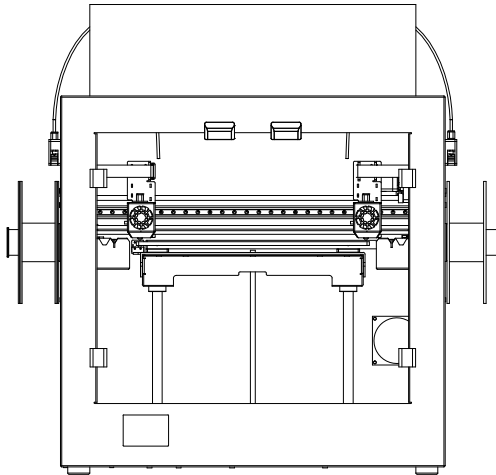




renkforce

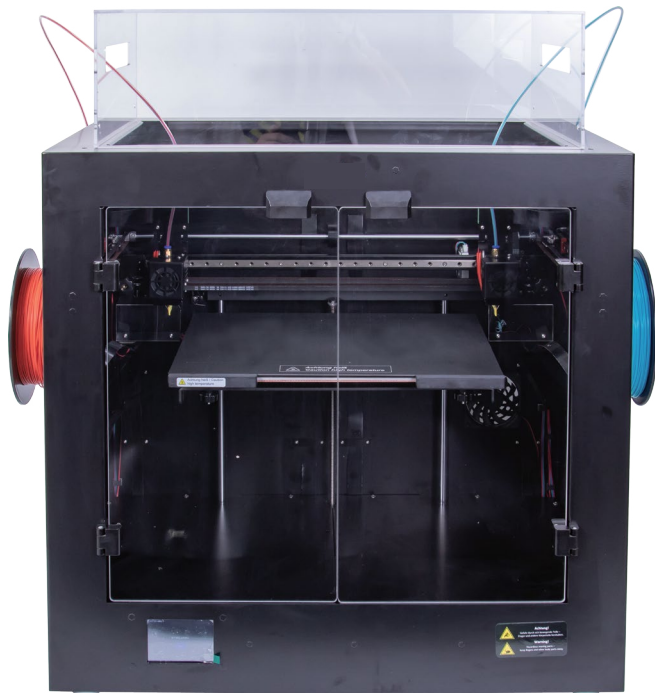


FDM 3D Printer Pro 7 Dual

® User Manual

Item No. 2584537

Please read the User Manual before using this product.



Catalog

1. Important Information

1.1 Caution.....	01
1.2 Consumable.....	01
1.3 Ambient requirements.....	01

2. Product introduction

2.1 Appearance introduction.....	02
2.2 Introduction of extruder.....	03
2.3 Introduction of Build Platform.....	03
2.4 Accessories list.....	04
2.5 Technology Specification.....	05

3. Preparation before printing

3.1 Menu preview.....	06
3.2 The calibration of build platform.....	14
3.3 Filament loading/unloading.....	19
3.3.1 Installation of the spool holder and the filament tube.....	19
3.3.2 Filament loading of the extruder.....	20

4. Print 3D model

4.1 Printing.....	22
4.2 Removal of the finished prints.....	23

1. Important Information

1.1 Caution

- 1 During the printing or the printing has just finished, the highest temperature of nozzle has reached to 260°C, and the highest temperature of build platform has reached to 120°C, to ensure your safety, don't touch the 3D finished prints/ nozzle / build platform during printing or cooling process.
- 2 Pls use the original power wire we supply to prevent any damage to electrical parts.

1.2 Consumable

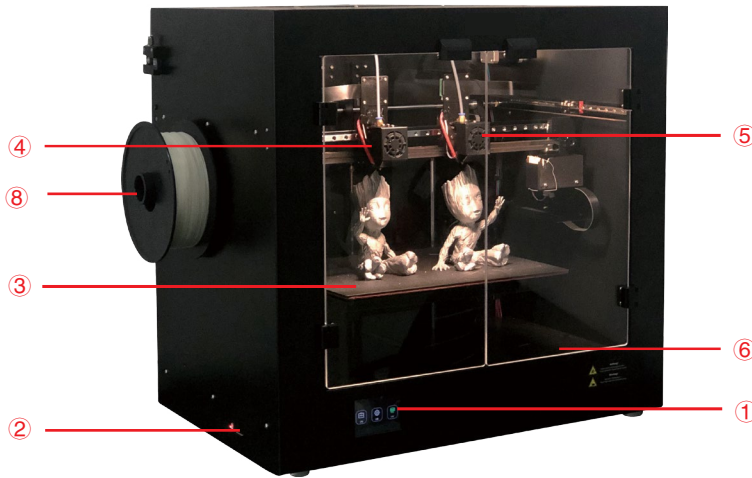
Renkforce printers can be used with a wide range of filaments. However, for the best print results we recommend you use the filament renkforce supplys or the one with good quality, in case that the filament of poor quality makes the extruder clogging and damages the extruder & motor.

1.3 Ambient requirements

The 3D printers can work normally with the temperature between +15°C and +35°C, and with the ambient humidity between 30% and 90%. The printing quality will be lowered when the ambient temperature & humidity is out of the range. Pls keep the consumable under well seal when it is opened and unused for a long time. The filament will absorb the moisture and dust when it is exposed to the air for a long time, which will affect the print quality.

2. Product introduction

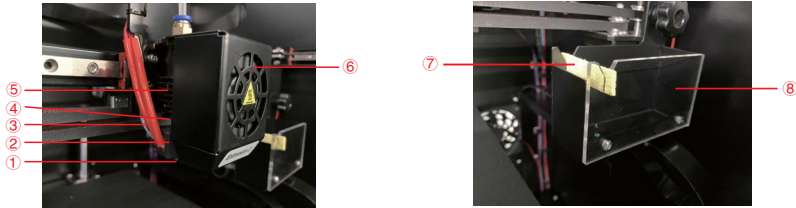
2.1 Appearance introduction



- 1 Touch Screen
- 2 SD Card slot
- 3 Build Platform
- 4 Extruder1
- 5 Extruder2
- 6 Lighting Switch
- 7 Power socket and switch
- 8 Spool holder1
- 9 Spool holder2

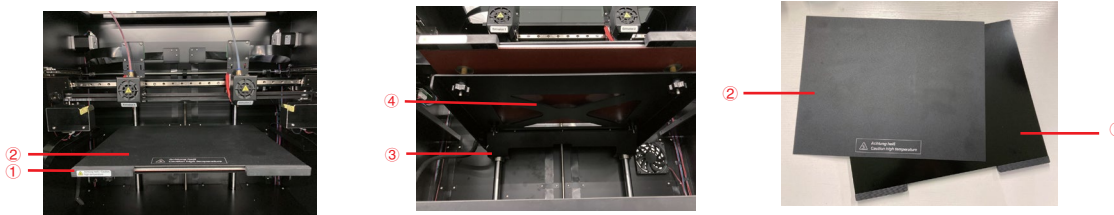


2.2 Introduction of extruder



1 Nozzle 2 Heat block 3 Heater and NTC 4 Heat break throat 5 Heatsink 6 Object fan 7 Scraper 8 Waste box














2.3 Introduction of Build Platform



1 Build Platform 2 Magnetic mat 3 Leveling Thumb Screw (4pcs) 4 Heating Panel

PS: Build platform can be removed and taken out, which is also separated with print surface.

2.4 Accessories list

Picture	Name	Qty.	Unit
	Power cable	1	pcs
	SD Card (contains User Manual & Slicing software)	1	pcs
	Card reader	1	pcs
	Magnetic mat	1	pcs
	Full Metal Build platform	1	pcs
	Ejector Rod	1	pcs
	Hex wrench within 6mm dia.	1	pcs
	Hex key within 1.5/2/2.5/3/4mm dia.	5	pcs
	Spool holder	2	pcs
	Small needle 0.3*75mm	2	pcs
	filament tube	2	pcs
	USB cable	1	pcs
	Tweezer	1	pcs

PS: The pictures are for reference only, and the actual distribution is the standard.

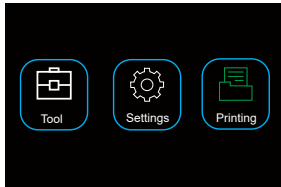
2.5 Technology Specification

Operating voltage:	120 - 240 V/AC, 50/60 Hz 8.5A
Power consumption:	max.600 W
Model size (W*H*D):	Single extruder/Dual extruder Mode 360*250*200mm Duplication mode/Mirror mode 140*250*200mm
Production process:	Fused filament fabrication (FFF)
Printing layer resolution:	0.05-0.3mm
Print speed:	20 - 300 mm/s
Print format:	GCODE
Nozzle (φ):	0.4 / 0.6 / 0.8mm
Filament (φ):	1.75mm
Multi-mode printing	Single extruder mode, Dual extruder mode, Duplication mode, Mirror mode
Suitable filament material:	PLA, ABS, PETG, PC, PA, PP, HIPS, PVA etc..
Extruder temperature:	+160 to +260°C
Heat bed temperature:	+40 to +120°C
Interfaces:	SD card/USB cable
System requirements:	Windows 7 or later, Mac OS 10.6.8 or later
Compatible with "Cura" software:	Version "cura 4.1" or lower
Operating conditions:	+15 to +35°C, 30 - 90% relative humidity (non-condensing)
Storage conditions:	+15 to +35°C, 30 - 90% relative humidity (non-condensing)
Dimension (W*H*D):	630*430*625 mm

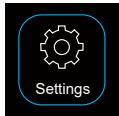
3. Preparation before printing

3.1 Menu preview

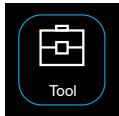
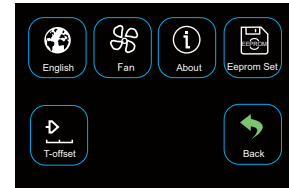
Tool/Printing



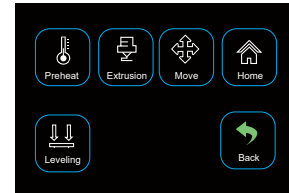
- The touch screen is on when the power supply is connected.
- You can touch the screen for operation.
- Don't touch the screen with the sharp articles.



The user can check the language shift, device information, air volume adjustment, default setting, extruder offset by touching setting icon.



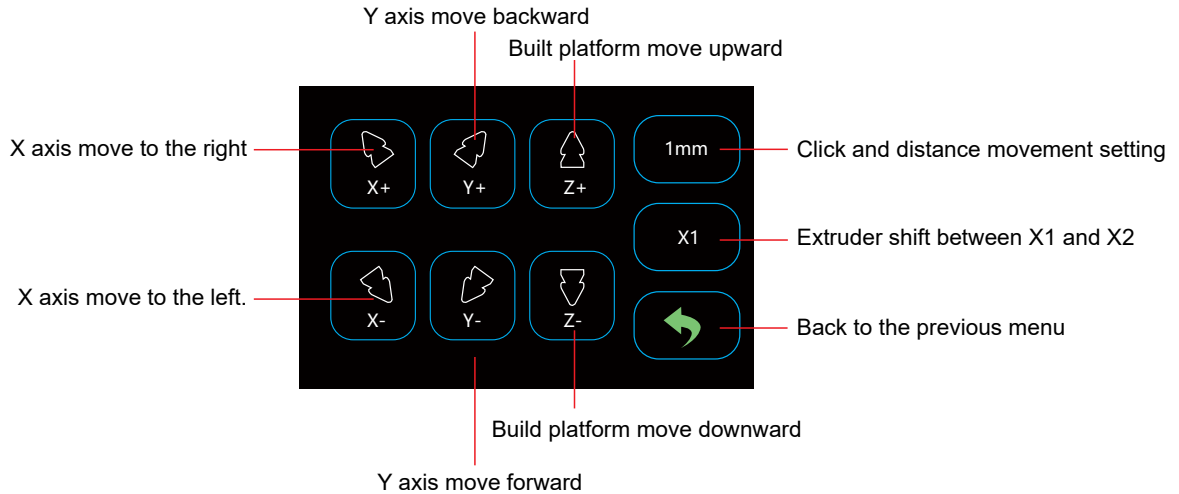
The user can realize preheating, filament loading/unloading, manually controlling, levelling by touching tool icon.



Tool/Manual interface



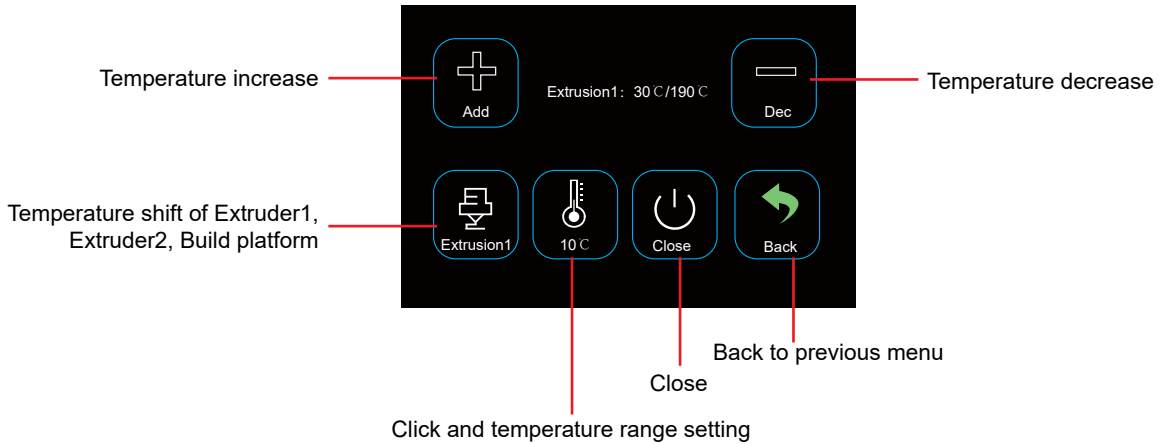
The user can manually realize the movement controls of the extruder, build platform and feed motor.



Tool/Preheating interface



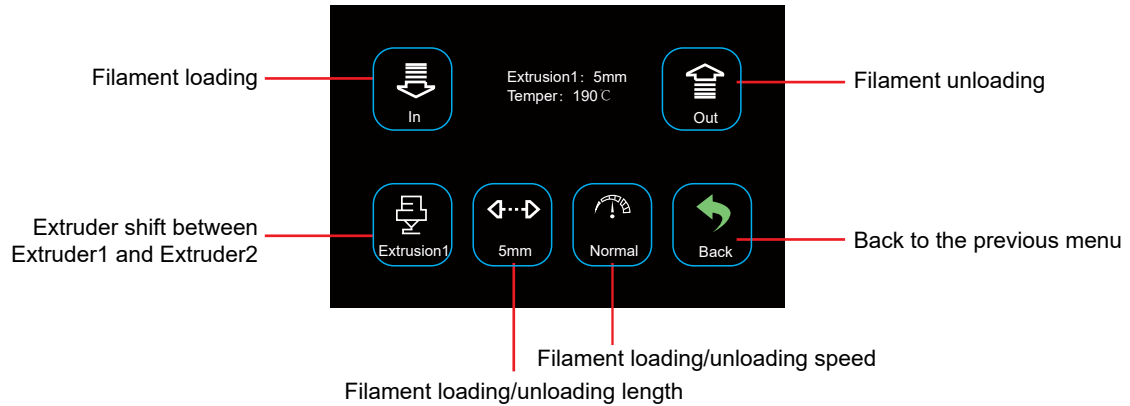
The user can control the temperature of extruder and build platform by touching preheat icon.



Tool/Filament Loading/Unloading



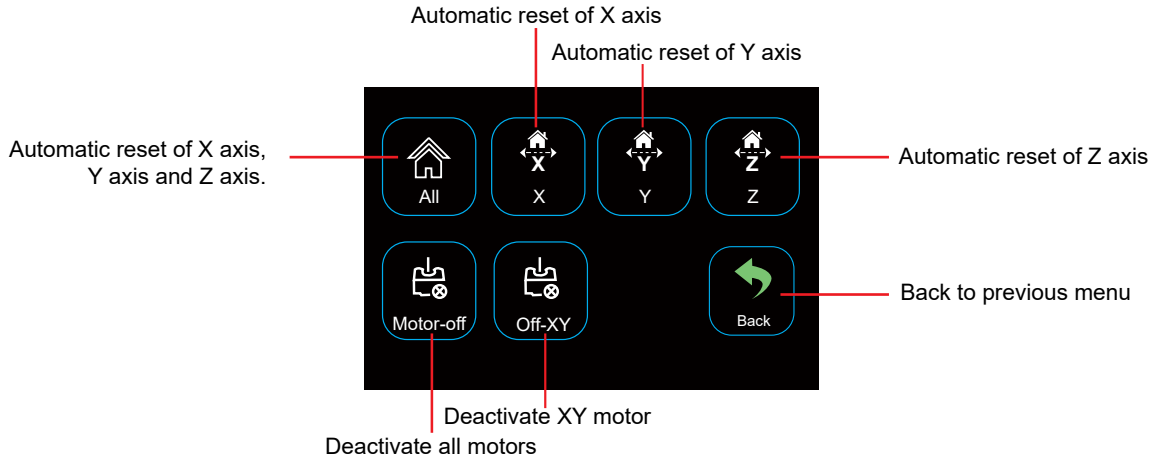
The User can load and unload the filament by the menu of Extrusion.



Tool/Automatic reset



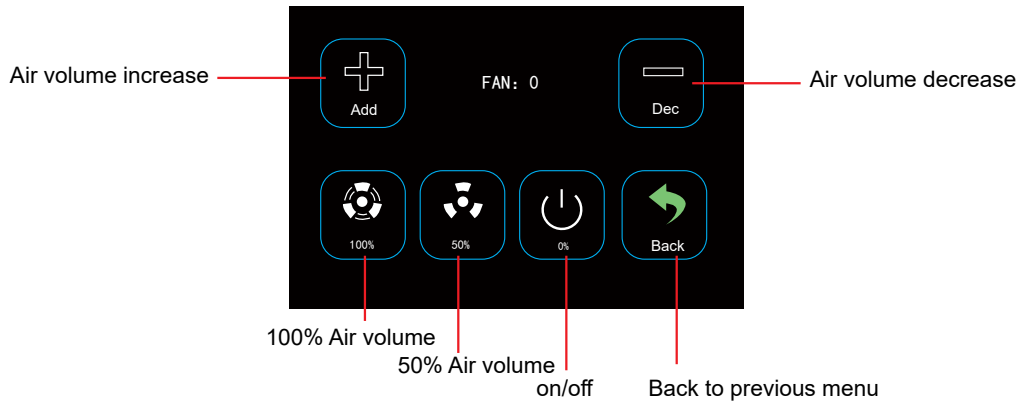
The user can realize the automatic reset of X axis, Y axis and Z axis.



Setting/Air fan



The user can control on/off also air volume of object fan and extruder fan through the menu of air fan.



Tool/Levelling



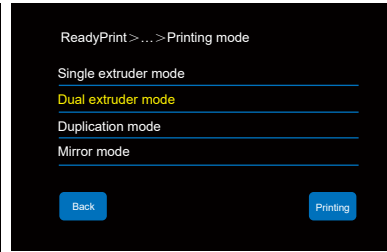
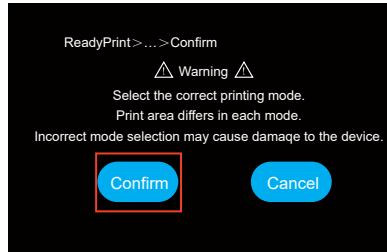
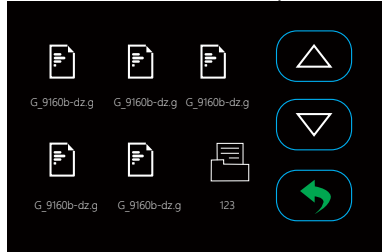
The user can calibrate the build platform by the menu of levelling. Refer to 3.2 for detailed instructions.

Printing menu



Select the file to realize printing by clicking print icon.

Select the file to access to print interface

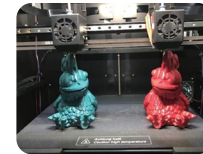
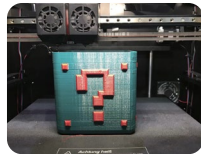
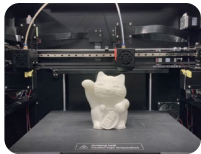


- In this printing mode, one extruder will be used for printing. (extruder 1 or extruder 2)
Print area: 360*250*200mm

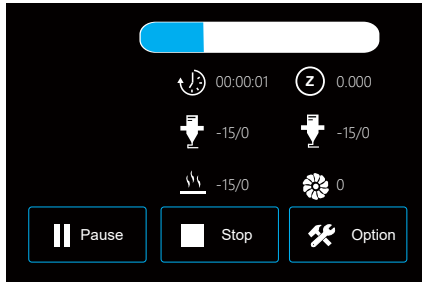
- In this printing mode, two extruders will be used for printing.
Print area: 360*250*200mm

- In this printing mode, two extruders will be used for printing.
Print area: 140*250*200mm

- In this printing mode, two extruders will be used for printing.
Print area: 140*250*200mm

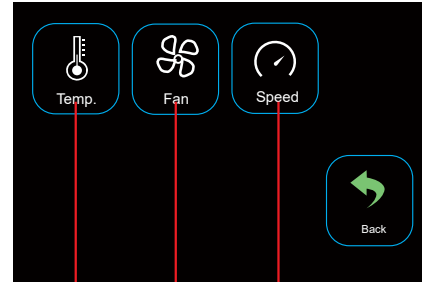


Printing

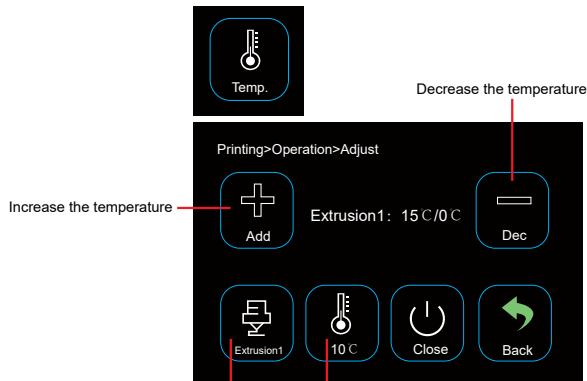


Heatbed, Extruder temp., Air volume, Print speed and Extrusion speed adjustment during printing.

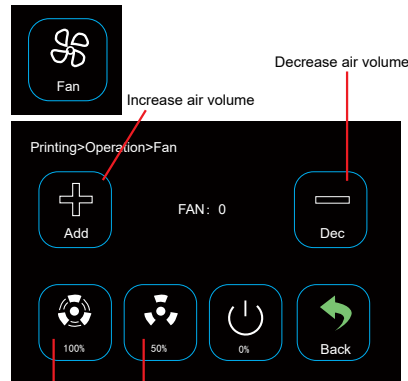
Printing > Option



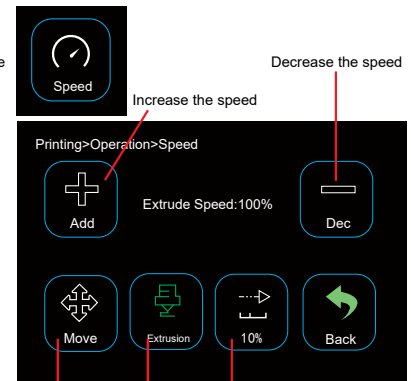
Adjust print speed and extrusion speed during printing
Adjust air volume of extruder during printing.
Adjust heatbed temp., Extruder1 and Extruder2 temp. during printing.



Increase the temperature
Decrease the temperature
Click and temperature range setting
Shift of Heatbed, Extruder1 and Extruder2



Increase air volume
Decrease air volume
100% air volume
50% air volume

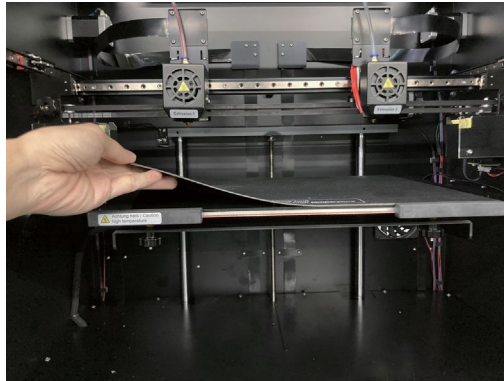
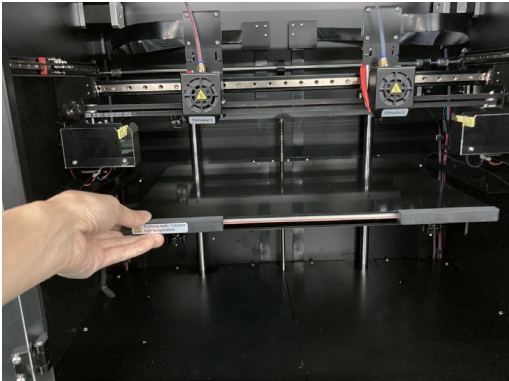


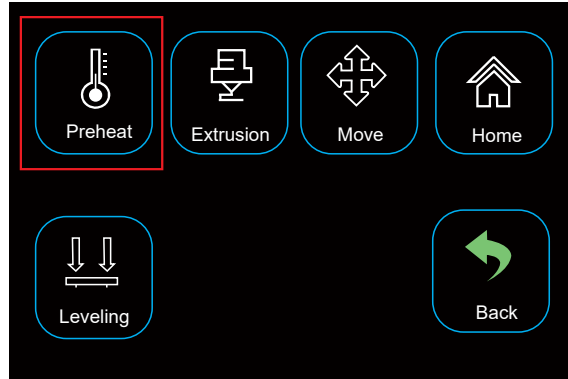
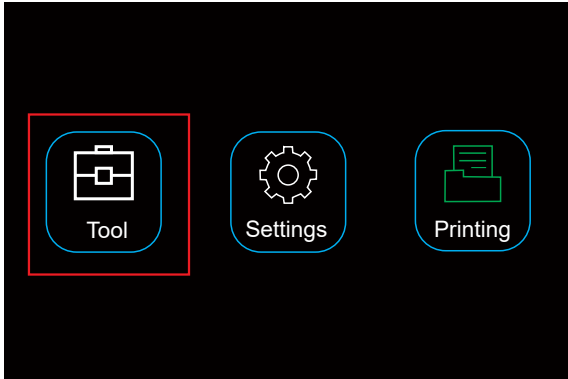
Increase the speed
Decrease the speed
Adjust the print speed
Adjust the extrusion speed
Click and speed range setting

3.2 The calibration of build platform

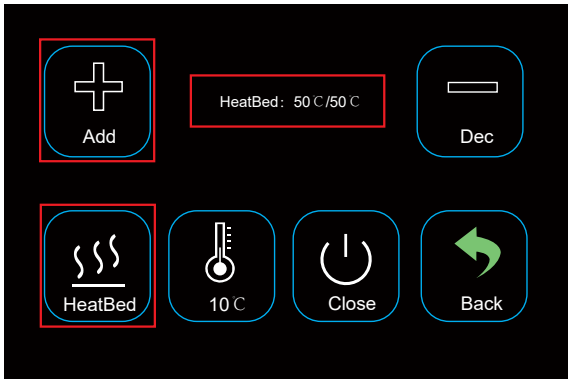
The build platform has been calibrated and well levelled when out of the factory, but some deviation will occur during the transportation. So you'd better level the platform before the printing.

Put on the metal build platform and magnetic mat.

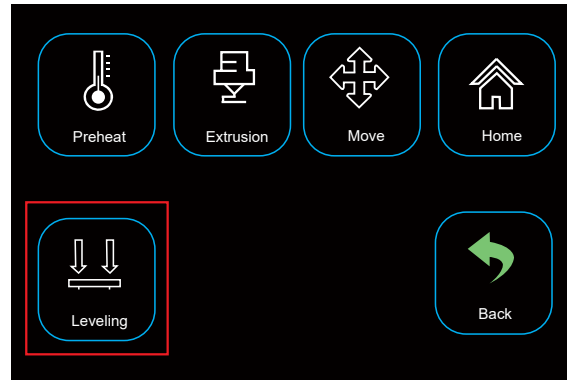
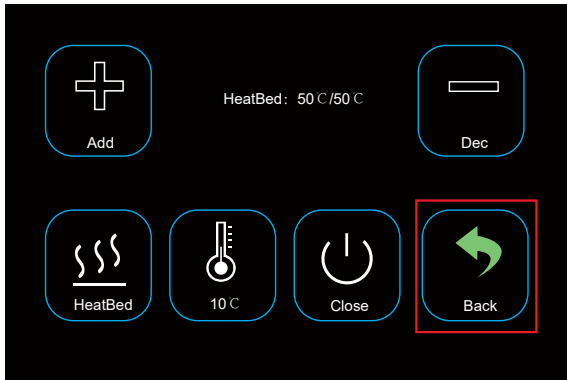




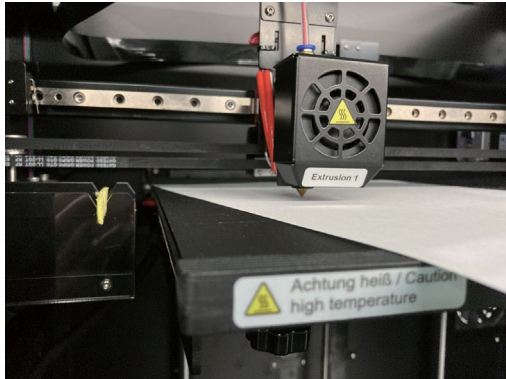
Click "Tool"- "Preheat"



Click "HeatBed"; heat the platform to the preset temperature.



Click "Back"- "Leveling"

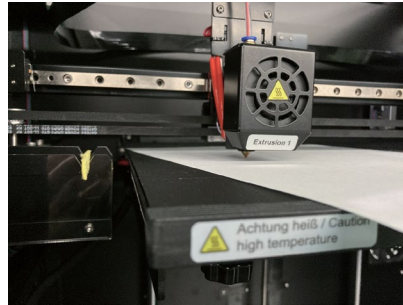
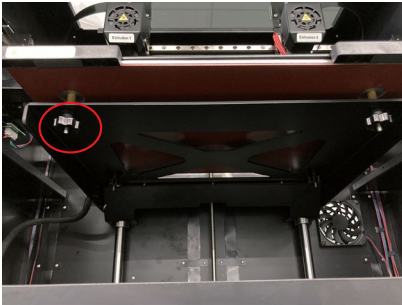


Put an A4 paper between the nozzle and platform.

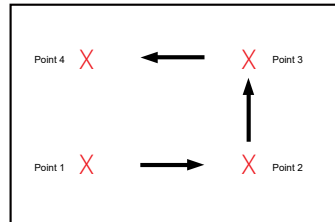
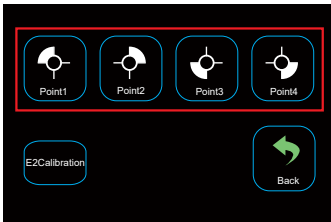
2. Calibration button

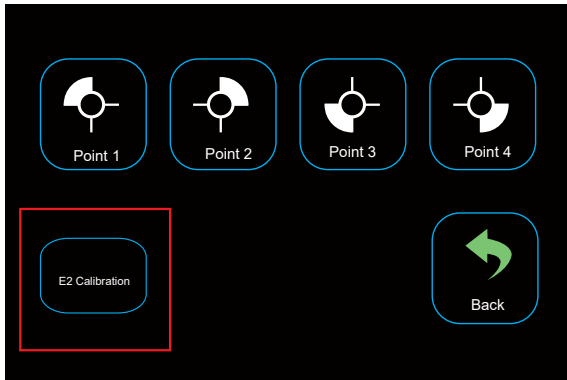
If the A4 paper can be slid easily, it means the distance between the nozzle and platform is too far; you can turn the knob anticlockwise until the paper can be slid with slight resistance.

If the paper can't be moved, you can turn the knob clockwise until the paper can be slid with slight resistance.

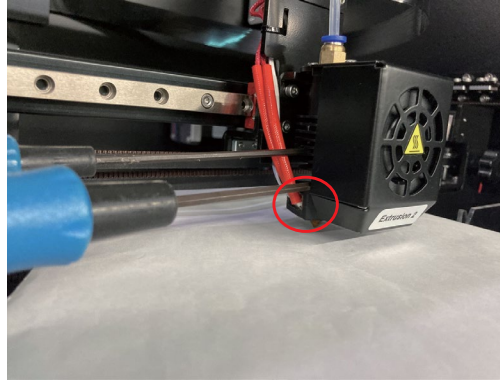
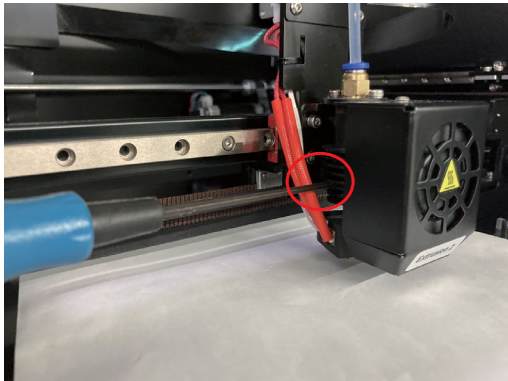


Click "Point 1" (as the photo above); The print head E1 moves to the front left, do the leveling.
Click "Point 2" (as the photo above); The print head E1 moves to the front right, do the leveling.
Click "Point 3" (as the photo above); The print head E1 moves to the rear right, do the leveling.
Click "Point 4" (as the photo above); The print head E1 moves to the rear left, do the leveling.





After calibrating the extruder E1, Click “E2 Calibration”, The print head moves to the right front of the platform.



Loosen the screws of E2 heat sink with allen driver of 2.0mm dia, put one A4 paper between the nozzle and nozzle, calibrate the nozzle and heat block unit up and down till there is slight resistance.

PS: If you can't print smoothly or the prints looks not so good, maybe the build platform isn't well levelled, it is better you do the calibration of build platform again.

3.3 Filament loading/unloading

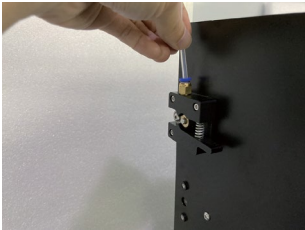
3.3.1 Installation of the spool holder and the filament tube.



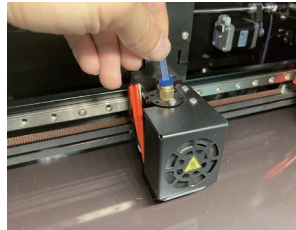
Install the left spool holder; Rotate it clockwise



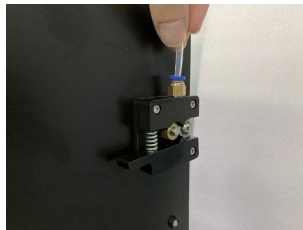
Install the right spool holder; Rotate it clockwise



Left



Extrusion 1



Right



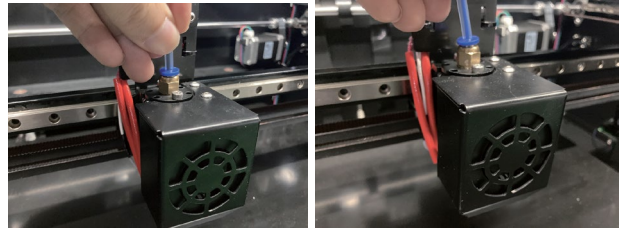
Extrusion 2

Press the tube connector and insert the filament tube

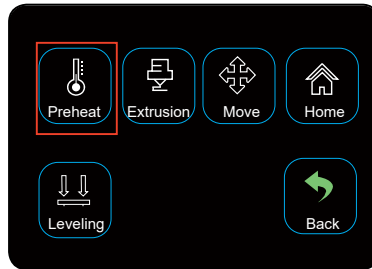
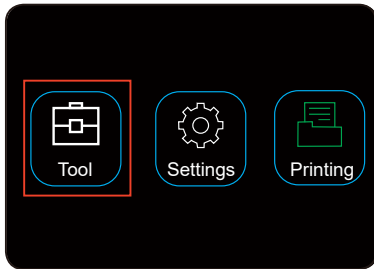
3.3.2 Filament loading of the extruder



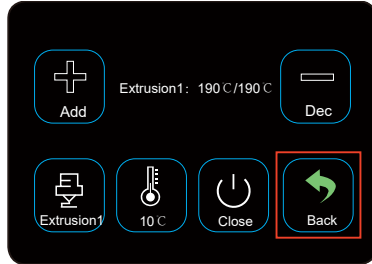
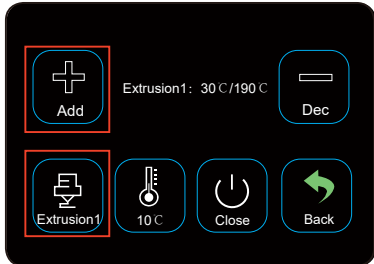
Install the filament on Left side and Right side.



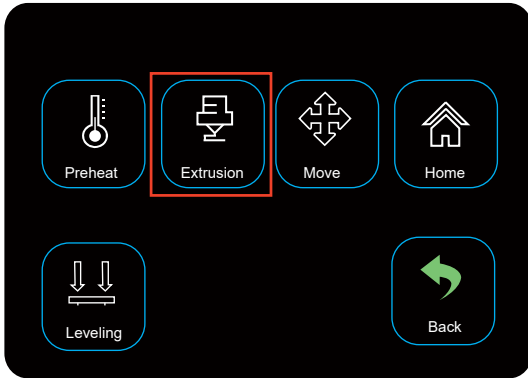
Loading the filaments into E1 and E2 extruders.



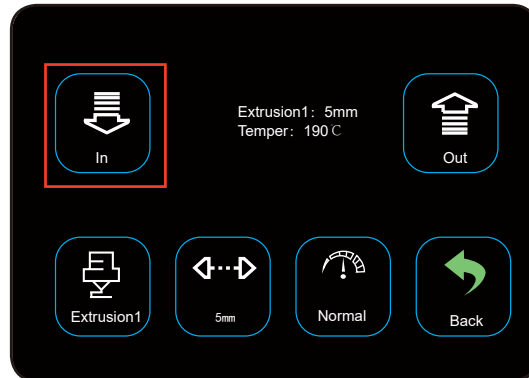
Click "Tool"- "Preheat"



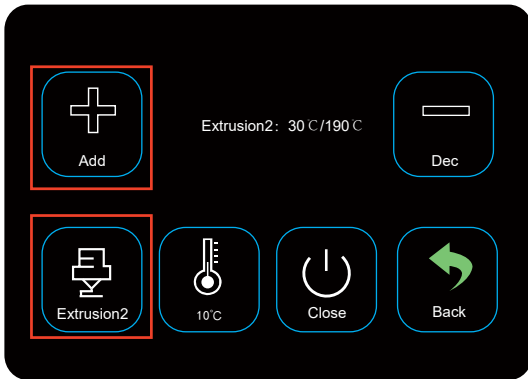
Click " Extrusion1"; heat the nozzle to the preset temperature.



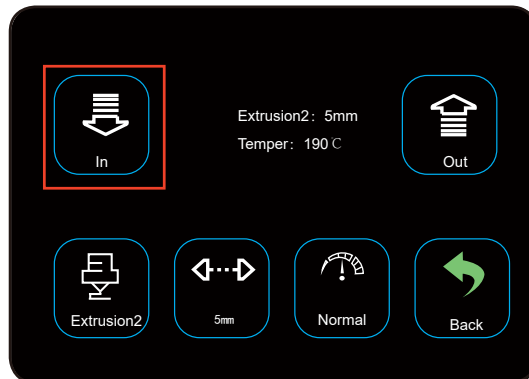
Return and click “Extrusion”



Click “In”; The filament comes out from the nozzle, the loading is finished.



Click “Extrusion 2” then Click “Extrusion 2” and preheat the Extrusion 2.

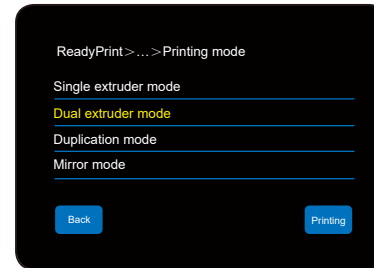
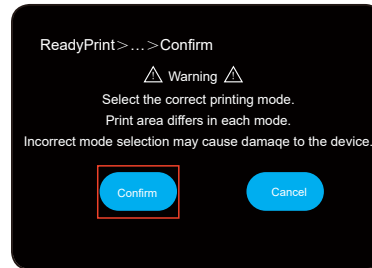
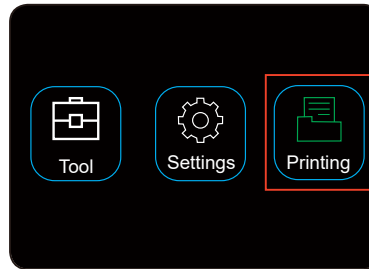


Wait for the print head E2 to reach the preset temperature, then Click “In”

4. Print 3D model

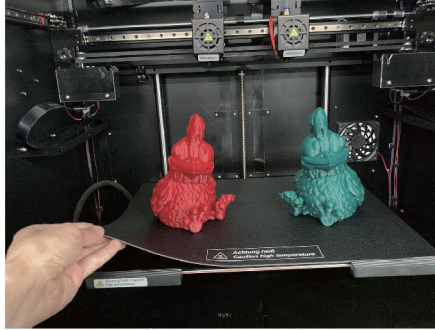
4.1 Printing

1. Save the “.gcode” files in SD card
2. Insert SD card into printers and select the files to print



Click “Confirm” and choose the printing mode as same as you sliced.

4.2 Removal of the finished prints



When the printing is finished, the user can take out the magnetic mate as the build platform cools.



Remove the finished prints from the magnetic mate by hand, no any tools needed. Now the user finish the printing and get what they want.

CAUTION ILLUSTRATION



Achtung heiß / Caution high temperature

Don't touch the heat bed during preheating or printing.



Don't touch the print head during preheating or printing.



Warnung!

Bewegende und rotierende Teile.
Verletzungsgefahr durch Einstecken und Einklemmen.
Finger, andere Körperteile, Kleidung und Haare fernhalten.



Warning!

Moving and rotating parts.
Risk of injury from pulling in and pinching.
Keep fingers, other body parts, clothing, and hair away.

Don't put hands inside during machine operating.



Warnung!

Dieses Gerät ist nicht zur Verwendung durch Kinder bestimmt.
Halten Sie Hände, Kleidung oder Haare fern von der
Flamm-Eingrifföffnung.
Trennen Sie dieses Gerät vom Stromnetz, wenn es für längere
Zeit nicht verwendet wird.

Warning!

This equipment is not intended for use by children!
Avoid touching the media feed opening with the hands, clothing
or hair.
Unplug the equipment when not in use for an extended period
of time.

This is a publication by Conrad Electronic SE, Klaus-Conrad-Str. 1, D-92240 Hirschau (www.conrad.com). All rights including translation reserved. Reproduction by any method, e.g. photocopy, microfilming, or the capture in electronic data processing systems require the prior written approval by the editor. Reprinting, also in part, is prohibited. This publication represents the technical status at the time of printing.

Copyright 2023 by Conrad Electronic SE.

*2584537_V2_0223_02_jh_m_EN