FUNMAT PRO 410 QUICK START GUIDE

Remove The Packaging

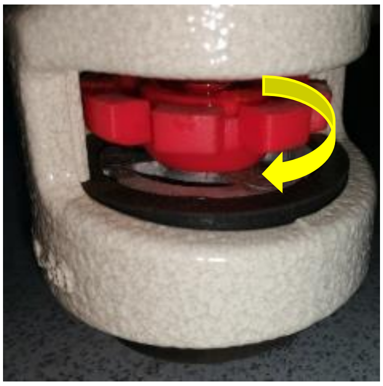
STEP 1: Unscrew the wooden box with an 8mm sleeve, remove all the plates, the ties, the stretch film.

STEP 2: Take out the wooden plates under the printer, use a cross screwdriver to assemble them into ramps with the nails attached on the plate, then connect the ramps to the baseplate.

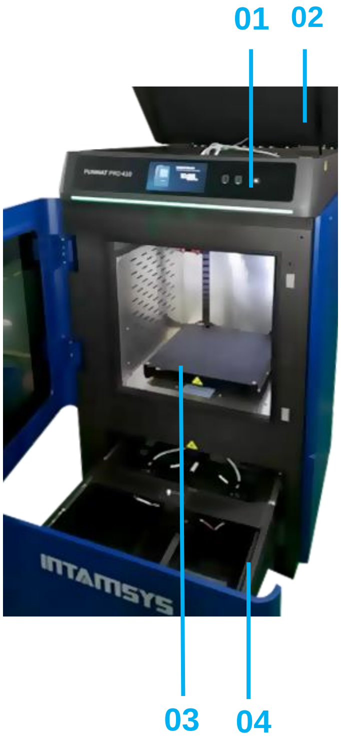
Make sure the ramps are properly and securely mounted together.

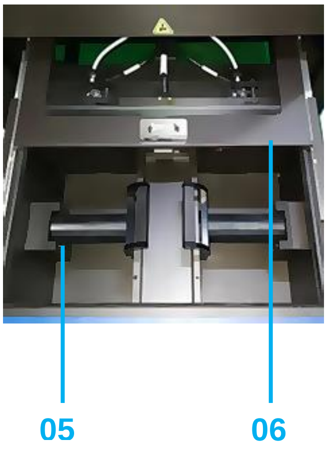
STEP 3: Release the caster wheels by rotating clockwise, gently move the printer to a flat, solid and sturdy ground.

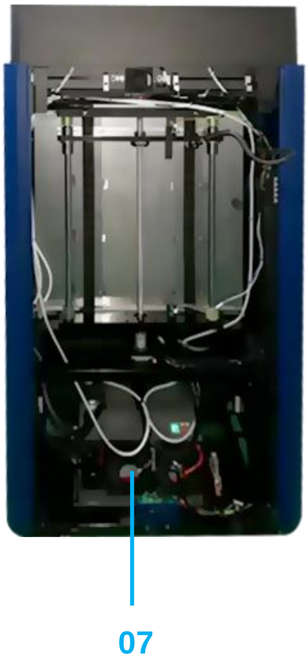
STEP 4: After moving the printer to the right place, remember to tighten the caster wheels by rotating anti-clockwise.



Layout Of Printer







01 Smart touch panel

02 Top cover

03 Build plate

04 Filament chamber

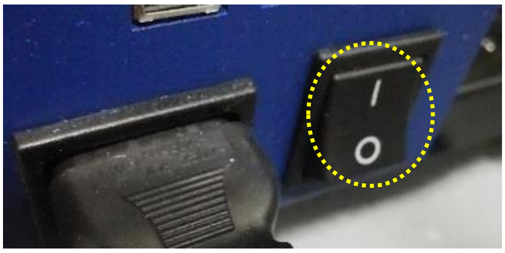
05 Filament shaft

06 Filament chamber door

07 Liquid cooling unit

Prepare The Printer

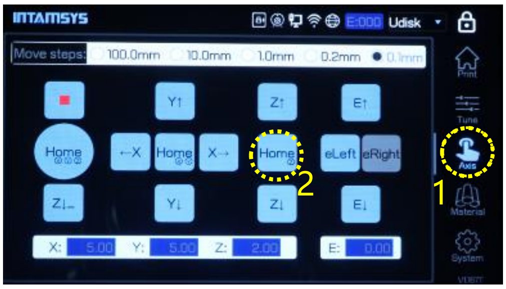
1. Power on the printer and take out the accessory box



STEP 1: Connect the power cord and power on the printer, touch anywhere on the screen to exit the screensaver.

FUNMAT PRO 410
INTAMSYS

STEP 2: Press “Axis”, and then press “Home z”.

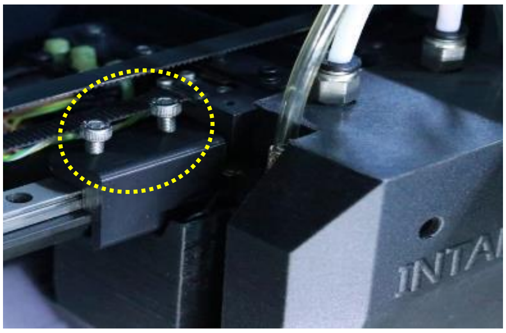

INTAMSYS
E:000
Udisk
Y↑
Z↑
E↑
Home
←X
Home
X→
Home
eLeft
eRight
Z↓_
Y↓
Z↓
E↓
Print
Tune
Axis
Material
System
1
2

Move steps: ○ 100.0mm ○ 10.0mm ○ 1.0mm ○ 0.2mm ● 0.1mm

X: 5.00 Y: 5.00 Z: 2.00 E: 0.00

STEP 3: Take out the accessory box.

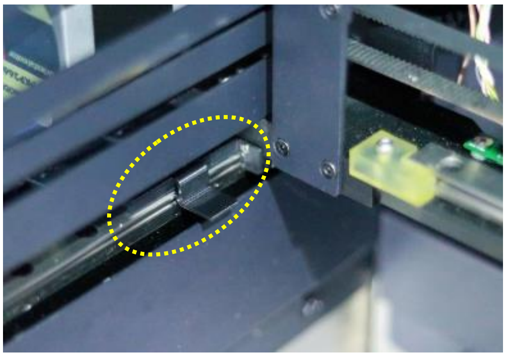
2. Release XY modules



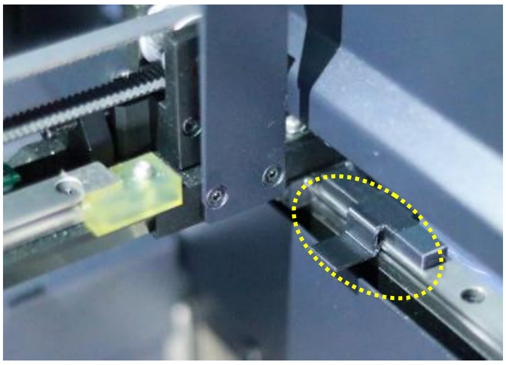
STEP 1: Power off the printer. Pull the door from the right side of the unit.

STEP 2: Unscrew and take away the stop block on the extruder linear guide.

STEP 3: Pull the buckle upward and take away the stop block on the left linear guide.

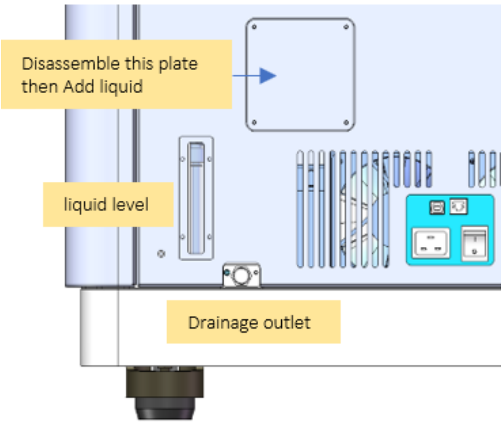


STEP 4: Pull the buckle upward and take away the stop block on the right linear guide.



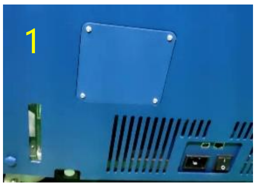
3. Add coolant into the liquid cooling unit

STEP 1: Unscrew the cover plate on the back of the printer.


Disassemble this plate then Add liquid
liquid level
Drainage outlet

STEP 2: Take out the end of the tube.

STEP 3: Take out the funnel from the accessory box and fix it on the end of the tube. Add feed 750~950 ml Automotive Engine Anhydrous Coolant (with color is preferred) into the liquid cooling unit.



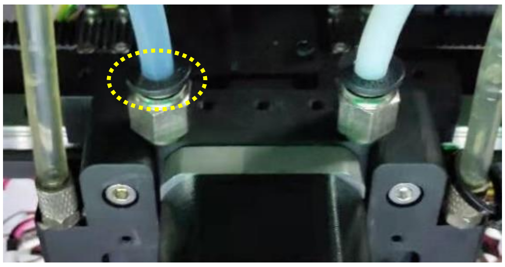
The cap of tube end must be re-tightened after adding liquid.

The volume of the liquid tank of the chiller is 1000ml, and the liquid level sensor will be triggered when it is lower than 600ml.

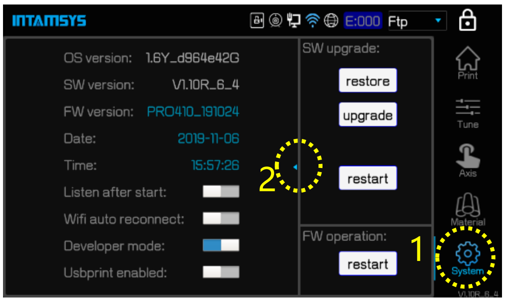
4. Feeding clamper force adjustment

Take the left extruder for example, the right extruder is the same.

STEP 1: Open the top door, press down the button of the one-touch fitting, pull the left filament tube out at the same time.

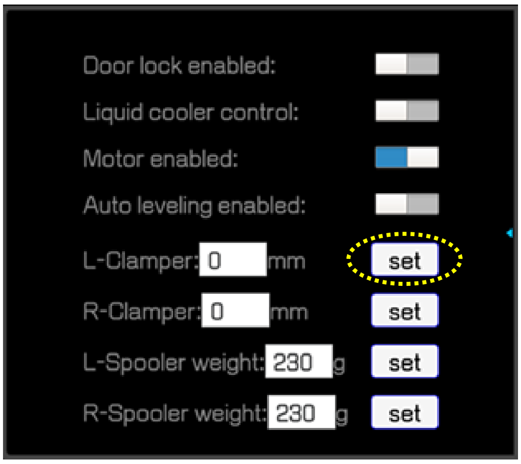


STEP 2: Click "System" icon, then press Arrow icon.


INTAMSYS
E:000
Ftp
SW upgrade:
restore
upgrade
restart
FW operation:
restart
Print
Tune
Axis
Material
System
V1.10R_6_4
1
2

OS version: 1.6Y_d964e42G
SW version: V1.10R_6_4
FW version: PRO410_191024
Date: 2019-11-06
Time: 15:57:26
Listen after start:
Wifi auto reconnect:
Developer mode:
Usbprint enabled:

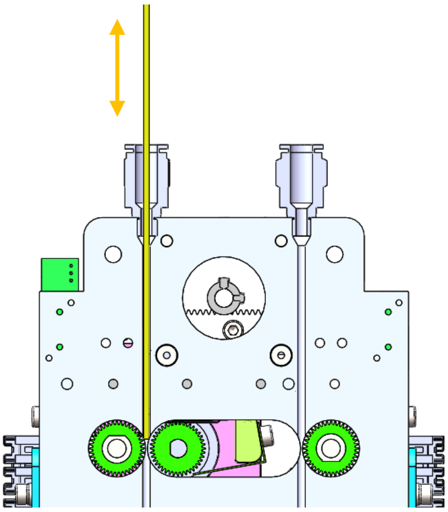
STEP 3: Click the "Set" icon. The printer will clear the former L-Clamper value and enter setting screen.

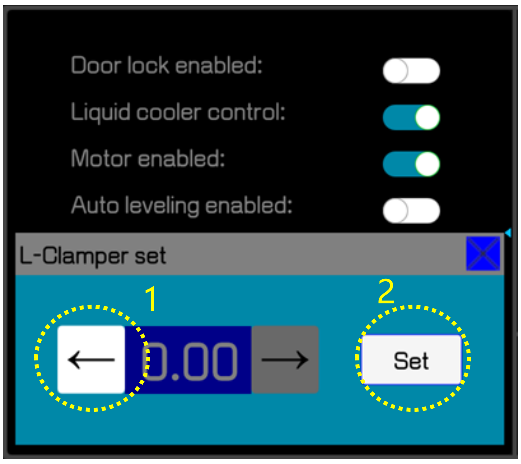

set
set
set
set

Door lock enabled:
Liquid cooler control:
Motor enabled:
Auto leveling enabled:
L-Clamper: 0 mm
R-Clamper: 0 mm
L-Spooler weight: 230 g
R-Spooler weight: 230 g

STEP 4: Click the "←" icon to let the two gears closer and closer. Insert and draw out the calibration steel bar after every screen click until you feel the resistance from the gears. After that click "Set" to save the value. The higher the value, the greater the clamping force.

Pay attention, the value cannot be too large, if it's too large it will be loose again.





Door lock enabled: ○
Liquid cooler control: ●
Motor enabled: ●
Auto leveling enabled: ○

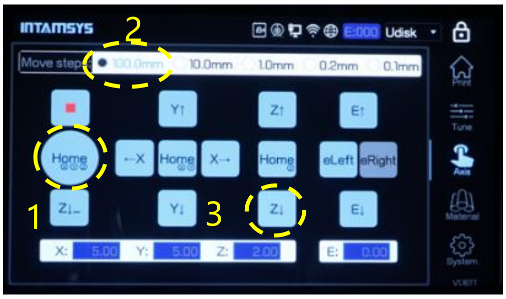
L-Clamper set

← 0.00 →

5. Install the build plate

STEP 1: Press the "Home" icon for X, Y, Z.

STEP 2: Move the heating bed by pressing "Z↓" with 100mm step to a suitable height. (No more than 3 times)

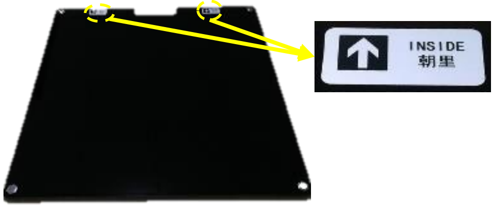


Move step: ● 100.0mm ○ 10.0mm ○ 1.0mm ○ 0.2mm ○ 0.1mm

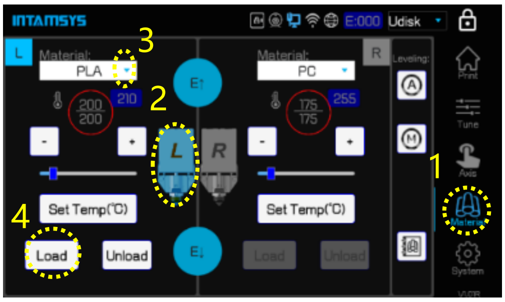
X: 5.00 Y: 5.00 Z: 2.00 E: 0.00

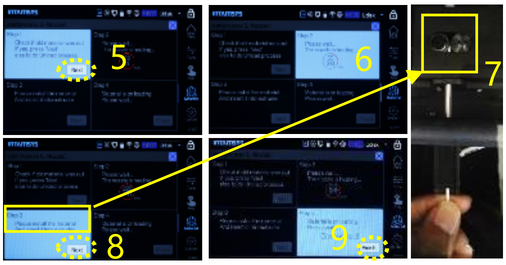
INTAMSYS
E:000
Udisk
2
Y↑
Z↑
E↑
Home
←X
Home
X→
Home
eLeft
eRight
1
Z↓_
Y↓
3
Z↓
E↓
Print
Tune
Axis
Material
System

STEP 3: Install the build plate on the heating bed according to the build plate insertion direction.



6. Load material

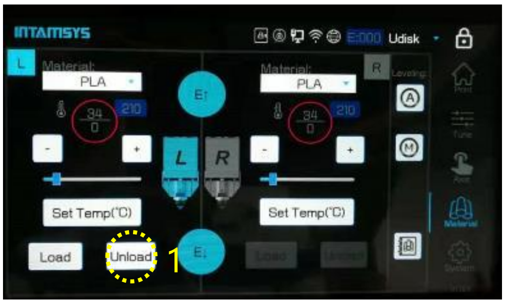

INTAMSYS
E:000
Udisk
L
Material:
PLA
3
210
2
200
200
E↑
L
R
Material:
PC
255
175
175
Leveling:
Print
Tune
1
Axis
Material
4
Set Temp(℃)
Set Temp(℃)
Load
Unload
E↓
Load
Unload
System

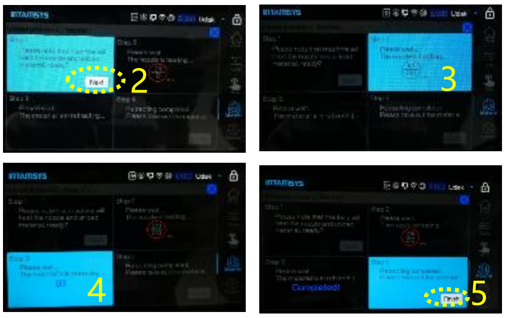


STEP 1: Press the "Material" icon, and then press "L" icon to select left extruder. The icon will be highlighted when it has been selected. (Same with the right extruder.)

STEP 2: Press the drop-down menu to select material. Make sure the material you selected is the same with the one you want to load.

STEP 3: And then press "Load" icon, there are in total 4 steps to load material, after 120 seconds loading process ended, press "Finish". (If the filament is not extruded out from the nozzle, long press "E↓" till the filament comes out or redo the load.)


INTAMSYS
E:000
Udisk
L
Material:
PLA
34
0
210
E↑
L
R
Material:
PLA
34
0
210
Leveling:
Set Temp(℃)
Set Temp(℃)
Load
Unload
1
E↓



Unload material by pressing "Unload" icon and then follow the instructions on the screen.

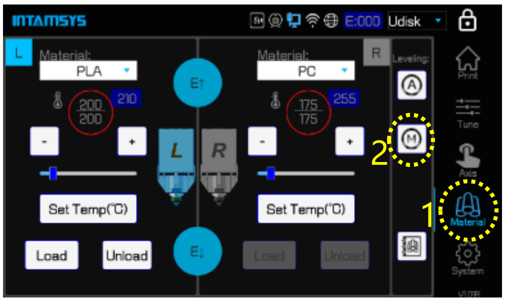
7. Bed leveling

There are two methods of bed leveling: Manual Leveling and Auto Leveling. Only need to choose one method to do the leveling.

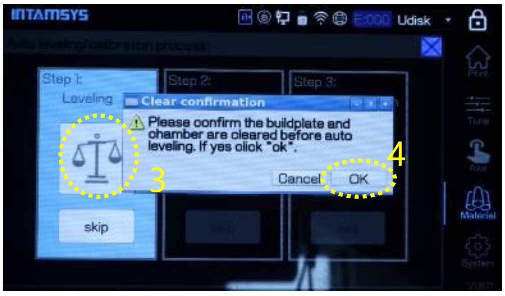
Manual Leveling is much recommended because of higher precision.

Manual bed leveling

STEP 1: Press the "Material" icon, and then press Ⓜ the icon.


INTAMSYS
E:000 Udisk
L
Material:
PLA
200
200
210
Set Temp(℃)
Load
Unload
R
Material:
PC
175
175
255
Set Temp(℃)
Load
Unload
Leveling:
Print
Tune
Axis
Material
System
1
2

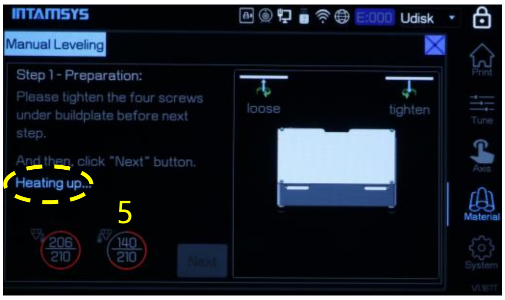
STEP 2: Press the leveling ⚖ icon, and then press OK.


INTAMSYS
E:000 Udisk
Step 1:
Leveling
Step 2:
Step 3:
skip
Cancel
OK
3
4

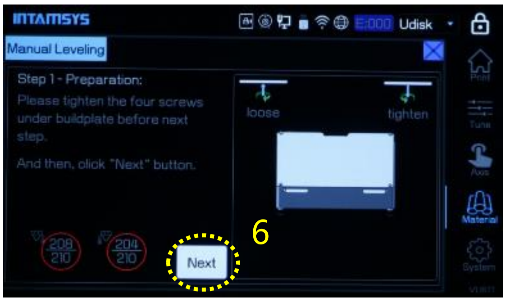
Clear confirmation

Please confirm the buildplate and chamber are cleared before auto leveling. If yes click "ok".

STEP 3: After the nozzle is heated up, press "Next".

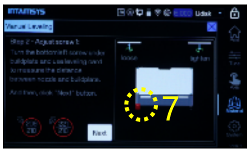

INTAMSYS
E:000 Udisk
Manual Leveling
loose
tighten
206
210
140
210
Next
Print
Tune
Axis
Material
System
5

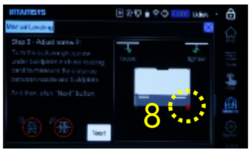
Step 1 - Preparation:
Please tighten the four screws under buildplate before next step.
And then, click "Next" button.
Heating up...

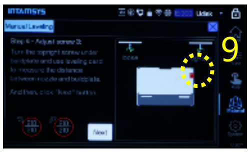

INTAMSYS
E:000 Udisk
Manual Leveling
loose
tighten
208
210
204
210
Next
Print
Tune
Axis
Material
System
6

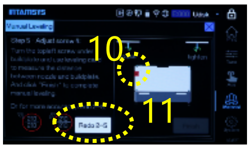
Step 1 - Preparation:
Please tighten the four screws under buildplate before next step.
And then, click "Next" button.

STEP 4: There are 4 screws which need to be adjusted one by one for at least twice, by using the leveling card with 0.2mm thickness (the leveling card is in the accessory box) .

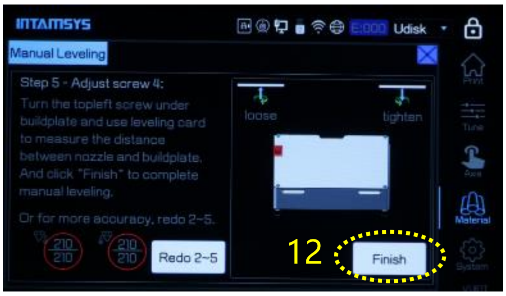








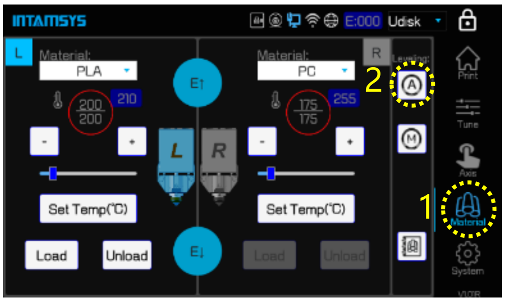
STEP 5: Press "Finish" to exit the process after adjustment is completed.


INTAMSYS
E:000 Udisk
Manual Leveling
loose
tighten
210
210
210
210
Redo 2~5
Finish
Print
Tune
Axis
Material
System
12

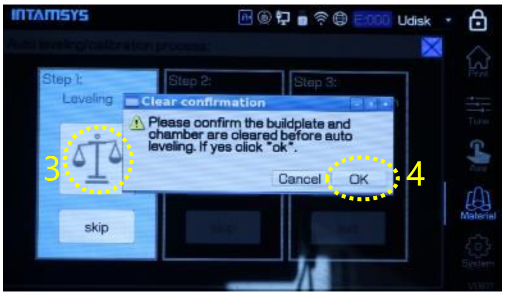
Step 5 - Adjust screw 4:
Turn the topleft screw under buildplate and use leveling card to measure the distance between nozzle and buildplate.
And click "Finish" to complete manual leveling.
Or for more accuracy, redo 2~5.

Auto bed leveling

STEP 1: Press the “Material” icon, and then press the Ⓐ icon.

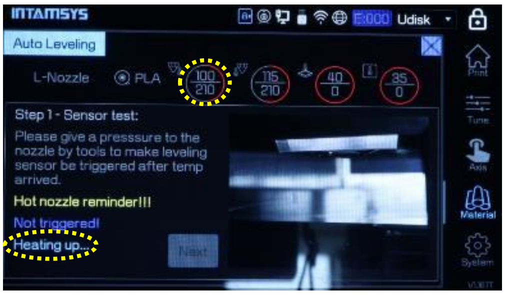

INTAMSYS
E:000 Udisk
L
Material:
PLA
200
200
210
-
+
Set Temp(℃)
Load
Unload
E↑
E↓
L
R
Material:
PC
175
175
255
Set Temp(℃)
Load
Unload
R
Leveling
2
1
Print
Tune
Axis
Material
System

STEP 2: Press the leveling ⚖ icon, and then press OK.


INTAMSYS
E:000 Udisk
Step 1:
Leveling
Step 2:
Step 3:
3
Clear confirmation
Cancel
OK
4
skip
Print
Tune
Axis
Material
System

Please confirm the buildplate and chamber are cleared before auto leveling. If yes click "ok".

STEP 3: After the nozzle is heated up, press the nozzle upward with the tool as shown in the figure. When seeing “Triggering succeeded”, press “Next”.


INTAMSYS
E:000 Udisk
Auto Leveling
L-Nozzle
PLA
100
210
115
210
40
0
35
0
Next
Print
Tune
Axis
Material
System

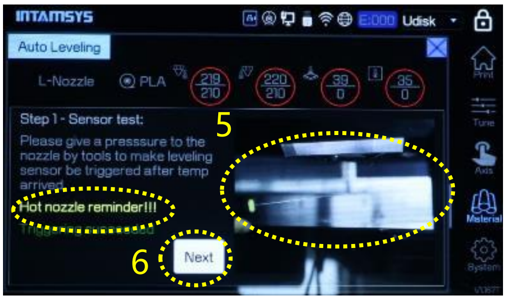
Step 1 - Sensor test:

Please give a presssure to the nozzle by tools to make leveling sensor be triggered after temp arrived.

Hot nozzle reminder!!!

Not triggered!

Heating up...


INTAMSYS
E:000 Udisk
Auto Leveling
L-Nozzle
PLA
219
210
220
210
39
0
35
0
5
6
Next
Print
Tune
Axis
Material
System

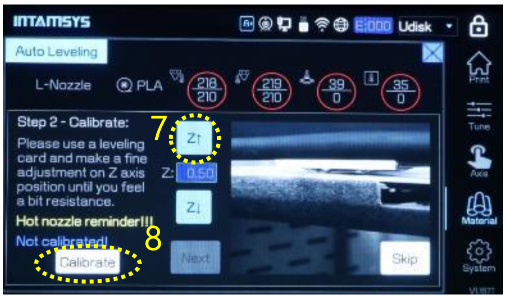
Step 1 - Sensor test:

Please give a presssure to the nozzle by tools to make leveling sensor be triggered after temp arrived.

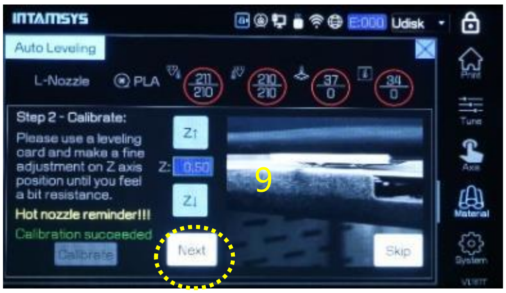
Hot nozzle reminder!!!

STEP 4: Clean the nozzle and the build plate, then adjust the Z axis with a leveling card with a thickness of 0.2mm according to the instruction on screen.

STEP 5: Remove the leveling card after adjustment is OK, and then press "Calibrate". When calibration is done, press "Next".

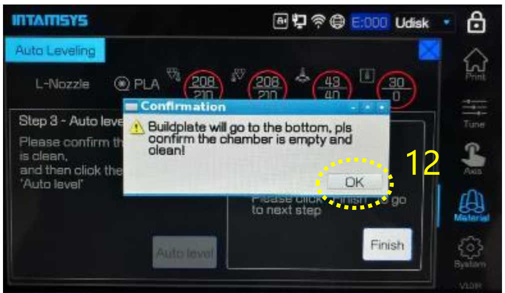

INTAMSYS
E:000
Udisk
Auto Leveling
L-Nozzle
PLA
218
210
219
210
39
0
35
0
7
Z↑
Z: 0.50
Z↓
8
Calibrate
Next
Skip
Print
Tune
Axis
Material
System

Step 2 - Calibrate:
Please use a leveling card and make a fine adjustment on Z axis position until you feel a bit resistance.
Hot nozzle reminder!!!
Not calibrated!


INTAMSYS
E:000
Udisk
Auto Leveling
L-Nozzle
PLA
211
210
210
210
37
0
34
0
Z↑
Z: 0.50
Z↓
9
Calibrate
Next
Skip
Print
Tune
Axis
Material
System

Step 2 - Calibrate:
Please use a leveling card and make a fine adjustment on Z axis position until you feel a bit resistance.
Hot nozzle reminder!!!
Calibration succeeded

STEP 6: Keep the nozzle and build plate clean, then press "Auto level".

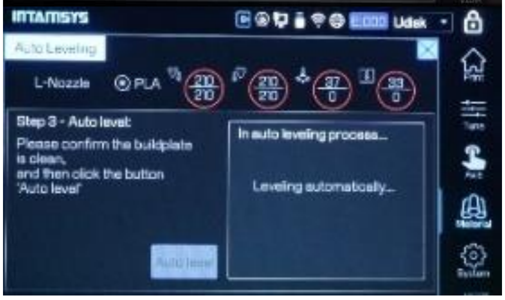

INTAMSYS
E:000
Udisk
Auto Leveling
L-Nozzle
PLA
208
210
208
210
43
40
30
0
Confirmation
OK
12
Auto level
Finish
Print
Tune
Axis
Material
System

Step 3 - Auto leve
Please confirm th
is clean,
and then click the
'Auto level'

Buildplate will go to the bottom, pls confirm the chamber is empty and clean!

to next step

STEP 7: The printer will perform a 3-points automatic leveling.

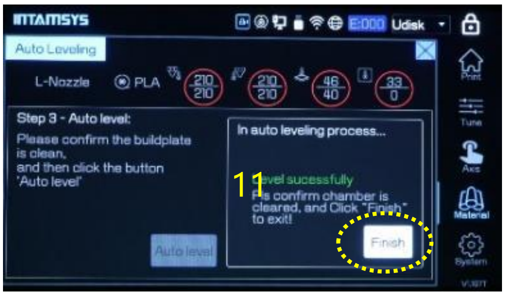

INTAMSYS
E:000
Udisk
Auto Leveling
L-Nozzle
PLA
210
210
210
210
37
0
33
0
Auto level
Print
Tune
Axis
Material
System

Step 3 - Auto level:
Please confirm the buildplate is clean,
and then click the button
'Auto level'

In auto leveling process...

Leveling automatically...

STEP 8: Press "Finish" after leveling is successful, the build plate will go downwards and then upwards to Z home.


INTAMSYS
E:000
Udisk
Auto Leveling
L-Nozzle
PLA
210
210
210
210
46
40
33
0
11
Auto level
Finish
Print
Tune
Axis
Material
System

Step 3 - Auto level:
Please confirm the buildplate is clean,
and then click the button
'Auto level'

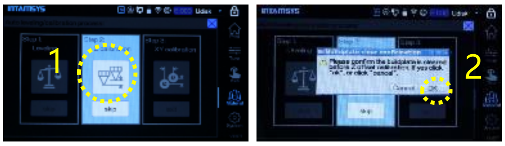
In auto leveling process...

Level sucessfully
Pls confirm chamber is cleared, and Click "Finish" to exit!

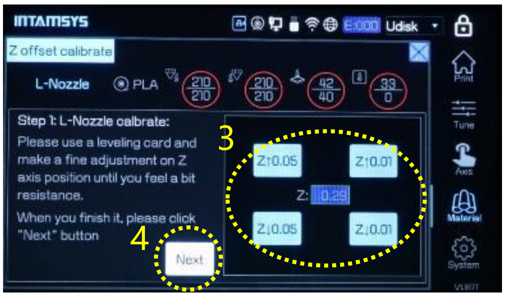
8. Calibrate the printer

1. Z Calibration

STEP 1: Press “Z calibration” icon and confirm with “OK”.

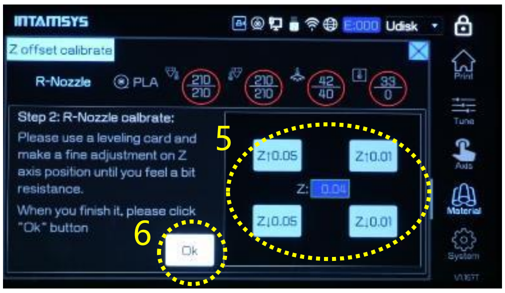


STEP 2: Press “Z↑” or “Z↓” to perform the left nozzle calibration by using a leveling card with a 0.2mm thickness, and then press “Next”. (There are two steps for different adjusting accuracy, 0.05mm and 0.01mm.)


INTAMSYS
E:000
Udisk
Z offset calibrate
L-Nozzle
PLA
210/210
210/210
42/40
33/0
Print
Tune
Axis
Material
System
3
Z↑0.05
Z↑0.01
Z: 0.29
Z↓0.05
Z↓0.01
4
Next

Step 1: L-Nozzle calbrate:
Please use a leveling card and make a fine adjustment on Z axis position until you feel a bit resistance.
When you finish it, please click "Next" button

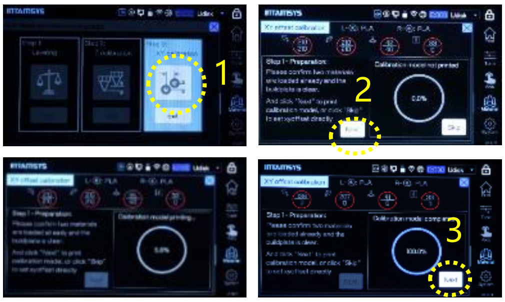
STEP 3: Perform calibration for the right nozzle by following the same steps, press “OK” to complete the total calibration.


INTAMSYS
E:000
Udisk
Z offset calibrate
R-Nozzle
PLA
210/210
210/210
42/40
33/0
Print
Tune
Axis
Material
System
5
Z↑0.05
Z↑0.01
Z: 0.04
Z↓0.05
Z↓0.01
6
Ok

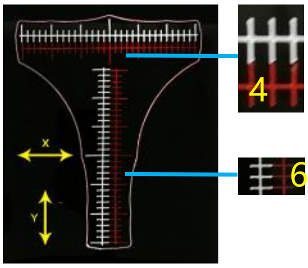
Step 2: R-Nozzle calbrate:
Please use a leveling card and make a fine adjustment on Z axis position until you feel a bit resistance.
When you finish it, please click "Ok" button

2. XY calibration

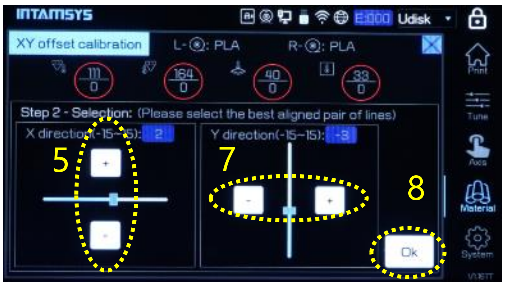
STEP 1: Press “XY calibration” and then press “Next”, the printing process starts. After printing is completed, press “Next”.



STEP 2: Check the printed model. Find the alignment line in X and Y direction and set the corresponding offset X and Y values, press “OK”.



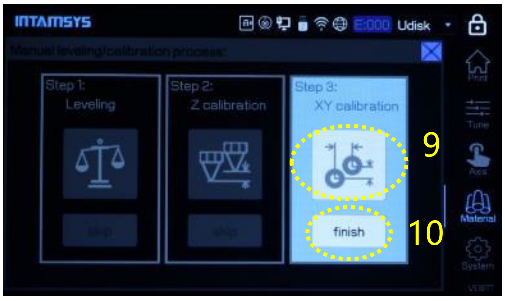
If there are no lines are aligned with each other, set 15 firstly on the corresponding direction ("+/-"), redo the printing and reset the offset value.


Step 2 - Selection: (Please select the best aligned pair of lines)

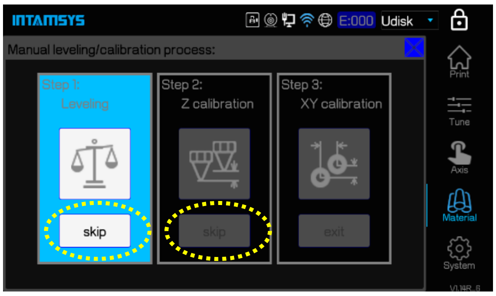
X direction(-15~15): 2

Y direction(-15~15): -3
INTAMSYS
E:000
Udisk
XY offset calibration
L-: PLA
R-: PLA
111
0
164
0
40
0
33
0
5
+
-
7
-
+
8
Ok
Print
Tune
Axis
Material
System

STEP 3: Press "Finish" to complete the calibration.

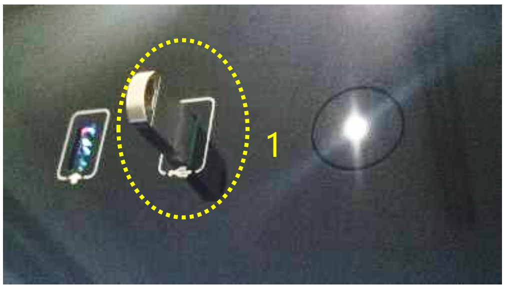

INTAMSYS
E:000
Udisk
Manual leveling/calibration process:
Step 1:
Leveling
skip
Step 2:
Z calibration
skip
Step 3:
XY calibration
9
finish
10
Print
Tune
Axis
Material
System

If you want to selectively do the specific step, you can click "Skip" .

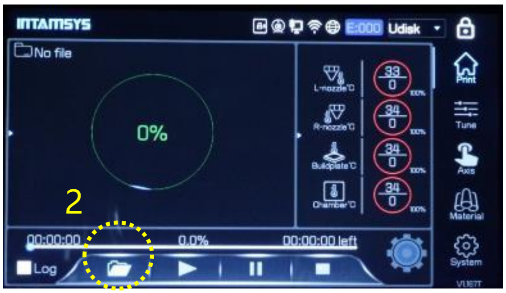

INTAMSYS
E:000
Udisk
Manual leveling/calibration process:
Step 1:
Leveling
skip
Step 2:
Z calibration
skip
Step 3:
XY calibration
exit
Print
Tune
Axis
Material
System

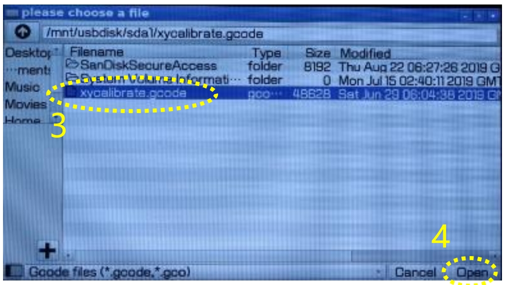
Printing Process

STEP 1: Insert the USB flash disk into the right socket on the panel, then press Open icon.



STEP 2: Select the file, and press "Open" .


INTAMSYS
E:000
Udisk
No file
0%
L-nozzle℃
R-nozzle℃
Buildplate℃
Chamber℃
33
0
34
0
34
0
34
0
100%
2
00:00:00
0.0%
00:00:00 left
Log
Print
Tune
Axis
Material
System



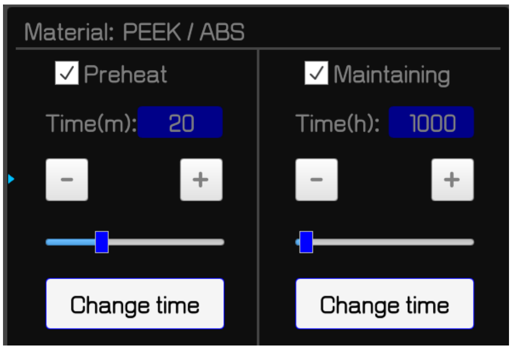
please choose a file

/mnt/usbdisk/sda1/xycalibrate.gcode

Filename	Type	Size	Modified
SanDiskSecureAccess	folder	8192	Thu Aug 22 06:27:26 2019 G
System Volume Informati···	folder	0	Mon Jul 15 02:40:11 2019 GMT
xycalibrate.gcode	gco···	48628	Sat Jun 29 06:04:38 2019 G

Gcode files (*.gcode,*.gco)

STEP 3: Firstly, buildplate and chamber will preheat for a specific time, then print. After print, the printer will maintain buildplate and chamber temperature until you stop it.



Material: PEEK / ABS

☑ Preheat
Time(m): 20

☑ Maintaining
Time(h): 1000

Install Software

After successfully setting up the printer, install the INTAM-SUITE software on your computer, and you can load the Slicing Software from this link:
https://www.intamsys.com/intamsuite/
It is available for Windows.

Warranty

The detail warranty information please refer to user manual.

Support

If you want get more support, please contact the local reseller or regional technical support as below.
Asia Pacific: Support_APAC@intamsys.com;
Europe, Middle East, & Africa: Support_EMEA@intamsys.com;
North America / Latin America: Support_America@intamsys.com.