

robo E3



User Guide

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Preface



Note: Each device must be tested before leaving factory. If there are some residues in extruder or tiny scratches on the build tape, it is normal and won't affect the printing quality.

The Robo E3 3D Printer User Guide is designed for Robo E3 users to start their printing journey with ease. Even if you are familiar with earlier Robo machines or 3D printing technology, we still recommend that you please read this guide, as there is lots of important information about the Robo E3 to help guide a better 3D experience.

For a better and more successful printing experience, you can refer to the following materials:

Quick Start Guide:

Users will find the Quick Start Guide together with the printer accessories. The Quick Start Guide will help you get up and printing the quickest possible way.

Official Robo Website: www.robod.com

The official Robo website contains the up-to-date information concerning Robo software, firmware, device maintenance and so on. Users are also able to also get in touch with a customer support representative there.

Notice



SAFETY NOTICE: PLEASE READ AND STRICTLY FOLLOW ALL THE SAFETY WARNINGS AND NOTICES BELOW.

Work Environment Safety:

- Keep your work place tidy.
- Do not operate Robo E3 in the presence of flammable liquids, gases or dust.
- Keep Robo E3 away from children and untrained people's reach.

Electrical safety:

- Always use the Robo E3 with a properly grounded outlet. Do not refit Robo E3 plug.
- Do not use Robo E3 in damp or wet locations.
- In case of device damage, please use the power supply provided by Robo.
- Avoid using the device during a thunderstorm.
- Please unplug the device if you are not using it for a long period of time.

Personal Safety:

- Do not touch the nozzle and build plate during printing.
- Do not touch the nozzle after finishing printing.
- Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.
- Do not operate the device while you are tired or under the influence of drugs, alcohol or medication.

Cautions:

- Do not leave the device unattended for long.
- Do not make any modifications to the device.
- To lower the build plate before loading/unloading filament. (The distance between the nozzle and build plate should be kept for at least 50mm).
- Operate the device in a well-ventilated environment.
- Never use the device for illegal activities.
- Never use the device to make any food storage vessels.
- Never use the device to make any electrical appliance.
- Never put the model into your mouth.
- Do not remove the models with force.

Notice

Environment requirements:

- Temperature: Temp Range 59F (15C) to 86F (30C)
- Humidity: Around 20-70%

Place requirements:

- The device must be placed in a dry and ventilated environment.
- The distances of the left, right and back side space should be at least 20cm, and the distance of the front side space should be at least 35cm. Device storage temperature: RT 0-40.

Filament Requirements:

Do not abuse the filament. Please make sure you use the Robo filament or filament from the brands accepted by Robo. Nozzle clogging and damage may be caused by non-Robo filament due to inappropriate material properties.

Filament Storage:

All polymers degrade with time. Do not unpack filament until necessary. Filament should be stored at clean and dry conditions.

Legal Notice:

- All the information in this document is subject to any amendment or change without an official notice from Robo3D.
- Robo3D CORPORATION MAKES NO WARRANTY OF ANY KIND WITH REGARD TO THIS DOCUMENT, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FIT FOR A PARTICULAR PURPOSE.
- FCC Notice This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- Robo3D shall not be liable for errors contained herein for incidental consequential damages in connection with furnishing, performance or use of this material.
- This document contains proprietary information protected by copyright. Copyright © 2019 Robo3D. All Rights Reserved.

Terms

Build Plate The surface on which the Robo E3 builds an object.

Build Tape The black tape that covers Robo E3's build plate so that the object can stick to the build plate well.

Build Volume The three dimensional amount of space that an object will use once it is completed. The largest build volume is 150*150*150mm.

Extruder The integral extruder device installed on X-Axis. Extruder draws the filament from the spool, melts it and pushes it through a nozzle into the build plate.

Nozzle Also called "print head", which is located at the bottom of the extruder where the heated filament is squeezed out.

Cooling Fan To cool the outer assembly of the extruder and gear motor.

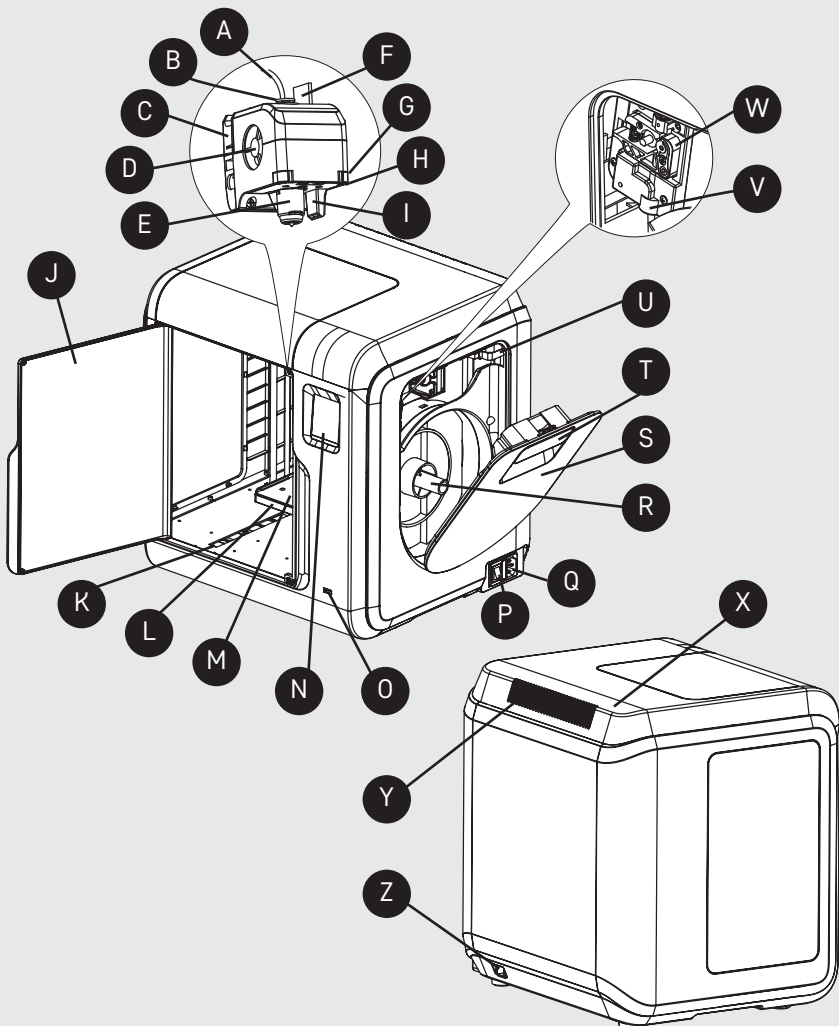
Filament Cartridge A specific box for placing Robo filament, which is located on the right of printer.

Filament Guide Tube A white plastic tube that guides the filament from the filament box to the filament intake.

Filament Intake An opening located at the top of the extruder.

About Robo E3

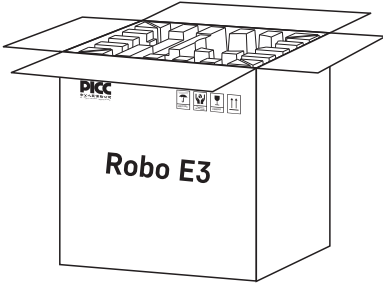
- | | | | | | |
|---|-----------------------|---|-----------------------|---|------------------------|
| A | Filament Guide Tube | K | Y-Axis Sliding Slot | U | Z Motor |
| B | Filament Guide Insert | L | Platform Base | V | Filament Intake |
| C | Extruder Base | M | Removable Build Plate | W | Filament Feeding Wheel |
| D | Cooling Fan | N | Touch-Screen | X | HEPA filter |
| E | Removable Nozzle | O | USB Stick Input | Y | Filtered Air Outlet |
| F | Extruder Cables | P | Power Switch | Z | Ethernet Input |
| G | Nozzle Clip | Q | Power Input | | |
| H | LED Light | R | Spool Holder | | |
| I | Print Cooling Guide | S | Filament Cover | | |
| J | Front Door | T | Filament Cover Handle | | |



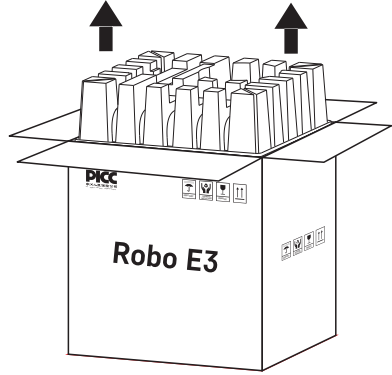
Reference

Name	Robo E3
Number of Extruder	1, Removable
Print Technology	Fused Filament Fabrication (FFF)
Screen Size	2.8" color IPS Touch Screen
Build Volume	150×150×150mm
Layer Resolution	0.05-0.4mm
Build Accuracy	±0.2mm
Positioning Accuracy	Z axis 0.0025mm; XY axis 0.011mm
Filament Diameter	1.75mm (±0.07mm)
Nozzle Diameter	0.4mm
Build Speed	10~100 mm/s
Software	Robo Cloud, Robo Print
Support Formats Input:	3mf/stl/obj/fpp/bmp/png/jpg/jpeg File Output: gx/g File
Memory Size	8G Internal Memory
OS	Win XP/Vista/7/8/10, Mac OS X, Linux
AC Input	150W (24V, 6.25A)
Connectivity	USB stick, WiFi, Ethernet
Device Size	388×340×405mm
Net Weight	9 kg (20 lbs)

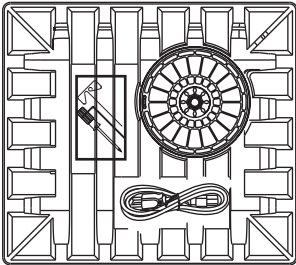
Unpacking



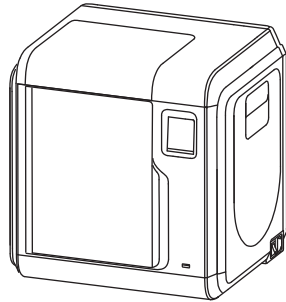
1. Open the box.



2. Take out the wrapping paper box on the top.

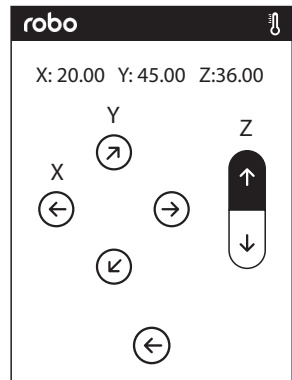
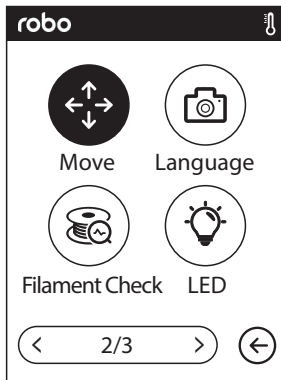
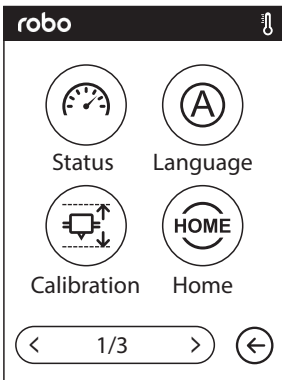
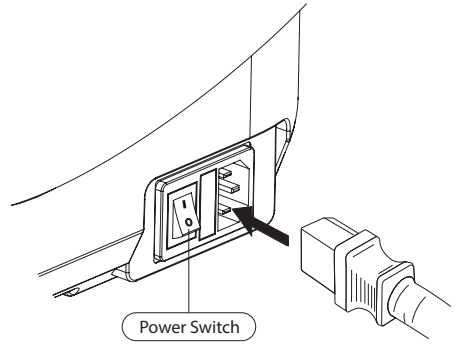


3. Be careful! Filament, tools kit and power cable are all placed inside the wrapping paper box.

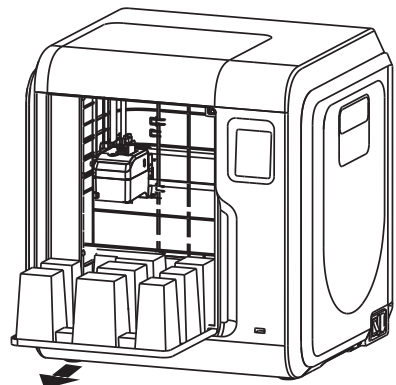


4. Take out the printer from the box.

5. Plug the power cable into the input on the back and turn on the power switch – the touch screen will automatically boot.



6. Tap **TOOLS > SETTINGS** and then tap the right arrow at the bottom to move to the 2nd page. Click **MOVE**. Then tap the UP arrow under Z to move the extruder up to enable access to the paper box at the bottom for removal.

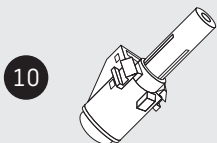
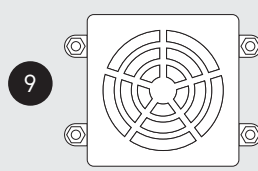
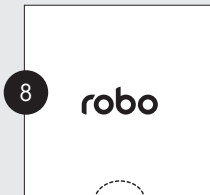
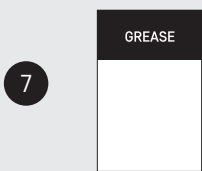
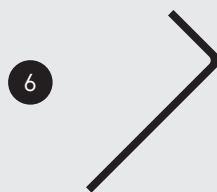
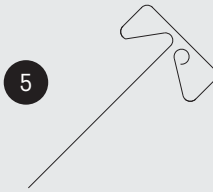
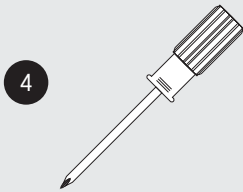
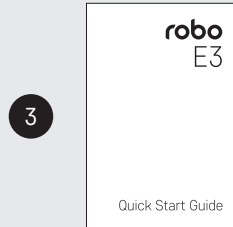
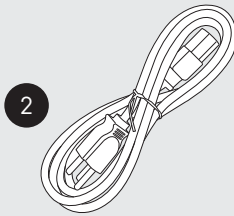
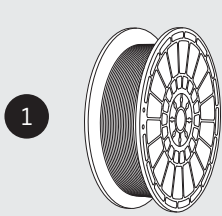


7. Open the front door and take out the paper box from inside the printer. Check to see that the HEPA filter remains magnetically secured in place – see page 8 for location. The printer unpacking is now completed.

Inside the box

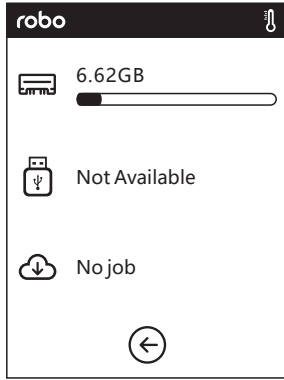
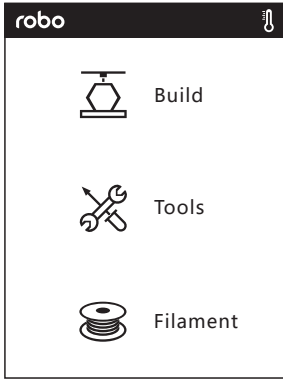
Besides your new Robo E3, you will find the following in the box:

- | | | | | | |
|---|-------------------|---|---------------------|----|-------------|
| 1 | Filament | 5 | Unclogging Pin Tool | 9 | HEPA filter |
| 2 | Power cable | 6 | Allen Wrench | 10 | Nozzle |
| 3 | Quick Start Guide | 7 | Grease | | |
| 4 | Screw Driver | 8 | Extra bed | | |



Interface Menus Introduction

Build

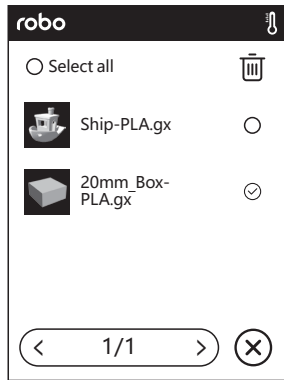
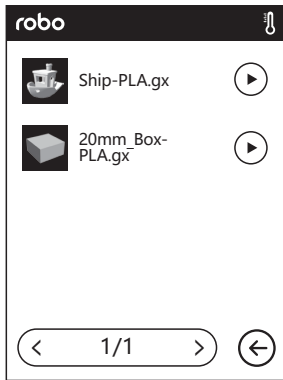


Read the print file from:

- The local memory card
- The USB stick
- The Cloud
- Back to upper interface

1. Tap **BUILD**.

2. Choose the read path of the print file File list.

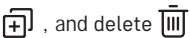


3. File list

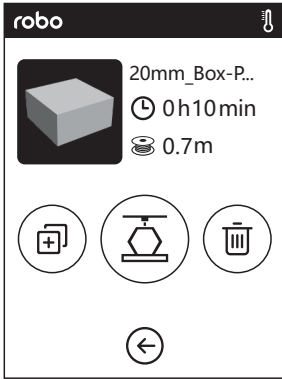
Tap to begin printing; tap the picture of the selected file to enter file details.

Page-flip: Tap the left/right arrow

Tap and hold on file picture or file name to access multi-selection interface. You can select all, copy



Tap to quit out multi-selected interface.



File details: Including file picture, time needed, filament needed.



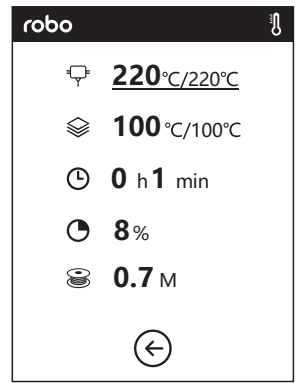
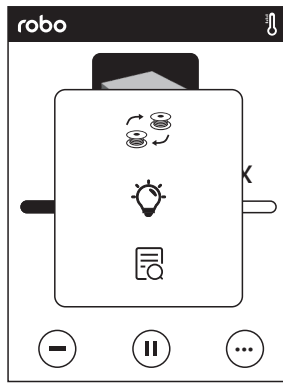
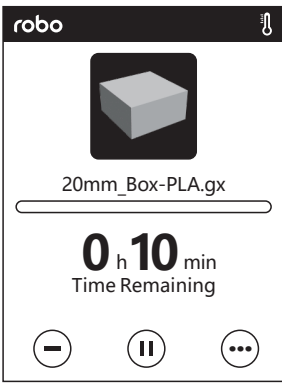
Build: To begin printing the file.



Copy: To copy the files to the local memory card from the USB stick.



Delete: To delete the print file.



Details



Extruder temperature

Extruder temperature can be adjusted during printing (Tap to adjust after underline appears as pictures showed).



Build plate temperature



Used time



Printing progress Whole



Filament needed

Print interface



Cancel: To cancel the print job.



Pause/Resume: To suspend or resume the print job.



More: To check more settings and details information during printing.

More



Replace: To change filament during printing progress.

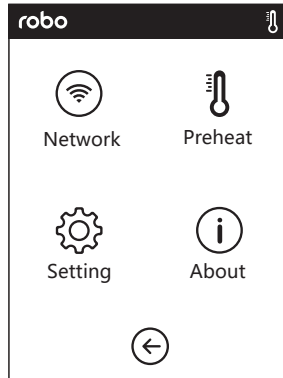
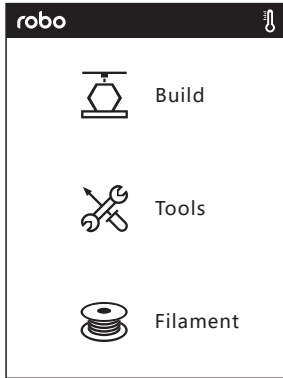


Led Light: To turn on or turn off the led light.



Detail: To check more detail information.

Tools



Network: To connect printer to your PC or internet.



Setting: To implement relevant function setups.



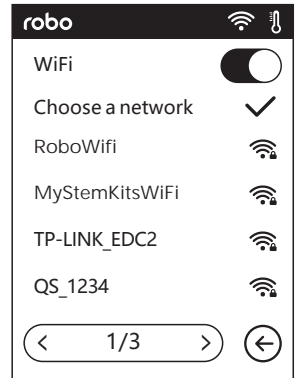
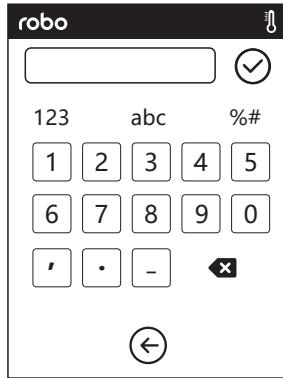
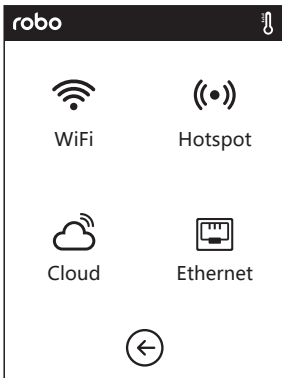
Preheat: To preheat the extruder and build plate.



About: Information about the printer.

Network

WIFI

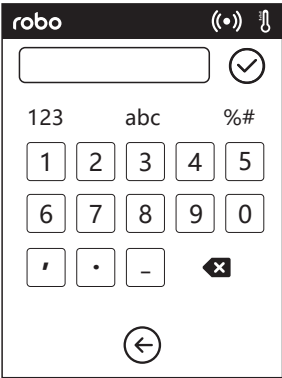
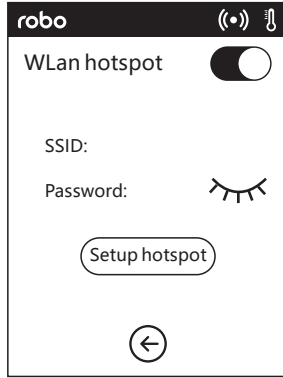
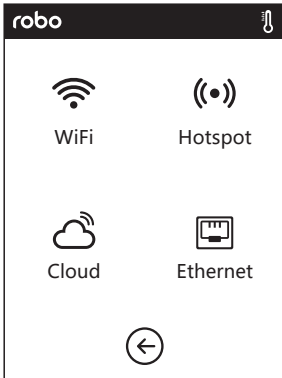


ON/OFF: To turn on/off the WIFI connection.



WiFi connection: To connect your printer with your PC via a stable WIFI signal.

HOTSPOT

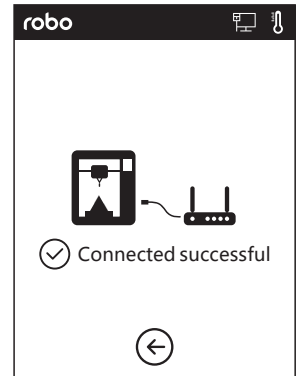
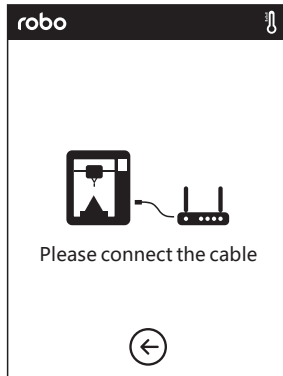
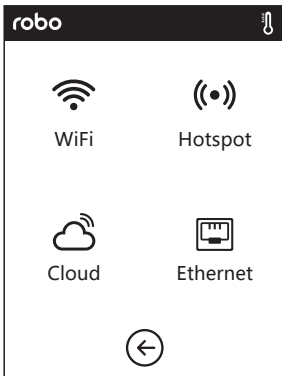


((•)) To set your printer as a WLAN hotspot.

☐ Turn on/off the WLAN hotspot.
Hotspot setting: To set the hotspot name and password. Input hotspot name with numbers, characters and symbols.

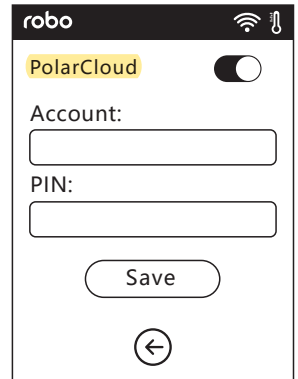
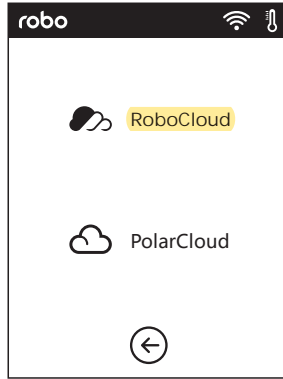
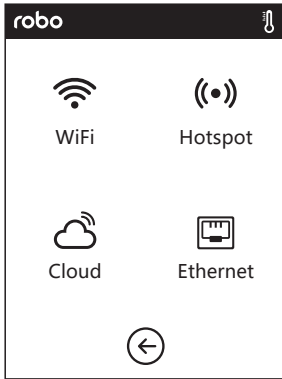
☑ Tap to save the name and password.

ETHERNET CONNECTION



To connect your printer with your PC via Ethernet cable.

CLOUD CONNECTION



To turn on/off the cloud connection. Before connecting to cloud, please make sure you have connected to the internet successfully.



RoboCloud | roboE3.com

1. Register your account: After activating your account through your email box, login into your RoboCloud account.

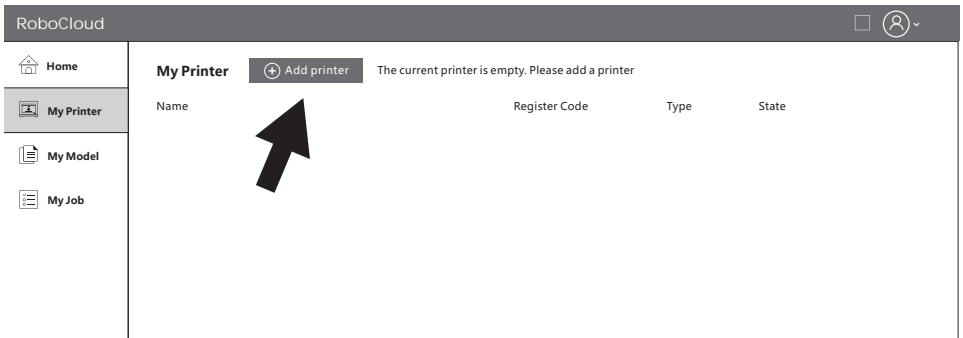
Login

E-mail

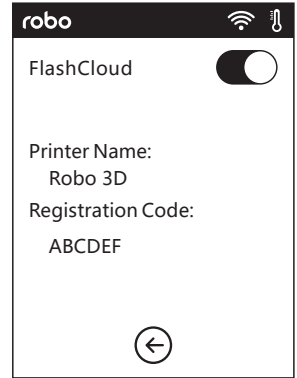
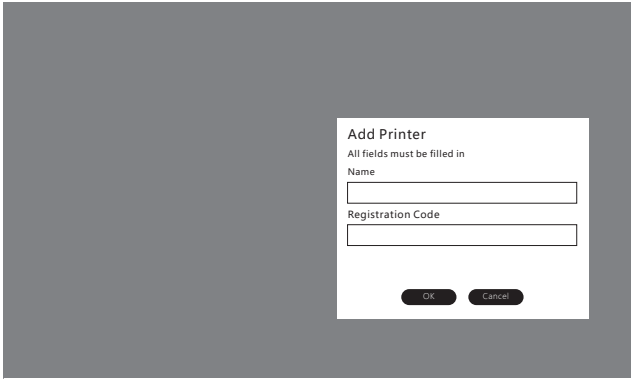
Password

Remember Password

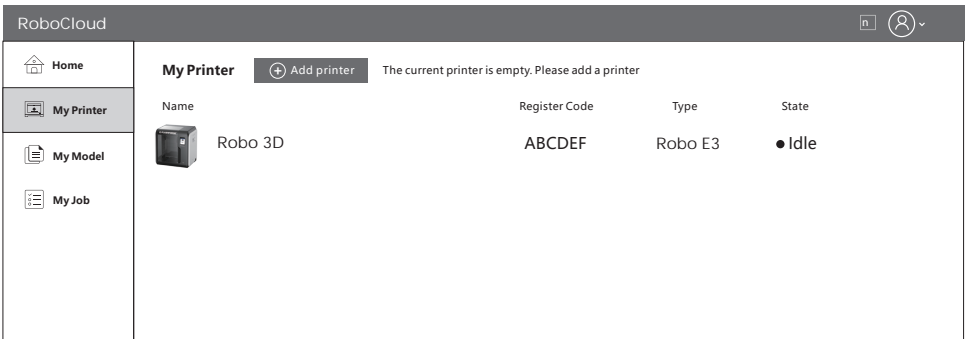
[Forgot password](#) [Register](#)



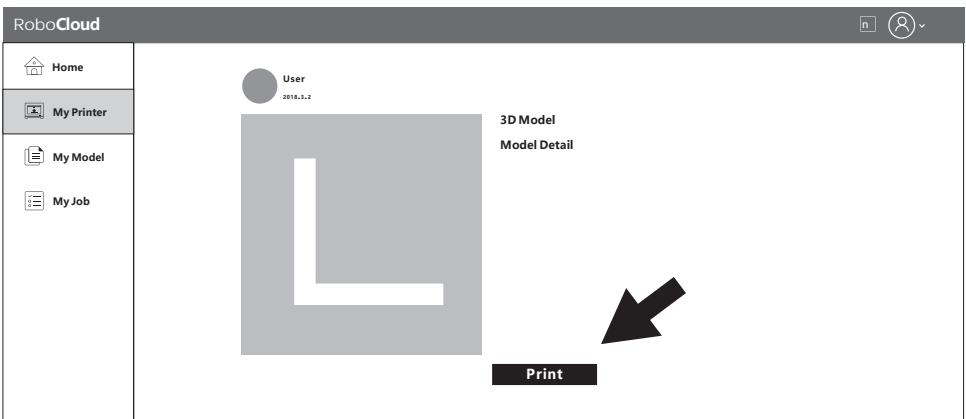
2. After login in cloud with your own account, click **MY PRINTER > ADD PRINTER**.



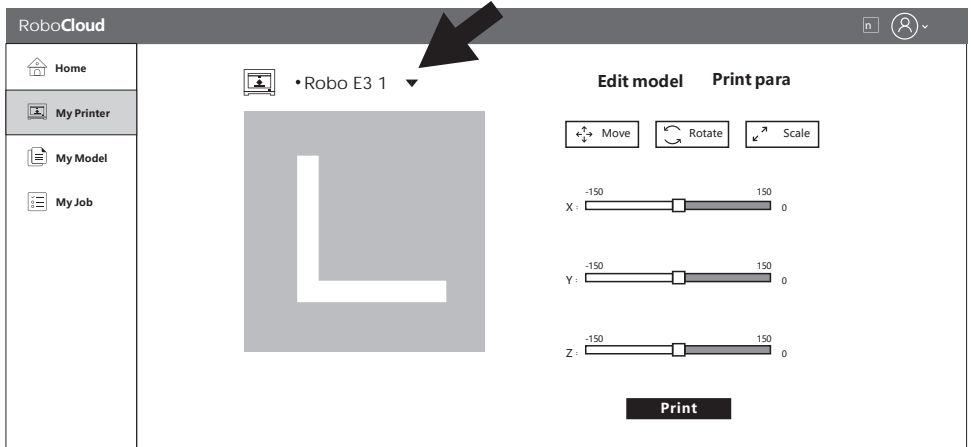
3. Input your printer's name and RoboCloud registration code in **ADD PRINTER** interface. These information are shown in your printer's FlashCloud interface.



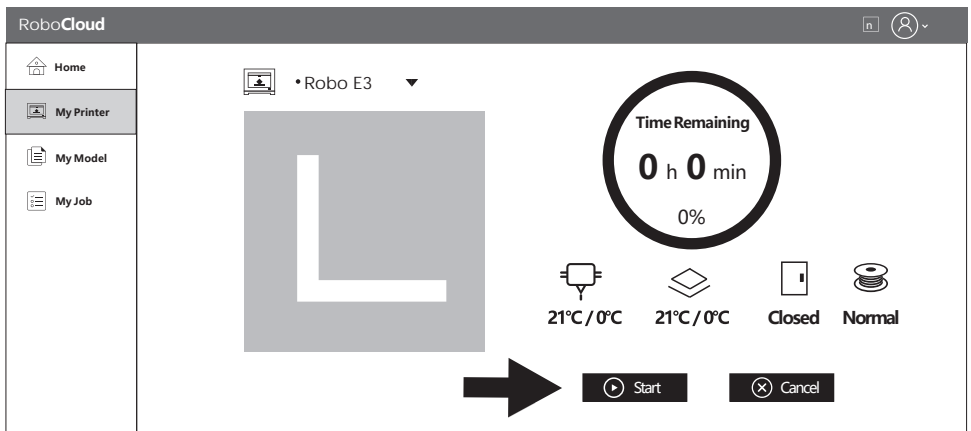
4. Add printer completed.



5. Choose a model from cloud model library or upload your own model (.stl file), click **PRINT**, enter the edit model interface to edit model.

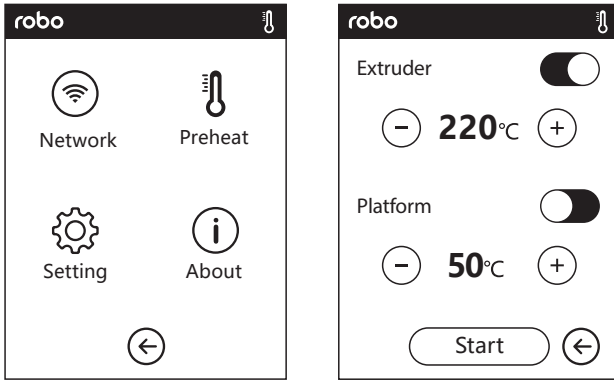


6. In the drop down menu of the printer's name, you can choose which printer will run your next print. (the printer must be added into "my printer")



7. Click **START** to start printing, the selected printer will start printing automatically.

Preheat

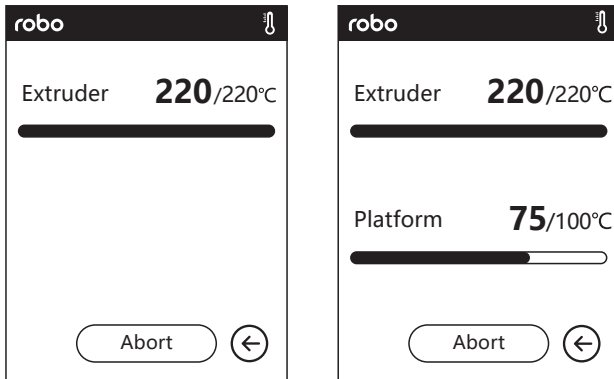


ON/OFF: Turn ON/OFF the extruder or platform preheat;

Tap (+) (-) symbol, you could set preheat temperature;

Long press (+) (-) symbol, set preheat temperature rapidly;

EXTRUDER/PLATFORM PREHEAT INTERFACE

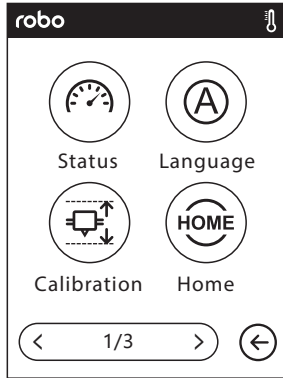
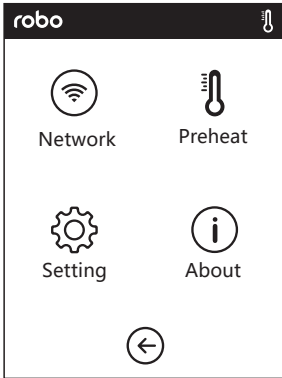


It contains actual temperature, target temperature and heating progress. Extruder highest preheat temperature: 230°C.









Platform highest preheat temperature: 100°C.

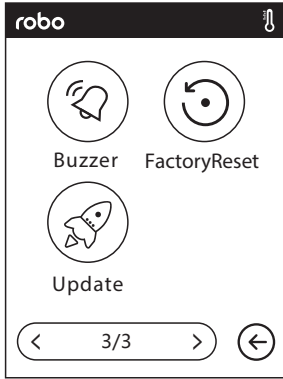
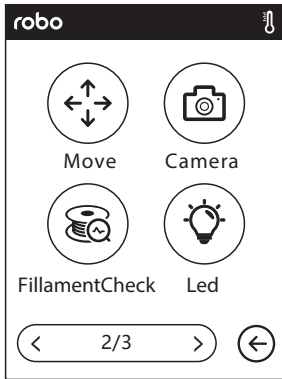
Tap (Abort) : Abort the preheat job.

Setting Menu

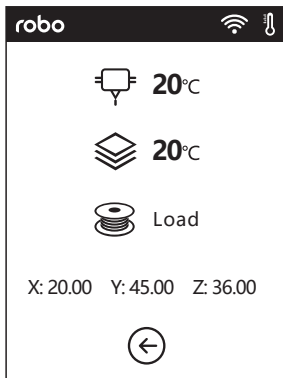
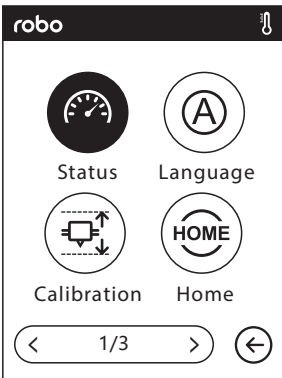



Setting interface

-  Status
-  Language
-  Calibration
-  Buzzer
-  FactoryReset
-  Home
-  Move
-  Camera



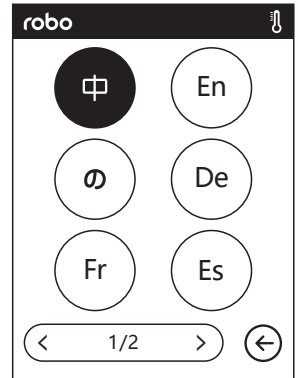
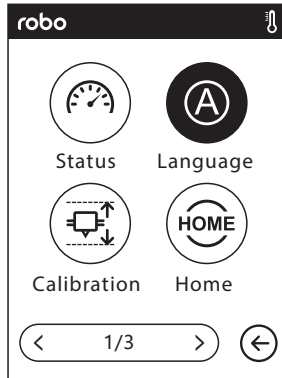
STATUS



 It displays the real-time coordinates of X-axis, Y-axis, Z-axis and the real-time temperature of extruder and platform.

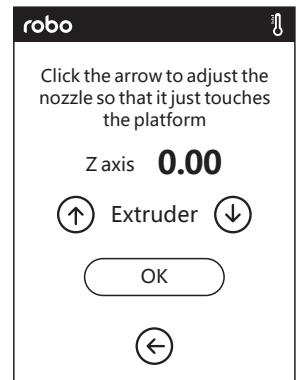
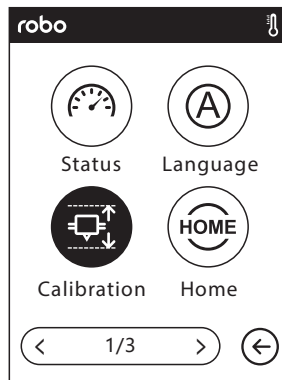
LANGUAGE



Choose the target language.




CALIBRATION

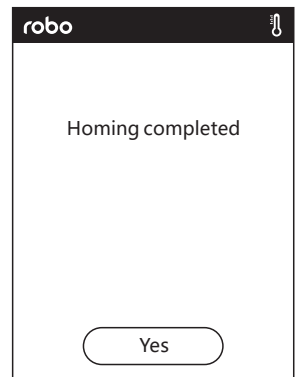
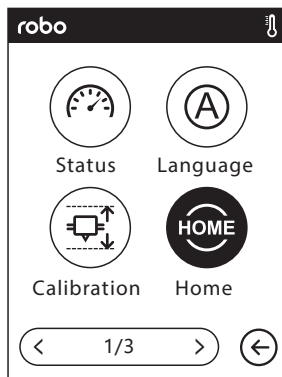
You must calibrate the distance between the extruder and platform. After homing is completed, slide the piece of paper continuously back and forth between the nozzle and the build plate. And simultaneously manually tap up and down arrow to adjust the distance until the paper causes a slight friction. Tap **OK** to complete calibration.

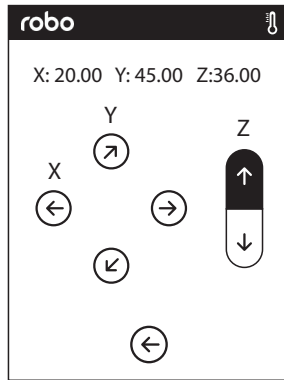
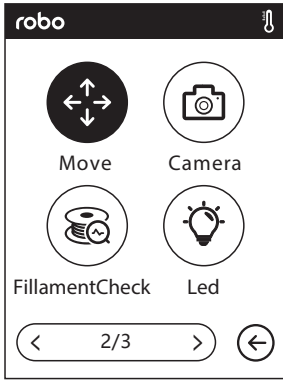


-  Up arrow: Extruder will elevate, away from the platform; Down
-  arrow: Extruder will descend, closer to the platform;

HOME

 To make the X, Y and Z axes back to the mechanical zero point.

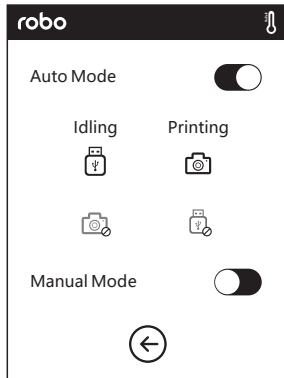
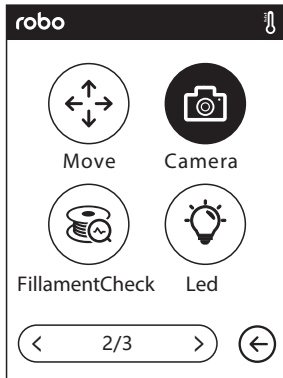




Manual:

To manually adjust the positions of extruder and build plate.

- Extruder moves to the right
- Extruder moves to the left
- Build plate moves to the front
- Build plate moves to the back
- Extruder moves upward
- Extruder moves downward



CAMERA

Turn on or turn off the camera.

Auto Mode:

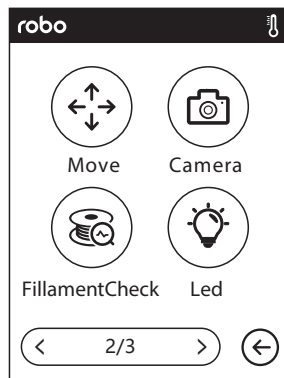
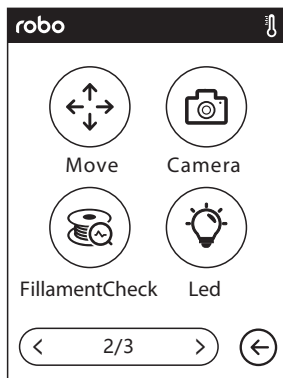
Printing: Camera is on; USB stick is off

Idling: Camera is off; USB stick is on

Manual Mode:

Users choose camera is on or USB stick is on, when one of them is on, the other is off.

Note: when using cloud printing and using camera function on cloud, the camera will be on manual mode, and the USB stick will be off. Turn on Auto Mode on the printer if you want to turn off the manual mode. More details about Camera, please check Chapter 2.5.



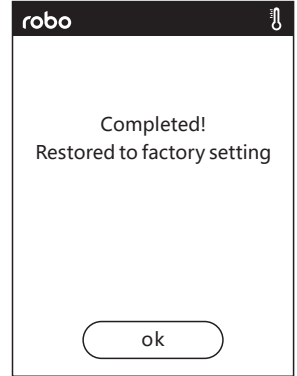
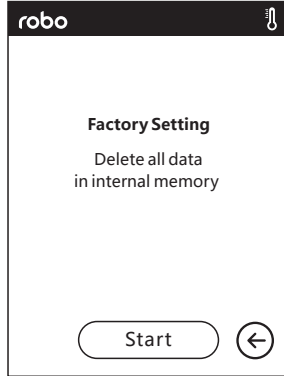
Filament check:

To turn on/off the filament check, notice will pop out.



Led:

To turn on/off the light.



Factory Setting: Delete all data in internal memory, return the printer to factory setting.

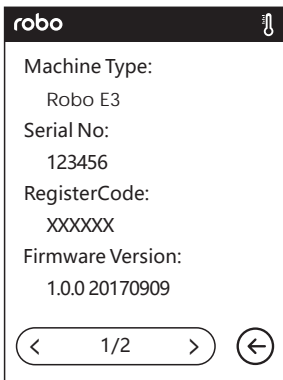


Buzzer: To turn on/off the buzzer.



Update: To update printer firmware.

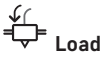
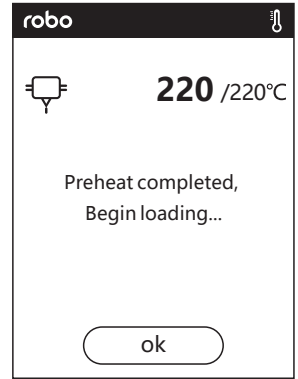
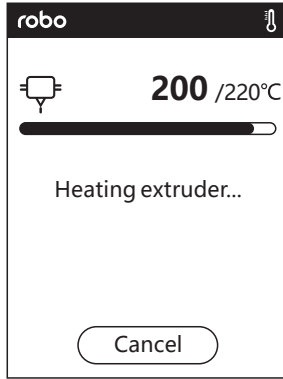
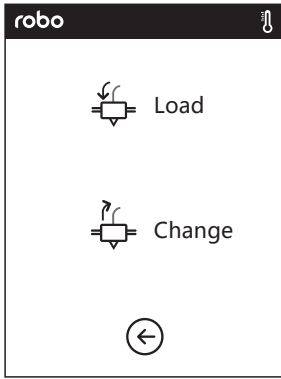
About



Shows the basic information about the printer.

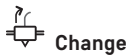
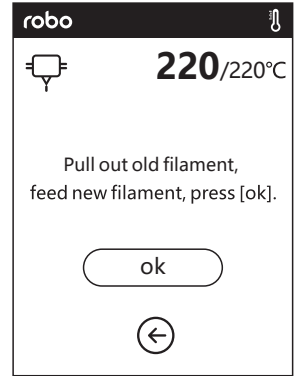
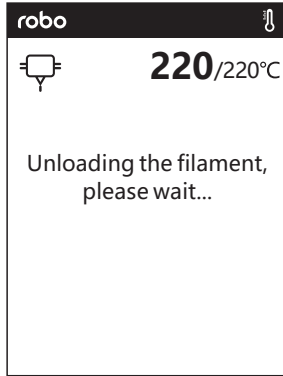
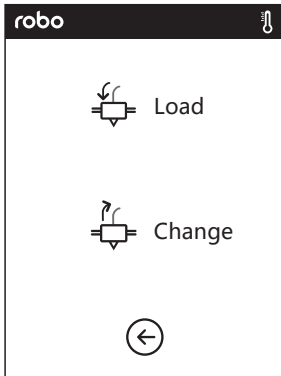
Notice: When contacting after-sales support, please give your serial number to our support team and register your product. The serial number is shown in the **ABOUT** interface.

Filament



Load

- The extruder automatically heats up to 220.
- After heat up is completed, insert the filament into the extruder at an upright angle until some resistance is sensed (as the filament is pushed through the feeding wheel).
- Load will complete when you see filament come out of extruder.

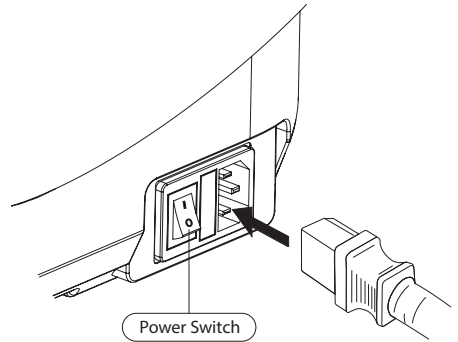


Change

- After the extruder heats up to 220, filament will be unloaded from the extruder.
- Pull out the filament according to the instruction.
- Insert new filament into the filament intake, tap **OK**.
- New filament will be pushed through the tube and out the extruder. Press okay when you see color change.

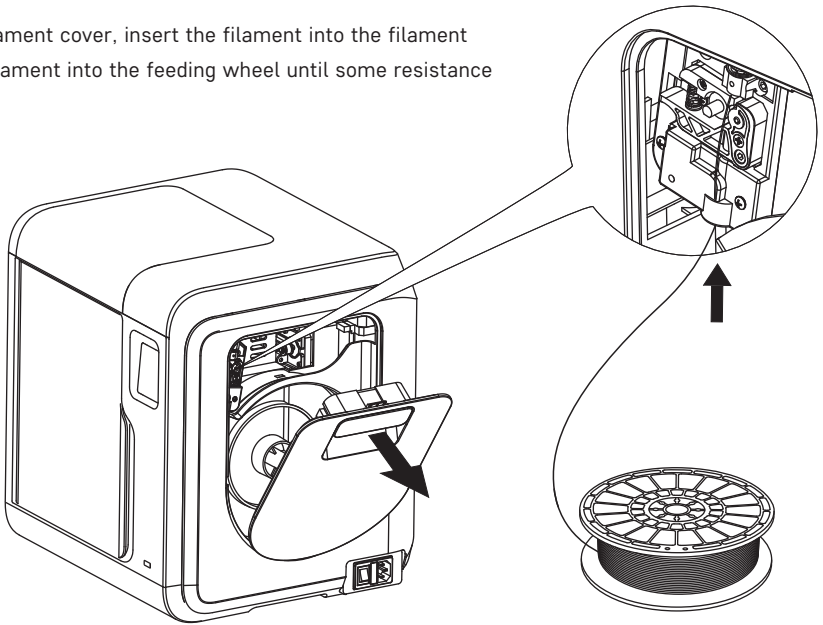
Print

Plug the power cable into the input on the back and turn on the power switch.

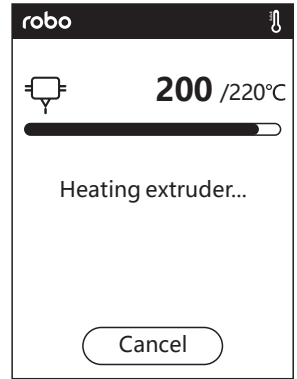
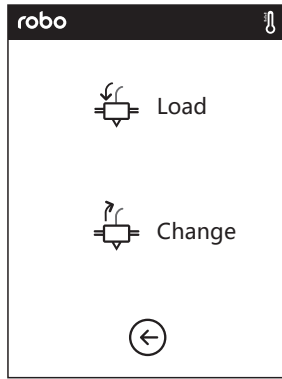
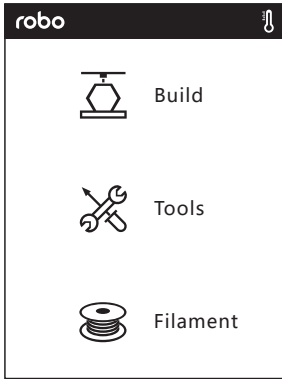


Load Filament

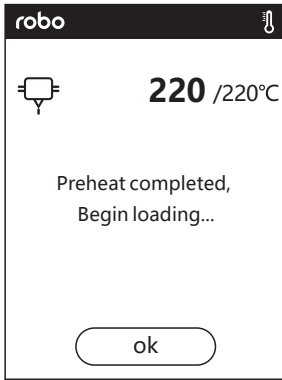
1. Open the filament cover, insert the filament into the filament intake, push filament into the feeding wheel until some resistance is sensed.



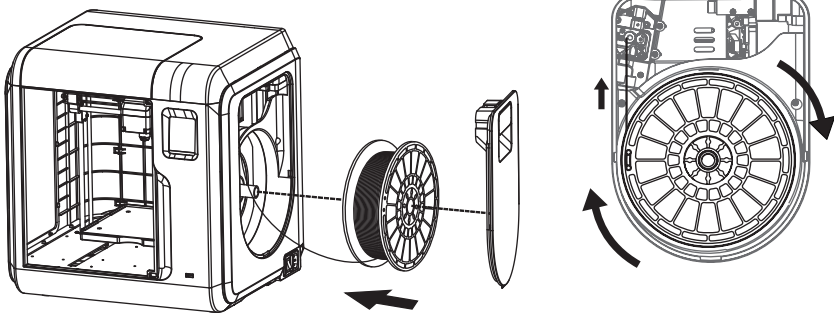
Note: Please make sure filament has been pushed into the feeding wheel



2. Tap **FILAMENT** > **LOAD**. After Load completes tap **OK**.



3. Load is completed when you see filament come out of the extruder, Tap **OK**. Put the spool of filament on the spool holder, and close the filament cover.

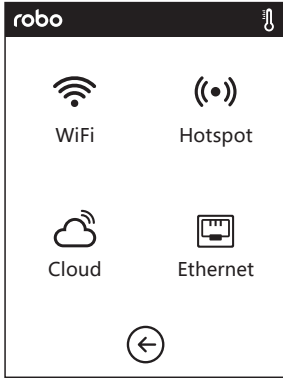
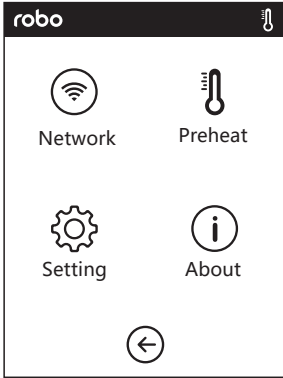


Mind the loading direction of filament, make sure to be clockwise as shown in the picture

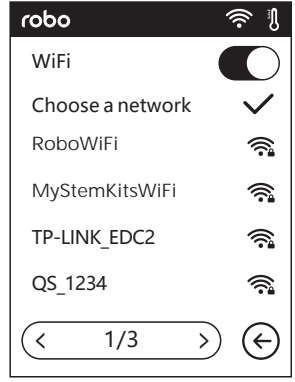
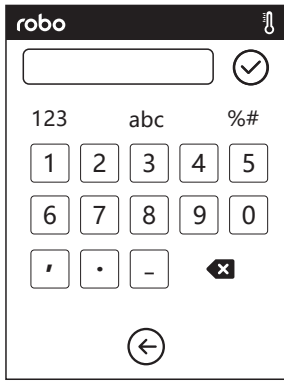
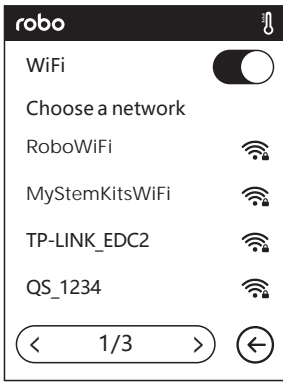
Model File Transfer

After generating the Gcode file, you can transfer it to your Robo E3 with different network methods. If you are using a USB stick to print, please insert your USB stick with target .g/.gx file into your Robo E3. You can generate a .g/.gx file by slicing in your RoboPrint desktop software.

METHOD 1: WIFI CONNECTION

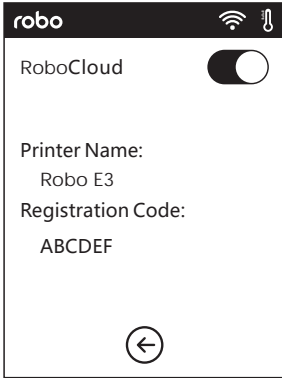
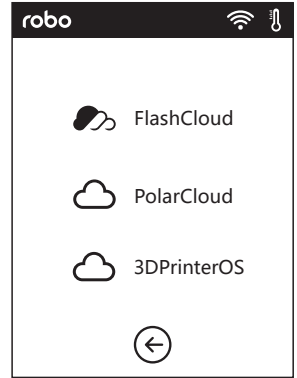
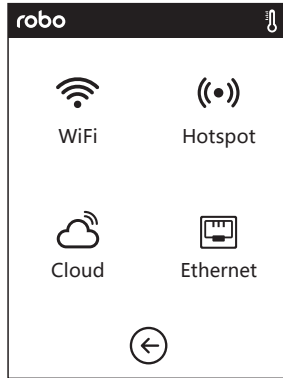
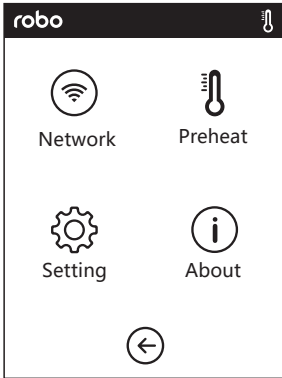


1. Tap **TOOLS > NETWORK > WIFI**



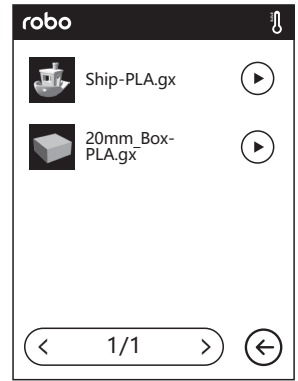
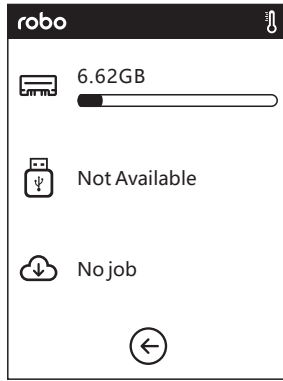
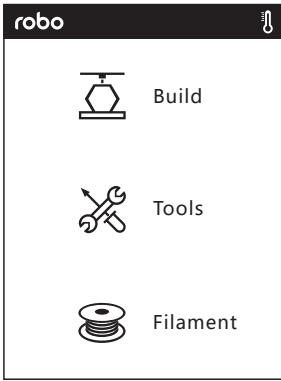
2. Choose a network and input the password.

METHOD 2: CLOUD CONNECTION





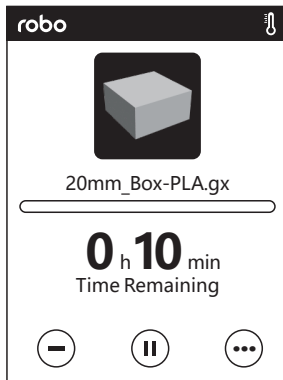
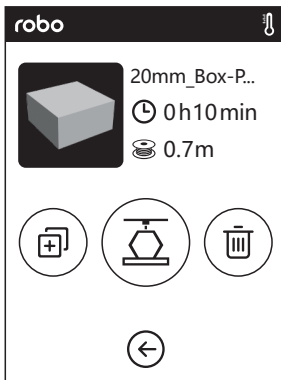
1. Turn on the WiFi or Ethernet connection, connect the printer to internet successfully.
2. Tap **TOOLS > NETWORK > CLOUD** on the printer;
3. Turn on the Cloud Connection function with the toggle switch; Note - this must be on in order to successfully connect to one of the cloud options
4. Register your cloud account and set your settings on <https://cloud.sz3dp.com> with the registration code on printer's touch screen, or register your cloud account on <https://polar3d.com> to get your polar3d account and pin code.

Print



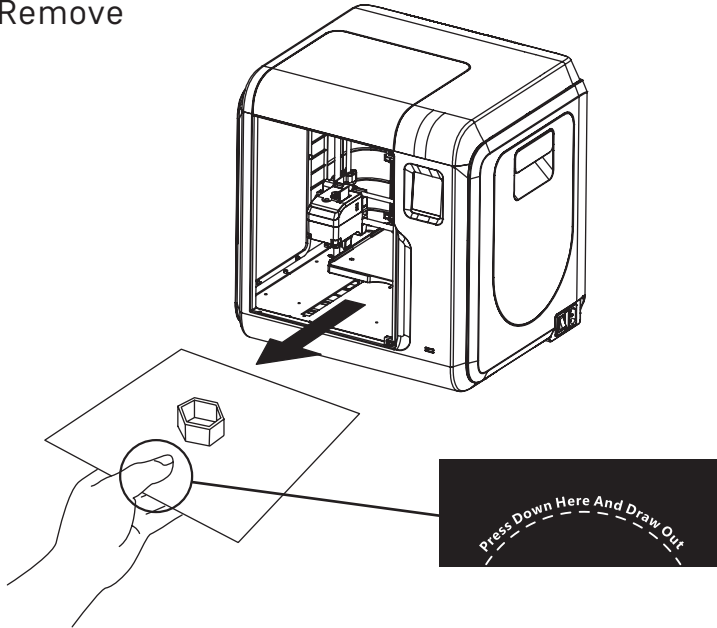
1. Tap **BUILD**, choose the file path: Printer internal memory, USB stick, Cloud.

2. Choose the model file, tap  on its right to start printing; or tap model picture or model name to enter detail page, tap  to start printing.



3. Extruder will heat up automatically. When heating finishes, the printer will start to build the model. After printing is completed, the printer will sound a beep and pop out a notice on the touch screen.

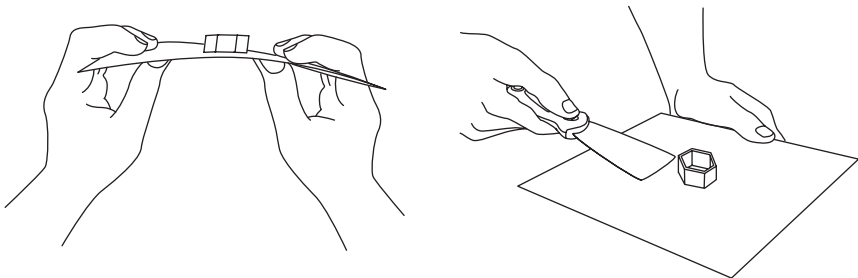
Model Remove



1. Take out the removable build plate.

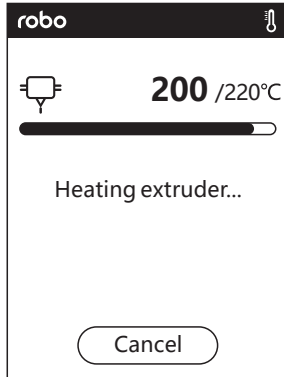
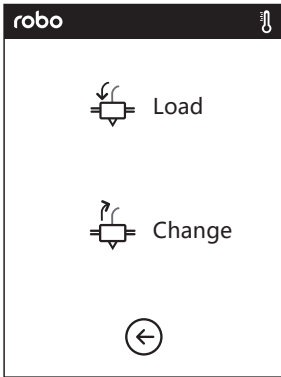


Note: When printing is completed, the extruder and build plate may still be hot, please start operating after cooling down!

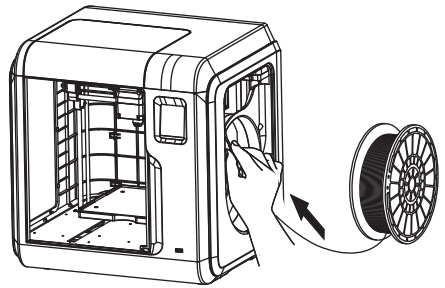
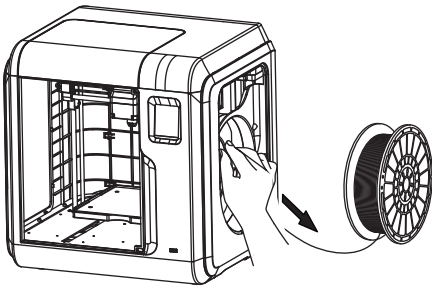


2. Bend the build plate, the plate will produce certain deformation, separating the plate away from the bottom of model (Please use a scraper to assist removing when model is too small or big).

Replace Filament

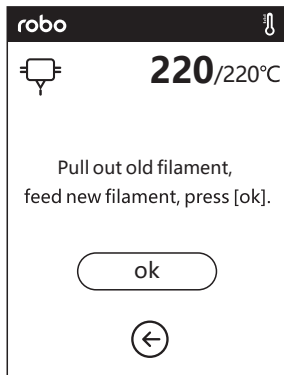
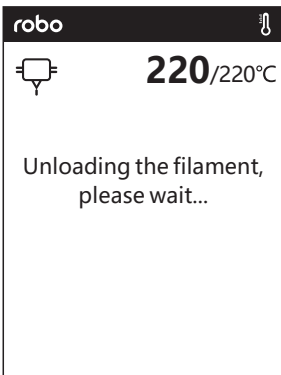


1. Tap **FILAMENT > CHANGE**, extruder will start preheating.



2. Pull out the filament as the picture showed above.

3. Insert new filament into the filament intake and push the filament into the feeding wheel until resistance is sensed.



4. When new filament comes out of the extruder steadily, filament change is completed. Tap **OK**.

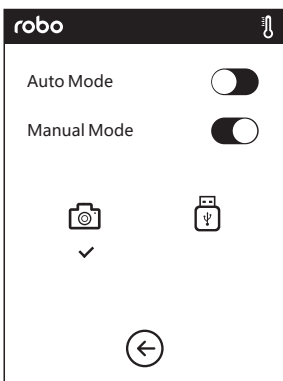
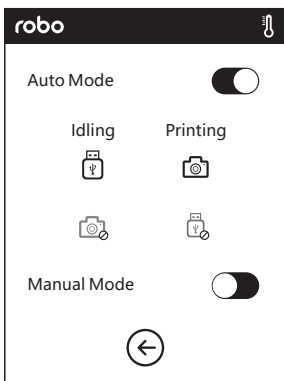
The Guide of Using Camera

CAMERA USER MANUAL

Camera and USB stick use the same interface, so the use of Robo E3's camera is different. The use of Robo E3's camera and the use of Robo E3's USB stick cannot be used simultaneously (only one can be used at a time). The switching between camera and USB stick can be realized through the Cloud or the printer. The use of Robo E3's camera is introduced as follows.

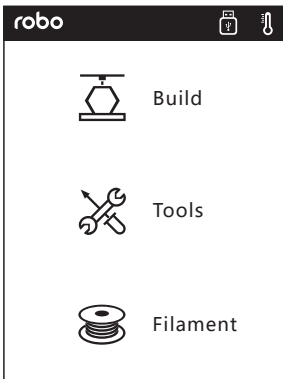
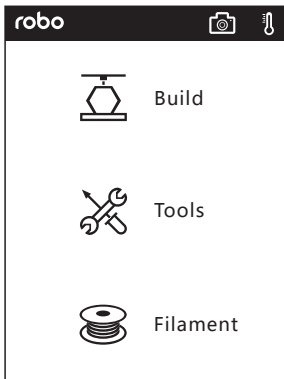
The switching can be controlled by the printer.

In respect of the use of Robo E3's camera, there are two modes, that is automatic mode (default mode) and manual mode. The route is (**TOOLS->SETTINGS** (on the second page) -> **CAMERA**), the user can click the **CAMERA** button to enter the relevant page.



Automatic Mode: When the printer is working (such as the printer is printing the files), the camera is turned on and USB stick is turned off. When the printer is not working, the camera is turned off and USB stick is turned on.

Manual Mode: The switching between camera and USB stick can be controlled by the user at will.



After the camera is turned on successfully, the icon of the camera will appear in the Status Bar. After the camera is turned off, the icon of the USB stick will appear in the Status Bar in case of successful insertion of USB stick.



Note: When the user wants to use the browser to view the images, the printer and PC must be in an intra-net (that is, the printer and PC connect to the same router or network).

POLARCLLOUD CAMERA USE

1. Register Polar cloud account Enter www.polar3D.com website to register account.
2. Find Polar cloud PIN code.

The screenshot shows the Polar Cloud website interface. At the top, there is a navigation bar with the Polar Cloud logo and links for Explore, Connect, Design, Make, Help, and Shop. Below the navigation bar, the user's membership information is displayed: "Member since 03/18 | 0 cloud prints and counting". A large black arrow points to the user profile icon in the top right corner. Below the membership information, there is a "Community" section with news items and a "Cloud Stats" section showing 121 countries, 129,523 members, and 370,629 prints. A second screenshot shows the same page with a settings menu open, indicated by another large black arrow. The settings menu includes options for "Settings", "tenguch@hotmail.com", and "Sign Out". Below the settings menu, the "Recent Community Objects" section displays a grid of 3D printed objects with their respective creators and creation dates.

a) After registering at polar cloud and logging in to the polar cloud website, click the upper right arrow and click **SETTINGS**.

Location

Biography

Website URL

<http://www.example.com/profile>

Email

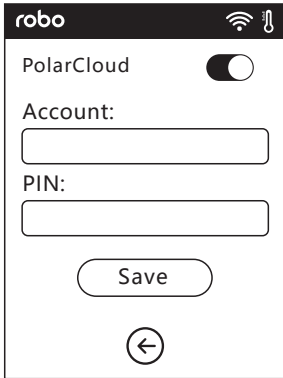
+ ADD Email

PIN Code

XXXX

b) Find the PIN Code on the bottom of the page. The display numbers are the PIN code.

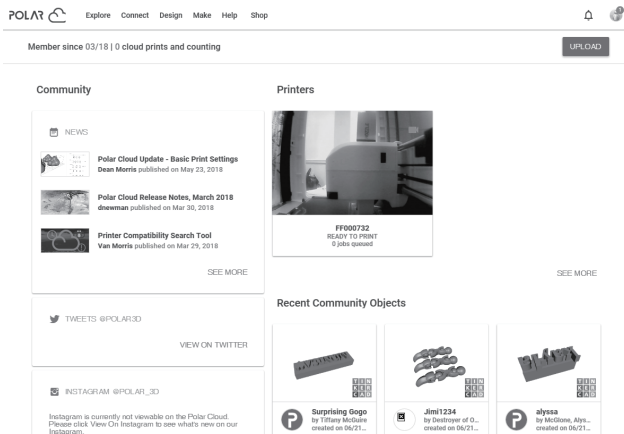
3. Connect your Robo E3 to the internet. Choose the proper connecting way in the Network interface (refer to the Network interface, page 15).
4. Connect Robo E3 to the Polar cloud.



PolarCloud Switch

Enter the cloud connection interface (click **TOOLS > NETWORK > CLOUD**), turn on the Polar cloud switch (After the Polar cloud is turned on, the switch will change to green).

Fill in the bottom account and PIN code column with Polar account and PIN code showed before respectively, click **SAVE**.



After connection is completed, you can see the camera image in the Polar cloud website.

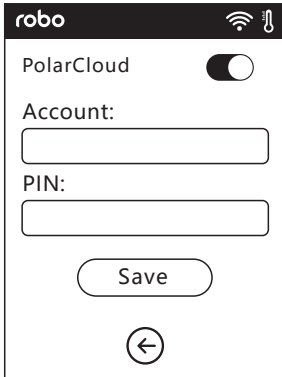
Note:

1. Make sure the printer is connected to the internet.
2. When using the camera please make sure the printer is in the camera status instead of USB status. (there should be a camera icon in the status bar).

The switching can be controlled through the Cloud

1. Connect to Polar Cloud

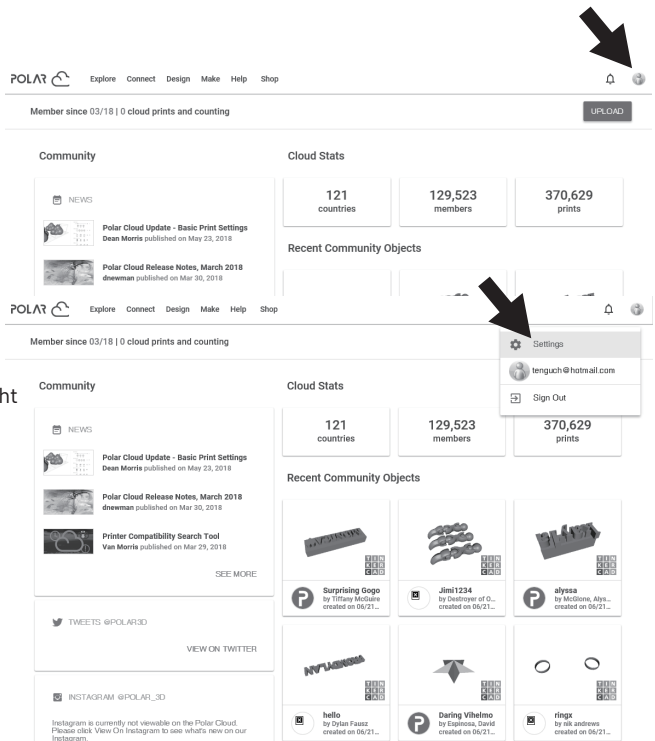
The user can turn on or turn off the camera through Polar Cloud. Click **TOOLS > COMMUNICATION > CLOUD CONNECT > POLAR CLOUD**, enter the settings page of Polar Cloud, click the input boxes of account number and PIN, enter the account number and PIN, click the **START** button to connect to Polar Cloud. The account number is the email address used for sign-up with Polar Cloud; for the acquisition of PIN:



The guide of getting a Polar cloud account.
The Polar cloud account is the register email account.
Polar cloud website: www.polar3D.com

The way of getting the PIN code

a) After registering for polar cloud and logging into the polar cloud website, click the upper right arrow, then click **SETTINGS**



Location

Biography

Website URL

http://www.example.com/profile

Email

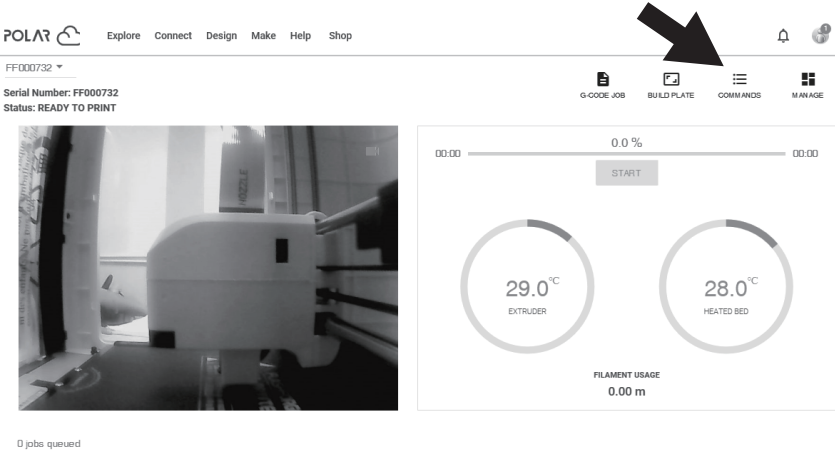
+ADD Email

PIN Code

XXXX



- b) Find your PIN Code on the bottom of the page – the displayed numbers are the PIN code.
- 2. Open or close the camera through the Cloud.



- a) After switching on the camera function, click camera image on the front page to enter the interface as above, click the **COMMANDS** button pointed by the arrow.

CUSTOM COMMANDS

open camera

close camera

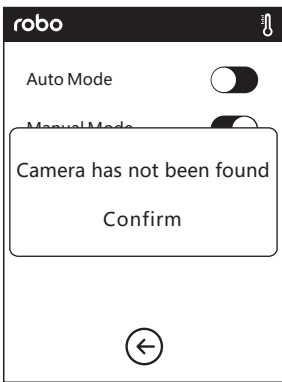
CANCEL **SEND**

- b) You can use check mark to open or close the camera in the pop-up window.

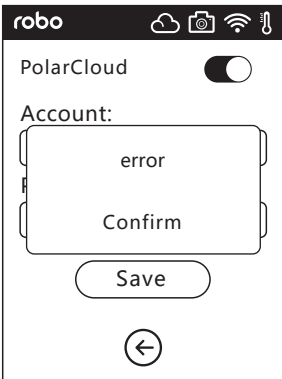
Notices:

- a. If PolarCloud is in an intranet (that is, the printer and PC connect to the same router), the video is shown, and the state of printing can be displayed in real time. If PolarCloud is in an extranet, the pictures are shown (in case of printing, a picture is sent per 20s; in case of not working, a picture is sent per 60s).
- b. When the camera is turned on or off, the printer will reconnect to PolarCloud, so PolarCloud will not respond for a while. The recovery time depends on the state of network.
- c. After the camera is operated through the Cloud, the printer will set the camera to be in manual mode; if you prefer automatic mode, please manually set it to automatic mode on the printer touch screen **TOOLS > SETTINGS > CAMERA**.

2.5.4.Error Handling



1. When the camera is damaged or not inserted, error will be shown when turning on the camera. At this point, the printer will automatically set the camera to be in manual mode and the camera is turned off.



2. If the printer does not connect to Polar Cloud or the printer has been deleted from the Cloud, the error hint will be shown on the touch screen; please restore the printer's factory settings to solve the problem. If you have connected the printer with your PC via Polar Cloud, and you have deleted your printer from the Cloud, please repeat the above steps to sign up and add your printer to your PolarCloud account again.

Q&A

Q1. How to solve if the nozzle is clogged.

Method 1: Tap **PREHEAT**, heat up the extruder to 240, after heating is completed, press the air tube joint and pull out the filament guide tube. Check to see whether the filament is bent or the filament tip is not smooth, cut filament tip smooth and flat, re-install the guide tube and filament back, tap **LOAD**.

Method 2: If method 1 does not improve clog, use your unclogging pin tool to unclog filament.

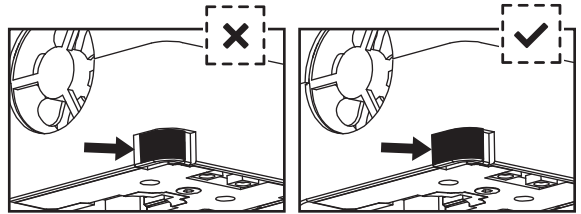
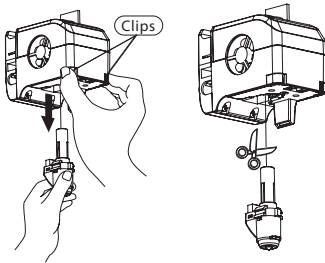
Method 3: If method 1 and method 2 do not improve your clog, please replace your nozzle.

Q2. How to replace the nozzle ?



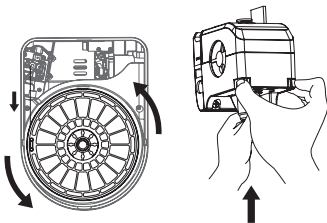
Note: Power off before replacing nozzle! Make sure power off operation!
Please make filament tip smooth and flat when cutting off the filament.

1. Press the left and right clips and pull out the nozzle.
2. Push in a length of filament through the filament intake manually, making it long enough to be cut off.
3. Rotate the filament spool counter-clockwise manually, making filament retreat back a little.
4. Press the left and right clips and install the new nozzle back into the extruder. Make sure the nozzle slot and bottom of the extruder are level.
5. Tap **FILAMENT > LOAD**, nozzle replace completed when you see filament come out of new nozzle.



The buckle is not installed in place

The buckle is installed in place



To make sure the assembly of the extruder is in place, judge as follows:

1. When installing, you must press the extruder hard to the end.
2. Check whether the installation is in place:
 - a) Touch the black buckle and the white lower-part shell of extruder – make sure these two parts are fully in place.
 - b) Look at the black buckle and the white lower-part shell of extruder, make sure no large gaps exist between these two parts (See picture above).

Q3. Do we need to calibrate the extruder again after replacing the nozzle?

Yes, you will need to calibrate the extruder again to ensure your nozzle is set at the proper height for your next 3D print.

Q4. What if the displayed temperature on the nozzle is wrong after I replaced the nozzle?

Abnormal temperature indicates extruder sensor can not be read. Please re-install the nozzle and try again. Make sure to turn the printer off and on once new nozzle is installed.

Q5. How do I solve the problem of filament not extruding after I tap "build model" file assuming the extruder begins moving normally?

1. Check the filament guide tube, make sure the filament has been pushed into the extruder, if not, please tap **LOAD**. Restart building the model file after you see filament coming out of the extruder.
2. Check whether the nozzle is clogged or not, if so, please refer to Q1 for resolution.

Q6: How do you replace filament?

1. Tap **FILAMENT > REPLACE**, after extruder heats up, filament will begin unloading. Pull out the filament according to the instructions.
2. Insert new filament into the filament intake and feeding wheel, tap **OK**; New filament will be pushed into the extruder.
3. Tap **OK** when you see new filament coming out of the extruder.

Q7: How do you take off the model from the build plate?

1. Take out the removable build plate.
2. Bend the build plate separating the plate away from the bottom of model. (Please use a scraper to assist removing when model is too small or too big).
3. Take off the model.

Q8: How do I change the distance between the nozzle and the platform when it is too large (far away) or too small (hitting the bed) during printing?

1. Tap **SETTING > CALIBRATION**.
2. The extruder will begin homing automatically, and move down to its calibration position.
3. Tap the up and down arrow to adjust the distance between the extruder and the platform until the extruder is about to touch the platform.
4. Tap **OK**. The printer will memorize current calibration position and start homing automatically.

Q9: Can we use other brand filaments that are not produced by Robo?

Robo E3 supports normal ABS and PLA filament, but different brands of filament have different properties. Robo E3 tests out default settings according to the properties of Robo ABS and PLA filament. Other brands of filament are ok, but not recommended for using. If they cause the extruder to clog or degrade print quality or other failure, Robo will take no responsibility. These problems are not in the warranty of Robo .

Q10. Is the Robo E3 compatible with all kinds of AC power input?

Robo E3 is equipped with a built-in 24V/6.5A power supplier, suitable for 110V-240V input voltage.

Q11. Is Robo E3 capable to be turned off automatically after printing job is finished?

No.

Q12. What kinds of file formats does Robo E3 support?

Input: 3mf / stl / obj / fpp / bmp / png / jpg / jpeg files. Output: gx/g files.

Q13. Does Robo E3 support other cloud platform besides the FlashCloud?

Yes, Robo E3 interface is open up to all other cloud platforms.

Q14. Is ABS printing safe?

ABS filament will give off certain partially harmful gas when heated up, please put the printer in well ventilated condition when printing ABS. We suggest printing non-toxic PLA filament when printer is used around children, such as a classroom setting.

Q15. What do I do if my print warps up on the edges?

Method 1: Heating up the platform can solve or minimize the problem by increasing adhesion between platform and model. Method 2: Add a raft to the model when slicing in RoboPrint. Method 3: Apply a small amount of glue stick to the platform before printing.

Q16. Is it a must to add a raft before printing the model?

Not necessarily, much more filament will come out of the extruder when printing the raft, increasing printing success. Heating up the platform also increases printing success by increasing adhesion between platform and model.

Q17. After I replace the nozzle, the printer displays an extruder temperature of 300.

Extruder fan is working, but the temperature is wrong. How do I solve this problem?

The new nozzle is not properly installed, extruder temperature can not be read and the displayed extruder temperature is abnormal. Please unplug and install the nozzle again. Make sure to push the nozzle to the end and make sure the nozzle slot and bottom of extruder are on the same level.

Q18. The extruder makes a clicking noise and no filament comes out of the extruder, what is the problem and how do I solve it?

Filament either was not loaded correctly into the extruder or it is a clogged nozzle. If clogged, replace nozzle. Make sure the filament guide tube is properly installed. Check the guide tube joint first, if the guide tube is normal, refer to Q1 for resolution.

Q19. What is the difference between filament loading and replacing filament?

Load: Only includes loading filament into extruder; Replace: Includes loading and unloading two functions, first unloading and then loading filament.

Q20. Robo E3 starts printing, but it appears that the extruder is too high, and the filament does **not stick to build plate** causing the print to fail. How do I fix this?

Do the printer Calibration again or do the Homing again, then try printing again.

Monthly Maintenance Instruction: Please apply lubrication or grease to printer guide rods to make sure they move smoothly.

Supports and service

Robo team is on standby and ready to help you with any challenges you may have with your Robo E3. If the issues or questions are not covered in this User Guide, you can find support solutions on our official website or contact us via email at help@robo3d.com.

Our Robo support site has answers to technical support problems you may have with your Robo E3. Also, feel free to visit our community forums at community.robo3d.com.

www.robo3d.com

The Robo support team can be reached by e-mail or phone between the working hours from 8:00 a.m. to 5:00 p.m. PST Monday through Friday. In case you contact us during off-duty time, your inquiry will be answered the following business day.

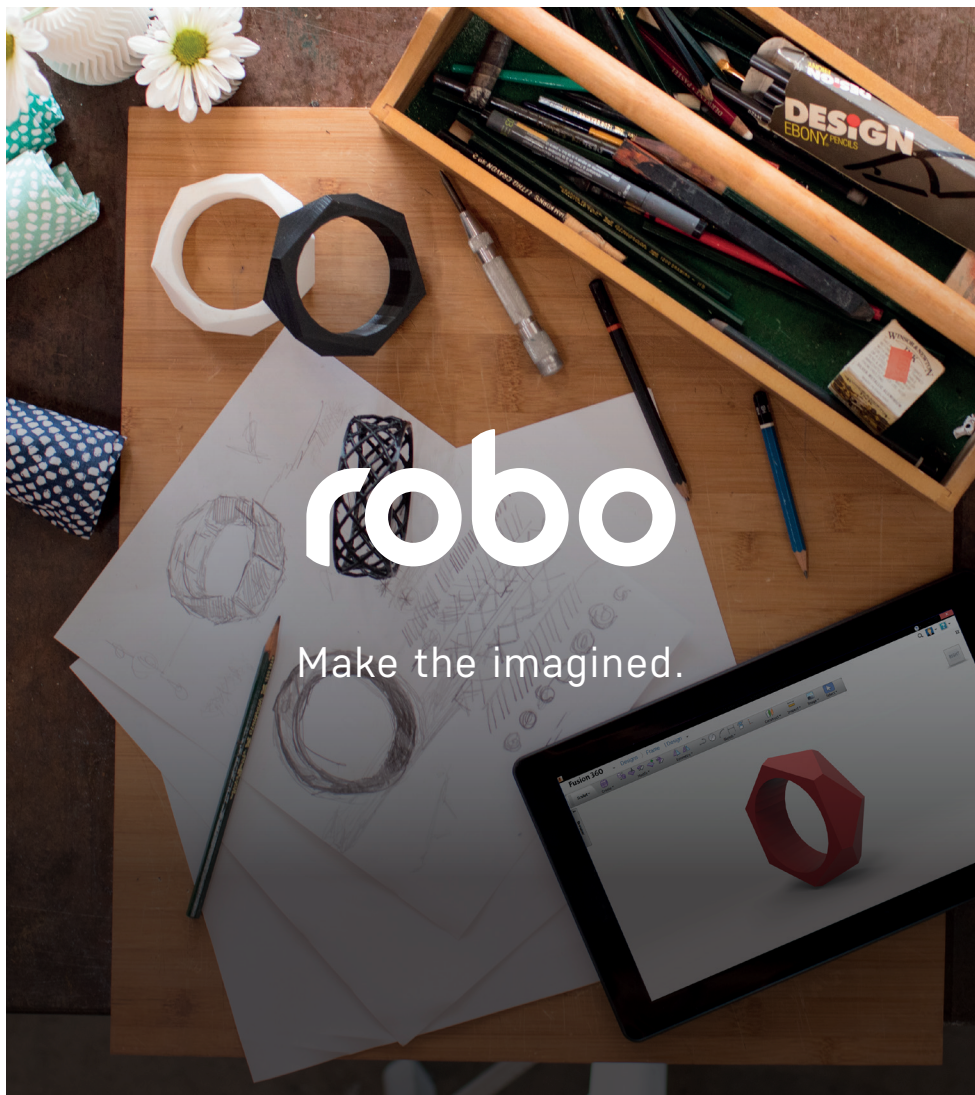
Tel: 1.844.476.2633

Email: help@robo3d.com

ADD: 8910 University Center Lane, Suite 400
San Diego, CA 92122

When contacting support, please have your serial number ready. The serial number is a bar code on the back of your Robo E3.





robo

Make the imagined.

Technical questions?

Email help@robo3d.com

Be sure to check out our community
at community.robo3d.com

www.robo3d.com

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