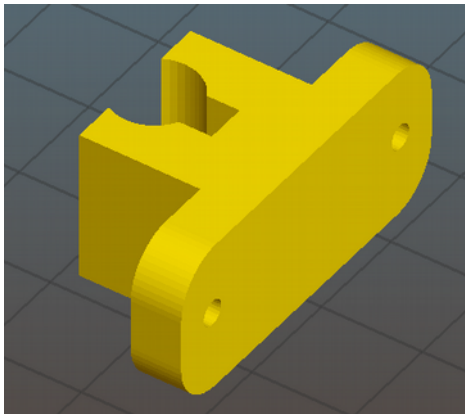


Taller impresión 3D inicio teórico

http://www.fablabsantander.org/files/talleres/impresion3D/pres_taller_impresion_3D_v2.pdf

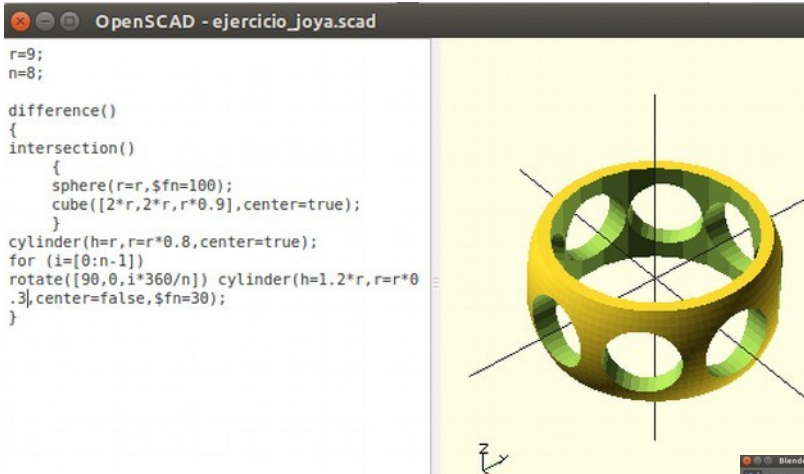
Diseño → Capas → Impresión



DISEÑO opensource

FreeCAD

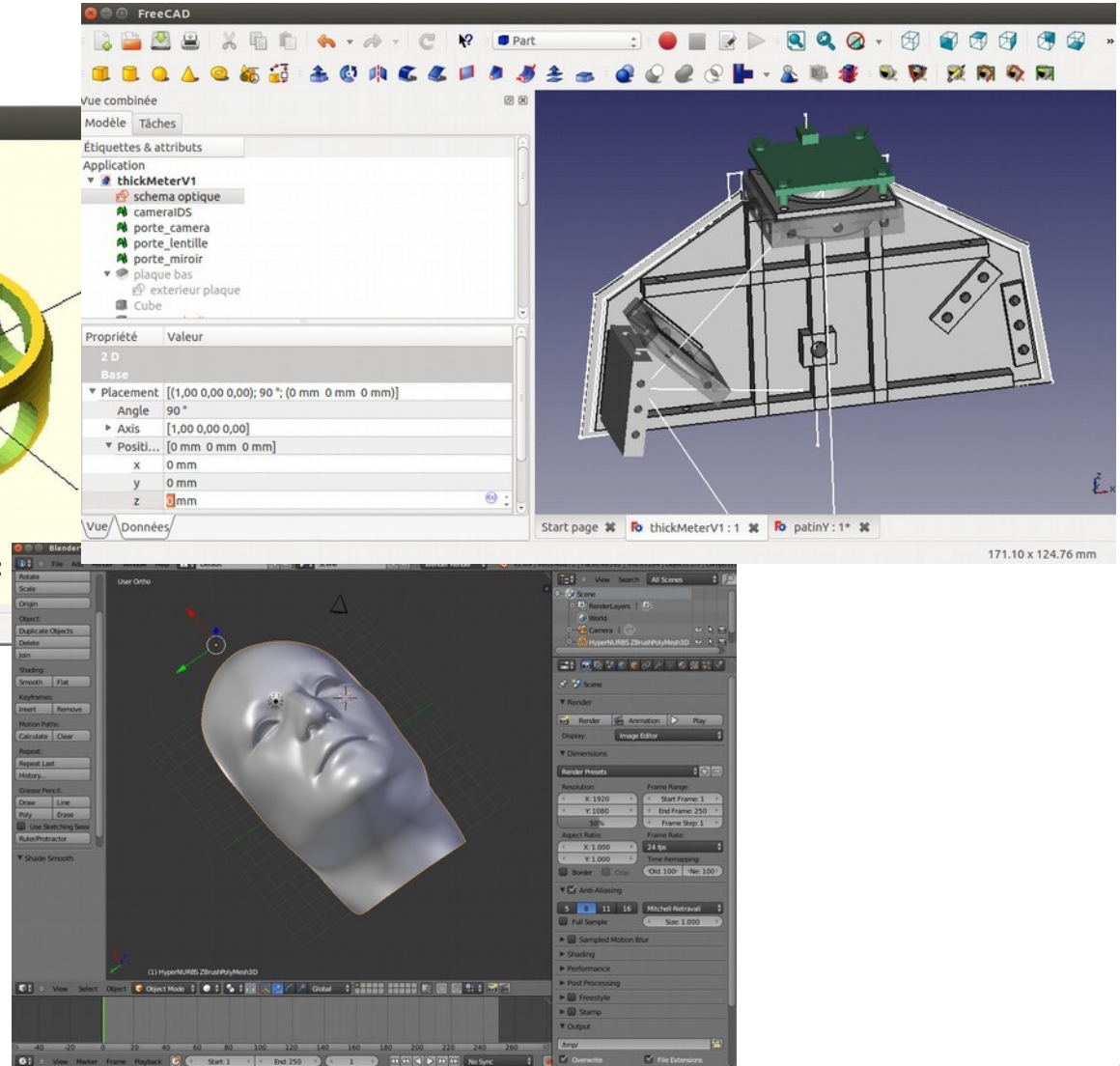
Openscad



Marius Kintel , Clifford Wolf

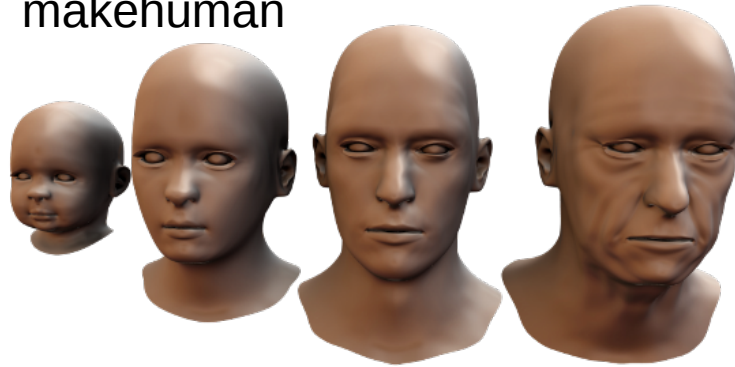
Viewport: translate = [0.00 0.00 0.00], rotate = [49.40 0.00 50.90], distance = 156.91

Blender



Otros

makehuman



(c) MakeHuman 2014

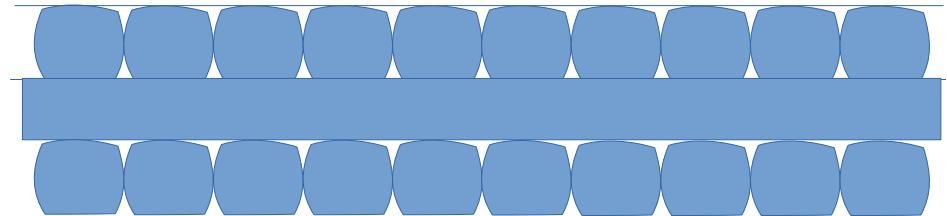
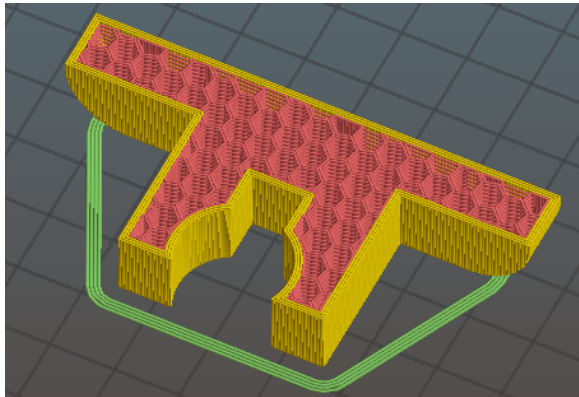
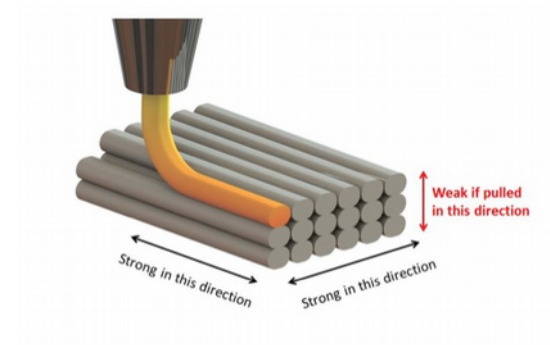
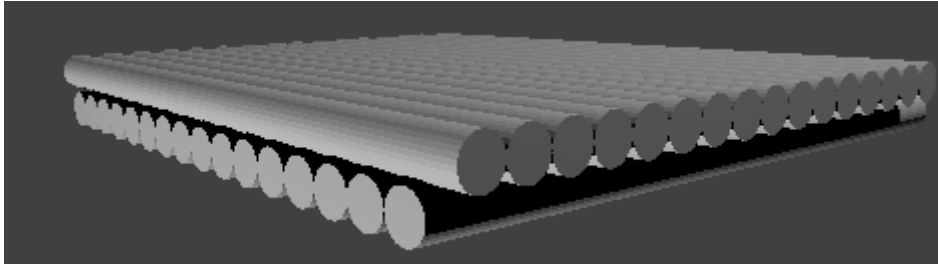
ONLINE:



Con licencia:

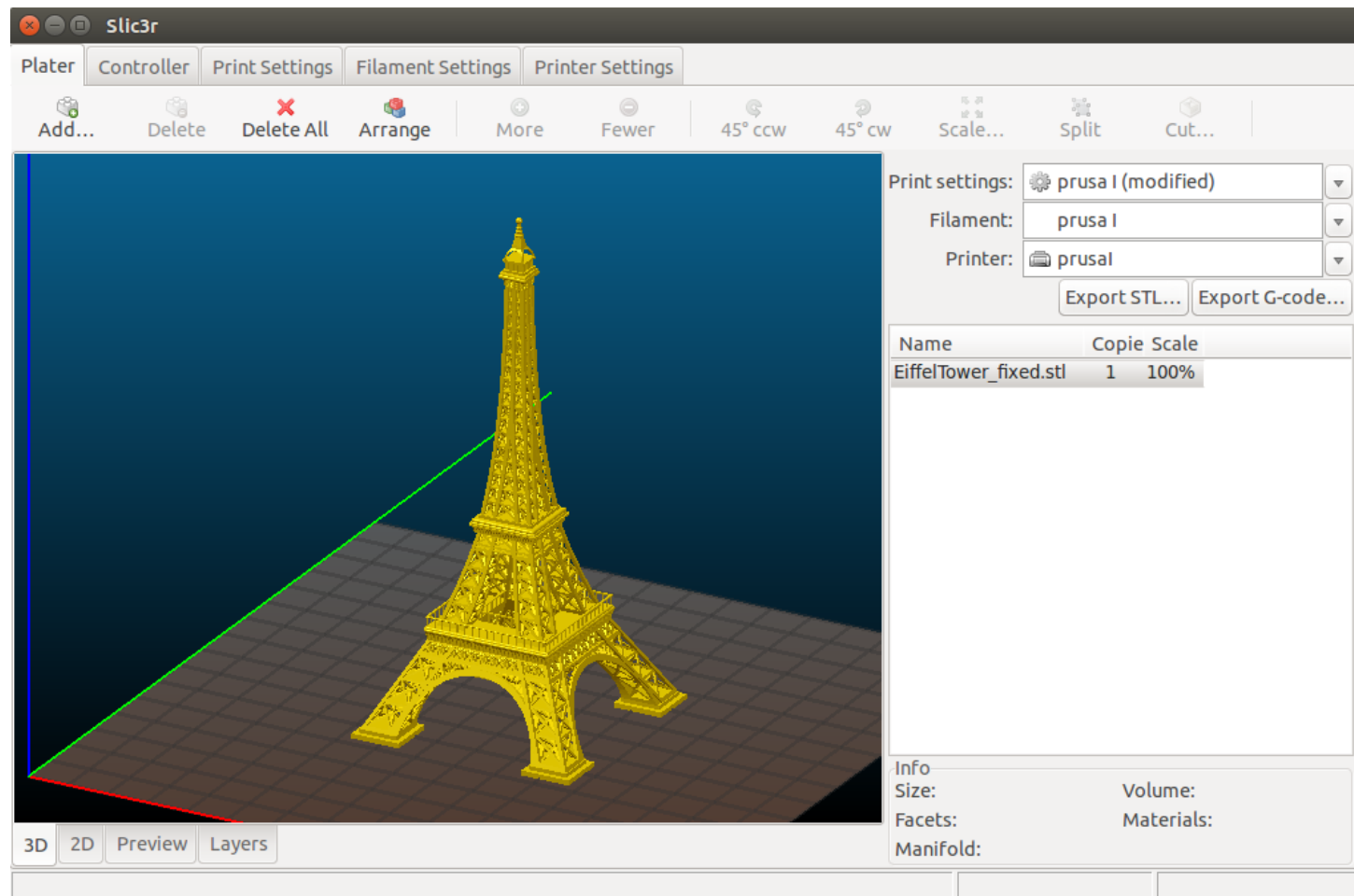
Inventor (Autodesk), SolidWorks (Dassault Systèmes), SolidEdge (Siemens), Rhinoceros, Cinema4D, Zbrush, etc

Capas...

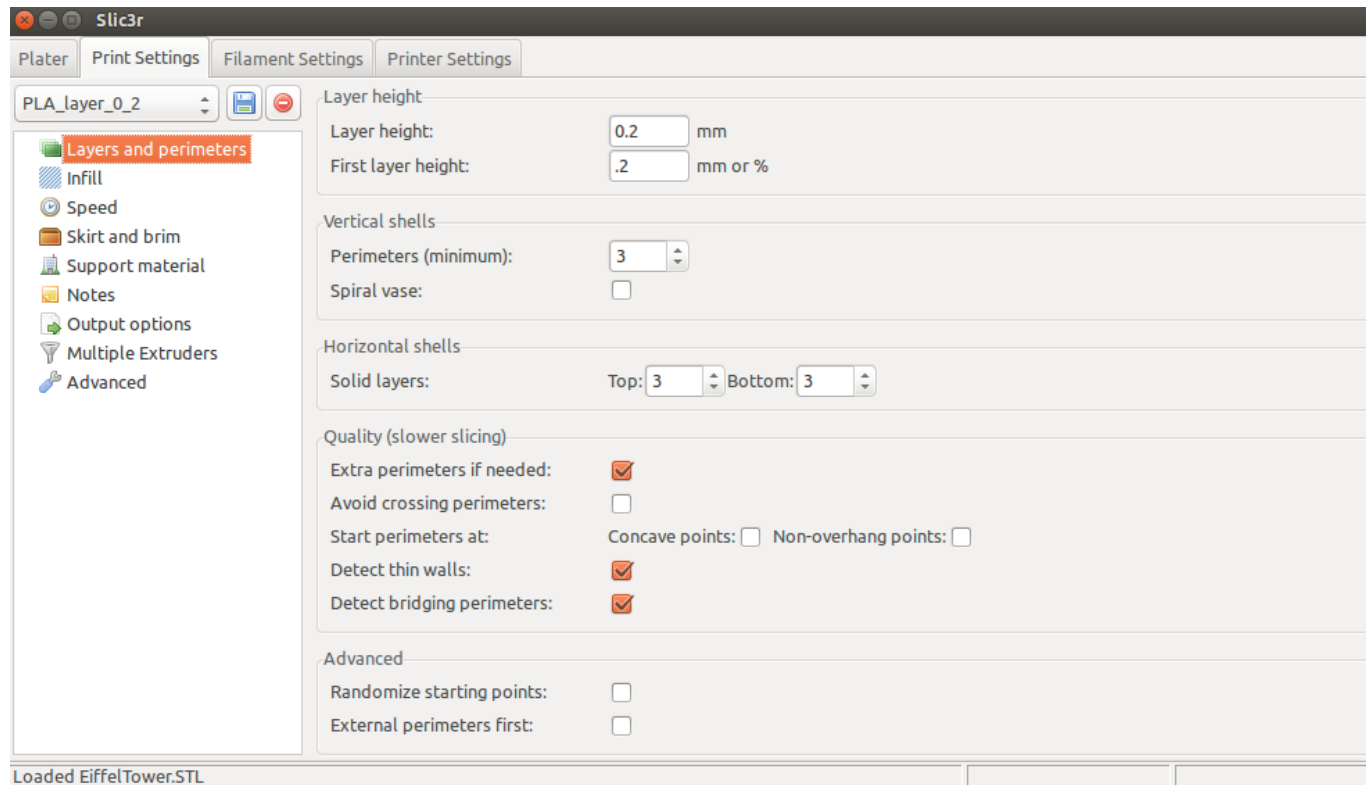
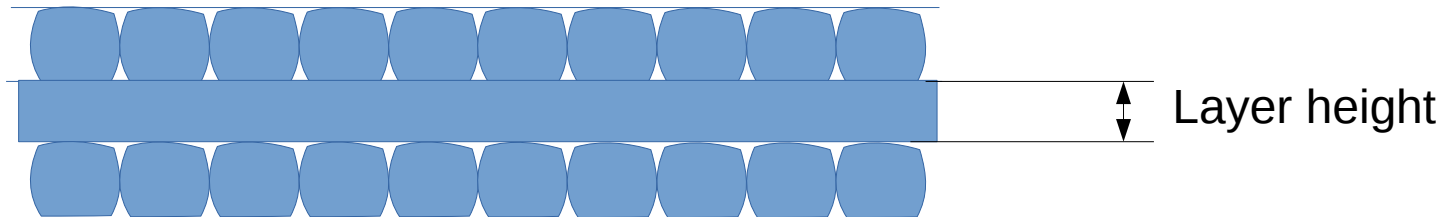


Slic3r

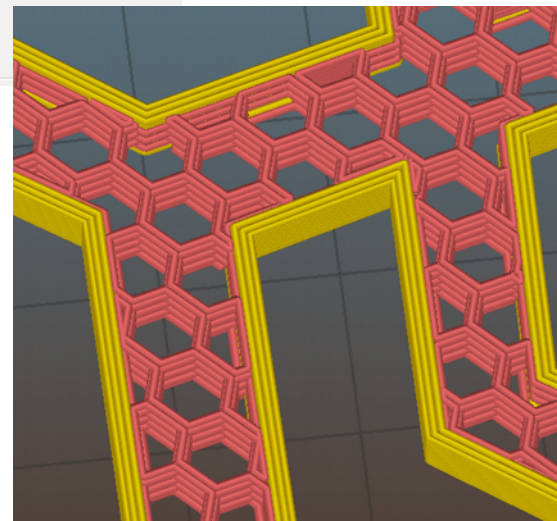
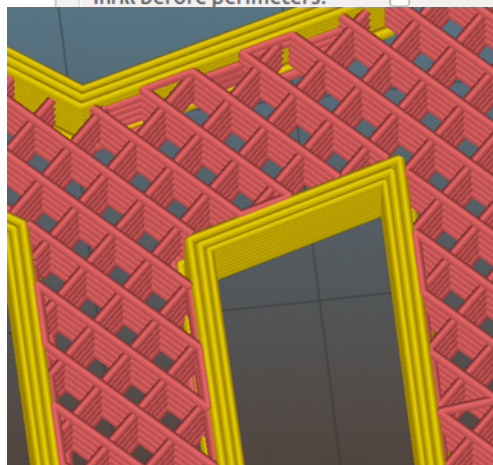
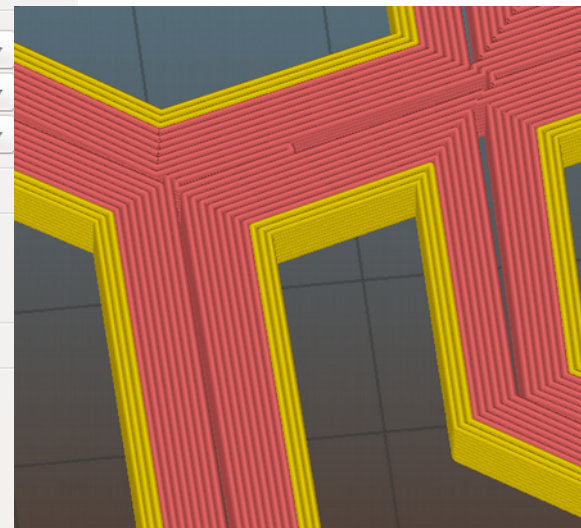
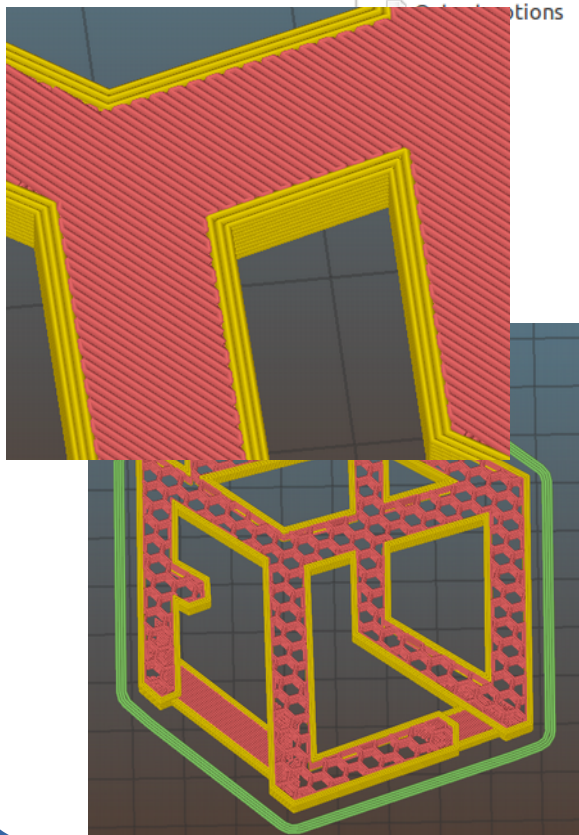
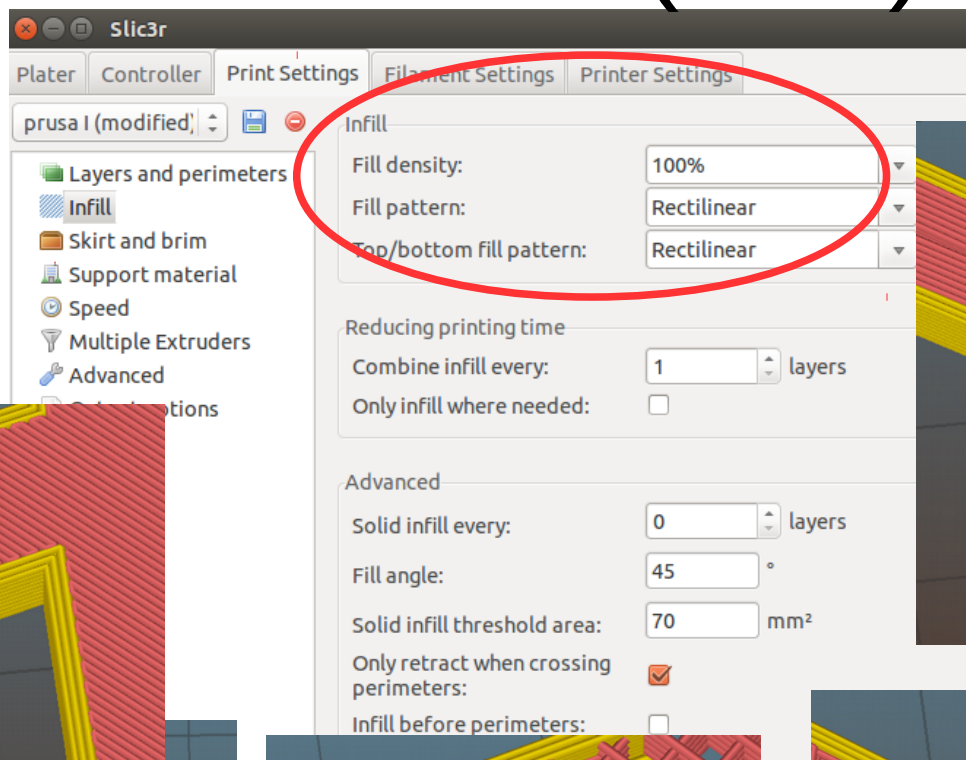
Slic3r, Skeinforge, Repetier, Cura.
Modelo 3D (STL) → GCODE



Altura de capa



Relleno (Infill)



Velocidades

prusa i (modified)

- Layers and perimeters
- Infill
- Skirt and brim
- Support material
- Speed**
- Multiple Extruders
- Advanced
- Output options
- Notes

Speed for print moves

Perimeters:	50	mm/s
Small perimeters:	30%	mm/s or %
External perimeters:	70%	mm/s or %
Infill:	60	mm/s
Solid infill:	100%	mm/s or %
Top solid infill:	66%	mm/s or %
Support material:	100	mm/s
Support material interface:	100%	mm/s or %
Bridges:	50	mm/s
Gap fill:	20	mm/s

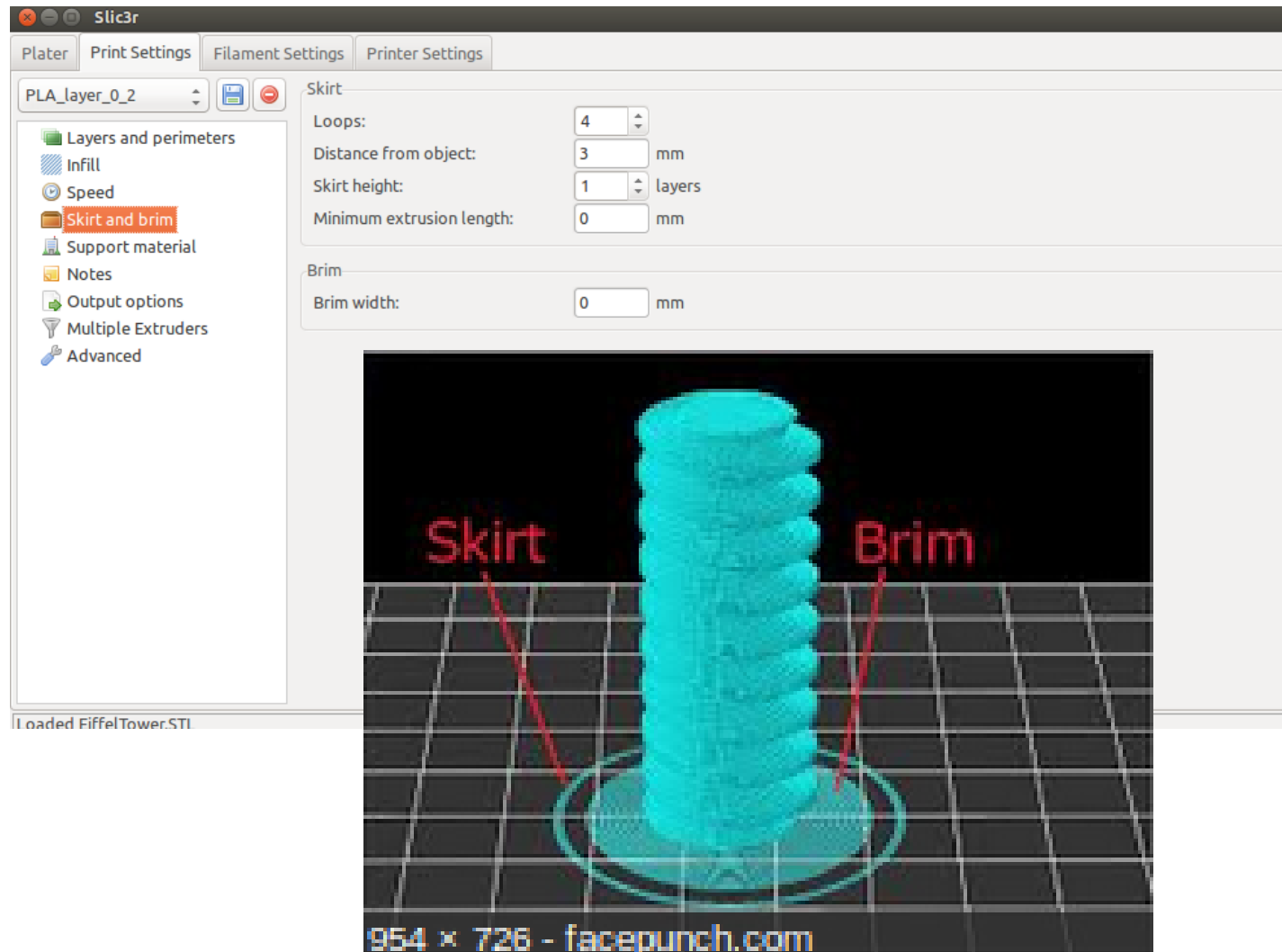
Speed for non-print moves

Travel:	130	mm/s
---------	-----	------

Modifiers

First layer speed:	50%	mm/s or %
--------------------	-----	-----------

Skirt & brim

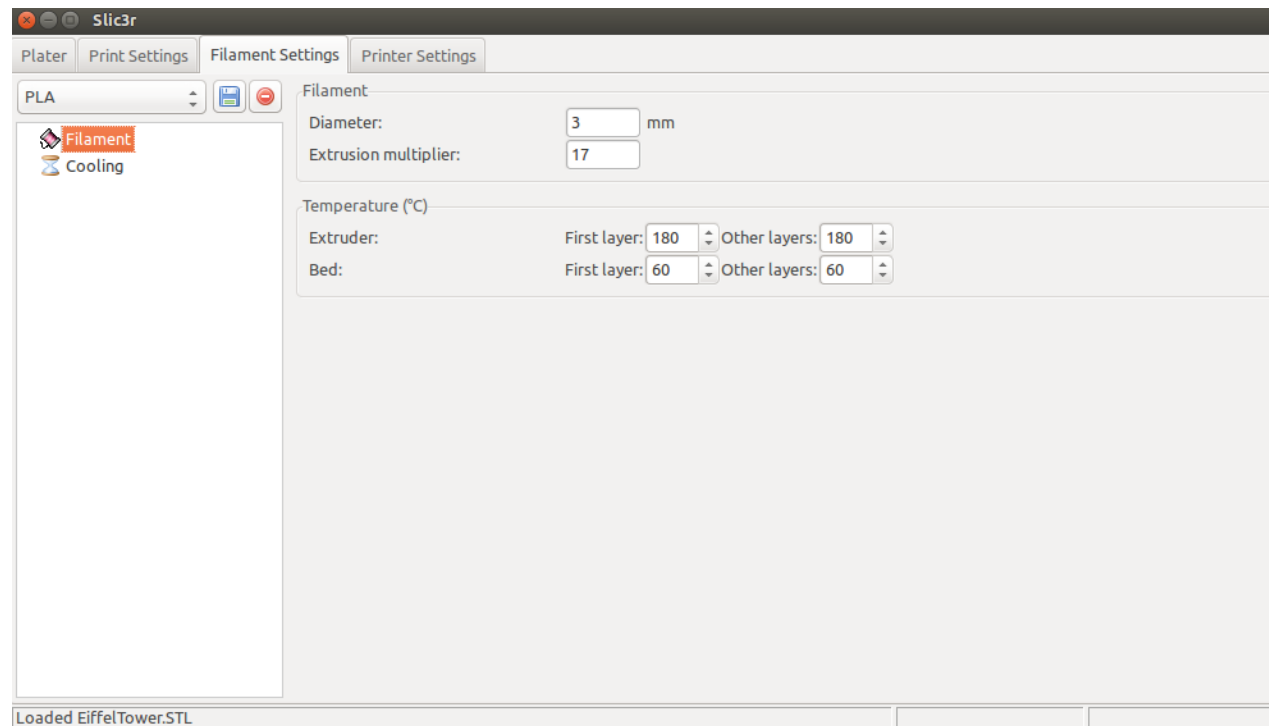


Falda (skirt)

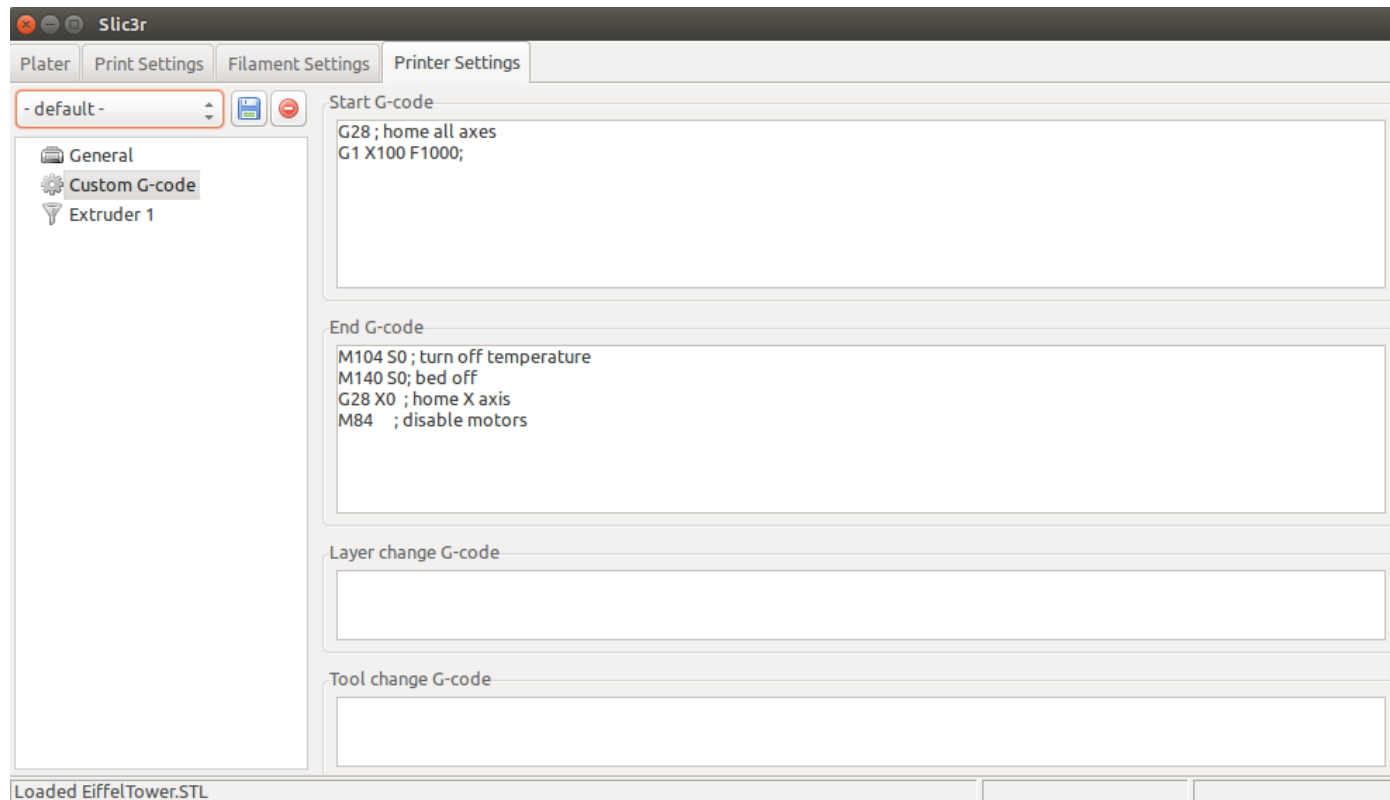
Base (brim):

Diámetro de filamento

Coeficiente de extrusion



Acciones suplementarias



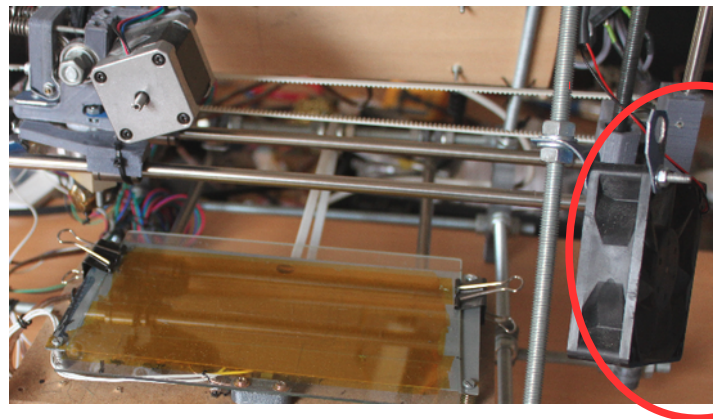
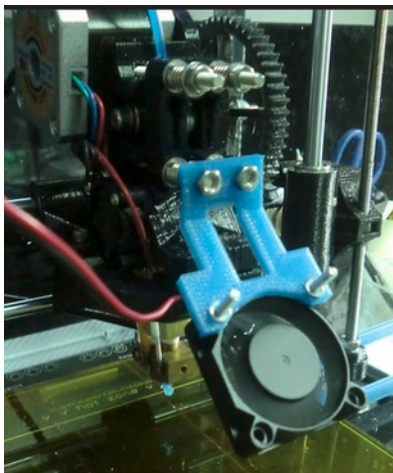
Temperatura del extrusor.

PLA mas o menos a 180°-210°.

220° para ABS.



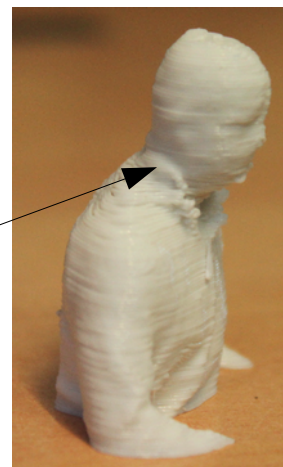
Ventilador



Enfriar mas rápido el plástico

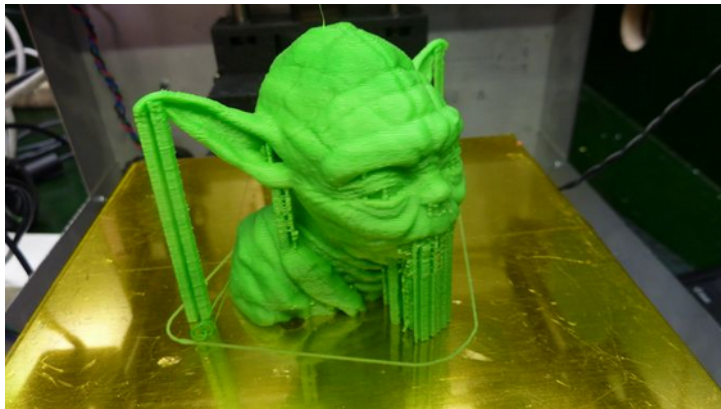
Muy para:

- secciones finas
- pendientes negativas

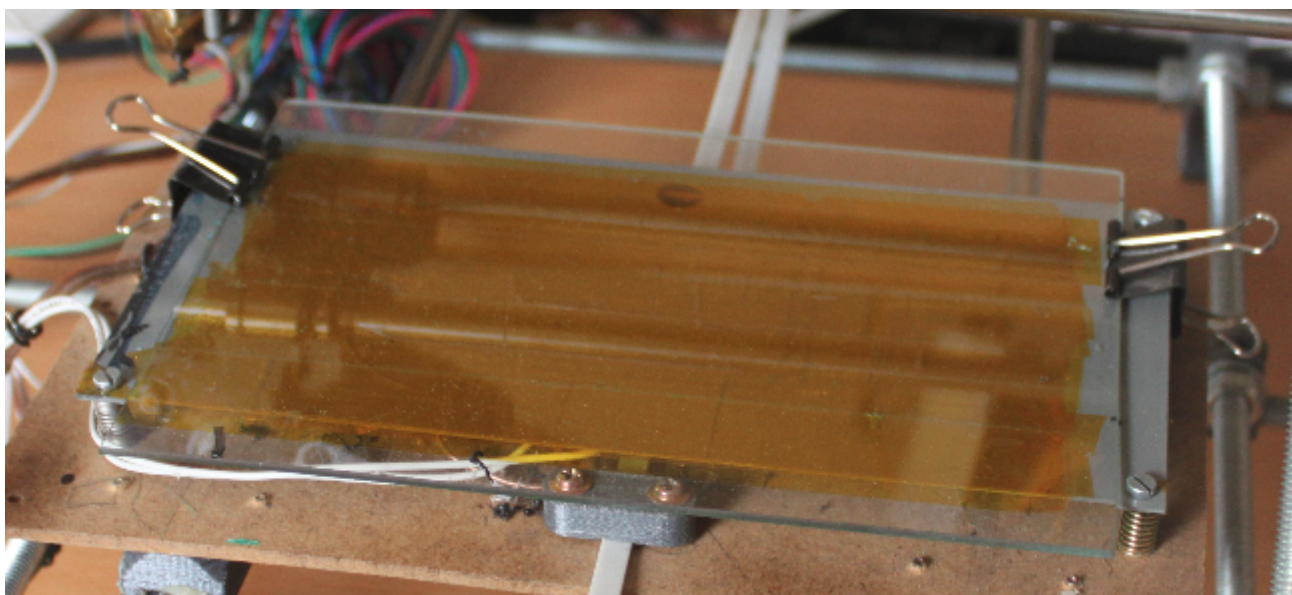


Soportes

Calculados
automáticamente

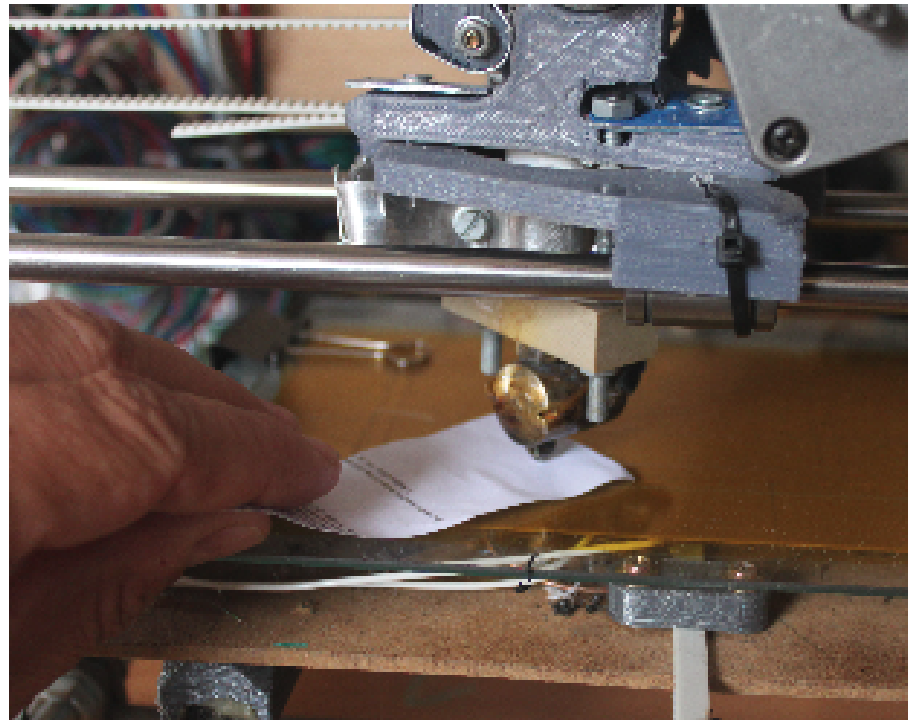


Placa base

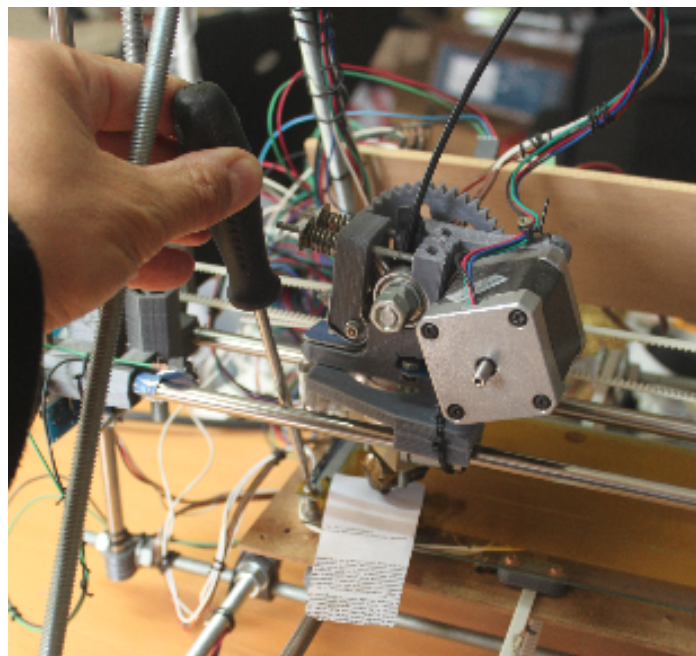


Vidrio calentado a 60°
(o laqua a temp ambiente)

Truco del papel para ajustar Z



Nivelar las esquinas de la cama

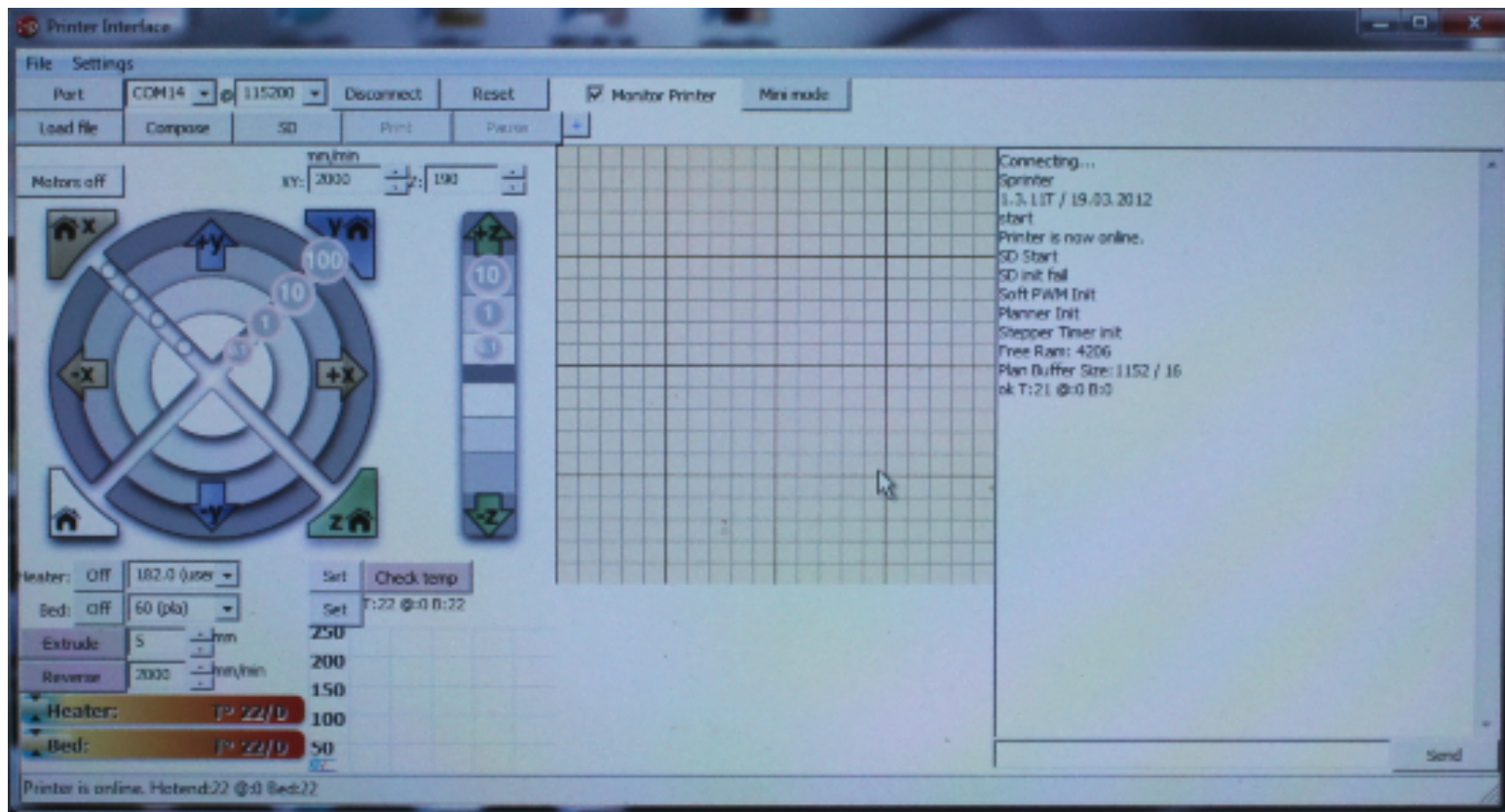


Otros

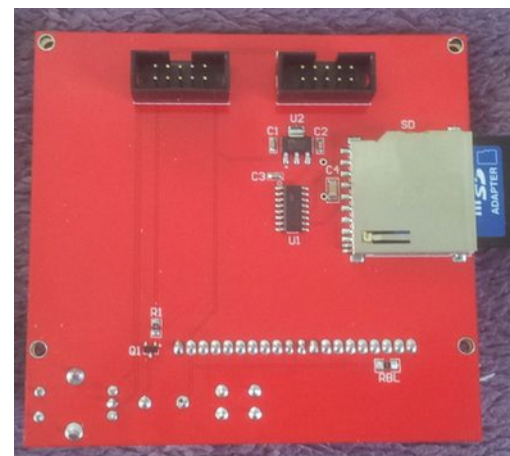
- Prusa Slicer (fork de Slic3r)
- SuperSlicer: <https://github.com/supermerill/SuperSlicer>
- Cura (Ultimaker)
- Repetier
- MatterControl
- ...

Imprimir

Pronterface (por ejemplo)



Imprimir via tarjeta SD



Imprimir via Octoprint

(tambien
permite

OctoPrint: Ultimaker

Settings System "admin"

Connection

State

Machine State: **Printing from SD**
File: **gear.gco (SD)**
Filament (Tool 0): -
Estimated Print Time: -
Timelapse: -
Height: -
Print Time: 00:32:13
Print Time Left: 00:26:03
Printed: 2.9MB / 5.3MB

Print Pause Cancel

Files

01kBauble.gcode
Uploaded: 5 months ago
Size: 15.4MB

20mm-box.0.05mm.gcode
Uploaded: 8 months ago
Size: 710.6KB

20mm-box.gcode
Uploaded: 4 months ago
Size: 166.2KB

Temperature Control GCode Viewer Terminal Timelapse



X/Y Z Tool (E) General

↑ ↑ Select Tool... Motors off

← → ↺ ↻ 5 mm Fans on

↓ ↓ Extrude Fans off

Retract

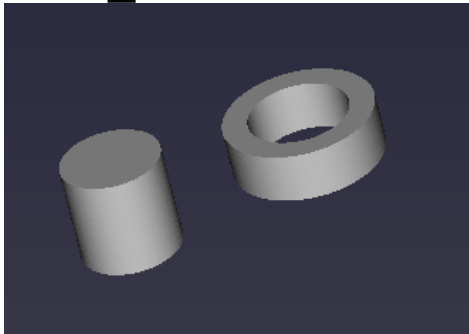
0.1 1 10 100

Modelos para calibrar

Coeficiente de extrusion:

<https://www.thingiverse.com/thing:1662342>

flow_calibrator.stl



Benchy

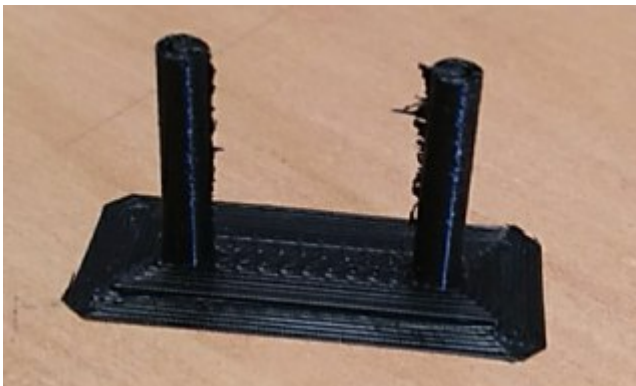
Diagnostico completo !

<http://www.3dbenchy.com/>

<https://www.thingiverse.com/thing:763622>



Retracción



Imprimimos juntos un anillo a medida

