

USER'S GUIDE



INTRODUCTION

INTRODUCTION

- **Target :**

Provide a visual guide of the different steps required to use an I3 Metal Motion 3D printer.

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- **Photographics credits :**

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Pictures manager : Anthony BERNA

- **Sources :**

<http://reprap.org/wiki/RepRap>
<http://www.repetier.com/>

- **Licence :**

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- **Update :**

Date of the last update : 01/02/2018

- **Useful links :**

You can find additional information on the following sites :

RepRap community website : <http://reprap.org/wiki/RepRap>
Repetier-Host software website : <http://www.repetier.com/>
3D file database : <http://www.thingiverse.com/>



SUMMARY

INTRODUCTION 2

SUMMARY 4

SOFTWARE INSTALLATION 5

WINDOWS 6

LINUX 8

PREPARATION 9

A. Setting up of the firmware 10

B. Configuring the connection to Repetier-Host 12

C. Configuring the printer shape 13

D. Importing slicing profiles 14

E. Connection to Repetier-Host 15

F. Motion tests 16

G. Automatic calibration 17

H. Checking the fans 23

I. Checking the heating elements 24

J. Loading the consumable 25

K. Extrusion test 26

PRINTING 27

A. Printing of the spool holder 28

ANNEX 31

Installation of the spool holder 32

Automatic calibration by command line 33

Printing a 3D model 35

Calculation of the PID 38

Maintenance 39

Recommandations 39

Recovery of the TF card 40

Using the printer on Mac OS X 44



SOFTWARE INSTALLATION

Installation of the softwares on Windows

Target : install the needed softwares for the use of the I3 Metal Motion on Windows OS all versions included.

Warning : be sure to disable your antivirus and firewall before installing the software in order to don't block the installation of the drivers.

You will need to download :

- The drivers of the electronic eMotronic board
- The latest version of Repetier-Host

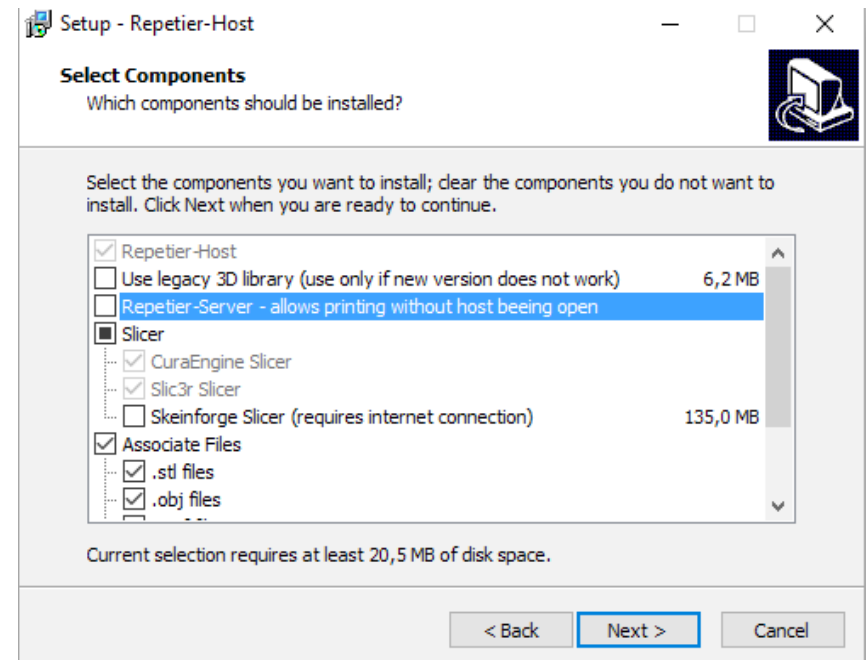
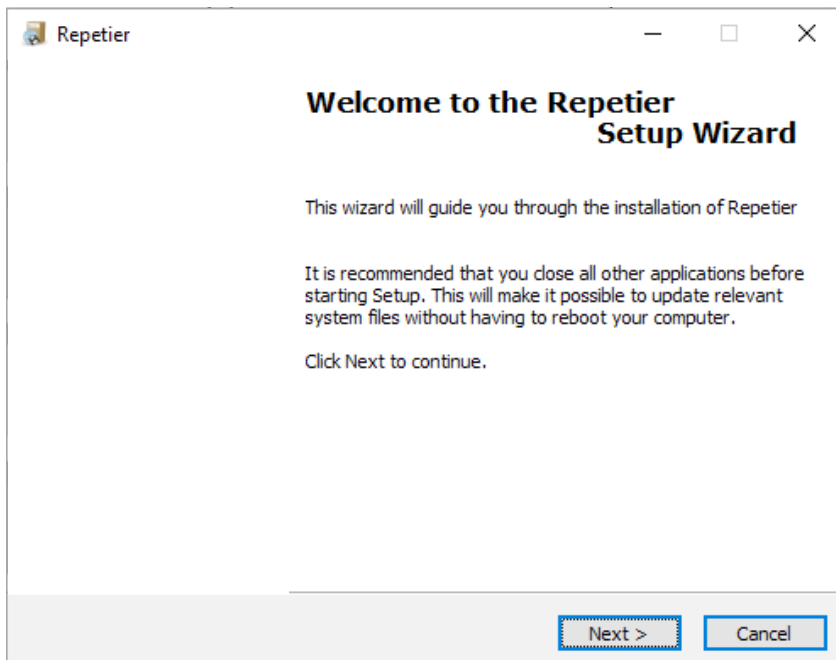
Pre-requisite :

- Up-to-date DirectX Drivers
- .net framework 4.5 or higher

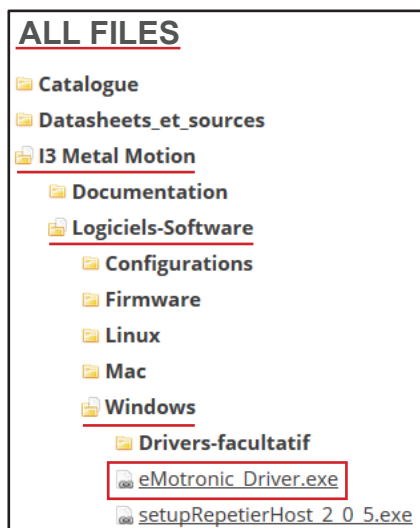
WARNING : eMotronic board should be unplugged from the computer.

1°) Run the installer file (.exe) and follow the instructions.

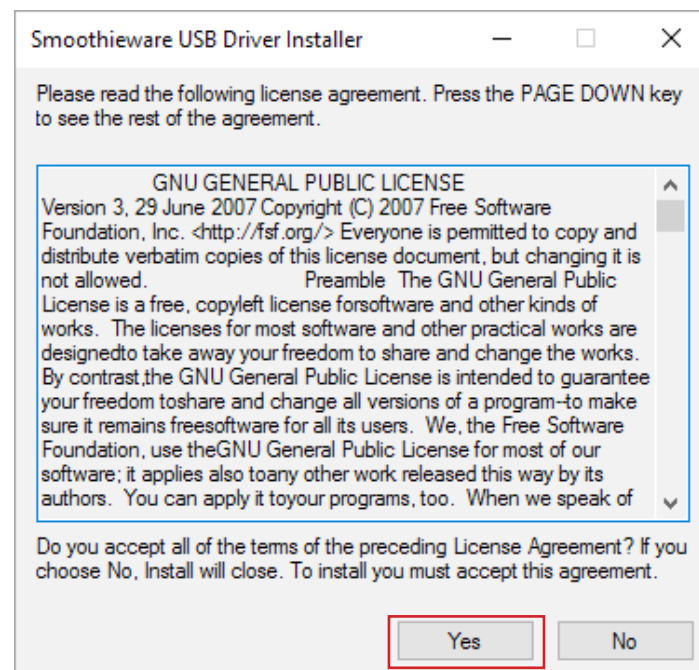
2°) At the step of «Components selection», be sure to uncheck «Repetier-Server».



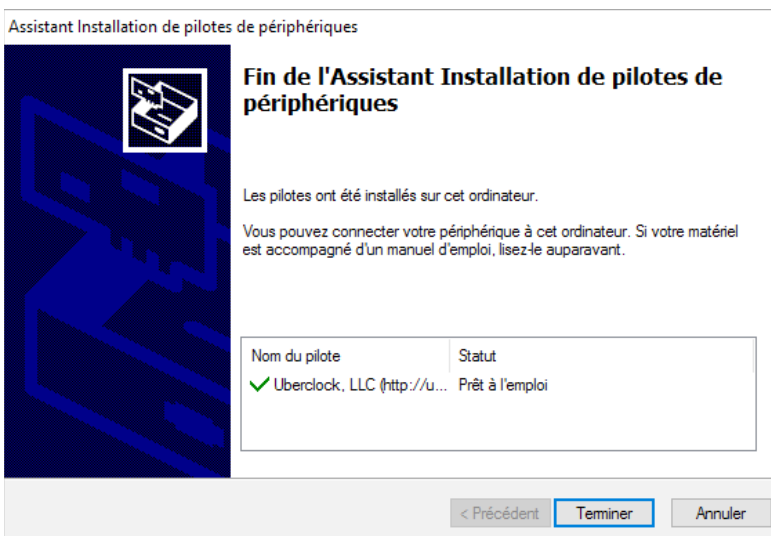
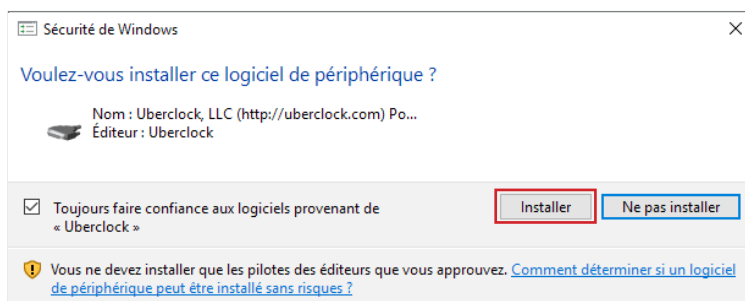
1°) Get the drivers installation file for the eMotronic board on our website (reprap-france.com), in the «support» section, in the «All files» sub-section, then in the « I3 Metal Motion / Software / Windows / eMotronic Driver.exe »



2 °) Install the drivers of the eMotronic board by executing the downloaded file (double-click) and then follow the instructions.



3°) **Connect the I3 Metal motion to your computer using the USB cable.** Your device should be automatically recognized.



Note : if drivers installation fails, continue installing the software. You can then assign the drivers to the board via the Device Manager (drivers are downloadable from our website / Support / Drivers).

Software installation on Linux

Target : install the necessary software to use the I3 Metal Motion on a Linux based operating system computer.

Informations in this chapter are dedicated to Linux users only.

(Installation tested on Ubuntu 16.04 LTS and Mint based Debian)

You will need to download :

- The latest version of Repetier-Host
- The CuraEngine slic3r profiles dedicated to the I3 Metal Motion

Pre-requisite :

- Graphics modules installed
- OpenGL installed

1°) Download the «repetierHostLinux.tgz» file (to be downloaded from our website's «Support» section, «I3 Metal Motion / Software / Linux»)

2°) Decompress it with the following command «tar xzvf repetierHostLinux.tgz».

3°) Access the folder with the command «cd RepetierHost/».

4°) Use command «sh configureFirst.sh» to install Repetier-Host.

5°) Run Repetier-Host with «./RepetierHost» command.



PREPARATION

Setting up of the firmware

Target : copy the firmware's files in the TF card.

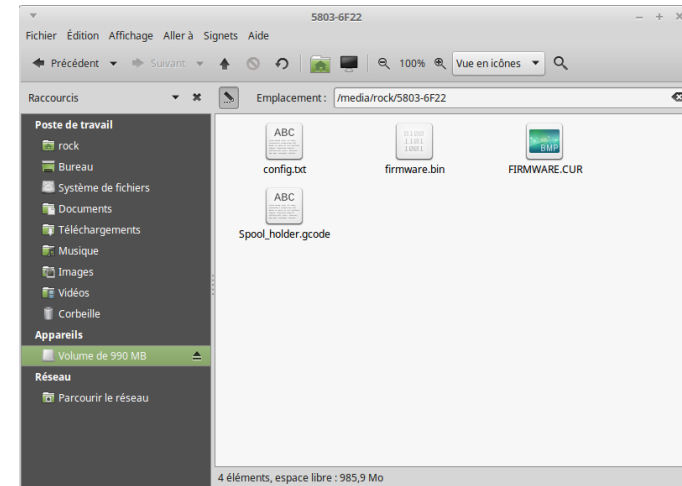
1°) Visit our website (www.emotion-tech.com), in the «Support» section, in the «I3 Metal Motion / Software / Firmware /» folder, and download the firmware compressed folder for this 3D printer.

2°) Unzip this folder and copy/paste its content to the root of the eMotronic's TF card.

Note: TF card is usually detected automatically and its content displayed once you connect your 3D printer to you computer. The TF card generally appears as drive «E:» or «F:» but it can vary depending on your hardware.

Nom	Modifié le	Type	Taille
config	10/05/2016 16:18	Document texte	24 Ko
FIRMWARE	07/07/2016 13:11	Curseur	351 Ko
Spool_holder	03/11/2016 15:14	Repetier-Host	1 338 Ko

Windows : what you should have on the TF card after this step

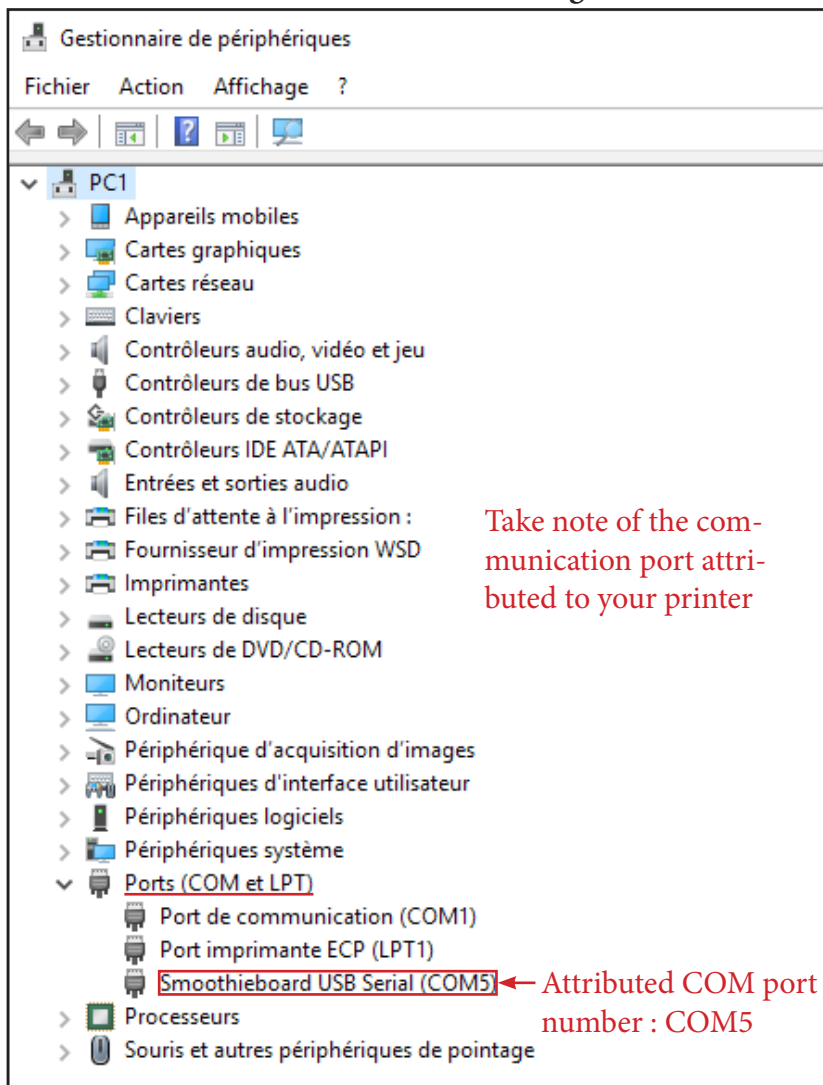


Linux : what you should have on the TF card after this step

3°) Press the «Reset» button on the 3D printer (located on a side of the lower plate).

4°) Check in the device manager that the eMotronic is properly recognized.

Windows : Device Manager



With Linux : command line from a terminal

Use the following command : `lsusb`

```
Fichier  Édition  Affichage  Rechercher  Terminal  Aide
rock@vb-rocky ~ $ lsusb
Bus 001 Device 007: ID 1d50:6015 OpenMoko, Inc.
Bus 001 Device 001: ID 1d6b:0001 Linux Foundation 1.1 root hub
rock@vb-rocky ~ $
```

The eMotronic board will appear as «OpenMoko, Inc».

Make sure that a USB port is attributed to the board using the following command : `ls /dev/tty`

```
Fichier  Édition  Affichage  Rechercher  Terminal  Aide
rock@vb-rocky ~ $ ls /dev/tty
tty          tty21       tty35       tty49       tty62       ttyS16      ttyS3
tty0         tty22       tty36       tty5         tty63       ttyS17      ttyS30
tty1         tty23       tty37       tty50       tty7         ttyS18      ttyS31
tty10        tty24       tty38       tty51       tty8         ttyS19      ttyS4
tty11        tty25       tty39       tty52       tty9         ttyS2       ttyS5
tty12        tty26       tty4         tty53       ttyACM0     ttyS20      ttyS6
tty13        tty27       tty40       tty54       ttyprintk   ttyS21      ttyS7
tty14        tty28       tty41       tty55       tty50       ttyS22      ttyS8
tty15        tty29       tty42       tty56       ttyS1       ttyS23      ttyS9
tty16        tty3        tty43       tty57       ttyS10      ttyS24
tty17        tty30       tty44       tty58       ttyS11      ttyS25
tty18        tty31       tty45       tty59       ttyS12      ttyS26
tty19        tty32       tty46       tty6         ttyS13      ttyS27
tty2         tty33       tty47       tty60       ttyS14      ttyS28
tty20        tty34       tty48       tty61       ttyS15      ttyS29
```

Usually, the port assigned to the port is «ttyACM0», «ttyACM1» «ttyUSB0» or «ttyUSB1».

Connecting your printer to Repetier-Host

- 1°) Run Repetier-Host software.
- 2°) Go to «Config» then «Printer Settings».
- 3°) Select the COM port assigned to your I3 Metal Motion.

On Windows

Printer Settings

Printer: i3 Metal Mtotion

Connection Printer Extruder Printer Shape Scripts Advanced

Connector: Connection Série Help

Port: COM3 ← Select the COM port assigned to your machine

Baud Rate: 115200

Transfer Protocol: Autodetect

Reset on Emergency: Send emergency command + DTR high->low

Receive Cache Size: 63

Communication Timeout: 40 [s]

Use Ping-Pong Communication (Send only after ok)

The printer settings always correspond to the selected printer at the top. They are stored with every OK or apply. To create a new printer, just enter a new printer name and press apply. The new printer starts with the last settings selected.

OK Apply Cancel

On Linux

Printer Settings

Printer: i3 Metal Mtotion

Connection Printer Extruder Printer Shape Scripts Advanced

Connector: Connection Série Help

Port: /dev/ttyACM0 ← Write the COM port assigned to your machine

Baud Rate: 115200

Transfer Protocol: Autodetect

Reset on Emergency: Send emergency command + DTR high->low

Receive Cache Size: 63

Communication Timeout: 40 [s]

Use Ping-Pong Communication (Send only after ok)


The printer settings always correspond to the selected printer at the top. They are stored with every OK or apply. To create a new printer, just enter a new printer name and press apply. The new printer starts with the last settings selected.

OK Apply Cancel

Setting the shape of the 3D printer

- 1° Still in the 3d printer setting panel, go to the «Printer Shape» tab
- 2° Fill in the different boxes as indicated below

Printer Settings

Printer: i3 Metal Motion 

Connection | Printer | Extruder | **Printer Shape** | Scripts | Advanced

Printer Type: Classic Printer

Home X: Home Y: Home Z:

X Min: X Max: Bed Left:

Y Min: Y Max: Bed Front:

Print Area Width: mm

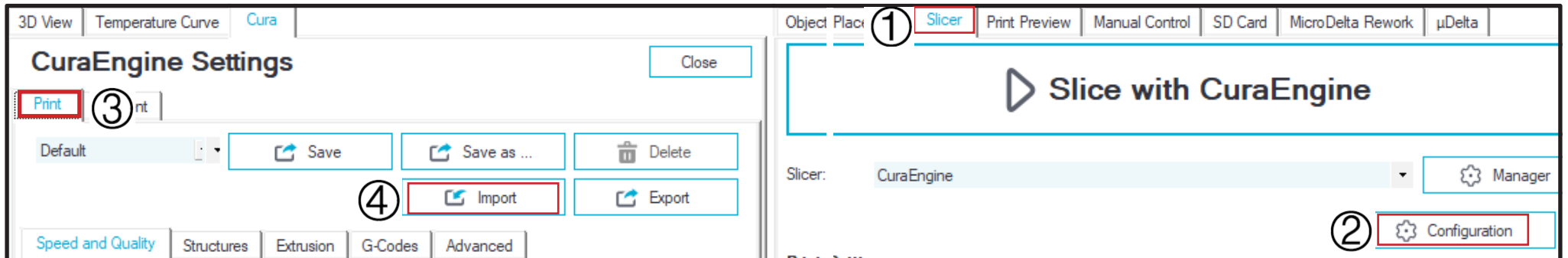
Print Area Depth: mm

Print Area Height: mm

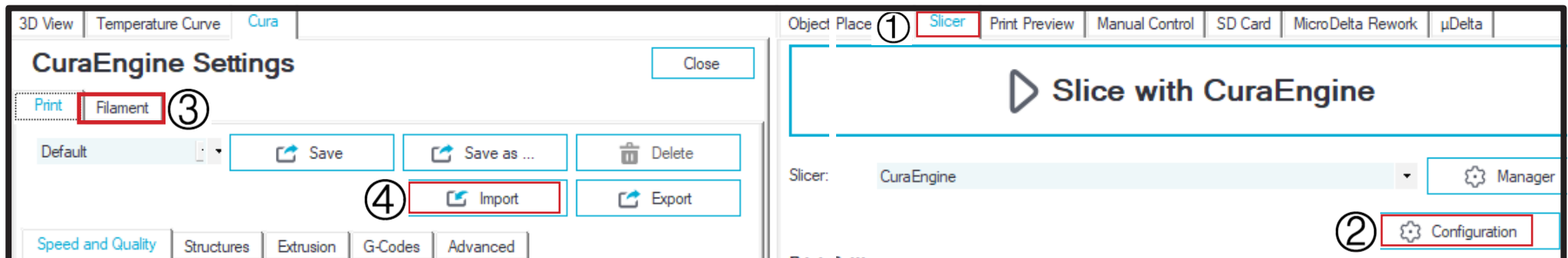
The min and max values define the possible range of extruder coordinates. These coordinates can be negative and outside the print bed. Bed left/front define the coordinates where the printbed itself starts. By changing the min/max values you can even move the origin in the center of the print bed, if supported by firmware.

Importing slicing profiles

- 1°) Download the slicing profiles for the I3 Metal Motion on our website, in the dedicated tree of the support section.
- 2°) Import these profiles into Repetier-Host by going to the «Slicer» tab, then clicking on the «Configuration» button and finally «Import».
- 3°) Select the print profile (.RCP) to import into the software in the «Printing» tab.

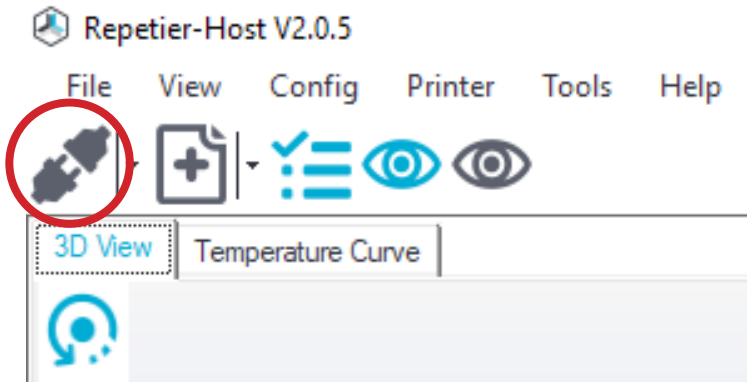


- 4°) And finally, import the 3 slicing profiles for the filament types (.RCF) in the «Filament» tab.

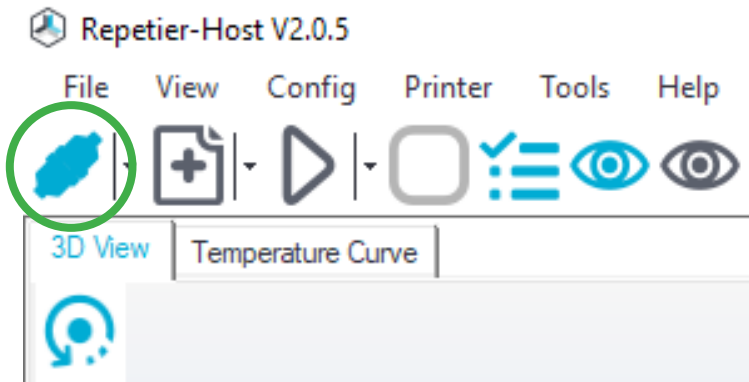


Connection to Repetier-Host

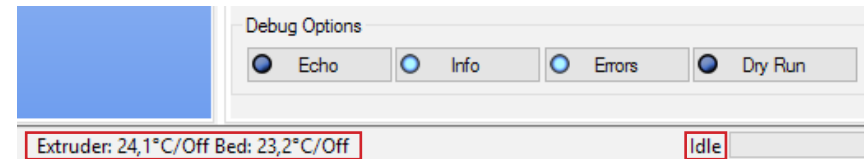
1°) Click on the «Connect» button.



This one should change color, become blue when connected



2°) Check that the extruder's temperature is consistent (logical value) and the printer's status is «Idle» as shown below:



Motion test

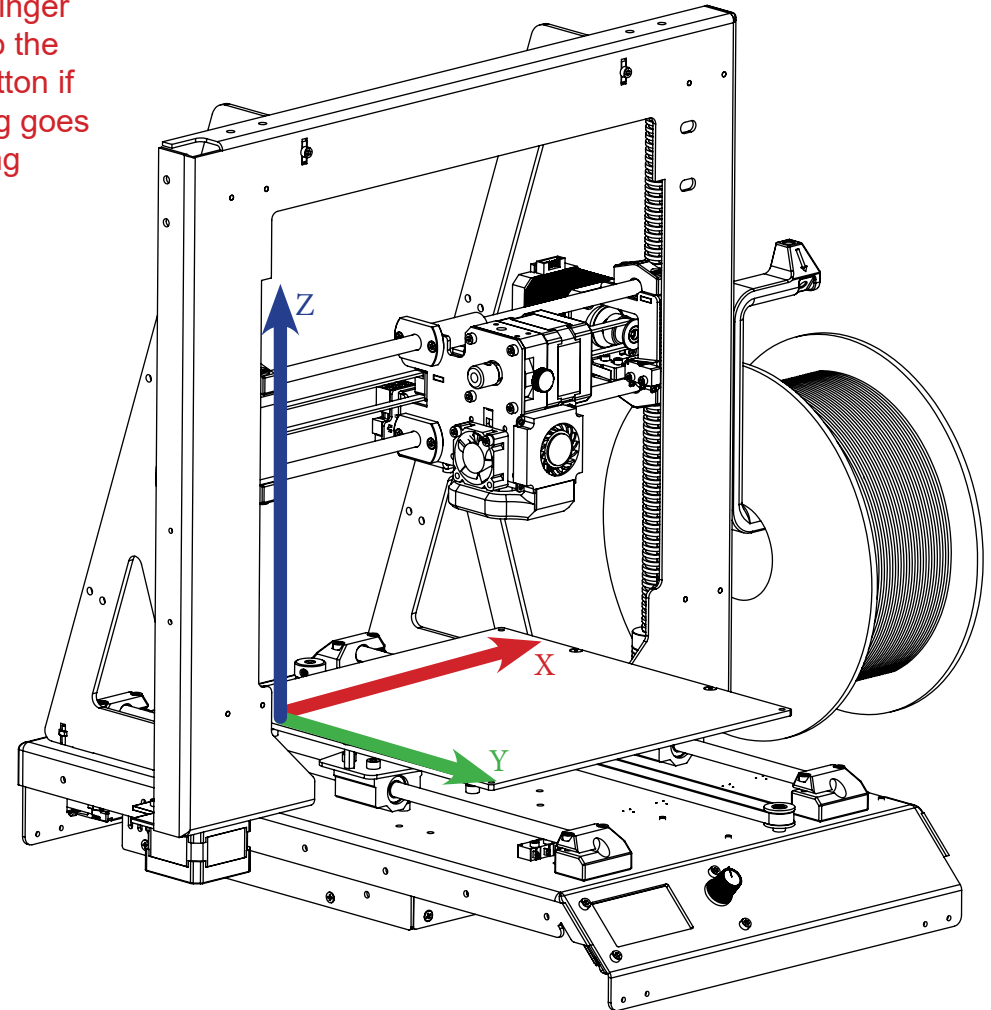
Press the X axis homing button and check that the X carriage stops after having engaged its limit switch on the right.
In case of problem do not hesitate to press the «Reset» button.

Do the same for the Y axis (heating plate), which has its sensor at the front of the machine and finally for the Z axis which has its sensor at the top.

Clicks

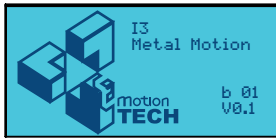
⚠

keep a finger
close to the
reset button if
something goes
wrong

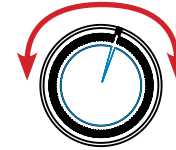


CALIBRATION

1°) Press the button on the screen to access the main menu (a «beep» is emitted).



Screen's button

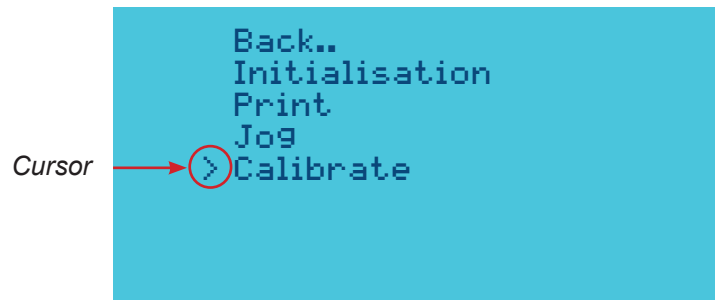


Rotation = cursor's movement

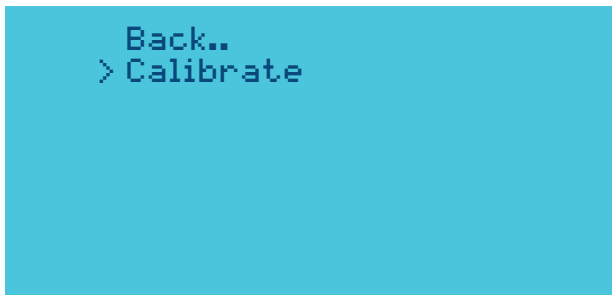


Press = selection

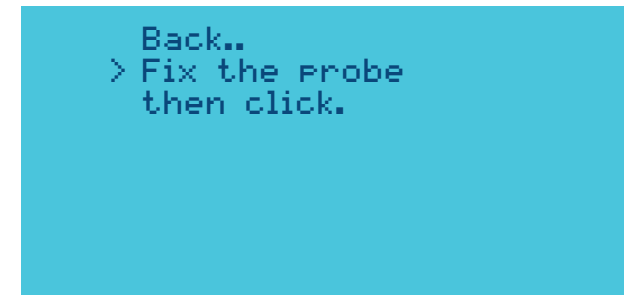
2°) Turn the knob until the cursor is in front of «Calibration», then press the button («bip» emitted).



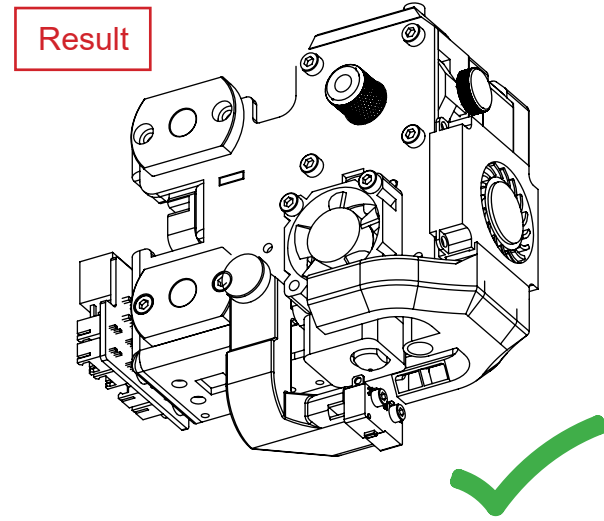
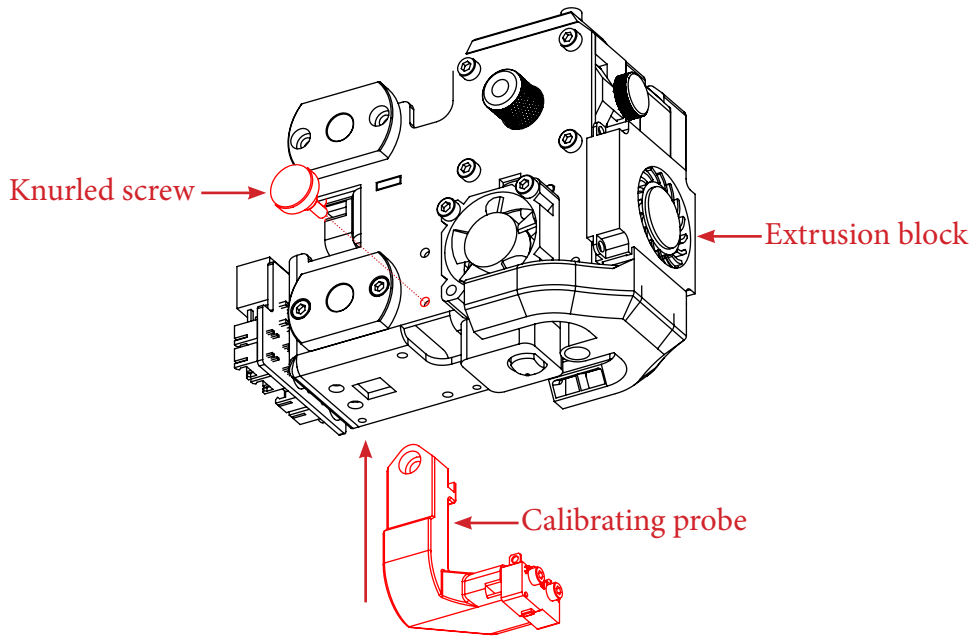
3°) Place the cursor on «Calibrate», then press the button of the screen («bip» emitted)



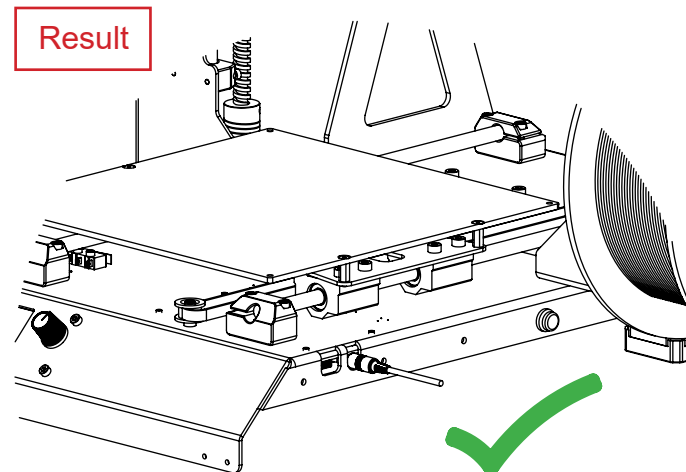
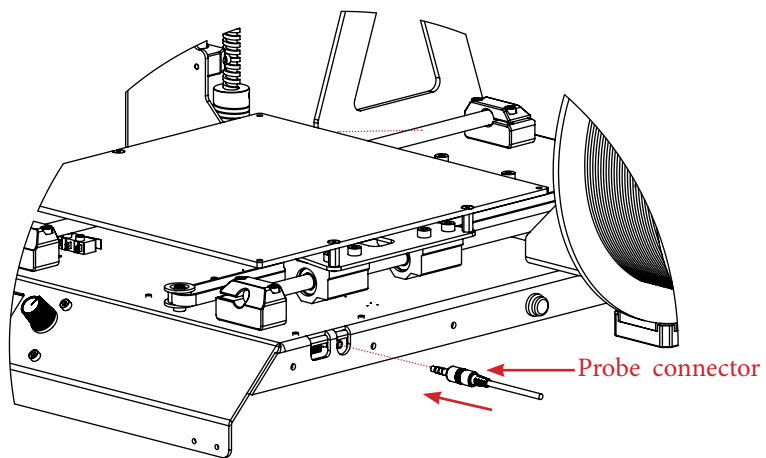
Press



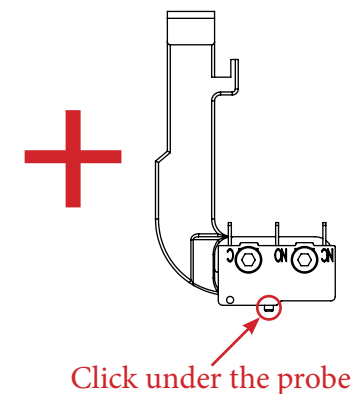
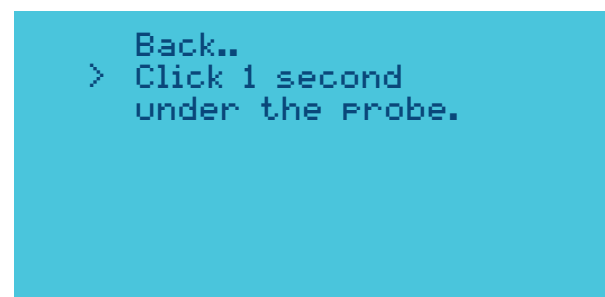
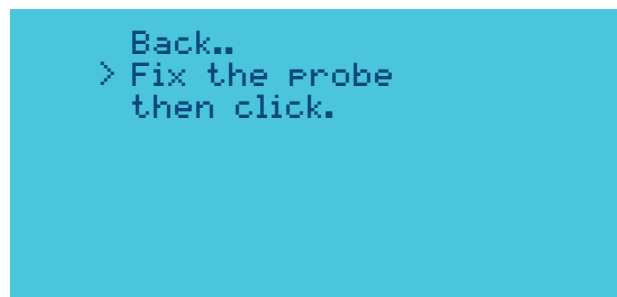
4°) Attach the calibrating probe to the extrusion block as shown below.



5°) Then plug the probe connector into the center socket of the electronic board as shown below.

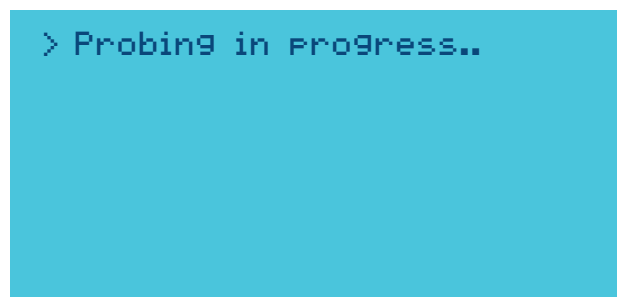


Press the button on the screen («beep» emitted).



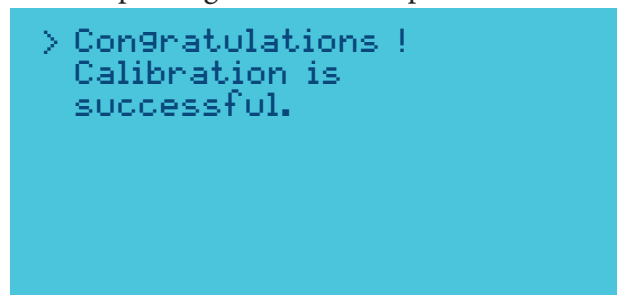
7°) When the probe button is pressed, the calibration of the plate will start.

The board will be probed on 7 points per line.

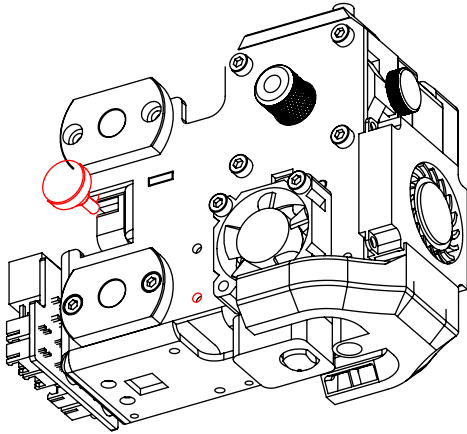


keep a finger
close to the
reset button if
something goes
wrong

8°) When the probing of the various points is finished, the screen will indicate it to you through the message below:



1°) For height calibration, make sure that the calibration sensor is removed from the extrusion block and is no longer connected to the electronic board.



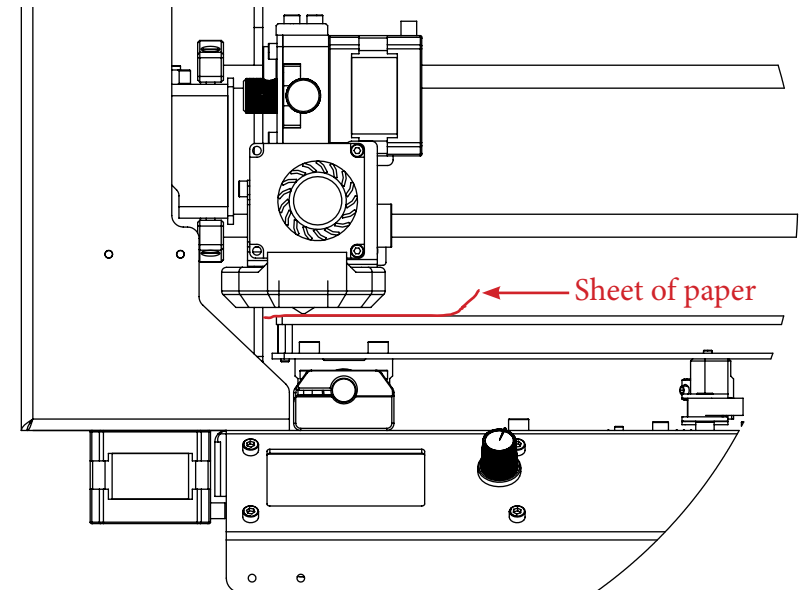
```
..Back  
> Remove the probe  
and click
```



```
Back..  
> Place a sheet under  
the head on the  
plate and click
```



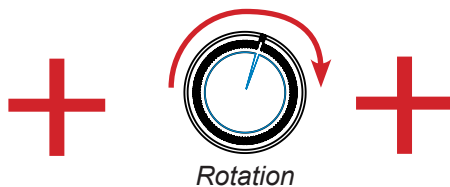
2°) Place a sheet a paper in the center of the tray and press the button of the screen («beep» emitted).



3°) Move the Z axis so that the sheet of paper is a little wedged between the nozzle and the plate.

```
> Move Z to let  
the nozzle touch  
the PAPER
```

```
Move Z 1.0mm  
Move Z 0.05mm  
Save and quit
```



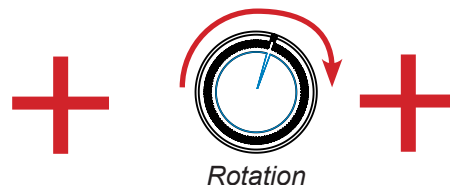
```
Move Z to let  
the nozzle touch  
the PAPER
```

```
> Move Z 1.0mm  
Move Z 0.05mm  
Save and quit
```



4°) First, move the nozzle near to the plate with increments of 1 mm by placing the cursor on «Move Z 1.0mm» and pressing the button («beep»).

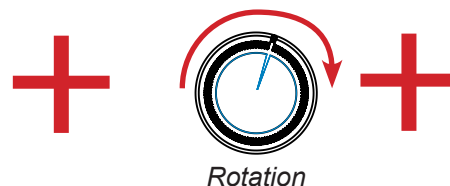
```
> ..Back  
Move Z 20.000
```



```
..Back  
> Move Z 20.000
```



```
> Move 1.000  
Move Z 20.000
```

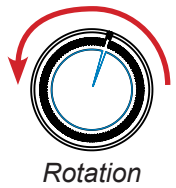


```
Move 1.000  
> Move Z 20.000
```

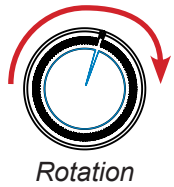


5°) Once the adjustment with 1 mm increments is done, go back by choosing the option «..Back» and make the adjustment in steps of 0.05 mm in the same way as described above.

6°) Once the sheet of paper has been squeezed between the nozzle and the tray, go back by choosing the «..Back» option and select the «Save and Quit» option to finalize the height calibration.



```
> ..Back  
Move Z      20.000
```



```
Move Z to let  
the nozzle touch  
the paper  
  
Move Z      1.0mm  
Move Z      0.05mm  
> Save and quit
```



Checking the fans

Your extruder has two fans. The top one cools down the cold end of the print head and should turn on as soon as you plug in your machine. The blower fan with a fan duct, lower, has the role of cooling the part being printed.

It can be started using the manual control (as illustrated below) and when printing, it will start automatically.

The screenshot shows a control interface with a top navigation bar containing home buttons for X, Y, Z, and a power button. Below this are several control panels: a circular X/Y axis controller, Z-axis up/down buttons, a fan icon button, and a row of buttons labeled P, 1, 2, 3, 4, 5, and a question mark. The bottom section features five sliders with corresponding numerical input boxes: Feedrate (100), Flowrate (100), Fan (100), Bed Temperature - 21,80°C (60), and Extruder 1 - 22,00°C (200). A red circle highlights the fan icon button, with a red arrow pointing to it from the text below.

Click on the icon to activate the blower fan and check that it is working properly

Activation of the blower fan

Checking the heating parts

Start heating the print head by clicking on the icon circled in red :

G-Code:

X: 0,00 Y: 0,00 Z: 0,00

Home X, Home Y, Home Z, Home

Power, Home, P, 1, 2, 3, 4, 5, ?

Feedrate: 100

Flowrate: 100

Fan: 100

Bed Temperature - 23,60°C: 60

Extruder 1 - 21,50°C: 200

Extruder

Do not put filament in your extruder and check that your extruder motor is rotating in the right direction. For this, extrude 10 mm using the manual controls :

X: 0,00 Y: 0,00 Z: 0,00

Home X, Home Y, Home Z, Home

Power, Home, P, 1, 2, 3, 4, 5, ?

Feedrate: 100

Flowrate: 100

Fan: 100

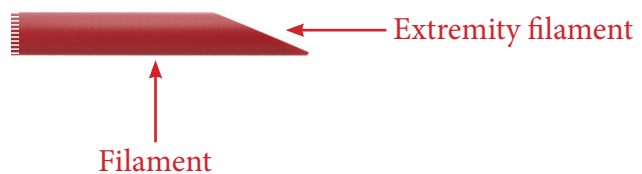
Bed Temperature - 55°C: 60

Extruder 1 - 200°C: 200

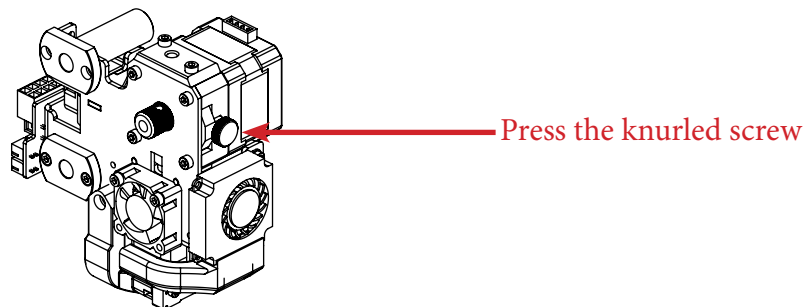
Note : the temperature of the extruder will increase gradually until reaching the target temperature (here 200° C).

Loading the consumable

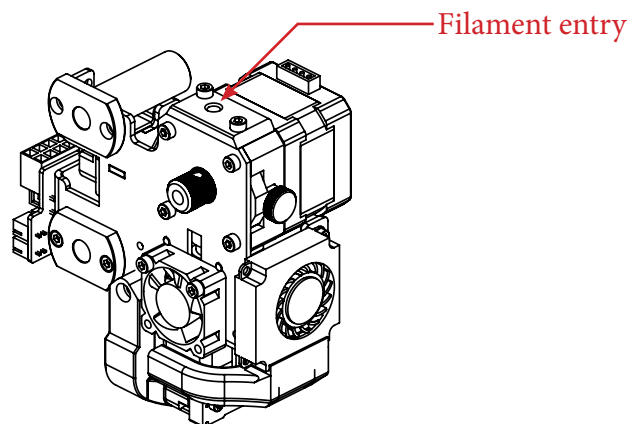
1°) Cut in bevel the end of the filament in the winding direction of the spool.



2°) Disengage the extruder by pressing the knurled screw



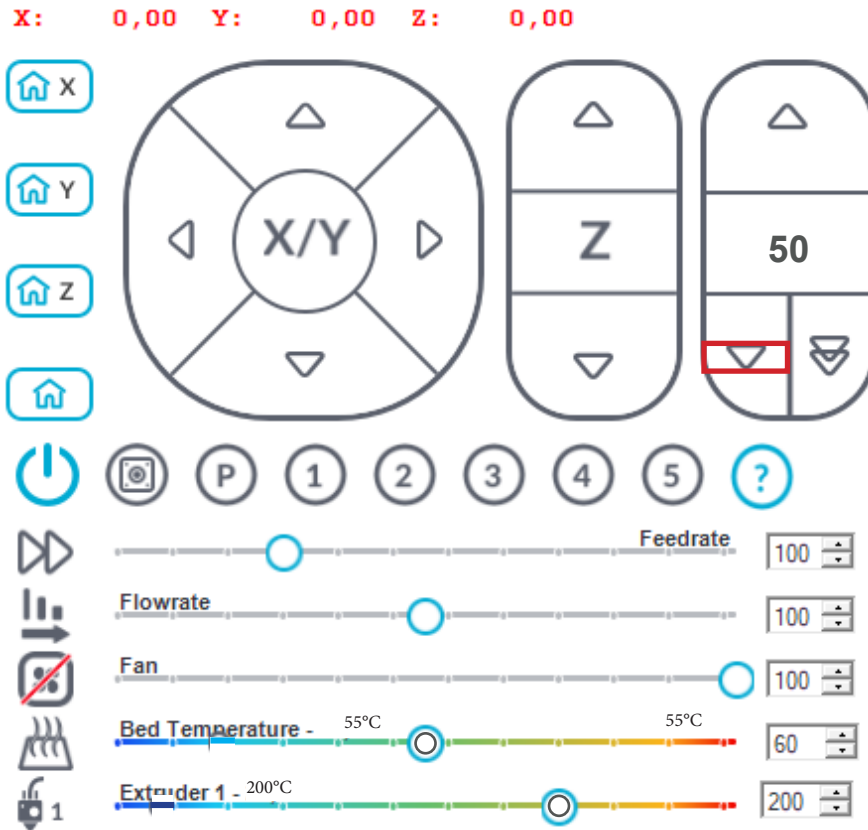
3°) Pass the filament through the extruder inlet and push it as far as possible.



4°) Tighten the filament pressure knob (Note: if the knob is not tight enough, the filament will be poorly trained)
(less pressure for ABS)

Extrusion test

1°) In the «Manual Control» tab, request a slow extrusion of 50 mm.



2°) Check that the filament is coming out of the nozzle on a regular basis.

If you find that this is not the case, repeat the procedure from the beginning by removing the filament, cutting it in bevel, etc.



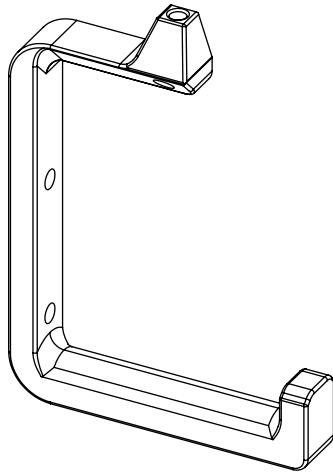
PRINTING

Print the spool holder

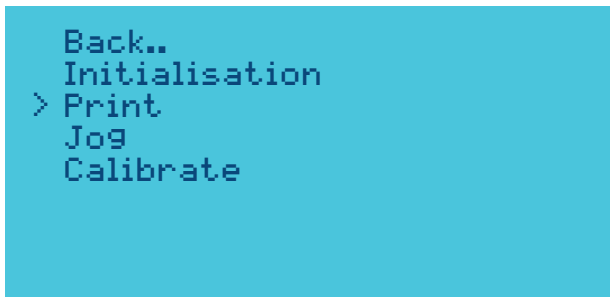
You are about to start your first print.

This will consist in printing the spool holder that will be mounted on the right side of the i3 Metal Motion.

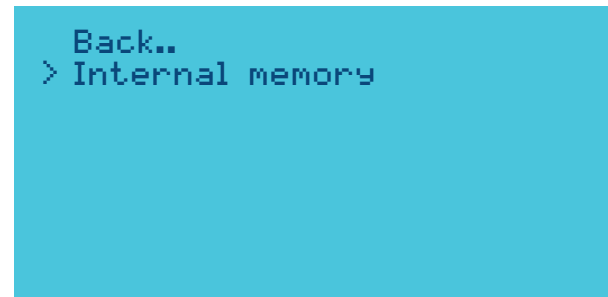
Visual of the spool holder :



1°) Go to the LCD main menu by pressing the LCD push-button and select the «Print» option.



Press



Press

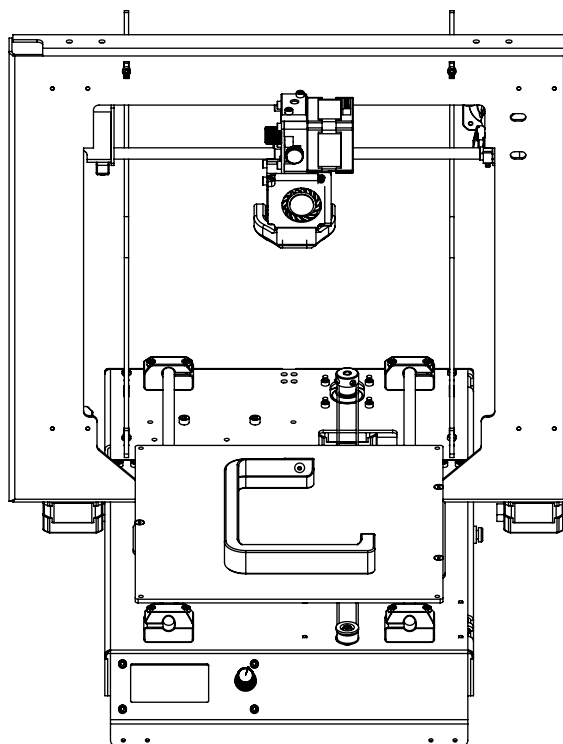
2°) Select the «spool_holder.gcode» file, then press the button on the screen to start printing.

```
Back..  
> spool_holder.gcode
```



Press

The printing then begins with a homing of the axes and then heating the print head.



CONGRATULATIONS !
Your first print was successful!



Go to the «Appendix» section to find explanations concerning the mounting of the spool holder.

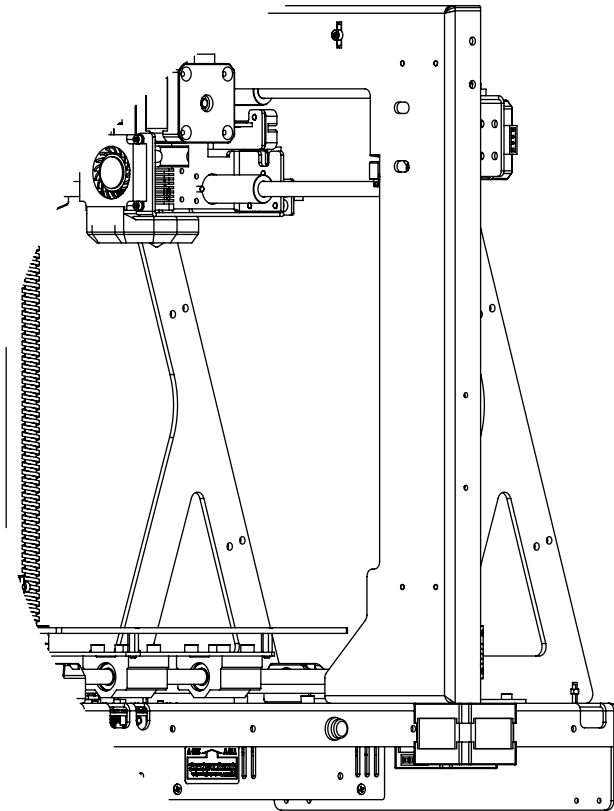


APPENDIX

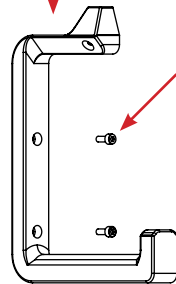
Installation of the spool holder

Target : install the spool holder on the right side of the printer

Install the PTFE tube between the spool holder and the extrusion block

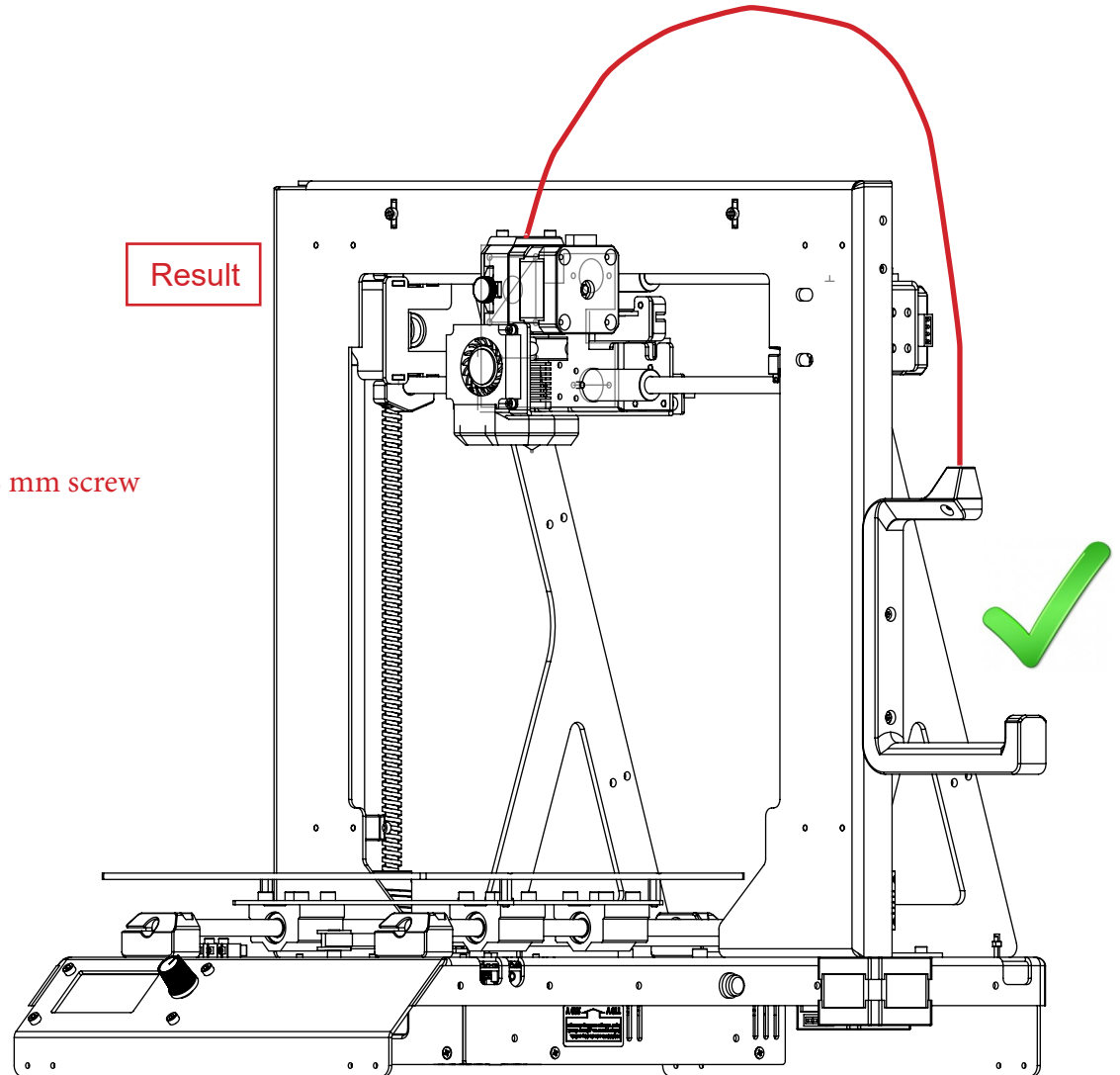


Spool holder



M3 x 8 mm screw

Result



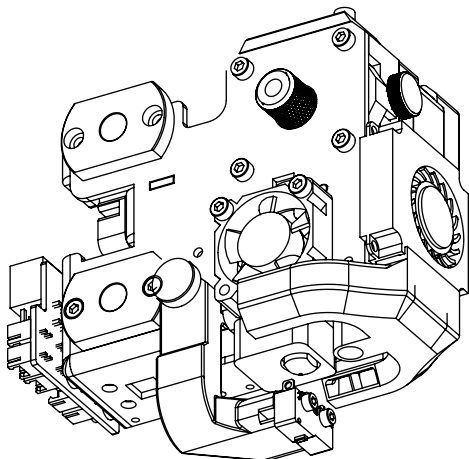
Automatic calibration by command line

If for some reason you need to perform the calibration without going through the LCD, you can perform this process using GCODE commands to send to the machine, here's how to do this.

Adjusting the flatness

1°) Make sure the print head is at room temperature.

2°) Mount the probe on the extrusion block of the machine and connect it to the electronic board.



3°) Go to the «Manual control» tab and ask for homing on all the axes using the «G28» command.



5°) Send the «G31» GCODE command (the multi-point probing will start).



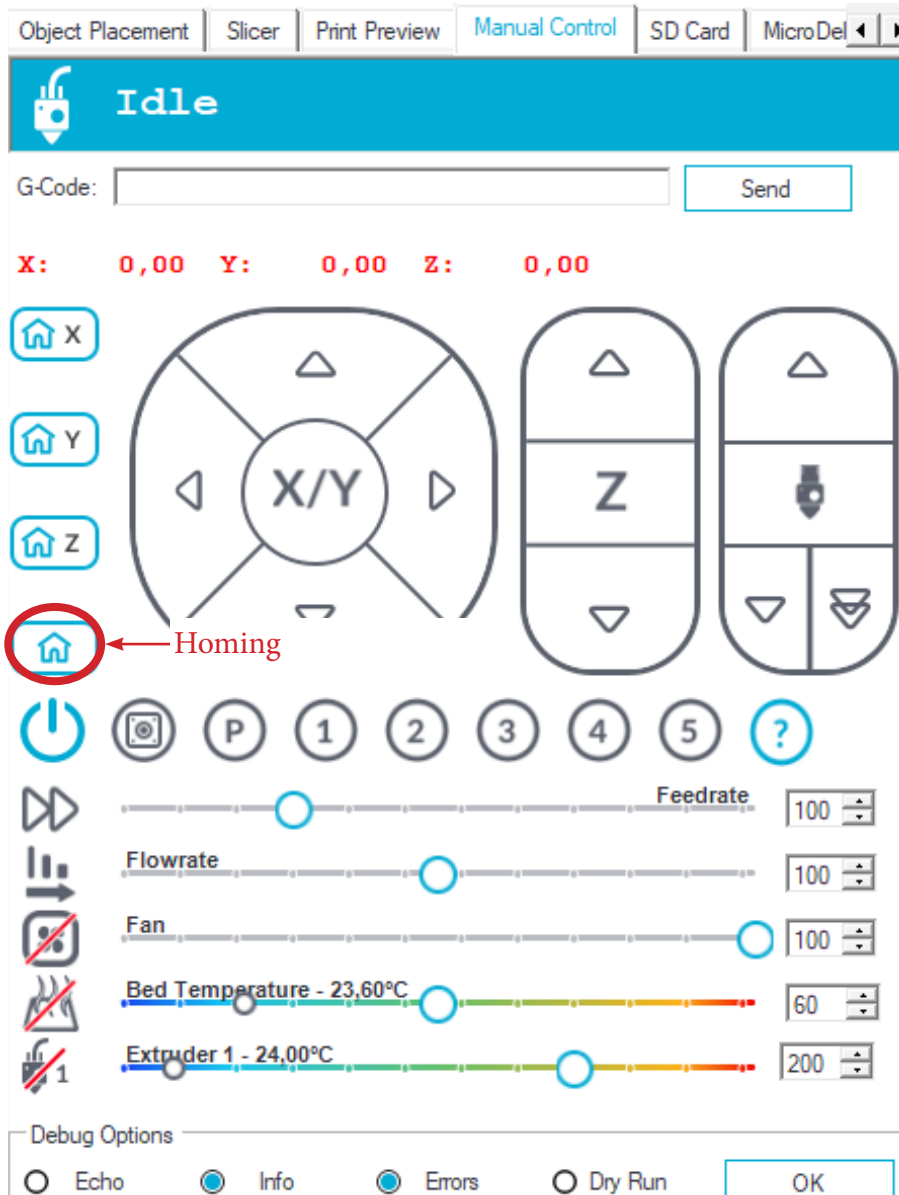
6°) Once the probing is done, save the new values by sending the «M374» GCODE command.



7°) Remove the sensor from the extrusion block, unplug it from the board and place a sheet of paper in the center of the plate.

Initial setting of the maximum height

8 °) From the tab «Manual control», ask a reference of origin.



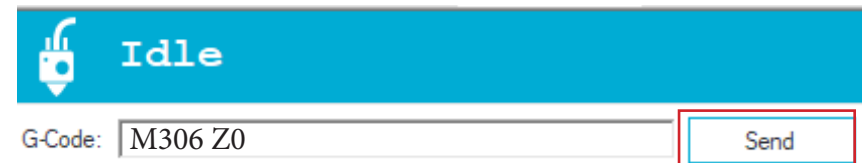
9 °) Place a sheet of paper in the center of the plate.

10 °) Start a heating of the print head and wait until reaching 70 ° C minimum.

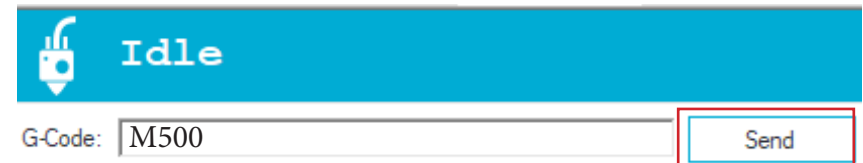
11 °) Using the cursor dedicated to the Z axis, go down until the nozzle holds the sheet of paper slightly.



12 °) Send the «M306 Z0» GCODE command to indicate the maximum height of your machine.



13 °) Save the new value with the «M500» GCODE.



Printing a 3D model

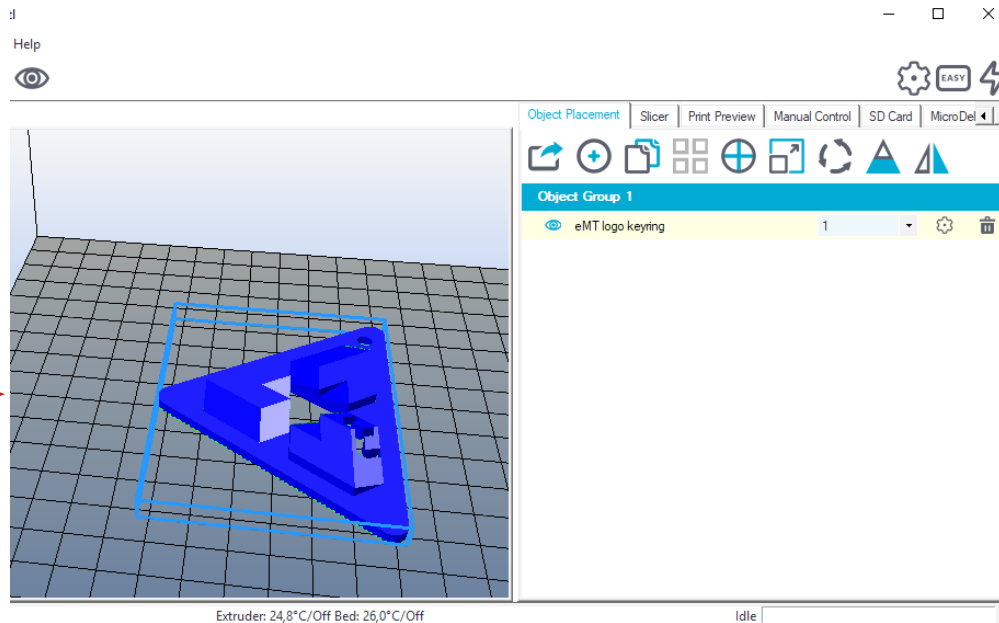
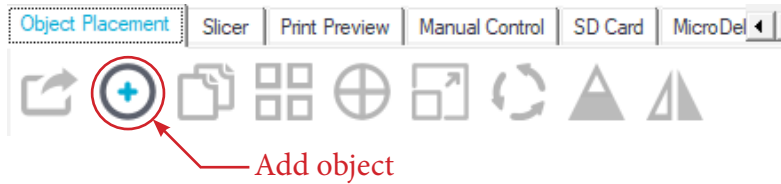
Prerequisites: have performed a complete calibration of the machine.

1 °) Download a 3D model, we offer the eMotion Tech keychain :

https://data.emotion-tech.com/ftp/Ressources_3D_eMotion_Tech/Porte_clef_eMotion-Tech.stl

2 °) Import this 3D model into Repetier-Host :

- in the tab «Object placement», click on the button «Add object»
- select the downloaded file and open it with Repetier-Host

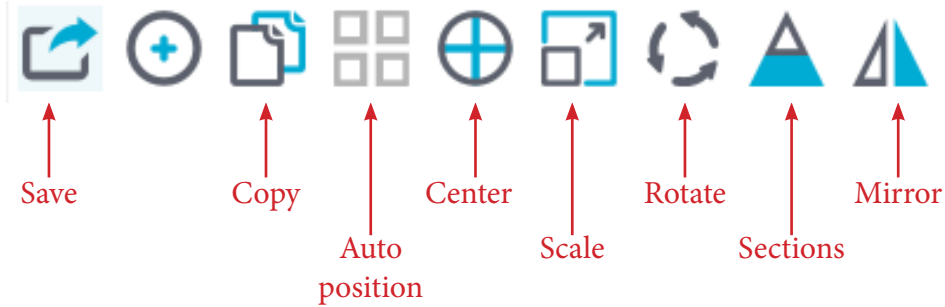


Virtual representation of the object on the plate →

← List of objects present on the plate

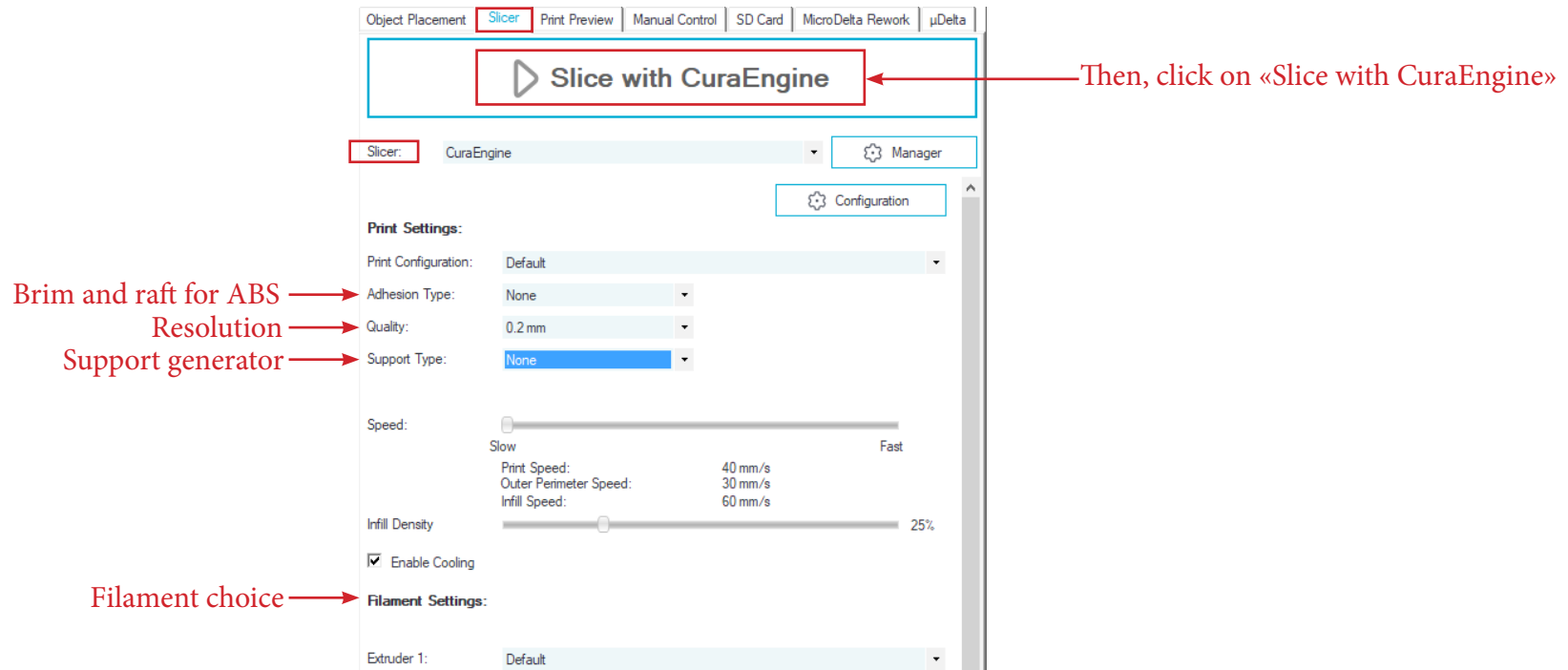
2 °) Modify the object according to your preferences :

- in the tab «Placement of objects», click on the button «Add object».



3°) Slice the model with CuraEngine pre-selections :

- in the «Slicer» tab, select «CuraEngine».



4°) Once the file is sliced, its preview is displayed and all that remains is to click on the «Print» button.

Repetier-Host V2.0.5 - eMT logo keyring

File View Config Printer Tools Help

3D View | Temperature Curve

Object Placement | Slicer | **Print Preview** | Manual Control | SD Card | MicroDel

Print | Edit G-Code

Save to File | Save for SD Print

Colors: Extruder Speed

Printing Statistics

Estimated Printing Time:	42m:47s
Layer Count:	29
Total Lines:	16937
Filament needed:	2843 mm
Filament Extr.1:	2843 mm

Visualization

- Show Travel Moves
- Show complete Code
- Show Single Layer
- Show Layer Range

First Layer: 0

Last Layer: 0

Connected: i3 Metal Motion | Extruder: 25,0°C/Off Bed: 25,6°C/Off | Idle

PID calculation

Preamble : The PID values are necessary for the temperature control of the heating elements. If you find that the target temperature is difficult to reach or the actual temperature varies a lot around the target temperature, it may be useful to recalculate the PID values.

By GCODE commands :

1°) Make sure the print head temperature is at room temperature.

2°) Disable the secondary fans.

3°) In the «Manual control» tab, use the input field for sending GCODE commands :

Send the following command : **M303 E0 S250 C8**

Details :

- E0 = extruder number 1
- S250 = target temperature at 250°C
- C8 = 8 cycles of regulations around the target temperature

Once the command is sent, Repetier-Host logs will show you the progress of the calculation. When the calculation is finished, the new values P, I and D are indicated in the logs.

4°) Send the following GCODE command to save : **M500**

If you have the LCD screen :

In the menu of the screen is integrated an option to directly calculate the PID.

Just go to the «Calibrate / PID hotend» menu.

Maintenance

A monthly maintenance of the 3D printer is recommended.

Below are some recommendations:

Using a brush, dedust the following elements :

- eMotronic board
- All fans to ensure a good airflow
- Cold part of the printhead

- To clean the printhead follow the guide dedicated to the Hexagon hotend on the following link:

http://data.emotion-tech.com/highlights_fr/Hexagon%20-%20Notice%20montage-debouchage.pdf

- Clean the teeth of the drive wheel using a sharp ended tool like a needle tip, the end of tweezers or a cutter blade.

- Check & tighten the screws of the 3D printer.

- Lubricate the various mechanical transmission elements with multipurpose grease.

Recommandations

Turning off your 3D printer :

After printing, if you want to turn off the machine, wait until the print head cools down to room temperature to ensure that the print head doesn't get clogged.

Transport :

If the printer has to be transported by car or another mean of transport in which it could be subject to vibration, it is recommended to unplug all the motors from the eMotronic board to avoid damaging it and calibrate again your printer before printing.

Troubleshooting :

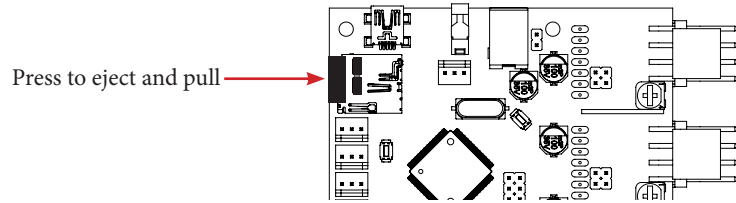
A FAQ about the I3 Metal Motion is available on our website in the «Support» section, please refer to it to troubleshoot your printer, most problems could be solved through this tool !

Restore the TF card

Target : prepare the files of the TF card again in order to eliminate the corrupted files and defective cells.

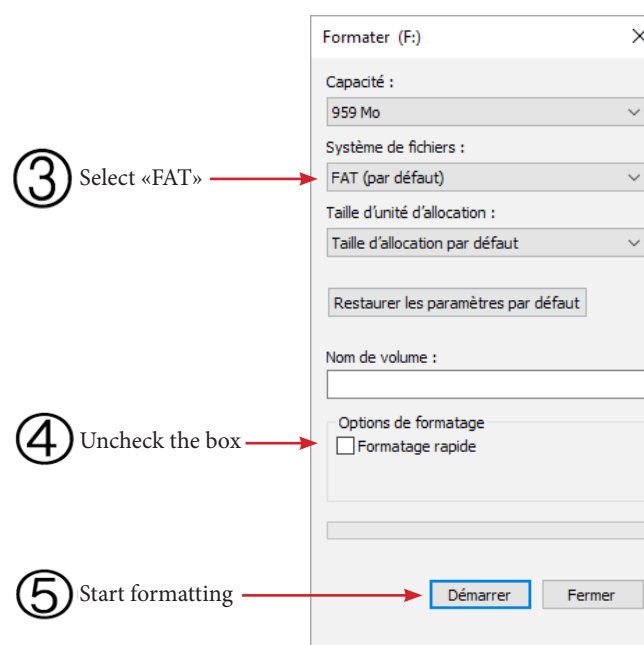
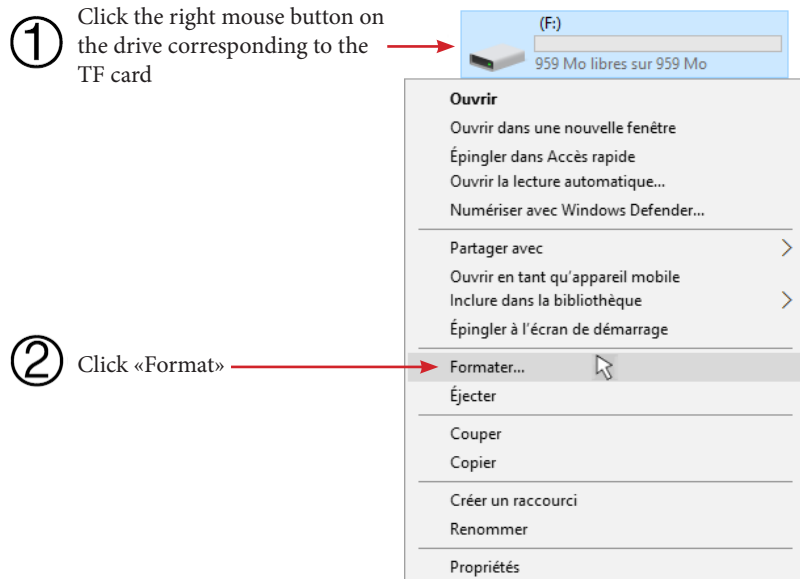
Description : for various reasons, the files present in the TF card and / or the cells of this card can be damaged. You will find through this process how to restore the TF card and necessaries files to the 3d printer.

1°) **Remove the TF card by pressing it, you will hear a click indicating that the card is no longer locked and can be removed without damage the reader.**

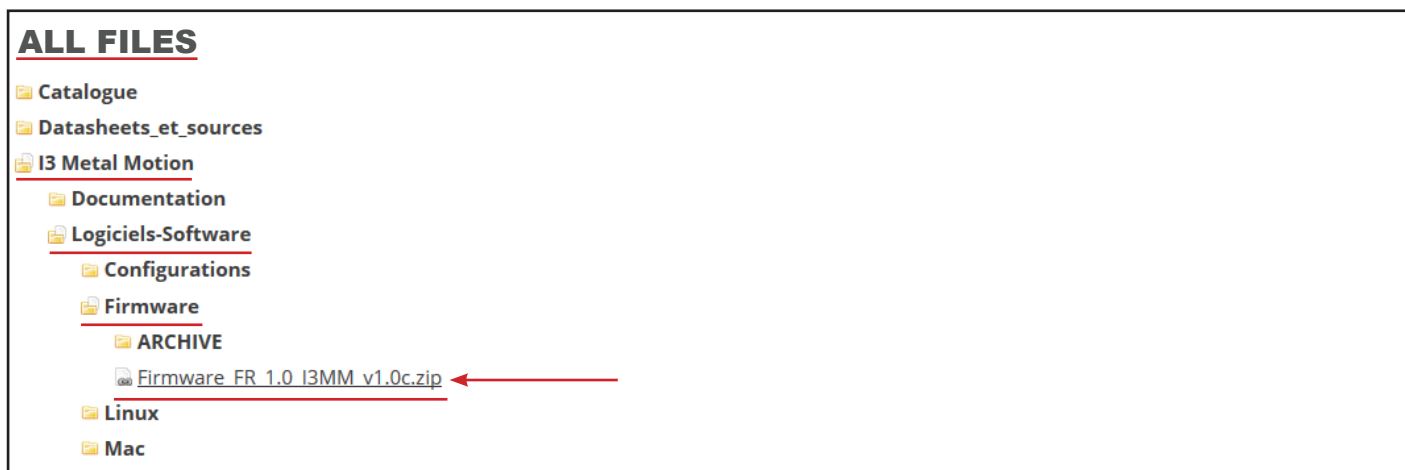


2°) Then read this TF card with an external drive on your computer (very useful because the formatting is too long by USB cable).

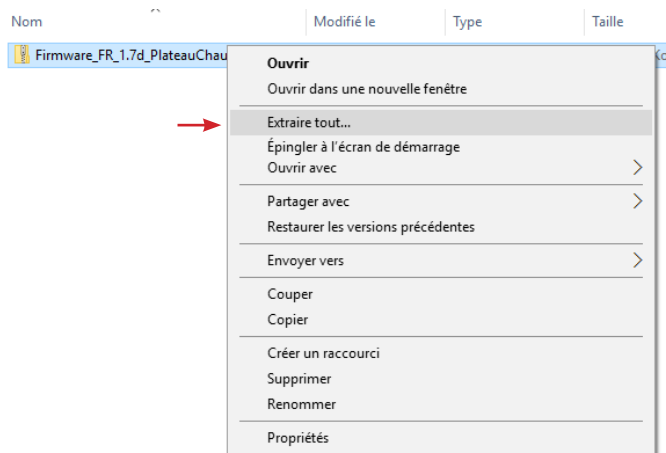
3°) Make a long format (uncheck the «fast format» box) of the TF card in FAT format (FAT16 : < 2 GB / FAT32 : > 2 GB)



4°) Download the latest firmware on our website «reprap-3d-printer.com» in the support section, in the tree dedicated to your machine.



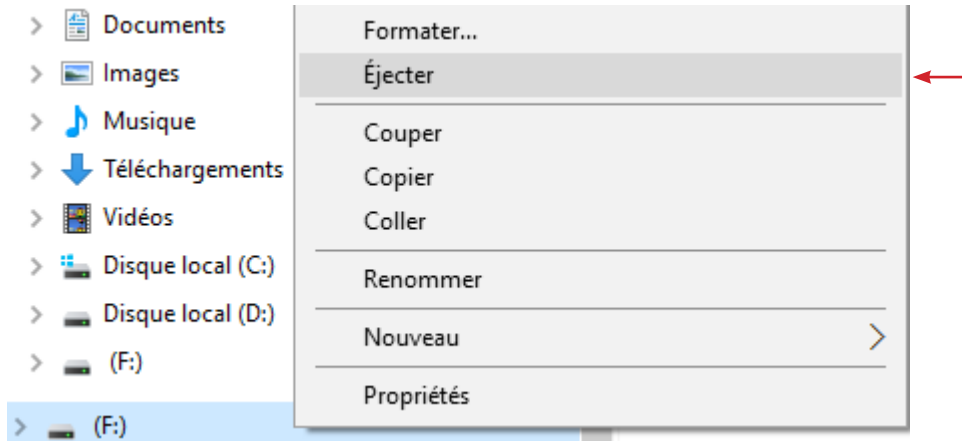
5°) Unzip the newly downloaded folder (right click on the compressed folder and then «Extract everything ...»).



6°) Go inside this folder, then select all the files and finally copy them to the root of the TF card.

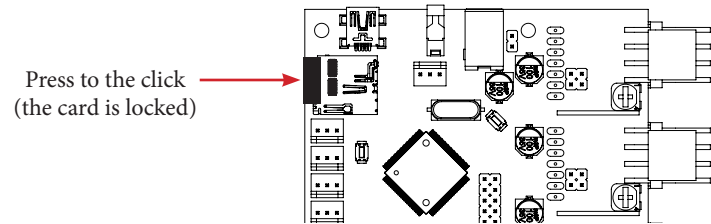
Nom	Modifié le	Type	Taille
config	05/09/2017 15:13	Document texte	17 Ko
firmware.bin	05/09/2017 15:13	Fichier BIN	371 Ko
Read_Me	05/09/2017 15:13	Document texte	2 Ko
Spoolholder_V2	05/09/2017 15:13	3D Model File	1 204 Ko

7°) Eject the TF card (right click on the TF card then «Eject»).



8°) Disconnect the TF card reader from the computer.

9°) Insert the TF card into the eMotronic drive.

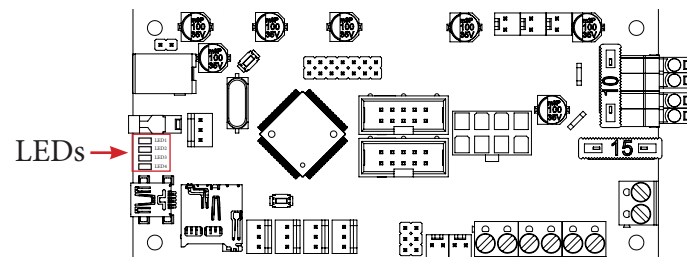


10°) Press the «Reset» button (the red one) located on the 3D printer to let the board uses the new firmware.

11°) In the TF card, make sure that the «firmware.bin» file is changed to «firmware.cur».

12°) On the eMotronic board, between the USB connector and the auto-leveling sensor connector, make sure that:

- LED1 remains on
- LED2 and LED3 flash continuously
- LED4 remains on





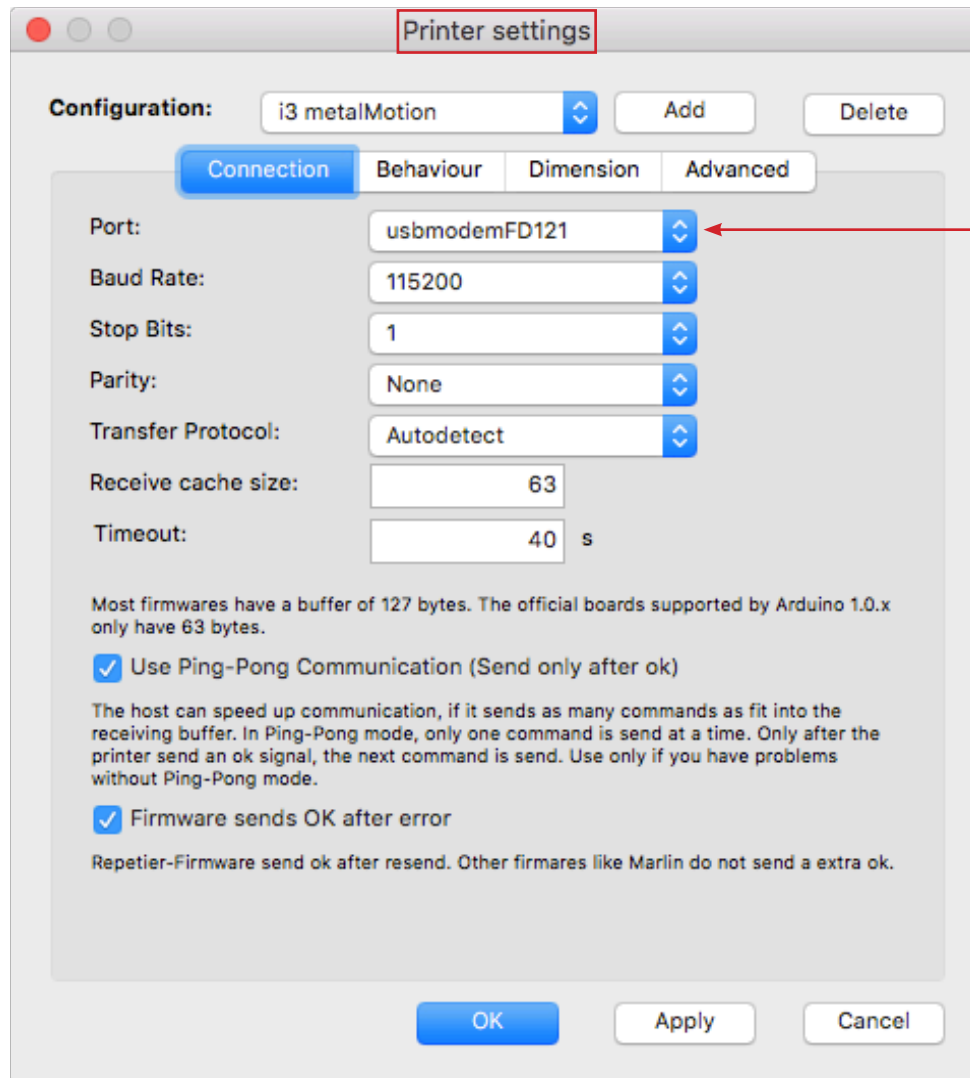
From there, the eMotronic card should be recognized by the Device Manager and the contents of the TF card should be displayed in the Files Explorer. It will then only remain to realize again the calibration of the 3D printer.

Installing Repetier-Host Software on Mac OS X

- 1°) Download the «Repetier-Host.dmg» installation package from our website (www.reprap-france.com), in the «Support» section, in the sub-section named «All files», then «I3 Metal Motion / Software / Mac /».
- 2°) Then install this software in the same way as any other Mac.
- 3°) Finally launch the Repetier-Host software.

Configuring the 3D Printer Connection Settings on Repetier-Host Mac OS X Version


- 1°) Click the 3-gear icon in the top right corner of Repetier-Host («Printer Settings»).
- 2°) Fill in the different fields as shown below.



Is likely to change but must match the machine's electronic board

Configuring 3D Printer Dimension Settings on Repetier-Host Mac OS X Version

1°) Go to the «Dimension» tab and fill in the fields as shown below.



The screenshot shows the 'Printer settings' dialog box for a printer named 'i3 metalMotion'. The 'Dimension' tab is selected and highlighted with a red box. The settings are as follows:

- Configuration:** i3 metalMotion (dropdown), Add, Delete
- Connection** | **Behaviour** | **Dimension** | **Advanced** (tabs)
- Home X:** x max (dropdown) | **Home Y:** y max (dropdown) | **Home Z:** z max (dropdown)
- X Min:** 0 [mm] | **X Max:** 200 [mm]
- Y Min:** 0 [mm] | **Y Max:** 200 [mm]
- Printer type:** Classic Printer (dropdown)
- Print Area Width:** 200 [mm] | **Bed Front:** 0 [mm]
- Print Area Depth:** 200 [mm] | **Bed Left:** 0 [mm]
- Print Area Height:** 190 [mm]

The following text is present in the dialog box:

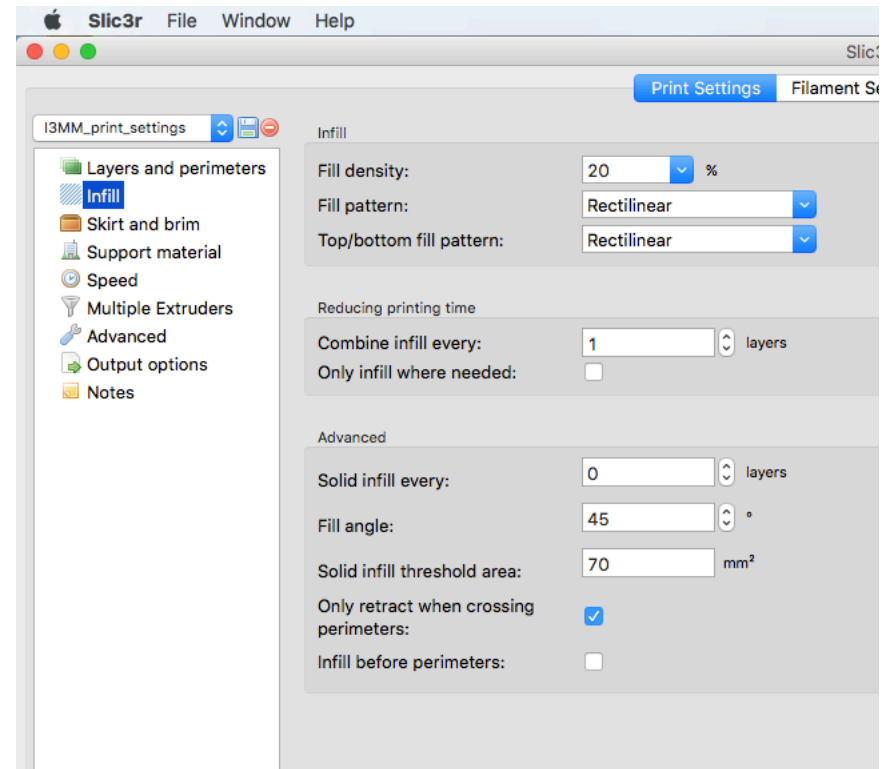
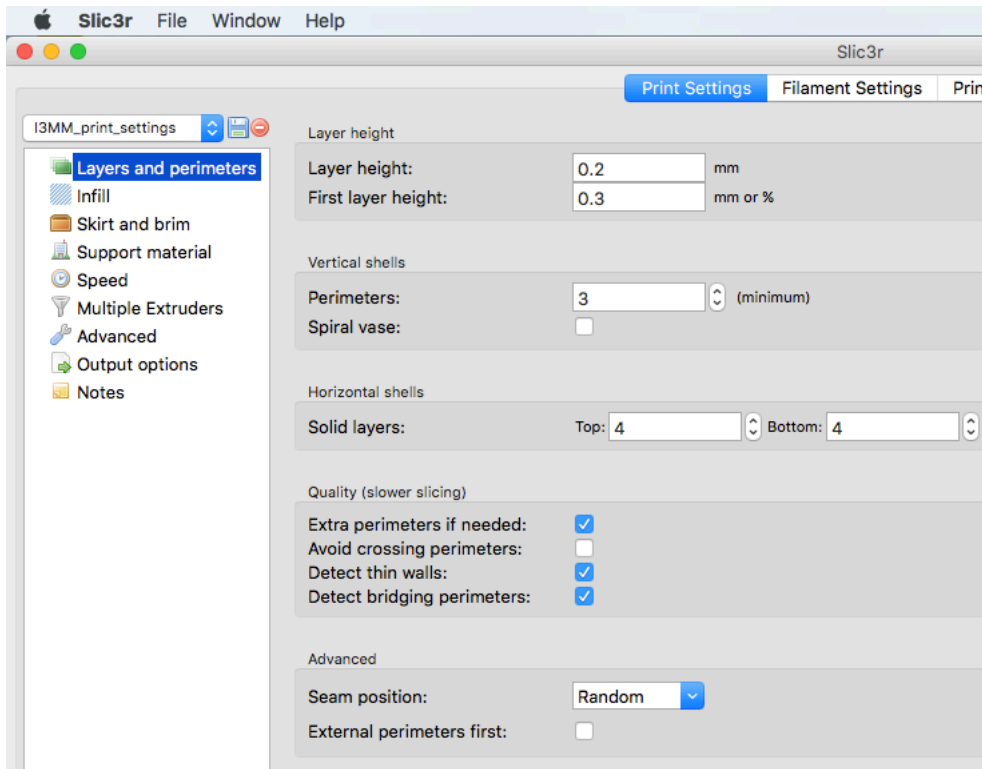
The min and max values define the possible range of extruder coordinates. These coordinates can be negative and outside the print bed. Bed left/front define the coordinates where the printbed itself starts. By changing the min/max values you can even move the origin in the center of the print bed, if supported by firmware.

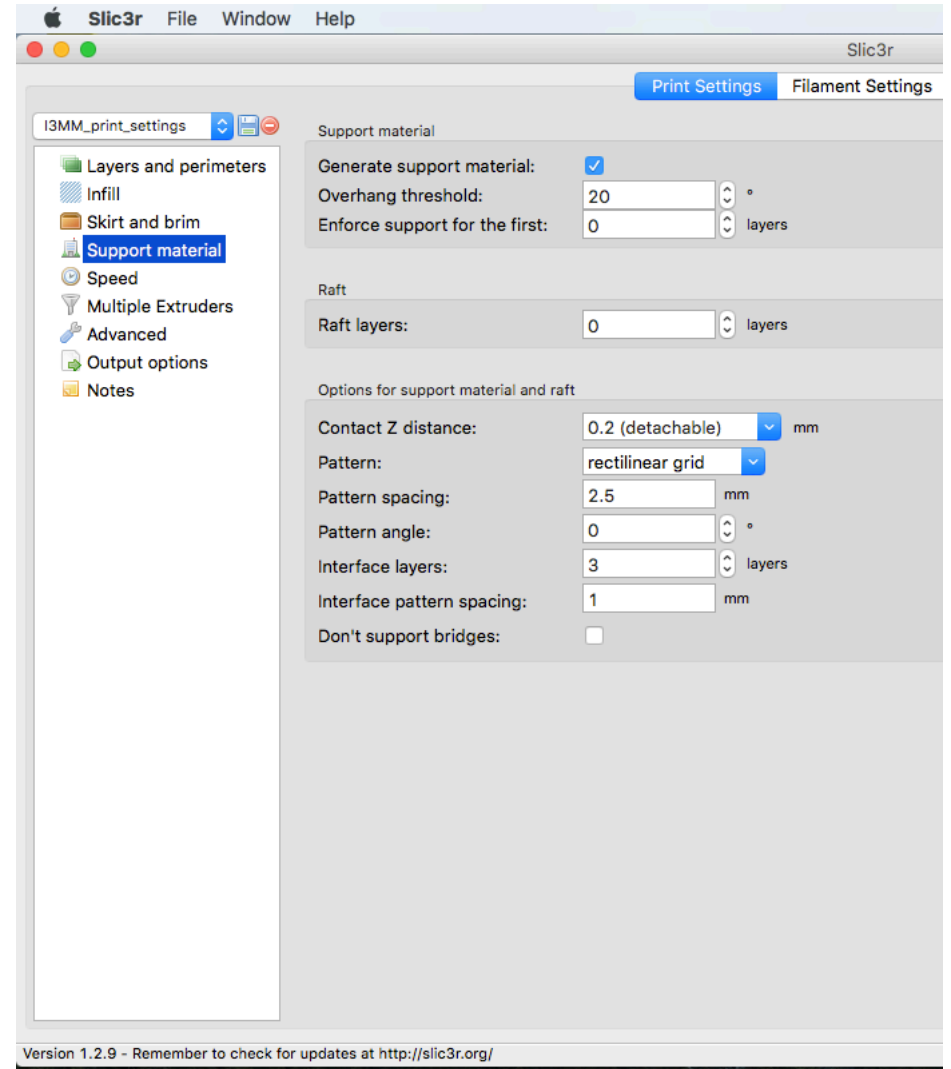
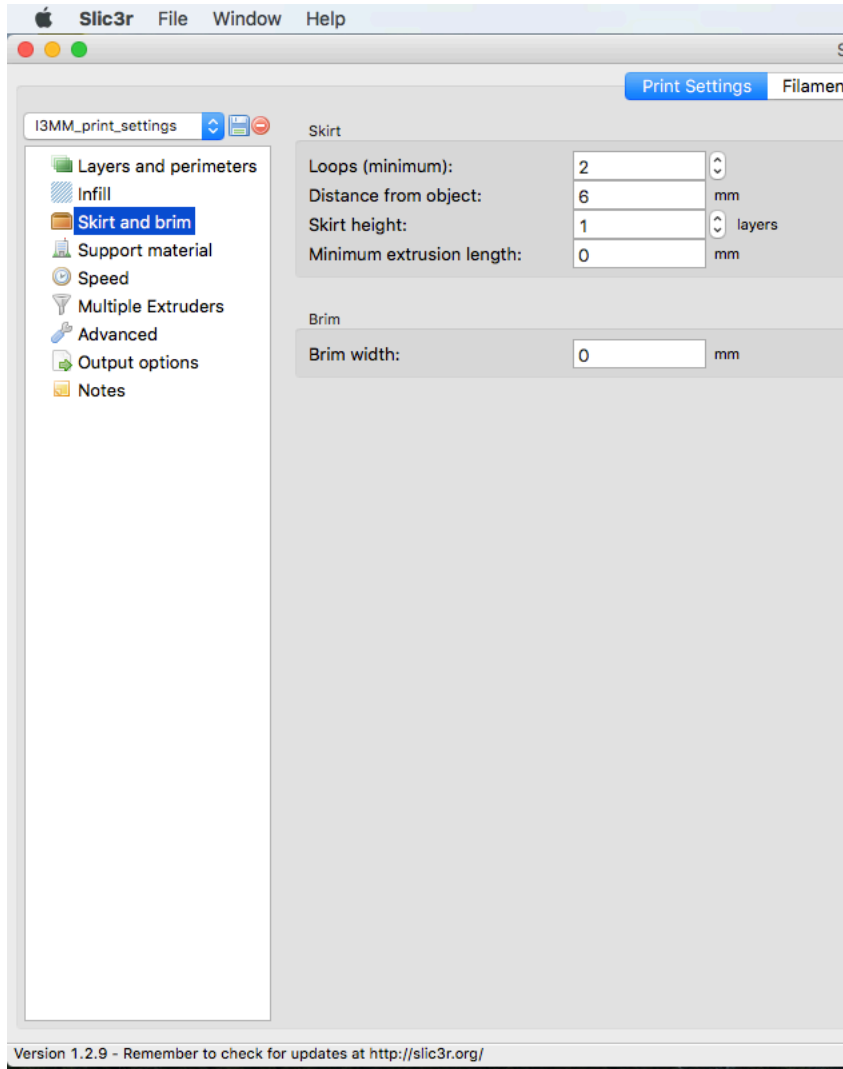
Buttons at the bottom: OK, Apply, Cancel.

Configuring Slicing Settings for «Slic3r» Mac OS X Version

1°) Go to the «Slicer» tab and press the «Configuration» button.

2°) Fill in the different fields as indicated below.





Slic3r File Window Help

Slic3r

Print Settings Filament Settings

I3MM_print_settings

- 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:	15	mm/s or %
External perimeters:	50%	mm/s or %
Infill:	80	mm/s
Solid infill:	20	mm/s or %
Top solid infill:	15	mm/s or %
Support material:	60	mm/s
Support material interface:	100%	mm/s or %
Bridges:	60	mm/s
Gap fill:	20	mm/s

Speed for non-print moves

Travel: 150 mm/s

Modifiers

First layer speed: 30 mm/s or %

Acceleration control (advanced)

Perimeters:	0	mm/s ²
Infill:	0	mm/s ²
Bridge:	0	mm/s ²
First layer:	0	mm/s ²
Default:	0	mm/s ²

Autospeed (advanced)

Max print speed:	80	mm/s
Max volumetric speed:	0	mm ³ /s

Version 1.2.9 - Remember to check for updates at <http://slic3r.org/>

Slic3r File Window Help

Slic3r

Print Settings Filament Settings

I3MM_print_settings

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

Extruders

Perimeter extruder:	1
Infill extruder:	1
Solid infill extruder:	1
Support material/raft/skirt extruder:	1
Support material/raft interface extruder:	1

Ooze prevention

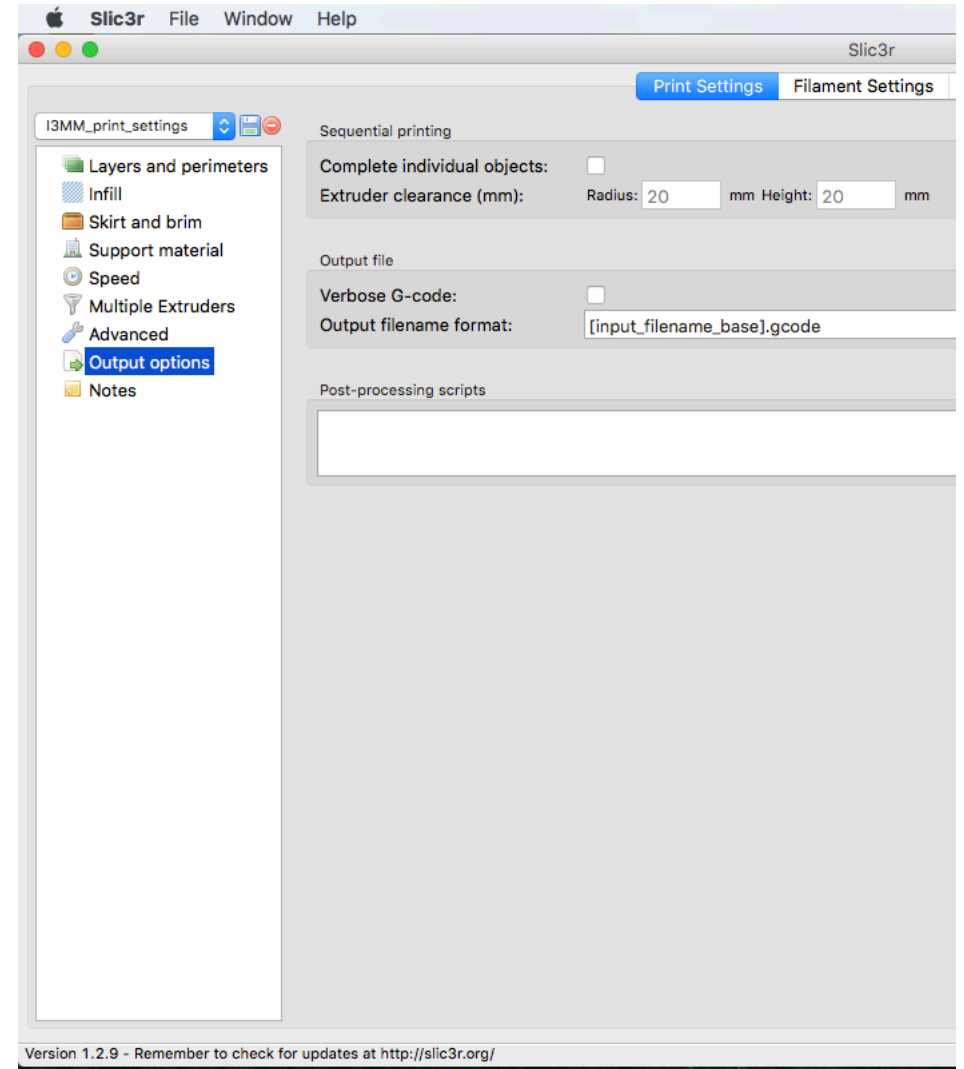
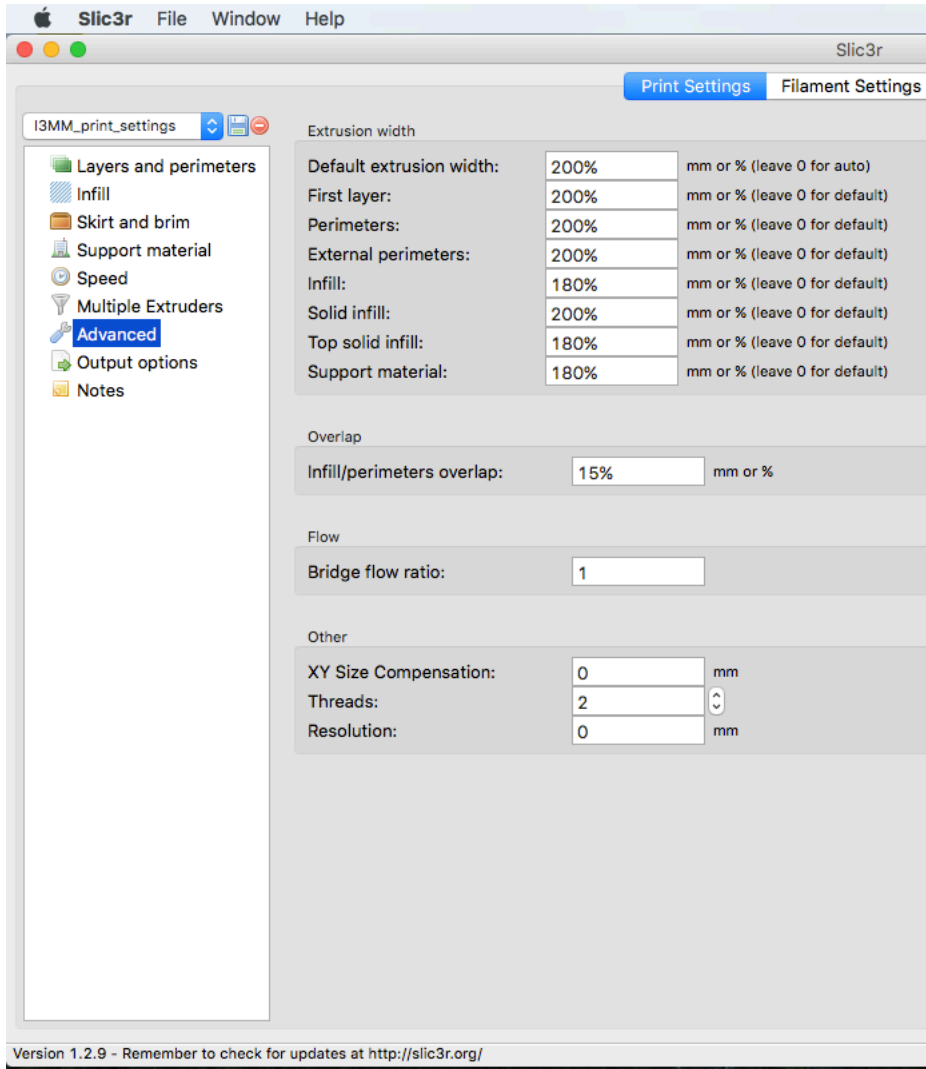
Enable:

Temperature variation: -5 Δ°C

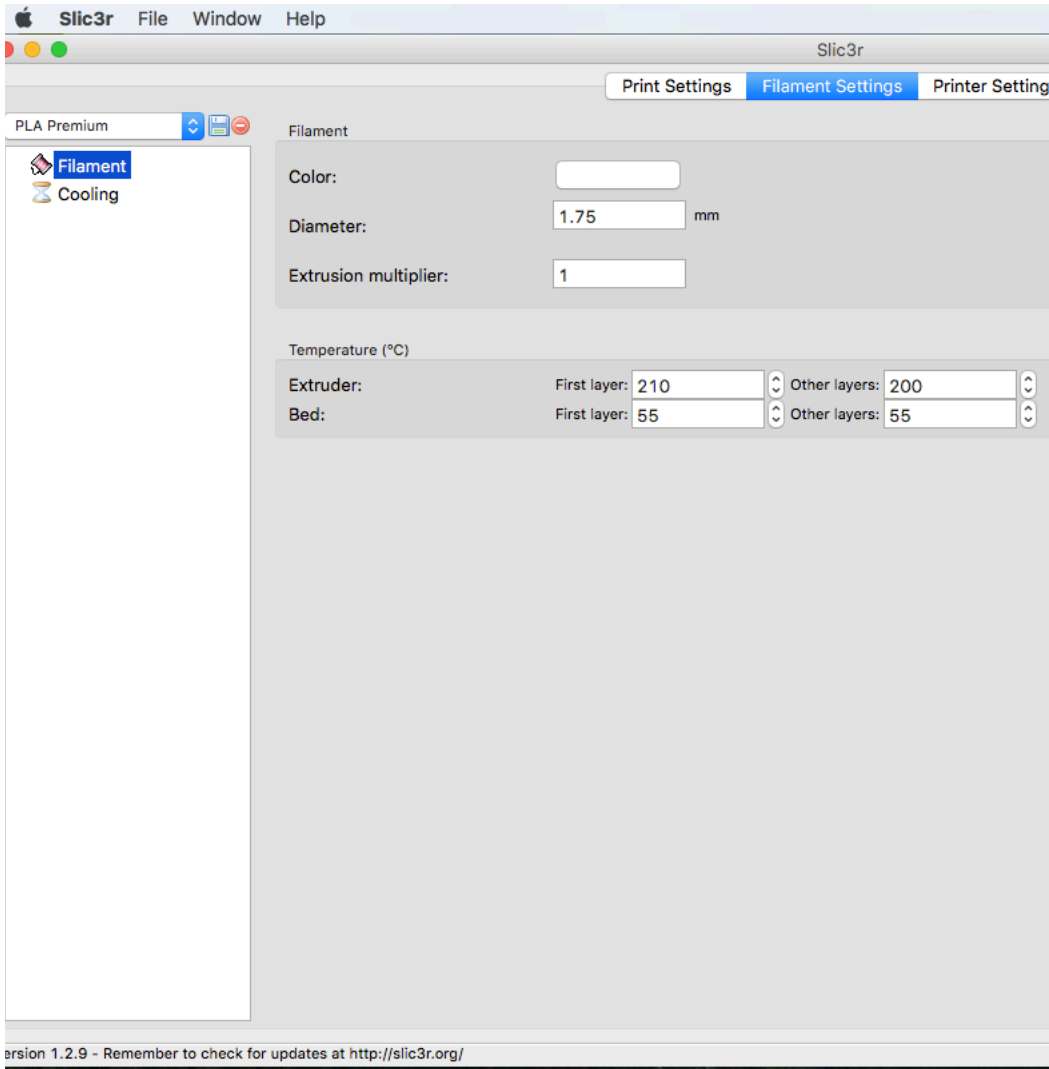
Advanced

Interface shells:

Version 1.2.9 - Remember to check for updates at <http://slic3r.org/>



Filament Settings



The screenshot shows the Slic3r application window with the 'Filament Settings' tab selected. The interface includes a menu bar (Slic3r, File, Window, Help) and a toolbar with 'Print Settings', 'Filament Settings', and 'Printer Settings'. The filament type is set to 'PLA Premium'. The left sidebar shows 'Filament' and 'Cooling' options. The main settings area is divided into 'Filament' and 'Temperature (°C)' sections.

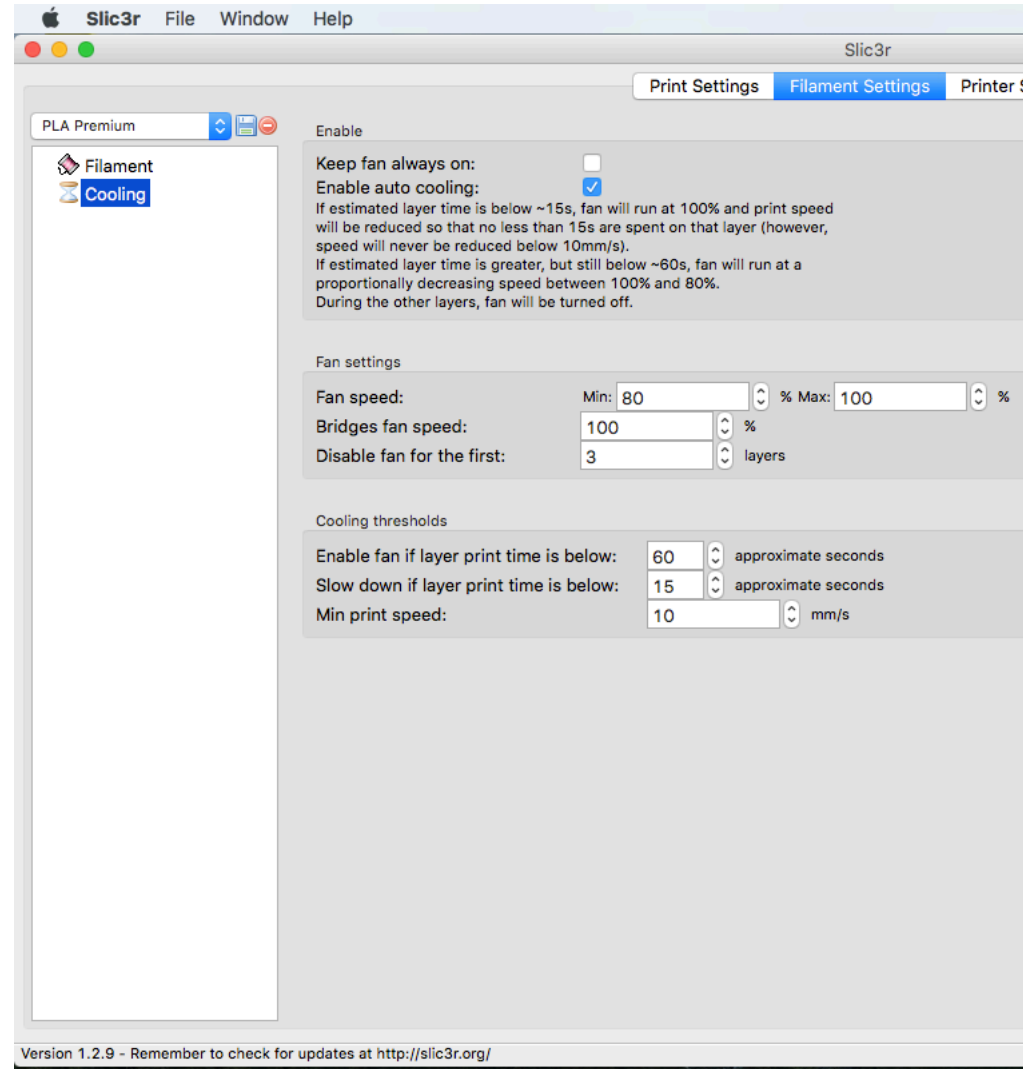
Filament Settings:

- Color: [Empty text box]
- Diameter: 1.75 mm
- Extrusion multiplier: 1

Temperature (°C) Settings:

Component	First layer	Other layers
Extruder:	210	200
Bed:	55	55

Version 1.2.9 - Remember to check for updates at <http://slic3r.org/>



This screenshot shows the 'Cooling' sub-tab within the 'Filament Settings' window. It details fan-related parameters and cooling thresholds.

Enable:

- Keep fan always on:
- Enable auto cooling:

Fan settings:

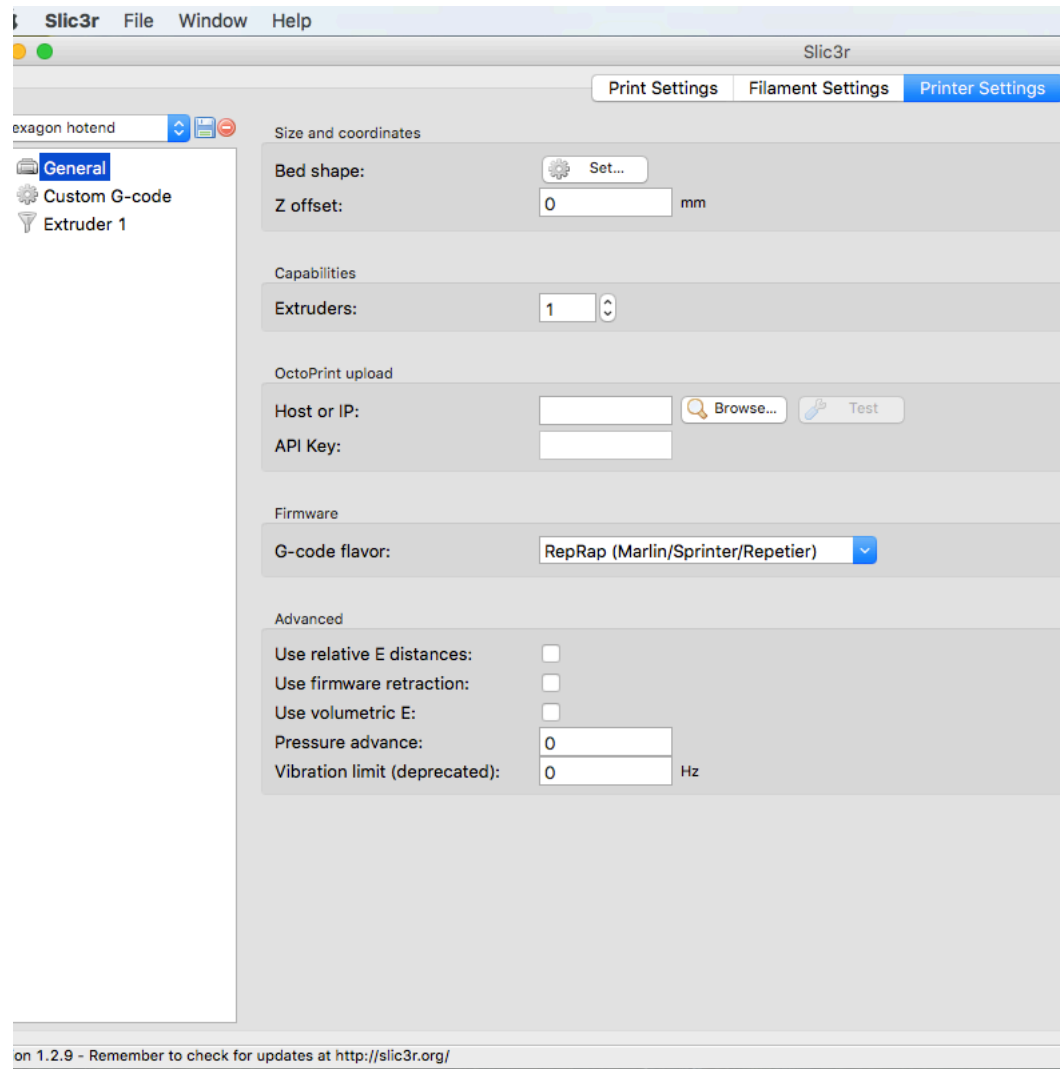
- Fan speed: Min: 80 % Max: 100 %
- Bridges fan speed: 100 %
- Disable fan for the first: 3 layers

Cooling thresholds:

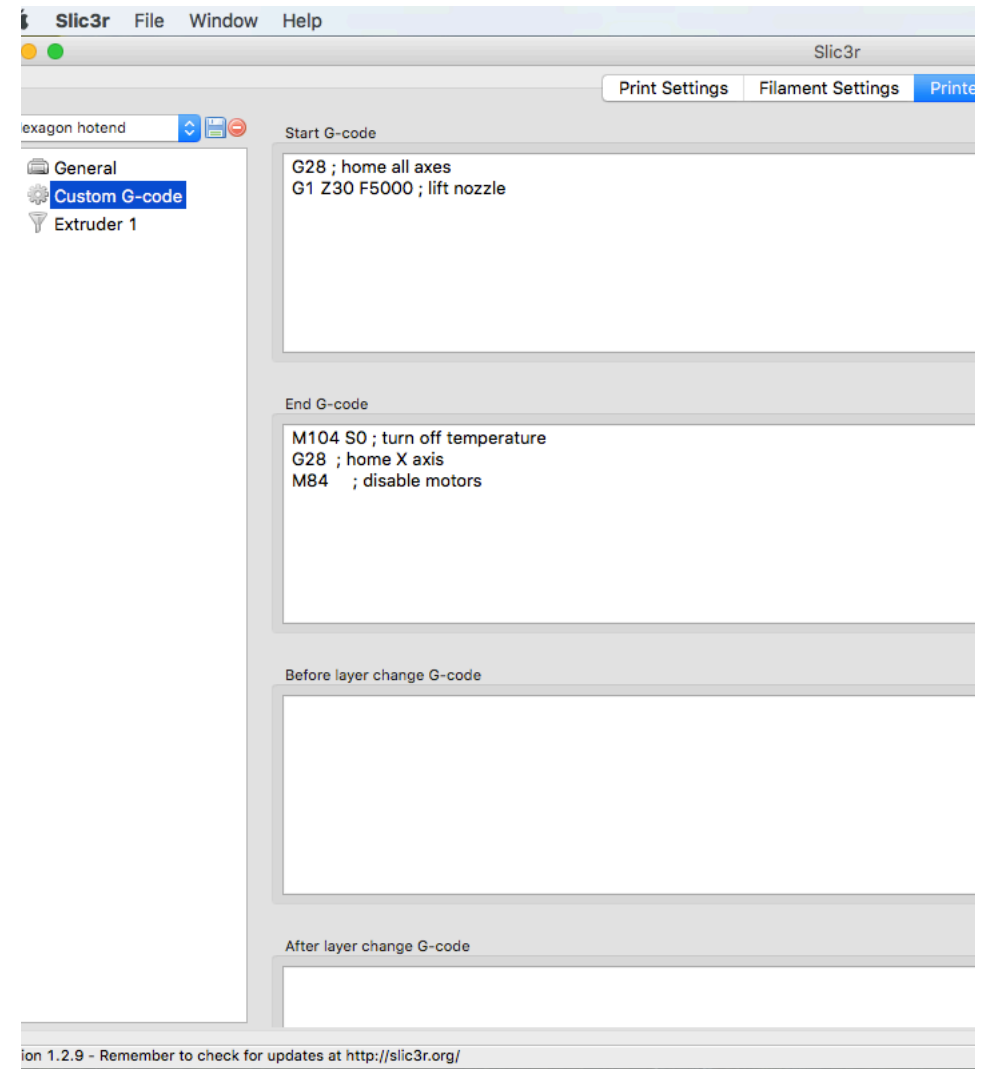
- Enable fan if layer print time is below: 60 approximate seconds
- Slow down if layer print time is below: 15 approximate seconds
- Min print speed: 10 mm/s

Version 1.2.9 - Remember to check for updates at <http://slic3r.org/>

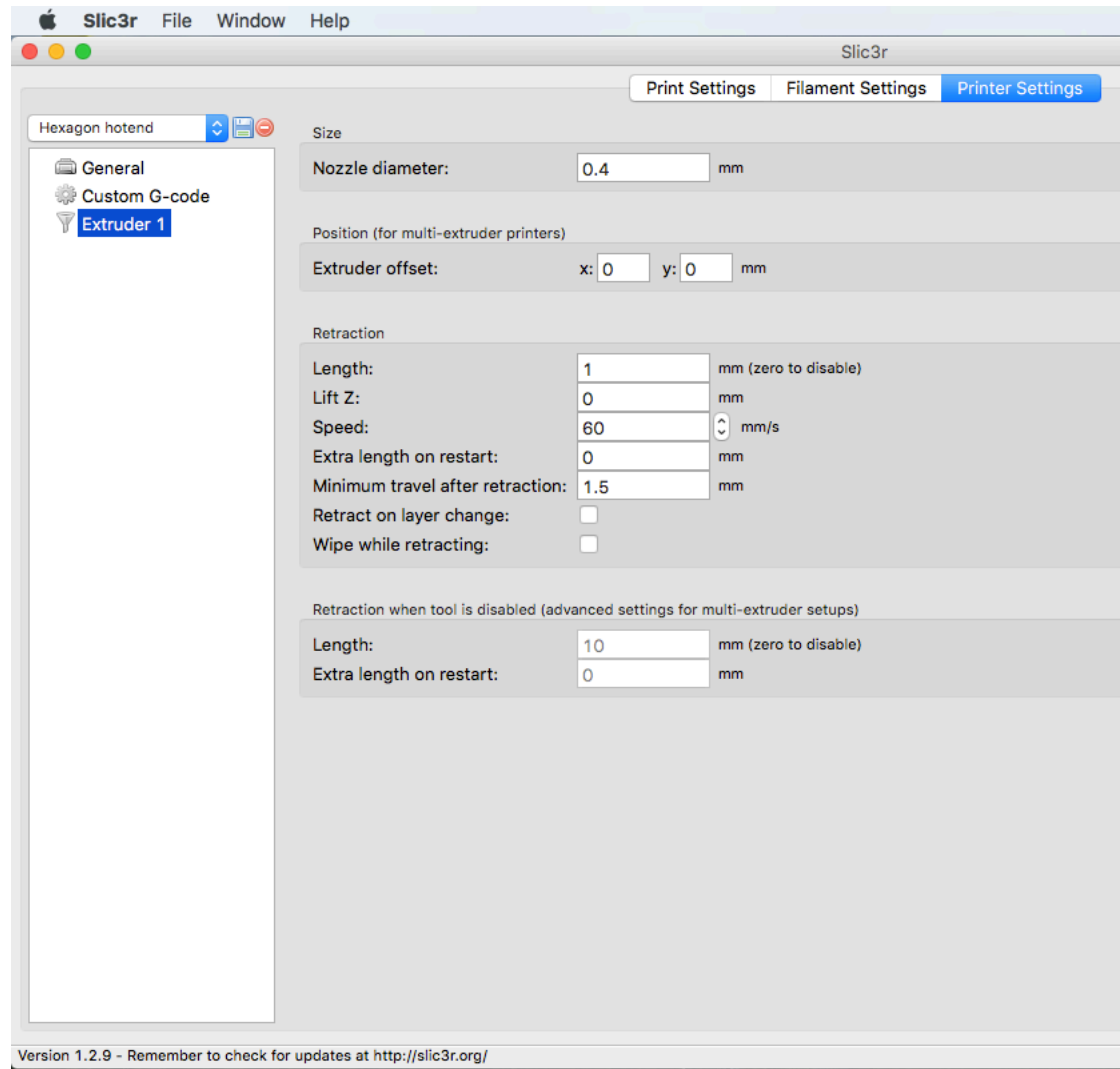
Printer Settings



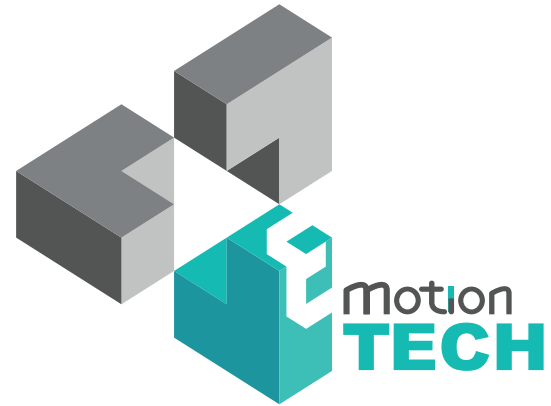
The screenshot shows the Slic3r application window with the 'Printer Settings' tab selected. The interface includes a sidebar with 'General', 'Custom G-code', and 'Extruder 1' options. The main area is divided into several sections: 'Size and coordinates' with 'Bed shape' (Set...) and 'Z offset' (0 mm); 'Capabilities' with 'Extruders' (1); 'OctoPrint upload' with 'Host or IP' (Browse...) and 'API Key'; 'Firmware' with 'G-code flavor' (RepRap (Marlin/Sprinter/Repetier)); and 'Advanced' with checkboxes for 'Use relative E distances', 'Use firmware retraction', and 'Use volumetric E', plus input fields for 'Pressure advance' (0) and 'Vibration limit (deprecated)' (0 Hz). A footer note reads: 'on 1.2.9 - Remember to check for updates at <http://slic3r.org/>'.



The screenshot shows the Slic3r application window with the 'Custom G-code' tab selected. The interface includes a sidebar with 'General', 'Custom G-code', and 'Extruder 1' options. The main area contains three text input fields for G-code: 'Start G-code' (G28 ; home all axes, G1 Z30 F5000 ; lift nozzle), 'End G-code' (M104 S0 ; turn off temperature, G28 ; home X axis, M84 ; disable motors), and 'Before layer change G-code'. There is also an empty field for 'After layer change G-code'. A footer note reads: 'ion 1.2.9 - Remember to check for updates at <http://slic3r.org/>'.



Ok, now your software is well setted and your I3 Metal Motion is ready to print !



Thank you for choosing the I3 Metal Motion !

www.emotion-tech.com