# Ender 3 Series 3D Printer

# Quick Start Guide

◆ This guide is for the Ender 3 Series of 3D printers.
◆ Select the correct input voltage to match your local mains (220V or 110V)
◆ Because of software/hardware upgrades and model differences, new revisions may not be listed in this guide.
◆ Detailed instructions for use are available on the SD card.

V. 1. 0

# Notes

1. Do not use the Printer in any way other than described herein to avoid personal injury or property damage.
2. Do not place the Printer near flammables, explosives or heat sources. It is best to place it in a well-ventilated, low-dust environment.
3. Do not expose the Printer to violent vibration or any unstable environment. This will cause poor print quality.
4. The filaments recommended by the manufacturer are preferred as to avoid clogging in the hot end and/or Printer damage.
5. Do not use any other power cable than the one supplied. Use a grounded three-prong power outlet.
6. Do not touch the nozzle or hot bed during printing. 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. These loose articles can become caught in moving parts and cause personal injury or Printer damage.
8. Clean off filament from the nozzle tip with the provided pliers before the nozzle cools. Do not touch the nozzle directly. This can cause personal injury.
9. Clean the Printer frequently. With the machine powered off, clean the printer body with a dry cloth to remove dust, adhered printing materials and foreign objects on guide rails. 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.
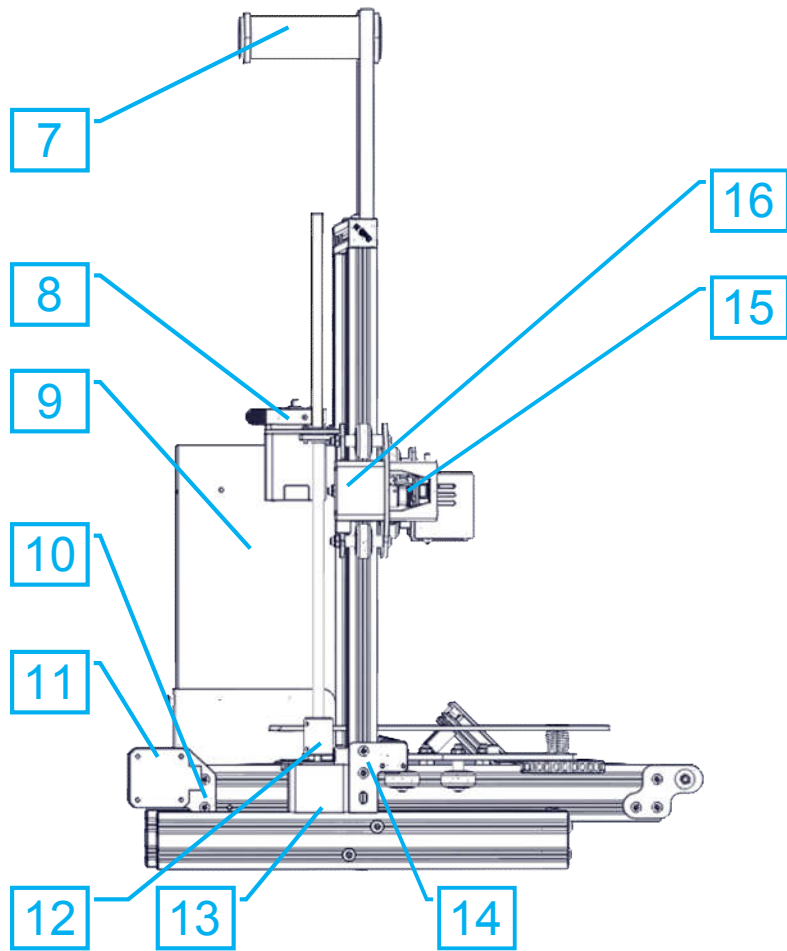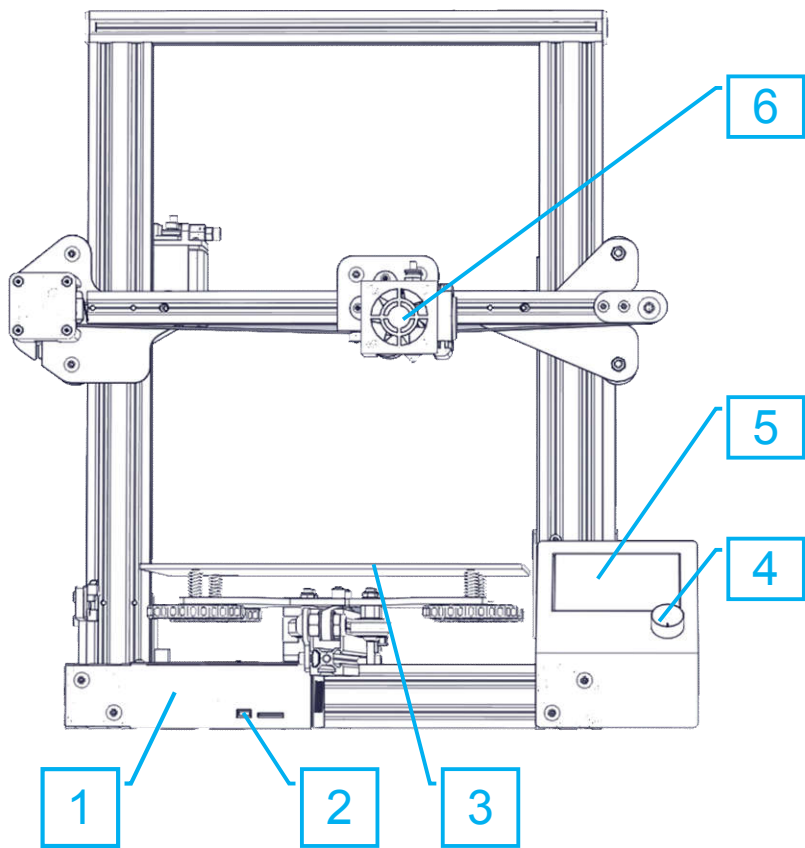
# Contents

# Preface

**Dear consumers,**

Thank you for choosing our products. For the best experience, please read the instructions before operating the Printer. Our 3D team is always ready to provide you with assistance. 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:

1. View the accompanied instructions and videos on the SD card.

2. 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.

# 1. Introduction



1. Control Box
2. SD Slot and USB Port
3. Print Surface
4. Control Knob
5. Display
6. Nozzle Assembly
7. Spool Holder
8. Extruder (E) Stepper
9. Power
10. Y Limit Switch
11. Y Stepper
12. Coupling
13. Z Stepper
14. Z Limit Switch
15. X Limit Switch
16. X Stepper

# 2. LCD Menu

## Information Displayed

Print speed

Model

Set temperature of the Nozzle

Current temperature of the Nozzle

Set temperature of the Hot Bed

Current temperature of the Hot Bed

Part Cooling Fan Speed

Current location of the nozzle

Print time

Print progress

Prompt message

Push：OK/Enter Sub Menu
Turn：Change Option/Value

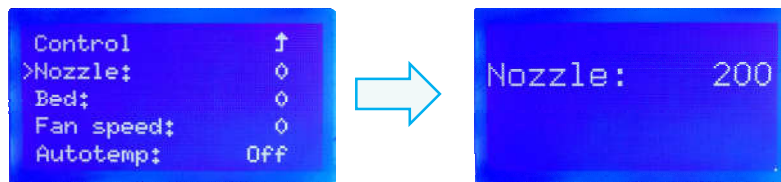| Screen Options | | |
|---|---|---|
| **Menu** | **Sub Menu** | **Explanation** |
| ↑Info Screen↑ | ↑main↑ | Return |
| Prepare→ | Disable Steppers | Moving X Y Z axis by your hands |
| | Auto Home | return to the origin |
| | Preheat PLA | |
| | Preheat ABS | |
| | Cooldown | Close and cooldown the nozzle |
| | 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 |
| | Restore Failsafe | Restore factory setting |
| No card /Print from SD | Select the printing model | |
| Init. SD-Card /Change SD-Card | | |
| Pringting | | |
| Tune→ | Speed | Change Printing Speed by given value |
| | Nozzle | Change the temperature by given value |
| | Bed | Change the temperature by given value |
| | Fan Speed | Change Fan Speed by given value |
| | Flow | Change filament flow by given value |
| Pause Print | | |
| Stop Print | | |

# 3. Loading Filament

## 1. Preheat

### Method 1



```
Info screen      ↕
Prepare          →
Control          →
Print from SD    →
Change SD-Card
```

```
Main             ↕
Disable Steppers
Auto Home
Preheat PLA
Preheat ABS
```

### Method 2

```
Info screen      ↕
Prepare          →
Control          →
No Card          →
Init. SD-Card
```

```
Main             ↕
Temperature      →
Motion           →
LCD contrast     →
Restore Failsafe
```

```
Control          ↕
>Nozzle:         ◊
 Bed:            ◊
 Fan speed:      ◊
 Autotemp:      Off
```

```
Nozzle:      200
```

## 2. Feeding



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

> **Tip： Replacing the Filament**
>
> Preheat the nozzle then pull out the existing filament. Next, insert the new filament.

3

# 4. Bed Leveling





1. Prepare →Auto Home. Wait for the nozzle to move to the left/front of the platform.





2. Prepare→Disable Steppers





床烫请勿触摸
Do not touch the heated bed



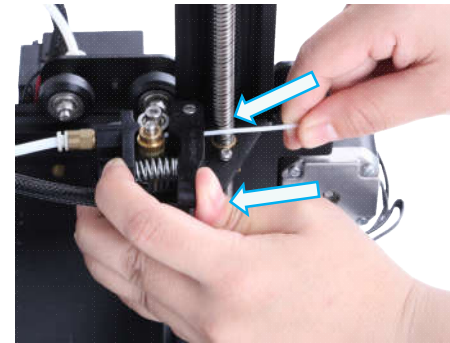3. Move the nozzle the front/left leveling screw and adjust the platform height by turning the knob underneath. Use a piece of A4 paper (standard printer paper) to assist with the adjustment, making sure that the nozzle lightly scratches the paper.
4. Complete the adjustment on all 4 corners
5. Repeat above steps 1-2 times if necessary.

# 5. Software Installation



Cura-3.0.2-win64

1.  Double click the Cura icon to install the Cura Slicing Software.



📁 Cura
- 🅒 Cura 3.0.2
- 🅔 Cura Development Resources
- 🅔 Cura Online Documentation
- 🔴 Uninstall



## Add Printer

> **Ultimaker**
> **Custom**
∨ **Other**
- ○ 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
- ○ Dagoma DiscoEasy200
- ○ Delta Go

**Printer Name:** Ender 3

**Add Printer**

### Ultimaker Cura
File  Edit  View  Settings  Extensions  Plugins  Preferences  Help

cura.
- Printer ▸   ● Ender 3
- Material ▸   Add Printer...
- Profile ▸    Manage Printers...
- Configure setting visibility...

### Machine Settings

**Printer**  Extruder

**Printer Settings**              **Printhead Settings**

| X (Width) | 220 | X min | 20 |
| Y (Depth) | 220 | Y min | 10 |
| Z (Height) | 250 | X max | 10 |
|  |  | Y max | 10 |

Build plate shape  Rectangular
☐ Origin at center          Gantry height  30
☑ Heated bed
                          Number of Extrud···  1
Gcode flavor  Marlin

**Start Gcode**            **End Gcode**
G28 ;Home                  G91

**Close**

2. Start Cura from the Start Menu.
3.  Select Other→Creality CR-10→Printer Name：Ender 3→Add Printer.
4、Setting→Printer→Manage Printers...
5、Change Printer Settings to （220,220,250）.

# 6. Preparing to Print

## 1. Slicing

Insert SD card into computer with Reader.



1. Open file
2. Select file
3. Open
4. Save to SD Card

## 2. Printing



Insert the SD card

Select "Print from SD"

Select the file to be printed

# 7. Trouble shooting

Start

Print from SD-card

Y/N — N → File is identified — Y → Any random code? — Y → Other files are normally printed? — Y → Slice

File is identified — N → File name
Any random code? — N → File name... 

**SD card** → 1、Erase the SD card  2、Format the SD card  3、Replace the SD card

**File name** → 1、Rename the file with alphabet and numbers

**Slice** → 1、Move the model and restart the slicing  2、Restore the model with software

**XYZ Stepper** → 1、Reconnect the cables  2、Chick via the replacement method

**limit switch** → 1、Reconnect the cables  2、Chick via the replacement method

**hot bed** → 1、Reconnect the cables
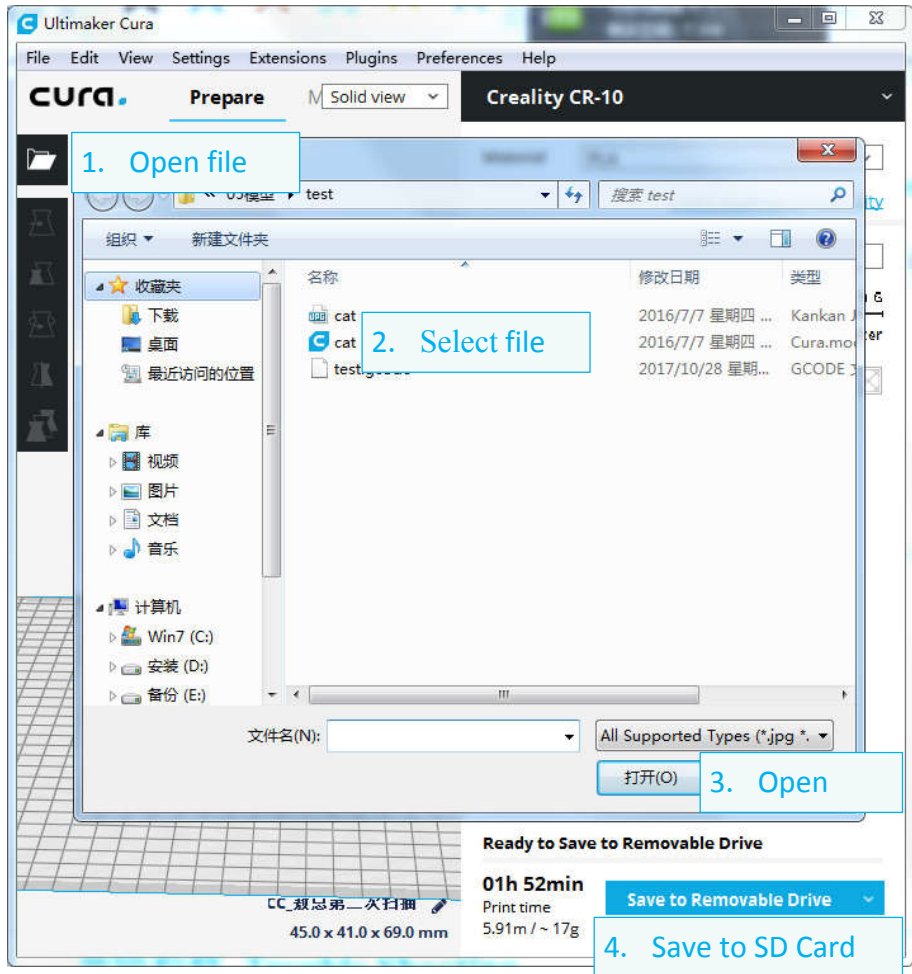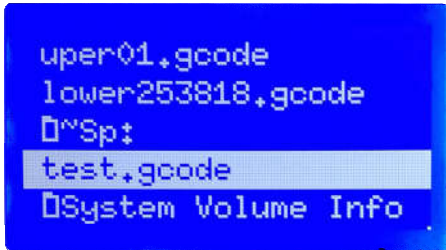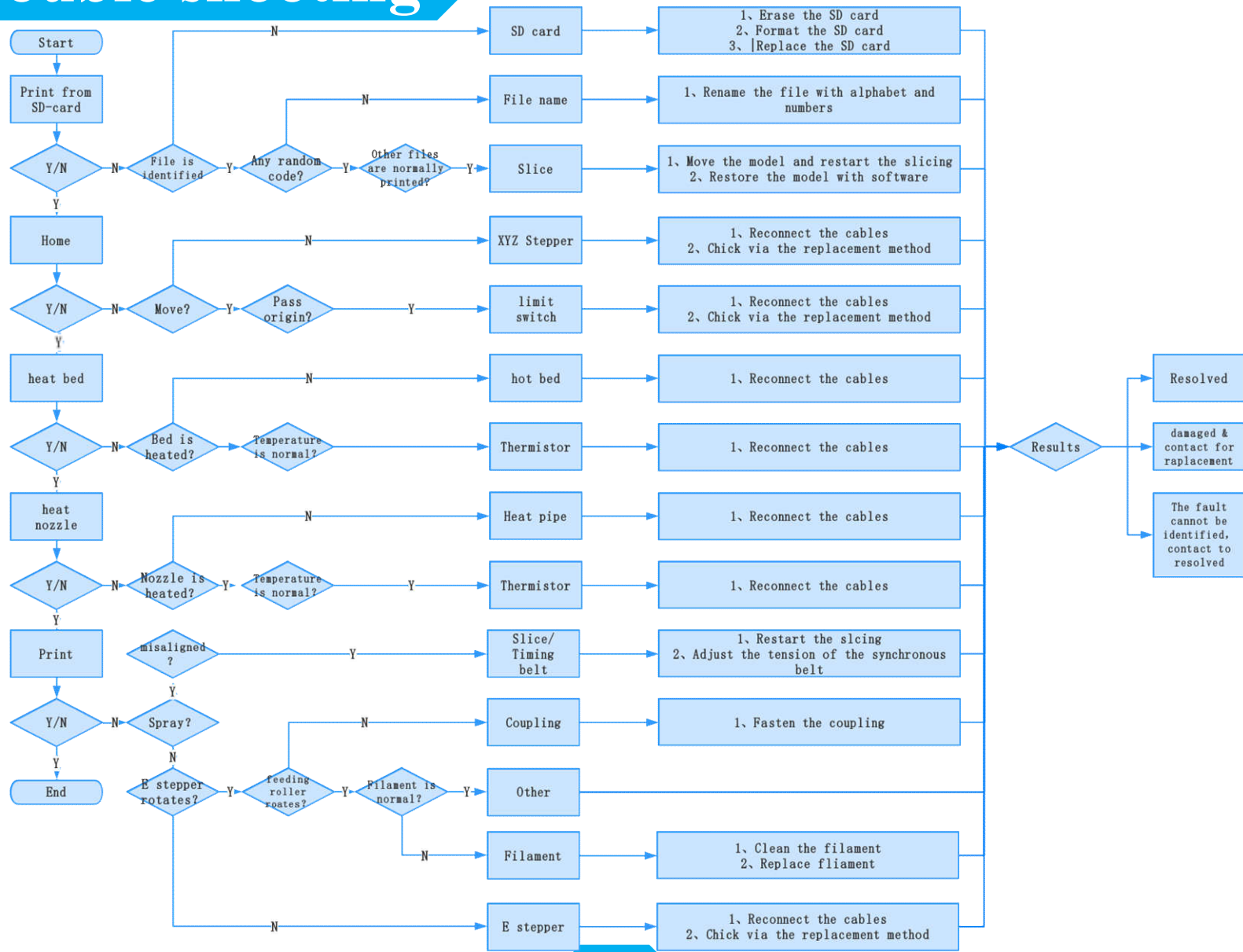
**Thermistor** → 1、Reconnect the cables

**Heat pipe** → 1、Reconnect the cables

**Thermistor** → 1、Reconnect the cables

**Slice/ Timing belt** → 1、Restart the slcing  2、Adjust the tension of the synchronous belt

**Coupling** → 1、Fasten the coupling

**Other**

**Filament** → 1、Clean the filament  2、Replace fliament

**E stepper** → 1、Reconnect the cables  2、Chick via the replacement method

Flow nodes:
- Start
- Print from SD-card
- Y/N
- File is identified
- Any random code?
- Other files are normally printed?
- Home
- Y/N
- Move?
- Pass origin?
- heat bed
- Y/N
- Bed is heated?
- Temperature is normal?
- heat nozzle
- Y/N
- Nozzle is heated?
- Temperature is normal?
- Print
- misaligned?
- Y/N
- Spray?
- E stepper rotates?
- feeding roller roates?
- Filament is normal?
- End

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

7

# 8. Circuit Wiring Diagram



X 轴电机
X axis Motor

Y 轴电机
Y axis Motor

Z 轴电机
Z axis Motor

挤出电机
Extruder Motor

TF 卡座
TF Card

Mini USB
接口
USB

ISP 固件
烧录口
ISP

液晶
显示屏
LCD
Displayer

喷头热敏电阻
Nozzle thermistor

热床热敏电阻
Bed
thermistor

可控风扇
Controlable
Fans

电源输
入口
Power
Supply

Creality3D V1.1.2
CX 171010

常开风扇
Fans

热床输出口
Hot Bed

喷头输
出口
Nozzle

X 轴限位
X Limit Switch

Y 轴限位
Y Limit Switch

Z 轴限位
Z Limit Switch

Facebook QR code

**Shenzhen Creality3D Technology CO.,LTD.**

Official Website: www.creality3d.com
Company Address: 12F, Building No.3, Jinchengyuan Industrial Area, Huafan Road,
Dalang, Longhua, Shenzhen, Guangdong Province