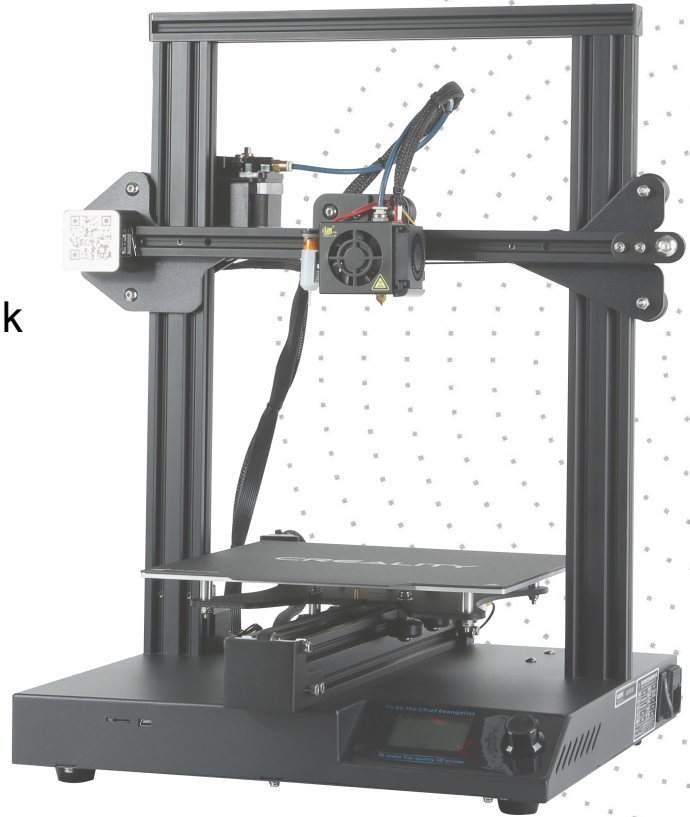# CREALITY

CR20 Pro 3D Printer Guide Book

This guide book is for standard CR20 Pro.

Please plug the power cord into a three-hole power jack.

Detailed instructions for use are available on the TF card.

NOTES

1. Do not use the printer any way other than described herein in order to avoid personal injury or property damage.

2. Do not place the printer near any heat source or flammable or explosive objects. We suggest placing it in a well-ventilated, low-dust environment.

3. Do not expose the printer to violent vibration or any unstable environment, as this may cause poor print quality.

4. Before using experimental or exotic filaments, we suggest using standard filaments such as ABS or PLA to calibrate and test the machine.

5. Do not use any other power cable except the one supplied. Always use a grounded three-prong power outlet.

6. Do not touch the nozzle or printing surface during operation as they may be hot. Keep hands away from machine while in use to avoid burns or personal injury.

7. Do not wear gloves or loose clothing when operating the printer. Such cloths may become tangled in the printers moving parts leading to burns, possible bodily injury, or printer damage.

8. When cleaning debris from the printer hotend, always use the provided tools. Do not touch the nozzle directly when heated. This can cause personal injury.

9. Clean the printer frequently. Always turn the power off when cleaning, and wipe with a dry cloth to remove dust, adhered printing plastics or any other material off the frame, guide rails, or wheels . Use glass cleaner or isopropyl alcohol to clean the print surface before every print for consistent results.

10. Children under 10 years of age should not use the printer without supervision.

CONTENTS

Dear consumers,

Thank you for choosing our products. For the best experience, please read the instructions before operating the Printer. Our 3D team will always be ready to give you the best service. Please contact us via the phone number or e-mail address provided at the end when you encounter any problem with the Printer.

For a better experience in using our product, you may learn how to use the Printer in the following ways:

View the accompanied instructions and videos on the TF card.

Visit our official website at www.creality3d.cn You will find relevant software/hardware information, contact details and operation and maintenance instructions on the website.

Introduction

1
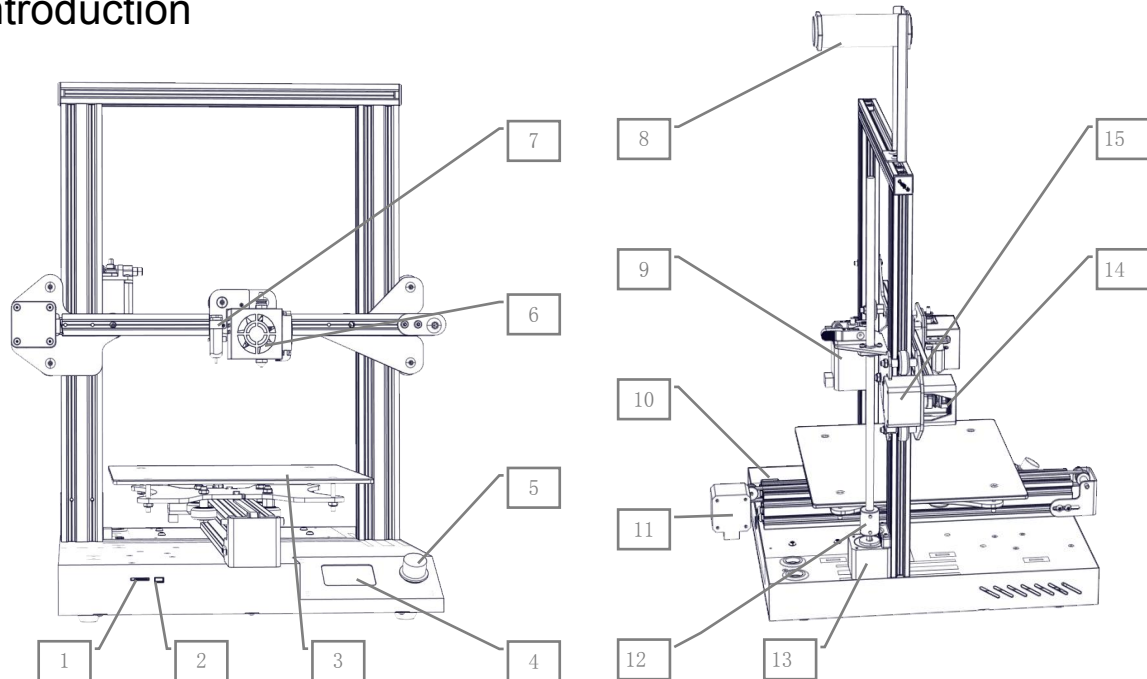
1. TF Card Slot
2. USB Port
3. Platform
4. LCD Display Screen
5. Control Knob

6. Nozzle Kit
7. Automatic leveling (Bill Touch)
8. Filament Rack
9. Extruder (E) Steppers
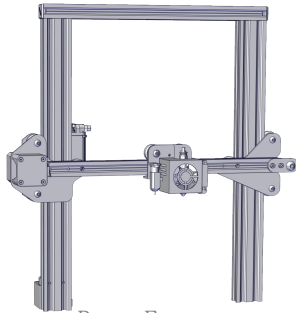10. Y Axis Limit Switch
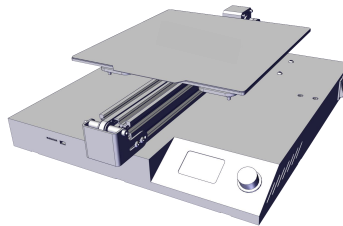
11. Y Axis Steppers
12. Coupling
13. Z Axis Steppers
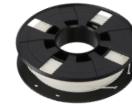14. X Axis Limit Switch
15. X Axis Steppers

General List

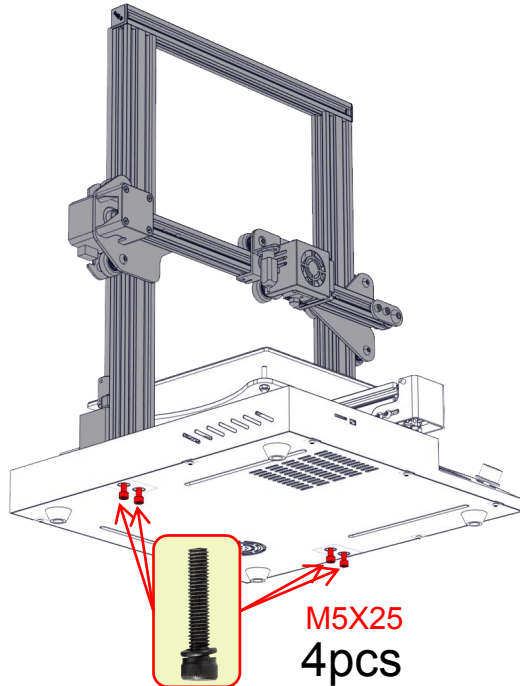Base Frame

Gantry Frame

Tool Kit

Sample Filament （200g）

2

◆Tool List

No.	Image	Name	Qty
1		Scraper	1
2		Diagonal Pliers	1
3		TF Card & Card Reader	2
4		Wrench & Screw Driver	8

No.	Image	Name	Qty
5		Nozzle Cleaner	1
6		Rack Bracket	1
7		Rack Tube	1
8		Rack Tube Nuts	2

No.	Image	Name	Qty
10		Spare Parts	2
11		Power Cable	1
12		M5X25 Black Hex-Bolt & Lock Washer	4
13		M4X8 Screw & M4 T-type Screw	4

Installtion

M5X25 4pcs

M4X8 2pcs

M4 T-nut

Install the Rack

M4X8 & T-nut 2pcs

M5X25 4pcs
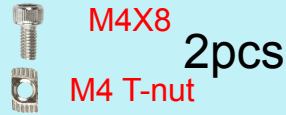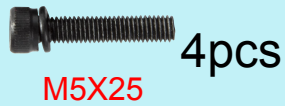
Install the Gantry Frame

Cable Connection

E

Y

Y

Z

X

X

4

*Please plug the power cord
into a three-hole power jack.

Screen Information

Print Rate

Model

Set Temperature of the Nozzle

Current Temperature of the Nozzle

Set Temperature of the Hot Bed

Current Temperature of the Hot Bed

Cooling Fan Speed

5

Current Location of the Nozzle

Print Progress

Print Time

Remaining Message

Push:OK/Enter Sub Menu

Rotate:Change Option/Value
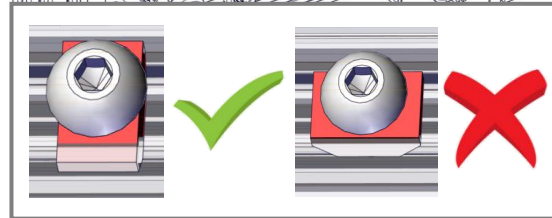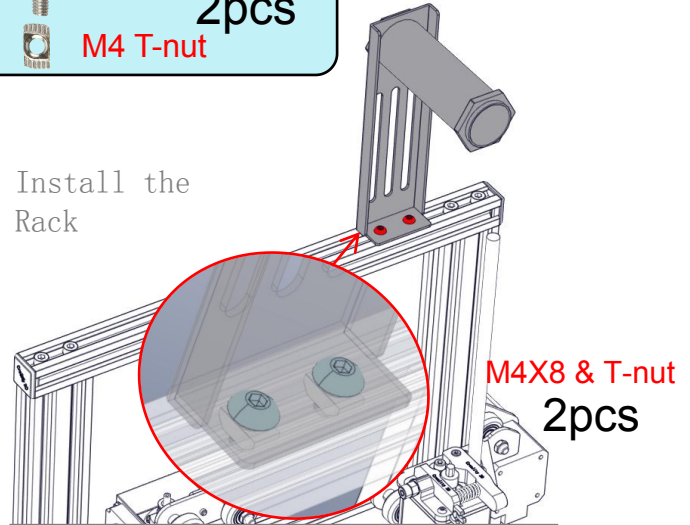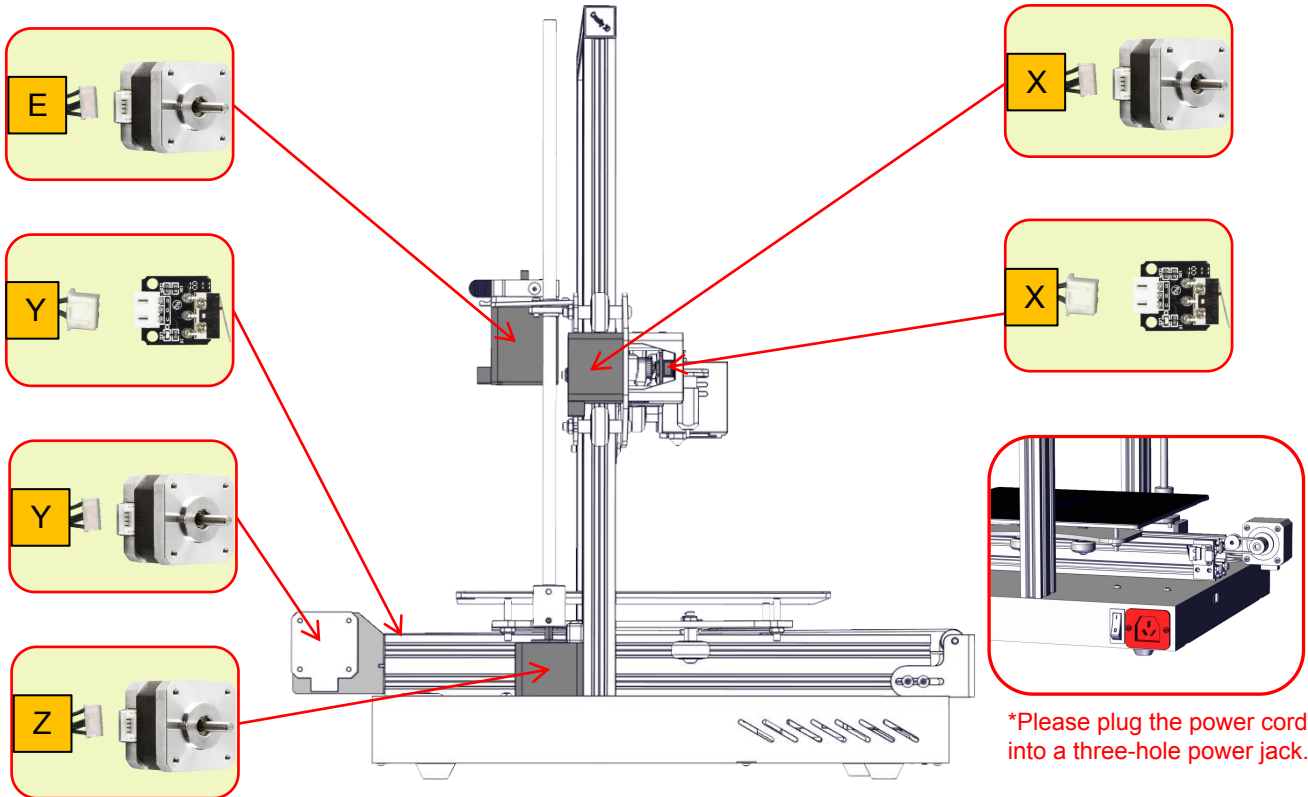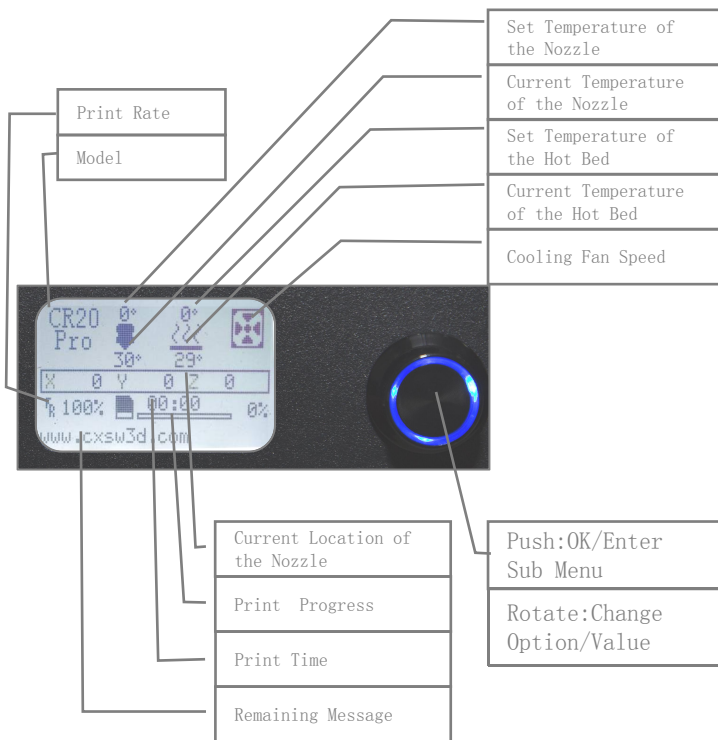
Screen Options		
Menu	Sub Menu	Explanation
Info Screen	main	Return
Prepare	Disable Steppers	Moving X Y Z axis by your hands
	Auto Home	Return to the origin
	Preheat PLA	Nozzle : 185℃ Bed: 45℃
	Preheat ABS	Nozzle : 240℃ Bed: 70℃
	Cool down	Close and cool down the nozzle
	BLTouch Self-Test	
	Set home offsets	
	Move Axis	Moving X Y Z axis or Extruder by given value
Control	Temperature	Heat the nozzle and the bed or change fan speed by given value
	Filament	
	BLTouch	
	Restore Failsafe	Restore factory setting
No SD card/Print from SD		
Init.SD-Card/Change SD-Card		Select the printing model
printing		
Tune	Speed	Adjust percentage of printing speed
	Nozzle	Adjusting extrusion head temperature
	Bed	Adjusting hot bed temperature
	Fan speed	Adjust fan speed
	Flow	Adjust consumable flow percentage
	Change Filament	Replace filament
Pause Printing		
Stop printing		

Loading Filament

Preheat

Method 1

```
Info screen          ↕
Prepare              →
Control              →
Language             →
No SD card           →
```

```
Set home offsets     ↕
Disable steppers
Preheat PLA          →
Preheat ABS          →
BLTouch Self-Test
```

Method 2

```
Info screen          ↕
Prepare              →
Control              →
Language             →
No SD card           →
```

```
Main                 ↕
Temperature          →
Motion               →
Filament             →
BLTouch              →
```

```
Control              ↕
Nozzle:              0
Bed:                 0
Fan speed:           0
Preheat PLA conf     →
```

```
Nozzle:            200
```

Feeding

6
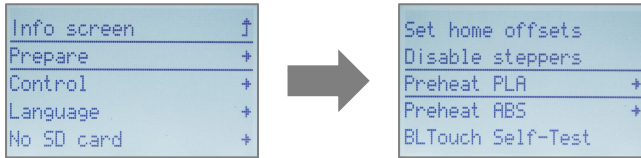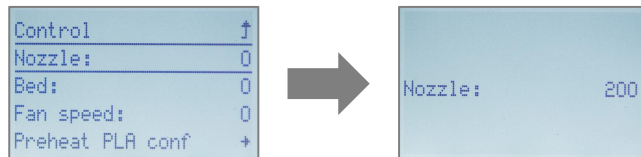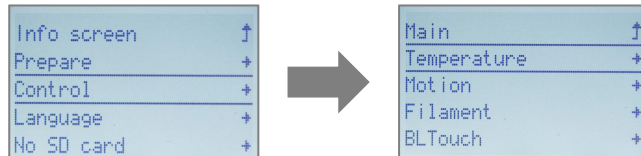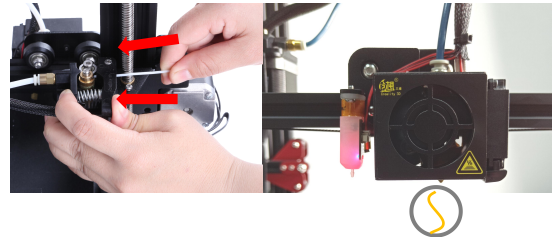
　　Press and hold the extruder lever then insert the 1.75mm filament through the small hole of the extruder. Continue feeding until you see filament come out the nozzle.

Tip：How to Replace the Filament?
1、Cutting filament near the Extruder and slowly feed new filament until they are fed into the new filament.
2、Preheating the nozzle and withdraw the filament quickly and feed the new filament.

Bed Leveling
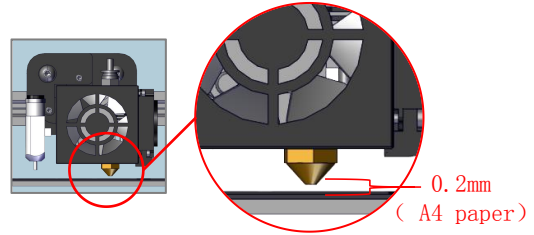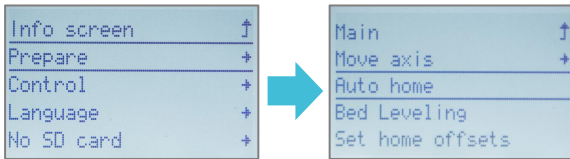
0.2mm
（A4 paper）

1. Prepare→Auto home，and wait to stop.

A
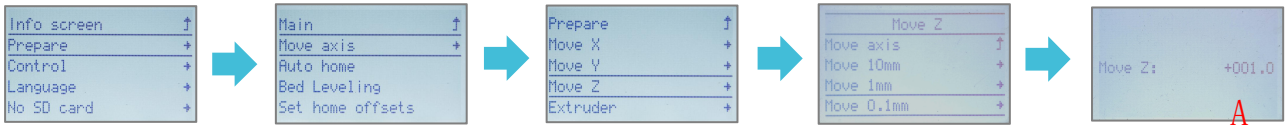
2. Prepare→Move axis→Move Z→Move 0.1mm→Rotate the knob until the distance between them is about 0.2mm (as a sheet of A4 paper)，write down the value of A.

B

C
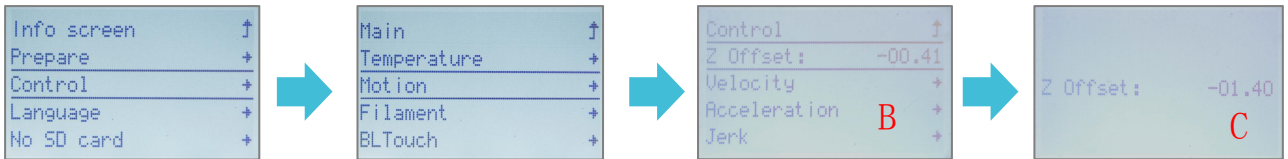
3. Control→Motion→Z Offset→write down the value of B，then rotate the knob until it comes out as: C=B-A.

Software Installation

Ultimaker
Cura-3.4.1-win6
4.exe

1.Install the
Cura Slicing
Software.

CR20Pro Set
For Cura
3.X.exe

2.Install the
Creality Set For
Cura with the same
file.

8

Ultimaker Cura
Development Resources
Online Documentation
Ultimaker Cura 3.4.1
Uninstall

3. Start Cura from the Start
Menu.

Add Printer

○ 101Hero
○ 3DMaker Starter
○ 3Dator
○ ABAX PRi3
○ ABAX PRi5
○ ABAX Titan
○ ALYA
○ Anycubic i3 Mega
○ BFB
○ BQ Hephestos 2
○ BQ Prusa i3 Hephestos
○ BQ Prusa i3 Hephestos XL
○ BQ Witbox
○ BQ Witbox 2
○ Builder Premium Large
○ Builder Premium Medium
○ Builder Premium Small
○ Cartesio
○ Creality CR-10
○ Creality CR-10 S4
○ Creality CR-10 S5
○ Creality CR-10S
● Creality CR20 Pro
○ Creality Ender-3
○ Dagoma DiscoEasy200
○ Dagoma Magis
○ Dagoma NEVA

Printer Name: Creality CR20 Pro   Add Printer

4. Select Creality CR20 Pro→Add Printer.

For the first Printing

1. Slice

Open Cura → Open File → Select Model → Slice Model → Save to Removable Drive

2. Printing

Insert the TF card　　　　Select Print from SD →Select the file to print

Troubleshooting

| Start |
| Print from SD-card |
| Y/N |
| Home |
| Y/N |
| heat bed |
| Y/N |
| heat nozzle |
| Y/N |
| Print |
| Y/N |
| End |

- File is identified — N → SD card → 1、Erase the SD card / 2、Format the SD card / 3、Replace the SD card
- Any random code? — N → File name → 1、Rename the file with alphabet and numbers
- Other files are normally printed? — Y → Slice → 1、Move the model and restart the slicing / 2、Restore the model with software
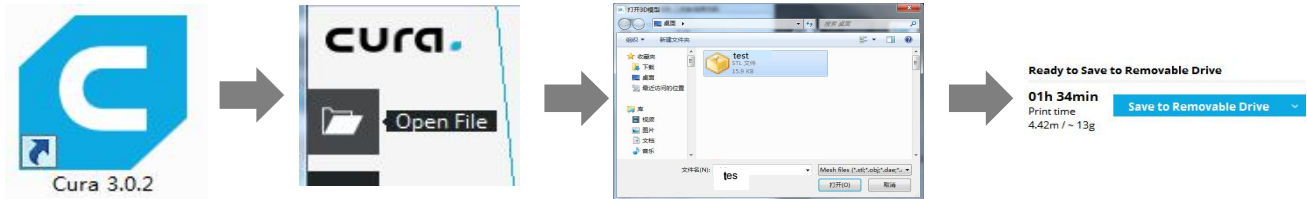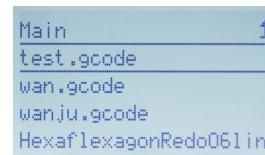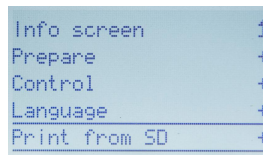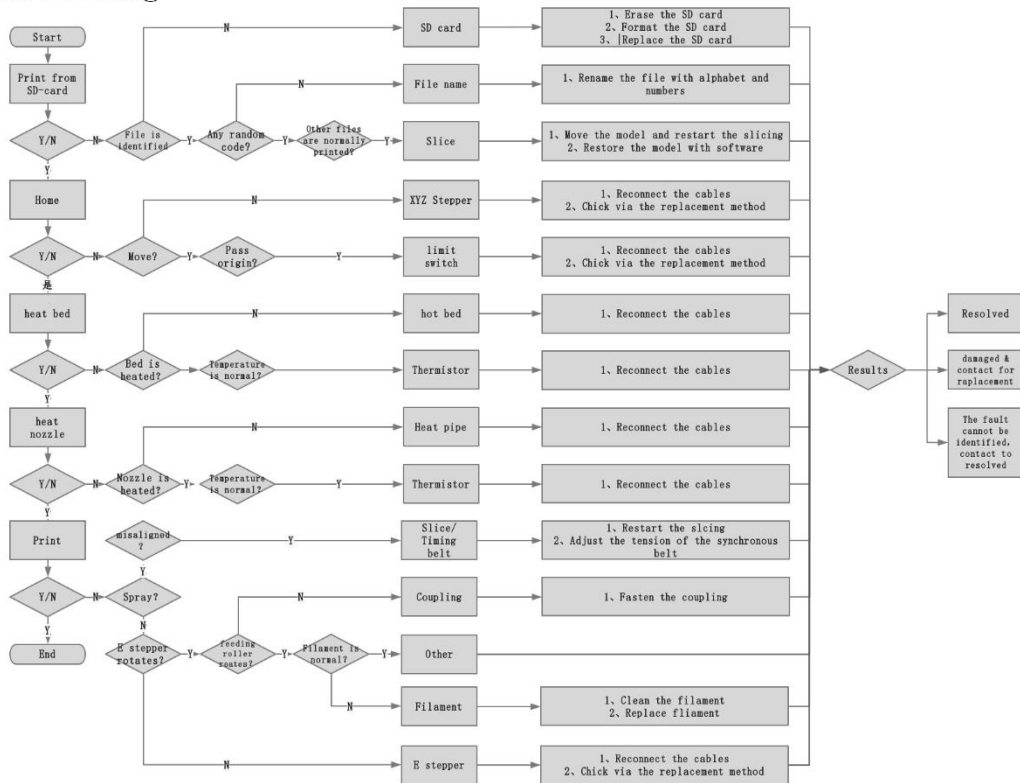- Move? — N → XYZ Stepper → 1、Reconnect the cables / 2、Chick via the replacement method
- Pass origin? — Y → limit switch → 1、Reconnect the cables / 2、Chick via the replacement method
- Bed is heated? — N → hot bed → 1、Reconnect the cables
- Temperature is normal? — Y → Thermistor → 1、Reconnect the cables
- Nozzle is heated? — N → Heat pipe → 1、Reconnect the cables
- Temperature is normal? — Y → Thermistor → 1、Reconnect the cables
- misaligned? — Y → Slice/Timing belt → 1、Restart the slcing / 2、Adjust the tension of the synchronous belt
- Spray? — N → Coupling → 1、Fasten the coupling
- E stepper rotates? — Y → feeding roller seated? — Y → Filament is normal? — Y → Other
- Filament is normal? — N → Filament → 1、Clean the filament / 2、Replace fliament
- E stepper rotates? — N → E stepper → 1、Reconnect the cables / 2、Chick via the replacement method

Results →
- Resolved
- damaged & contact for raplacement
- The fault cannot be identified, contact to resolved

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Circuit wiring

X Motor

Y Motor

Z Motor

E0 Motor

E1 Motor

TF Card

Filament sensor

Mini USB

LCD Displayer

Fans

Power supply

Automatic leveling

Limit Switch

Nozzle1 thermistor

Hot bed

Nozzle1

Nozzle2

Controlled fans

Touch screen

Nozzle2 thermistor

Bed thermistor

After- Sales Service

Service

1, The printer can be returned within seven days, 15 days replacement, one year warranty, lifetime maintenance.

Replacement requirement

1. The appearance of the product is intact, without damage, scratches, smudges, cracks, deformation, etc.;
2. Machine parts, tools and others are complete;
3,Provide a complete and valid purchase invoice and warranty, product number should be the same.

Warranty coverage

1. The following accessories are not included in the warranty coverage if they are not damaged by transportation: platform sticker; platform forming plate; acrylic cover; card reader and SD card; platform glass; USB cable; filament; rack and tools,etc.
2, Profile: Before we deliver the goods, we will do the machine test, so maybe there will be light scratch, or due to long-distance transportation, which scratch the profile a little bit. in the premise of not affecting the normal use, in principle, not within the scope of warranty;
3, Nozzle assembly (nozzle, heating block, throat pipe,heat sink, Teflon tube, etc.) warranty period is 3 months, if it is damage after the warranty expires, you need to purchase another one;
4, Motherboard, LCD display, power supply, hot bed,warranty period is 12 months, if there are quality problems, you can get free maintenance; over the warranty period, can be sent back to the original factory maintenance, the users need to bear the return shipping and maintenance costs;
5. Not included in warranty coverage:
  (1) It is not possible to provide an effective after-sales service card or serial number;
  (2) The whole machine and components exceed the warranty period;
  (3) Equipment failure or damage caused by unauthorized modification of the equipment (private modification includes: 1. modification of the nozzle assembly; 2. modification of the machine structure; 3. use of third-party components; 4. use of third-party firmware procedures or change the original Factory firmware program, etc.);
  (4) Equipment failure or damage due to incorrect installation and use;
  (5) Equipment failure or damage caused by the use of the equipment in a working environment not specified by the product;
  (6) Equipment failure or damage due improper use (beyond workload, etc.) or maintenance (moisture, etc.);
  (7) Equipment failure or damage due to the use of other branded components or low quality consumables.

Description of warranty freight

1, Can be returned within 7 days, In case of quality problem of the machine, the freight is borne by the manufacturer; if it is a non-quality problem return, the user must bear the freight, and need to deduct the corresponding machine damage costs and consumables costs;
2. 7 days to 30 days, the freight shall be borne by the manufacturer if the goods need to be replaced or returned to the factory for maintenance due to quality problems;If the goods need to be replaced due to non-quality problems, the customer shall bear the freight.In principle, it is not allowed to exchange goods over 7 days without quality problems;
3, Within 1 - 3 months need to return to the factory for maintenance, if in case of the quality problem, the freight is borne by the user and the manufacturer, and does not charge any maintenance costs;
4, Within 3 - 12 months need to return to the factory for maintenance, the freight is borne by the user, If it is non-human damage, the spare parts and labor costs for maintenance shall not be charged.
Exceeding the warranty period, the user will bear the freight and maintenance costs, and the manufacturer provides technical support.
Special note: If you are a foreign user, we will take some special methods according to the actual situation to provide users with better after-sales service.
The final interpretation right belongs to Shenzhen Creality3D Technology Co., Ltd.!

Facebook QR code   Website QR code