

Anycubic Kobra

User Manual

Dear customer,

Thank you for choosing **ANYCUBIC** products.

Maybe you are familiar with 3D printing technology or have purchased **ANYCUBIC** printers before, but we still highly recommend that you read this manual carefully. The installation techniques and precautions in this manual can help you avoid any unnecessary damage or frustration.

Please visit <u>https://support.anycubic.com/</u> to contact us if you have any question. You can also gain more information such as software, videos, models from the website.



ANYCUBIC Support Center

Team ANYCUBIC

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To avoid any unnecessary damage to the printer or individual injury, please always follow the safety instructions when assembling and using the machine.



Please contact our customer service first if you have any problem after receiving the products.



Be cautious when using the scraper. Never direct the scraper towards your hand.



In case of emergency, please immediately cut off the power of Anycubic 3D printer and contact the technical support.



Anycubic 3D printer includes high speed running parts that can cause injury.



Anycubic 3D printer generates high temperature. Do not reach the printing area during operation.



It is recommended to use protection glasses when cleaning/sanding the printed models to avoid small particles in eyes.



Keep the Anycubic 3D printer and its accessories out of the reach of children.



Vapors or fumes may be irritating at operating temperature. Always use the Anycubic 3D printer in an open and well ventilated area.



Anycubic 3D printer must not be exposed to water or rain.



Anycubic 3D printer is designed to be used within ambient temperature ranging 8°C-40°C, and humidity ranging 20%-50%. Working outside those limits may result in low quality printing.



Do not disassemble Anycubic 3D printer, please contact technical support if you have any question.

Technical Specification

Printing

Technology	FDM (Fused Deposition Modeling)
Build Size	220 mm(L) \times 220 mm(W) \times 250 mm(H)
Layer Thickness	0.05 - 0.3 mm
Positioning Accuracy	X/Y/Z 0.0125/0.0125/0.00125 mm
Extruder Quantity	Single
Nozzle Diameter	0.4 mm
Print Speed	suggested 50-80 mm/s
Supported Materials	PLA, ABS, HIPS, TPU, Wood, etc

Temperature

Ambient Operating Temperature	8 °C - 40 °C
Operational Extruder Temperature	Max 260 °C
Temperature	200 °C is suggested for PLA
	230 °C is suggested for ABS
	190 °C is suggested for TPU
Operational Print Bed Temperature	Max 110 °C
	60 °C is suggested for PLA
	80 °C is suggested for ABS
	60 °C is suggested for TPU

Technical Specification -

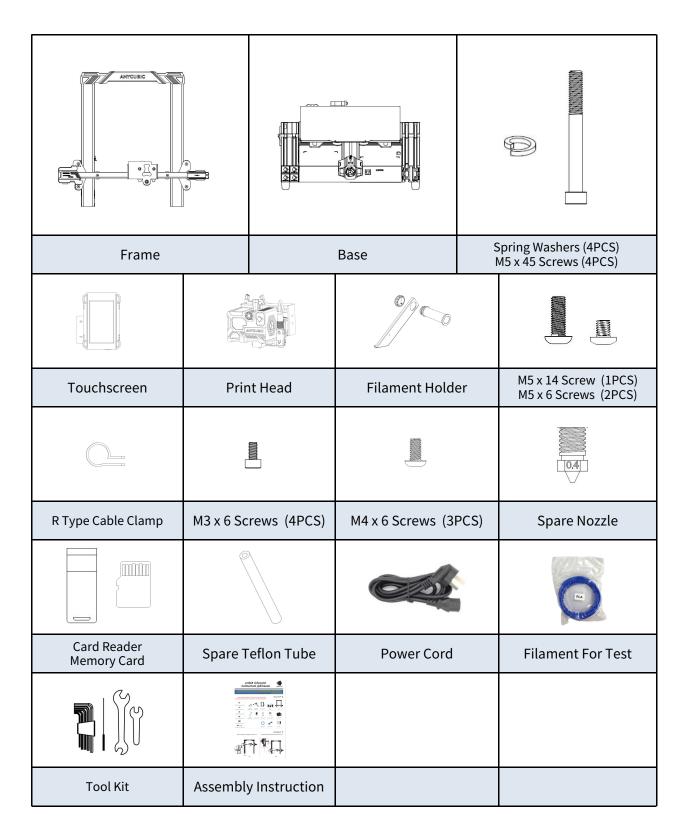
Software

Slicing Software	Cura, Simplify3D, Repetier-HOST
Software Input Formats	.STL, .OBJ, .JPG, .PNG
Software Output Formats	GCode
Connectivity	Memory card; Data cable (expert users only)
Electrical	
Power Input	110 V / 220 V AC, 50 / 60 Hz
Power Input Rated Power	110 V / 220 V AC, 50 / 60 Hz 400 W

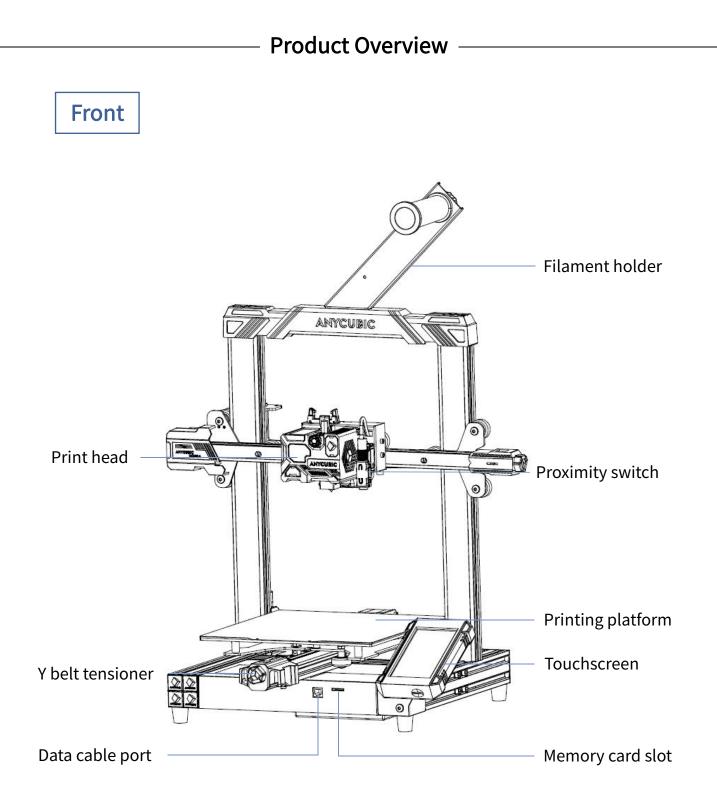
Physical Dimensions

Printer Dimensions	487 mm(L) \times 433 mm(W) \times 486 mm(H)
Net Weight	~7 kg

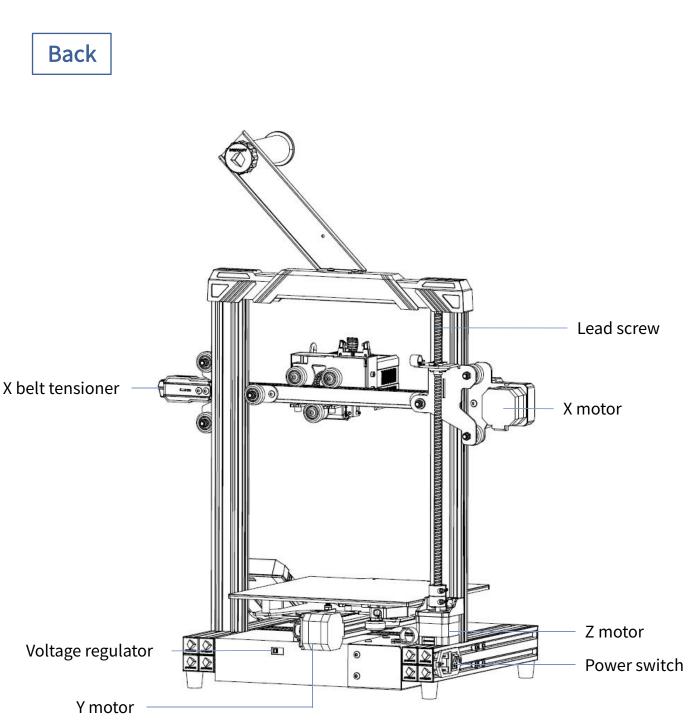


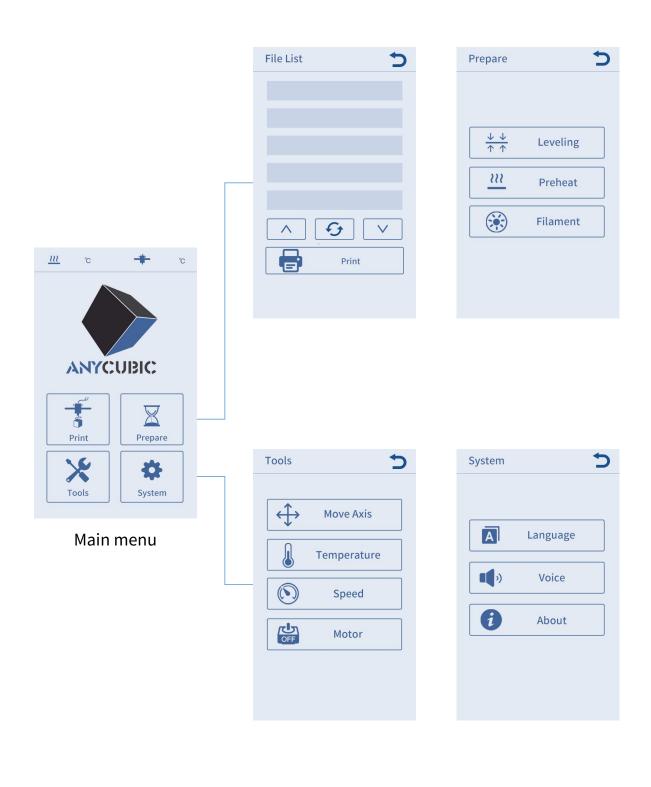


* All pictures shown are for illustrative purposes only. The actual product may vary due to product optimization.



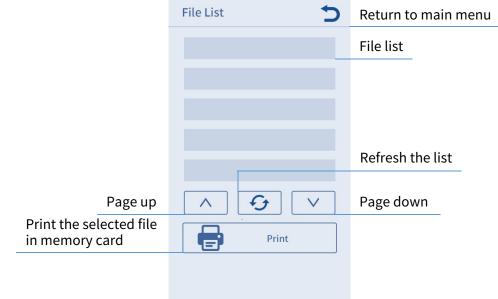
Product Overview





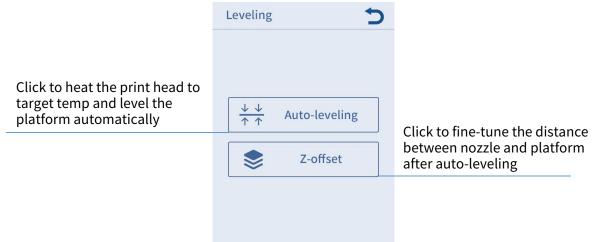
Print

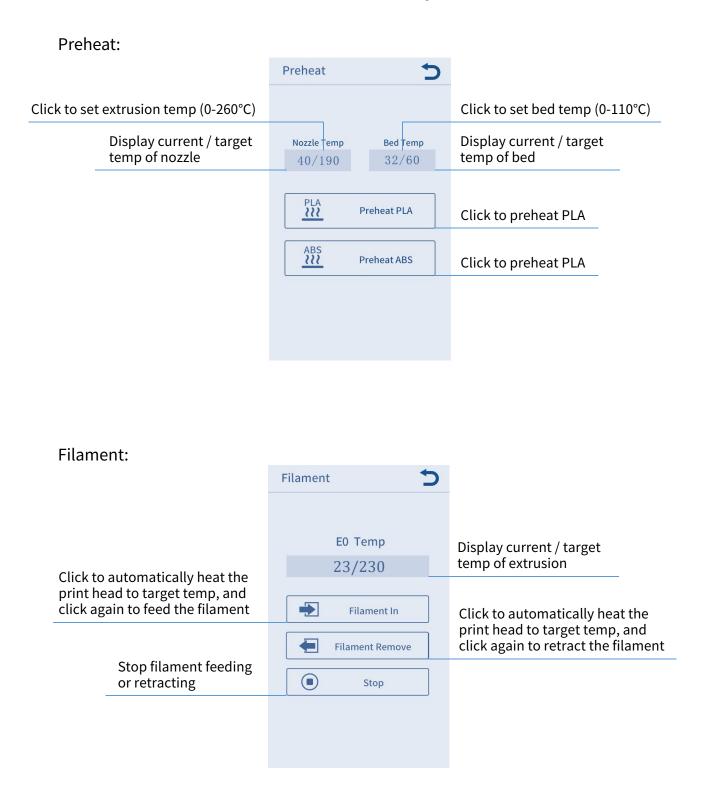
File List:



Prepare

Leveling:

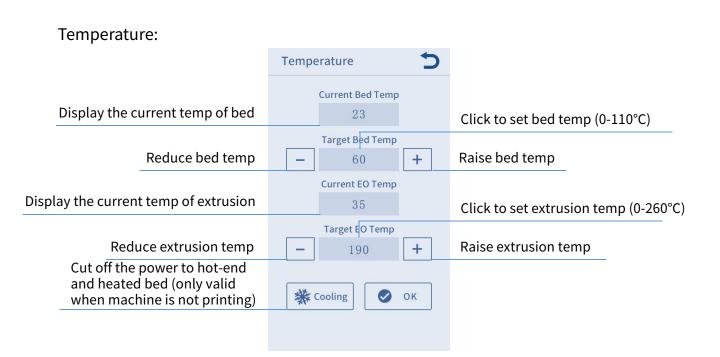




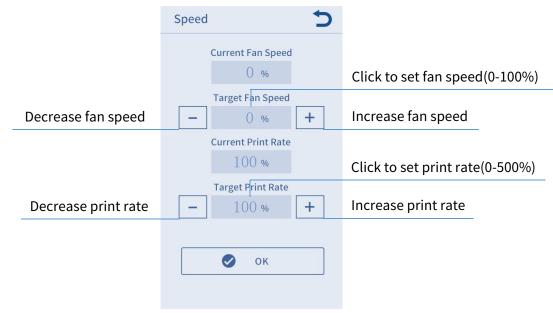
Tool

Move Axis:	
------------	--

	Move Axis	5	
	Unit mm 0.1 1.0 10		Set the step distance of motor
Move the platform forward	Y Z]	Move the print head up
Move print head to the left			Move print head to the right
Move the platform back	Y Z ▼		Move the print head down
	X-axis zero]	Click to move the print head to the zero position in the X axis direction
Click to move the platform to the zero position in the Y axis direction	Y Y-axis zero		Click to move the print head to the
	Z-axis zero		zero position in the Z axis direction
	$X \longrightarrow X$ Home All		Click to home all



Speed:



Motor: Disable all motors (only valid when machine is not printing).

System

Language: Change language (English / Chinese).

Voice: Turn on/off the screen sound.

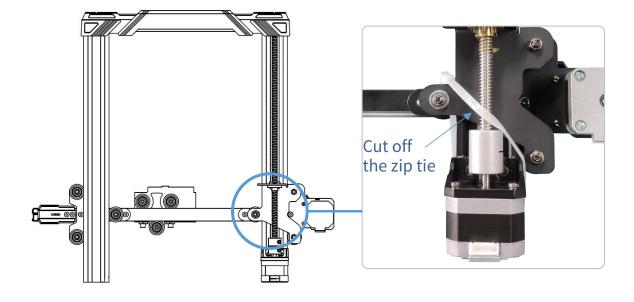
About: Display the information about the product.

- 1. Be cautious during assembly as some parts may have sharp edges.
- 2. It is suggested to use a flat desktop and place the parts in an orderly manner for quick assembly.
- 3. The color of some parts may be different from what in the manual, but the assembly is the same.
- 4. Firmware has been pre-uploaded to the motherboard. After completing the assembly, please level the platform and load the filament then you could start the first test print.

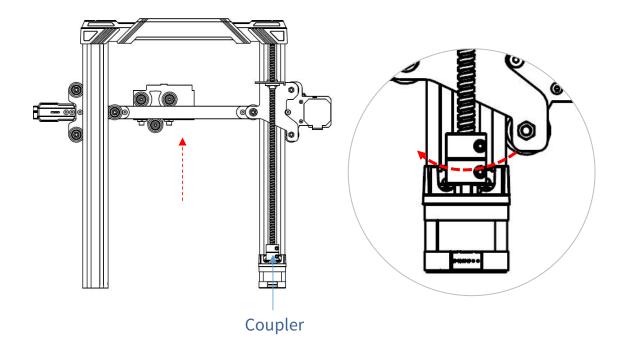
Note: Every unit of the printer has been inspected and tested for printing. Therefore, in some cases, there might be very small marks left on the print head or on the heated bed. Those will not affect the printing quality and those mean the printer has been tested for the quality. If there are some tiny scratches on the aluminum beams or slight unevenness on the platform, it is normal and won't affect the printing quality. Thank you very much for your kind understanding.

Team ANYCUBIC

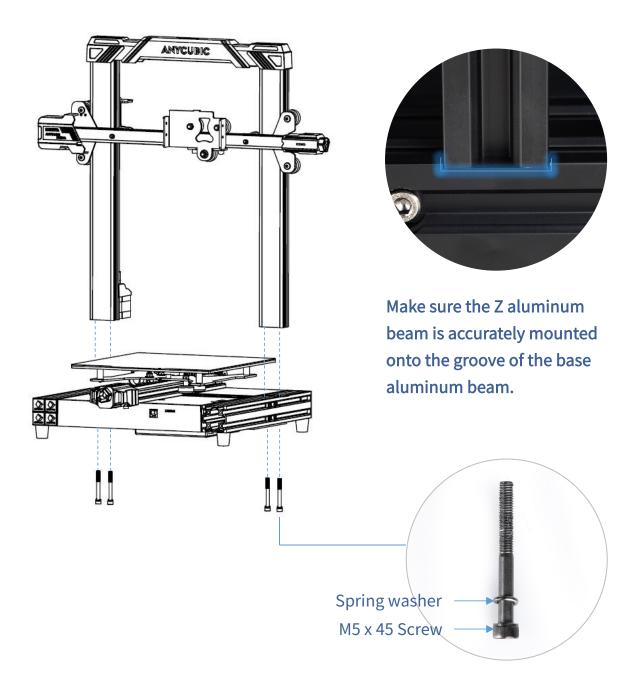
1. Cut off the zip tie on the X-axis bracket.



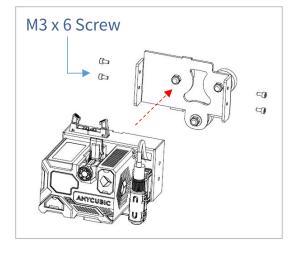
2. Turn the coupler to raise the X axis. (Back side)

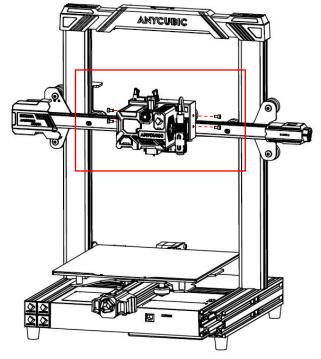


3. Install the frame. (Front side)

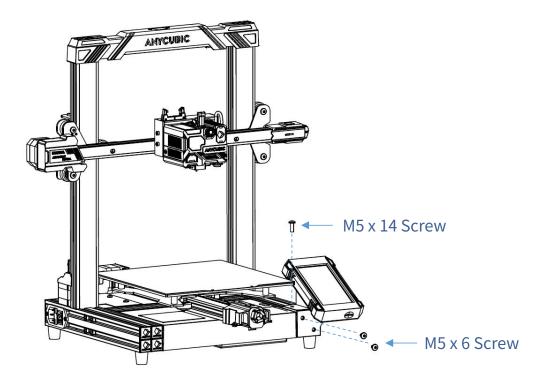


4. Install the print head. (Front side)

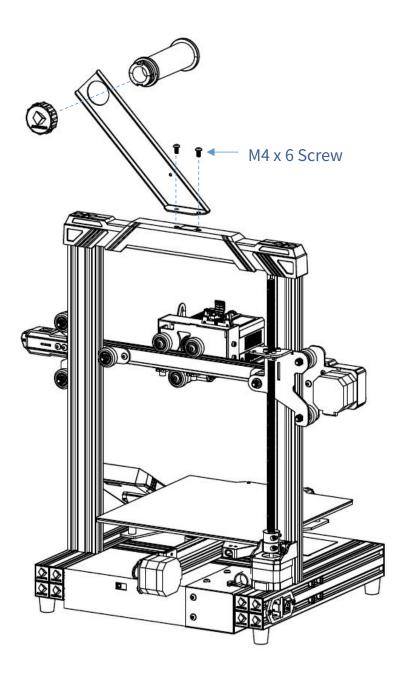




5. Install the screen. (Front side)



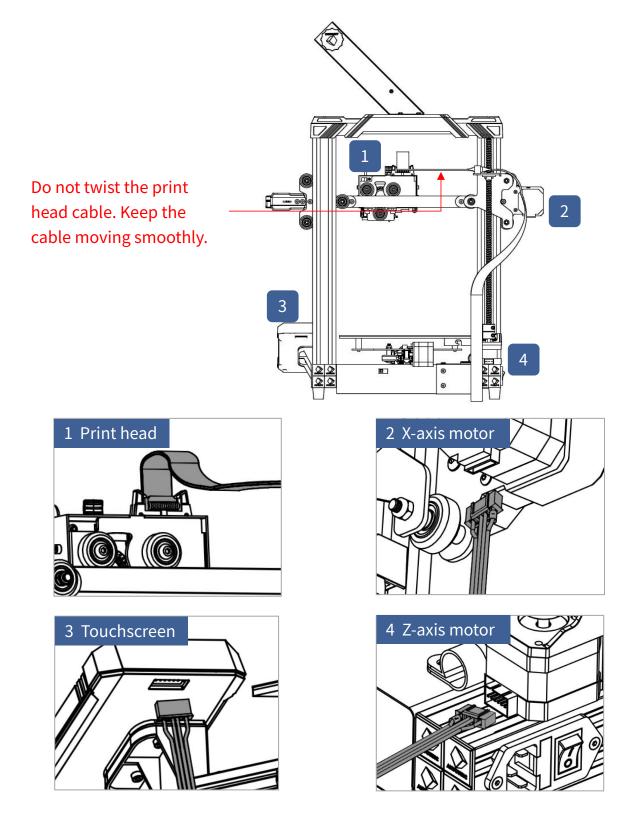
6. Install the filament holder. (Back side)



7. Wiring: connect all these cables to their ports following the corresponding label.

(The cables are packed under the heated bed, please tear off the tape and pull out the cables carefully.)

Do not connect or disconnect any cables when the machine is powered on.

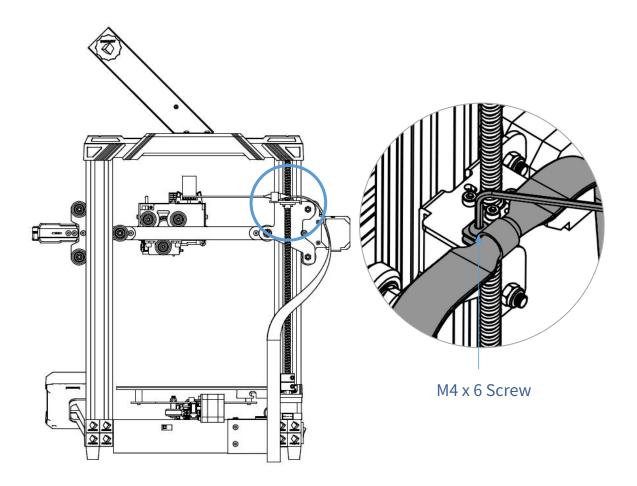


Installation

8. Secure the print head cable to the bracket with an R type cable clamp and one M4 X 6 screw. (Back side)



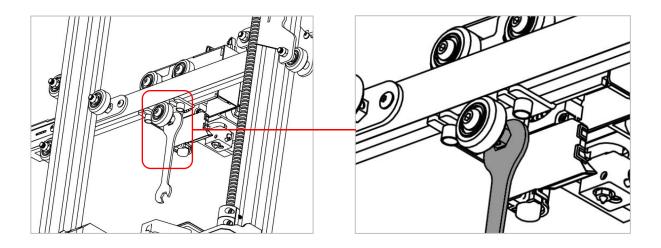




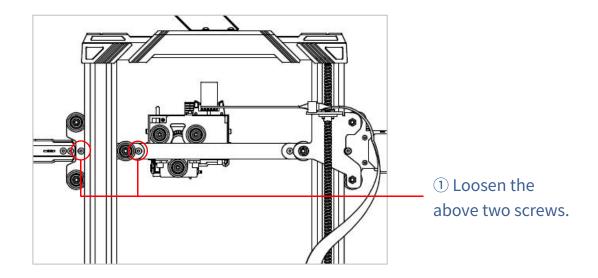
1. D-shape wheels

D-shape wheels of the base and print head may be loose due to transportation. After assembly, place the printer on a flat desktop and check the wheels.

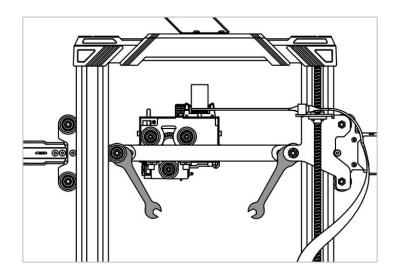
① X axis: Shake the print head manually. If it wobbles, tighten the wheel by rotating the eccentric nut with an open-end wrench until the print head does not wobble and moves smoothly along X axis.



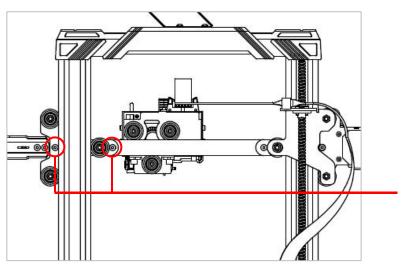
② Z axis: Try to turn the Z-axis wheels without forcing them. If the wheels turn freely, refer to the steps below to adjust the tension of the wheels.



Check Before Use

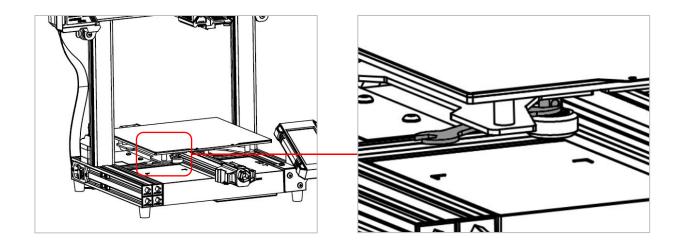


② Rotating the eccentric nuts with an open-end wrench until the wheels no longer turn freely and move smoothly along Z axis.



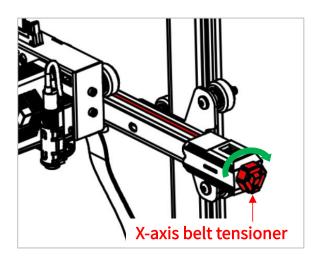
③ Tighten the screws after adjusting the wheels.

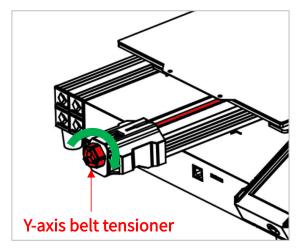
③ Y axis: Shake the printing platform manually. If it wobbles, tighten the two wheels by rotating the eccentric nuts with an open-end wrench until the platform does not wobble and moves smoothly along Y axis.



2. Belts

Please tighten the belt tensioners if the belts are loose.





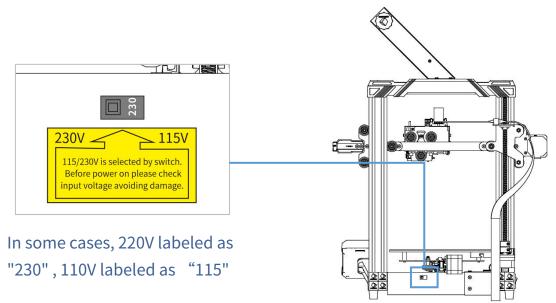
Leveling

Leveling the printing platform is a key step in 3D printing, which determines to a large extent whether the model can be reliably adhered to the printing platform. If the distance between the nozzle and the printing platform is too wide, the model will not adhere to the printing platform properly. If the nozzle is too close to the printing platform, it will hinder material extrusion and scratch the platform. Once leveled, it is not necessary to level every time before each printing. Anycubic Kobra supports auto-leveling, which is easy to level the platform.

* Before leveling, please ensure that the platform and nozzle are clean and free of foreign matters to avoid affecting the leveling effect.

* Only the build plate with metal surface can be detected by the proximity switch. Auto-leveling does not work for build plates with non-metallic surface.

 Select the correct voltage mode according to your local voltage ratings (~110V or ~220V) before plugging in. The red switch is inside the power supply casing and 220V is a default setting. A hex key can be used to move the switch. Finally, double check the wirings, plug in the power cord, and power on the printer. (Back side)



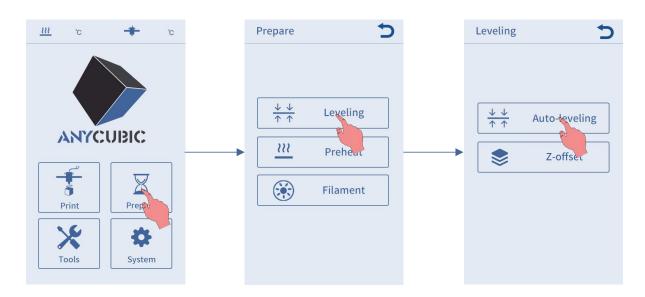
Leveling

2. Before leveling, use a metal tool such as the included wrench to touch the proximity switch and the indicator will light. If the indicator still does not light after repeated touching, please contact the after-sales service.



3. Return to main menu, click **Prepare** \rightarrow **Leveling** \rightarrow **Auto-leveling** \rightarrow **OK** on the pop-up interface. The print head and heated bed will be heated up first, then the print head will probe the spots on the platform automatically. This will take a few minutes, please be patient.

* Please do not touch the nozzle and heated bed to prevent scald.



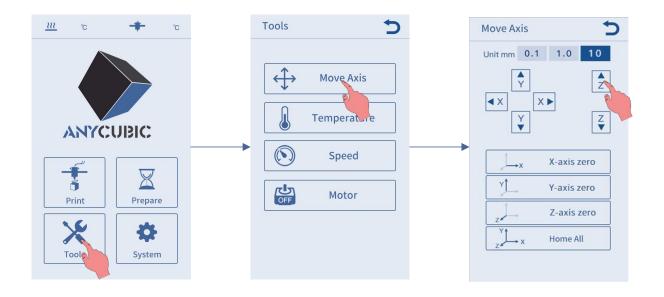


4. After probing the platform, put a piece of paper onto the platform, click **Z offse**t \rightarrow + or — to adjust the Z-axis height until the nozzle touches the paper (feel slight drag resistance when pull the paper), then click **OK**.

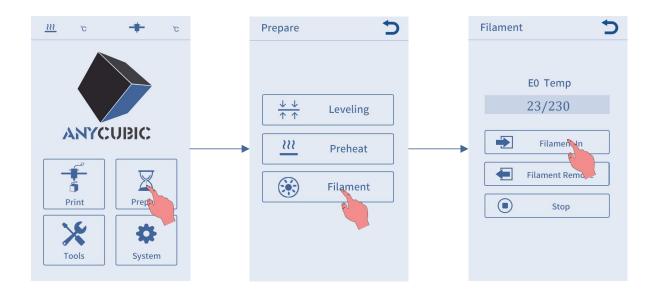


Z-offset	5
0	. 8 +
0	К

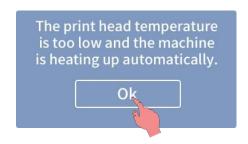
1. Return to main menu, click **Tools** → **Move Axis**, click z continuously to rise the print head, so that there is enough space for loading.



2. Return to main menu, click **Prepare** \rightarrow **Filament** \rightarrow **Filament In**, and the heating up interface will pop up, click "OK".

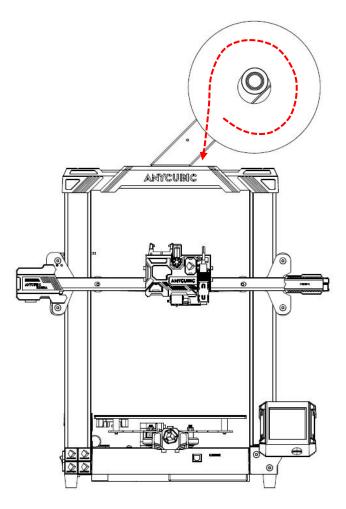


Loading Filament



3. Cut the end of the filament at a 45 degree angle and straighten the filament, then place the filament spool on the filament holder.

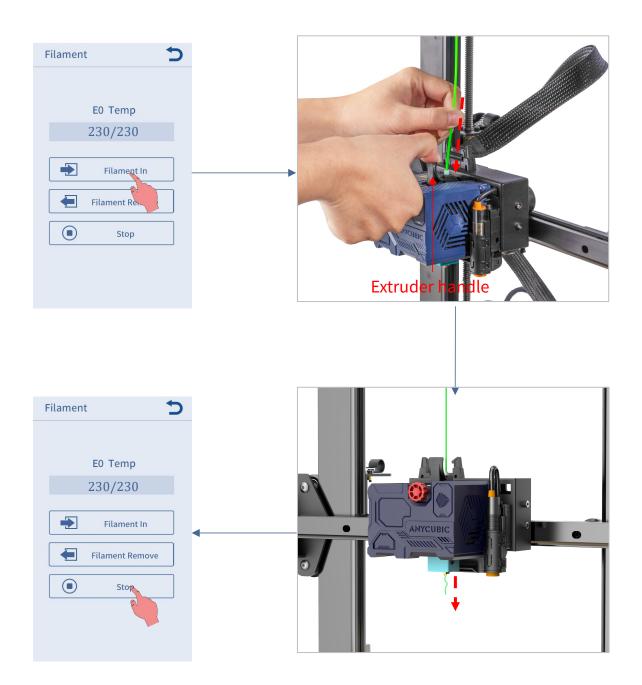




Loading Filament

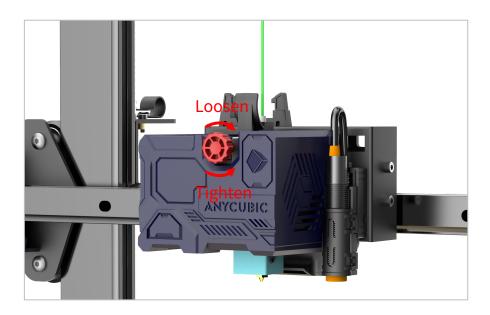
4. Check the temperature on the screen. When the nozzle reaches the target temperature, click "Filament In" again. Press the extruder handle and insert filament into filament intake until the filament is fed by the extruder and melted through the nozzle. Now, click "Stop".

* Please clean the filament residue on the nozzle tip.



Supplement:

During feeding, if the extruded filament is not smooth or too thin, please adjust the extrusion force by rotating the knob as shown below.



- If the filament is not extruded or extrusion is not smooth, please increase the extrusion force by tightening the knob.
- If the extruded filament is too thin, please reduce the extrusion force by loosening the knob.

Printing Models

After the leveling and filament feeding are completed, the printing can be started. A printable file "owl.gcode" has been preloaded in the memory card and the users can print it directly.

* In order to let the printer better recognize the GCode file in the memory card, you need to back up all the files in the memory card to the computer, and keep the memory card only for the GCode files. Please save all the GCode files in root directory of the memory card.

* GCode file name should only contain English letters, underscore and space. File name contains special characters could not be recognized by the printer.

1. Insert the memory card into the memory card slot, and choose the "owl.gcod e" file to print. (owl, author: etotheipi, www.thingiverse.com)



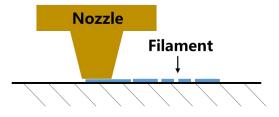
Metal side faces up



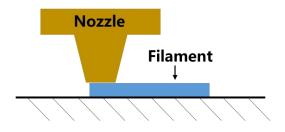
* Before printing, the nozzle will start heating after the heated bed reaches target temperature. When the temperature reaches target value, the printer will start printing.

2. There might be three kinds of results for the first or second layer of the test print:

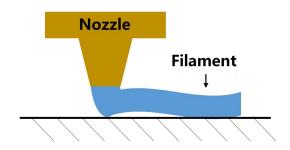
 Nozzle is too close to the platform, resulting in insufficient extrusion of filament.



Proper distance between nozzle and platform can achieve the best printing effect.



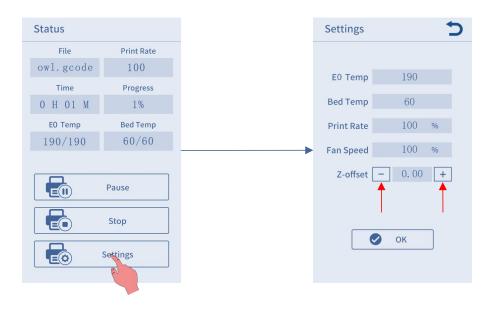
③ Nozzle is too high and the gap is large, which lead to poor adhesion of filament to the platform.



The printing effect ① and ③ can be improved by adjust Z-offset during printing.

How to adjust the Z-offset:

Click **Settings** on printing status interface, then click "+" or "—" of the Z-offset to adjust the distance between nozzle and printing platform and observe the printing effect.



- In case of configuration ①, please click Settings → Z-offset → + to rise the print head.
- In case of configuration ③, please click Settings → Z-offset → to lower the print head.

* After adjusting the offset setting, click "OK" on the settings interface, and the offset will be effective for subsequent printing; if you only click the Return button without clicking "OK", the offset will only be effective for this printing.

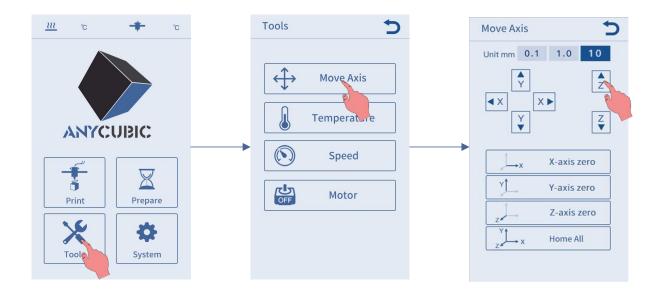
Please adjust the Z-offset patiently until the effect likes ②. If the printing effect is still not good after multiple adjustments, please stop printing and level the platform again.

3. The nozzle and heated bed are still at a high temperature when printing is finished. Make sure to wait for nozzle and heated bed to cool down before removing the model from the printing platform.

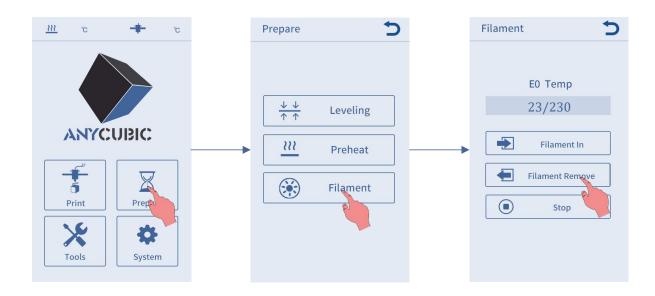
^{*} Tip: To eject the memory card, please press it.

^{*} Note: After pausing printing, the melted filament may fall onto the model. Please remove the excess filaments on the nozzle and model before continuing printing.

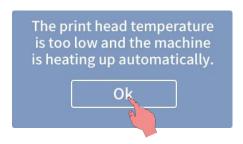
1. Return to main menu, click **Tools** \rightarrow **Move Axis**, click z continuously to rise the print head, so that there is enough space between the nozzle and platform.



2. Return to main menu, click **Prepare** \rightarrow **Filament** \rightarrow **Filament Remove**, and the heating up interface will pop up, click "OK".



Removing filament



3. Check the temperature on the screen. When the nozzle reaches the target temperature, click **Filament Remove** again. The extruder will extrude a few filament first and then retract it to the gear. You need to pull out the filament in time to avoid clogging. If you can not pull it out, please press the extruder handle and pull it out quickly. Finally, click **Stop**.

3D printer reads GCode file and prints. It is necessary to convert 3D files (such as stl file) into GCode files for machine to recognize. Software that convert 3D files into GCode files is called slicing software.

Introduction of slicing software:

- 1. Cura Installation
- 2. Machine Settings
- 3. Import the Configuration File
- 4. Manipulate 3D model in Cura
- 5. Slice and Preview
- 6. Print Offline and Online

1. Cura Installation

Double click Ultimaker_Cura-4.2.1-win64, and follow the steps as shown below.

* Ultimaker Cura 4.2.1 is used for example here, please refer to the memory card for the actual version.

* File path: Memory card \rightarrow "Files_ English_Anycubic Kobra" \rightarrow "Cura" \rightarrow "Windows" or "Mac".

C Ultimaker Cura Setup	Welcome to the Ultimaker Cura	Ultimaker Cura Setup License Agreement Please review the license terms before installing Ultimaker Cura.
Himaker ³	This wizard will guide you through the installation of Ultimaker Cura. It is recommended that you dose all other applications before starting Setup. This will make it possible to update relevant system files without having to reboot your computer. Click Next to continue.	Press Page Down to see the rest of the agreement. GNU LESSER GENERAL PUBLIC LICENSE Version 3, 29 June 2007 Copyright (C) 2007 Free Software Foundation, Inc. < teryone">http://isf.org/> Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed. This version of the GNU Lesser General Public License incorporates the terms and conditions of version 3 of the GNU General Public License, supplemented by the additional permissions listed below. If you accept the terms of the agreement, dick I Agree to continue. You must accept the agreement to install Ultimaker Cura.
	Next > Cancel	Nullsoft Install System v2.51

Choose Install Location Choose the folder in which to install Ultimaker Cura.	Choose Start Menu Folder Choose a Start Menu Folder Choose a Start Menu folder for the Ultimaker Cura shortcuts.
Setup will install Ultimaker Cura in the following folder. To install in a different folder, click Browse and select another folder. Click Next to continue.	Select the Start Menu folder in which you would like to create the program's shortcuts. You can also enter a name to create a new folder. Itimaker Cure 360安全中心 7-Zip Accessibility
Destination Folder C: Program Files Ultimaker Cura 4.2 Browse	Accessories Administrative Tools Adobe Photoshop CS6 AutoCAD 2014 - 简体中文 (Simplified Chinese) Autodesk
Space required: 553.6MB Space available: 160.1GB Nullsoft Install System v2.51 < Back Next > Cancel	Autodesk ReCap CAD%fred ChiTuBox 1.3 Do not create shortcuts Nullsoft Install System v2.51 < Back Next > Cancel
Ultimaker Cura Setup Choose Components Choose which features of Ultimaker Cura you want to install.	G Ultimaker Cura Setup Completing the Ultimaker Cura Setup Wizard
Check the components you want to install and uncheck the components you don't want to install. Click Install to start the installation.	Ultimaker Cura has been installed on your computer. Click Finish to close this wizard.
Select components to install: V Ultimaker Cura Executable and Data Files V Install Arduino Drivers V Install Visual Studio 2015 Redistributable V Open AVF files with Cura V Open AVF files with Cura V Open STL files with Cura	Ilimaker ² Ilimaker ² Ilimaker ² Ilimaker ² Ilimaker ²
Nullsoft Install System v2.51	< Back Finish Cancel

* Printing online requires the installation of a driver, as shown below. If you don't print online, you don't need to install it.



2. Machine Settings

Upon completion of installation, the first launch of the software will display the following welcome screen. Click **Get started** to start the machine settings.

Welcome to Ultimaker Cura
Ø
Please follow these steps to set up
Ultimaker Cura. This will only take a few moments.
Get started



User Agreement

Disclaimer by Ultimaker

Please read this disclaimer carefully.

Except when otherwise stated in writing, Ultimaker provides any Ultimaker software or third party software "As is" without warranty of any kind. The entire risk as to the quality and performance of Ultimaker software is with you.

Unless required by applicable law or agreed to in writing, in no event will Ultimaker be liable to you for damages, including any general, special, incidental, or consequential damages arising out of the use or inability to use any Ultimaker software or third party software.

Decline and close

Agree

(2) What's new in Ultimaker Cura

4.2.0

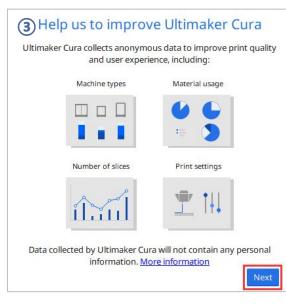
Orthographic view.

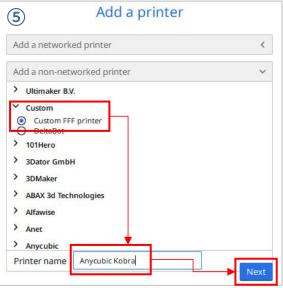
When preparing prints, professional users wanted more control over the 3D view type, so this version introduces an orthographic view, which is the same view type used by most professional CAD software packages. Find the orthographic view in View > Camera view > Orthographic, and compare the dimensions of your model to your CAD design with ease.

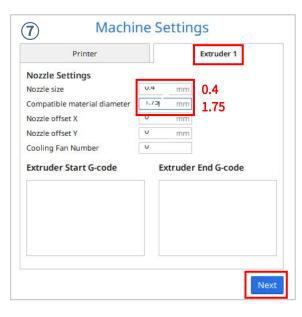
Object list.

Easily identify corresponding filenames and models with this new popup list. Click a model in the viewport and its filename will highlight, or click a filename in the list and the corresponding model will highlight. The open or hidden state

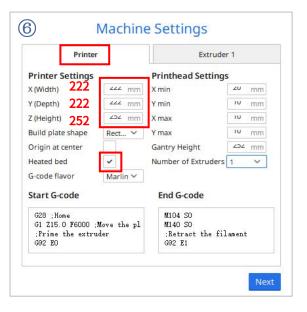


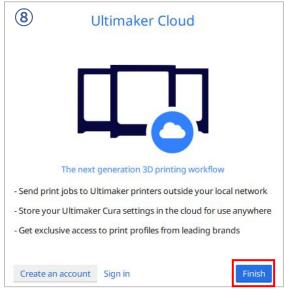






Add a netwo	orked printer	×
There is no	printer found over your n	etwork.
Refresh	Add printer by IP	Troubleshooting
Add a non-r	networked printer	•
Add a non-r	networked printer	
Add a non-r	networked printer	
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Add a non-r	networked printer	
Add a non-r	networked printer	

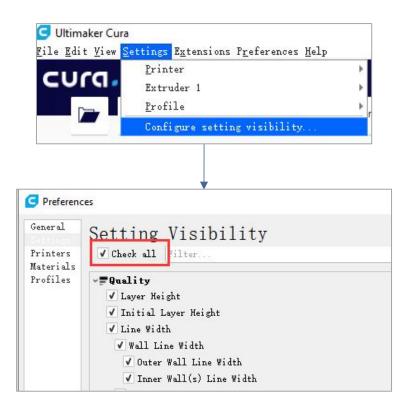




3. Import the Configuration File

After continuous testing, we provided users the suggested printing parameters of different filaments for Anycubic Kobra, and the user could directly import the parameter files to the software.

(1) Click **Settings** → **Configure setting visibility...**, and then tick **Check all** box to make all settings visible.

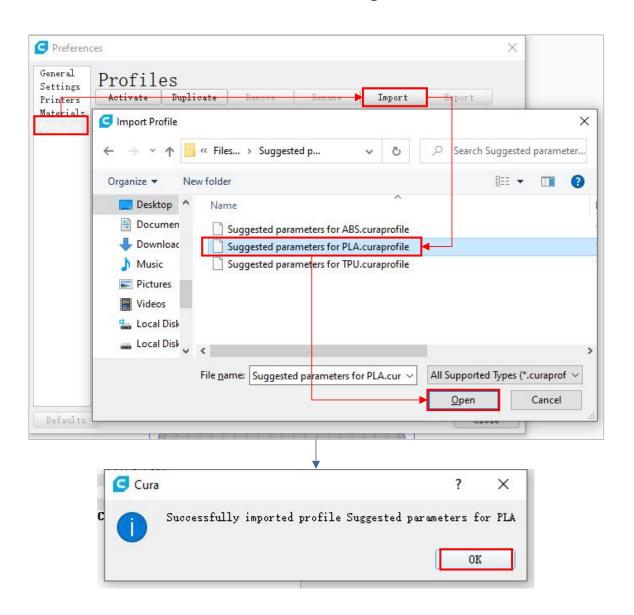


(2) In the same interface opened in Step (1), click **Profiles** on the left side. Then click **Import** button to import the desired print profile.

* Choose different parameter profiles according to different filament types.

* The provided profiles only match Cura 4.2.1.

* Profile path: Memory card → "Files _ English _Anycubic Kobra" → "Suggested Parameters Profiles"



(3) Select the profile that you just imported, and then click the Activate button $_{\circ}$

General Settings	Profiles								
Printers	Activate	Buplicate	Remove	Rename	Import	Expor	t		
Materials	Printer: Anycub: Default profi Coarse Draft			ggested para	Extruder				
	Extra Coarse		0.		DATE GOLL	-			
				-	Profile				
	Extra Coarse Extra Fast Extra Fine Fine Normal		S	etting mality Layer Height					
	Extra Coarse Extra Fast Extra Fine Fine Normel	sa ameters for T	S Q1	etting nality	Profile 0.2	Unit			

* Note: An interface may pop up after clicking the **Activate** button. If so, please check the values of listed parameters. You can click **Keep** to keep the custom values or click **Discard** to enable the values in the profile.

Profile settings	Default	Customized
forme settings [aterial Default Printing Temperature (Extruder 1)	200	190

Supplementary Explanation

① You can customize some parameters after importing the profile, but we still recommend that you use the parameters in the profile that we provide.

Print settings							×
📮 Layer Hei ウ	0.06	0.1	0.15	0.2	0.3	0.4	0.6
🔀 Infill (%)	0 G	20 radua	40 Linfill	D	60	80	100
Support							
+ Adhesion	~						

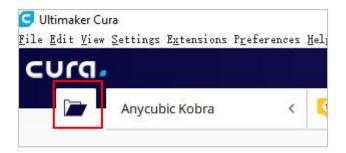
② The paremeter Build Plate Adhesion → Build Plate Adhesion Type needs to be set to "None" when you print the maximum size model.

=	Quality	
A	Shell	<
83	Infill	<
IIII.	Material	<
0	Speed	<
1	Travel	<
尜	Cooling	<
1	Support	<
÷	Build Plate Adhesion	~
Build	d Plate Adhesion Type 。 & つ No	ne 🗸
X	Dual Extrusion	<
E	Mesh Fixes	<
797	Spacial Modes	1

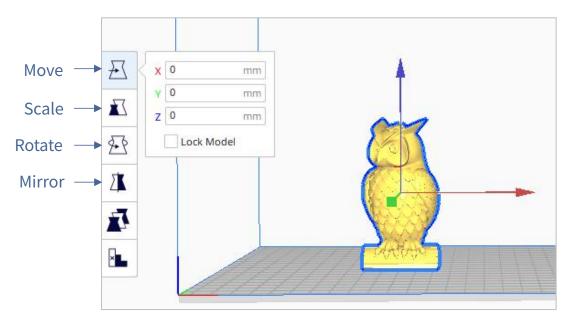
4. Manipulate 3D model in Cura

* Model files can be downloaded from www.anycubic.com (ANYCUBIC website) and www.thingiverse.com.

(1) Click the open file button in the top left corner to import the model file or directly drag the file into the software.



(2) Left click the model to activate the adjustment tool on the left side of the interface. Choose one of the adjustment tool, and then click and drag the controls on the model to adjust it.

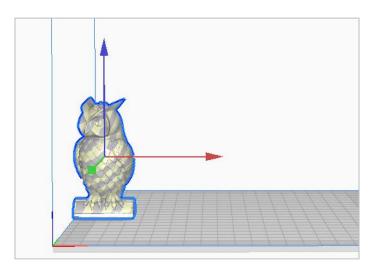


The model name: owl The author of the model: etotheipi

Other operations:

- ① Press the mouse wheel and move the mouse to move the platform.
- ② Scroll the mouse wheel to zoom in and out the platform.
- ③ Right click and move the mouse to change the viewing angle.

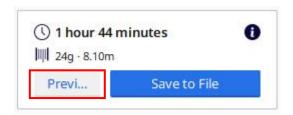
* Note: When moving the model, make sure that the model is in the printable area. The color of the model in the following figure indicates that the model is out of print range.



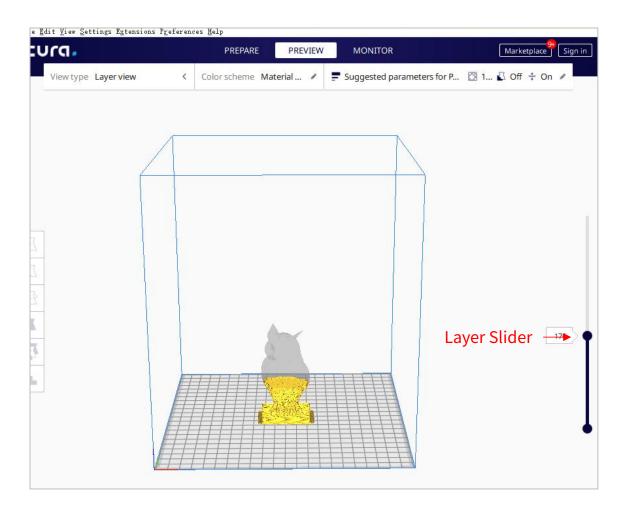
5. Slice and Preview

Now that the configuration and print settings are in place, it's time to slice the model. Click **Slice** button in the bottom right corner. When the process completes, it will immediately show a **Preview** button, click it to go to the preview stage.





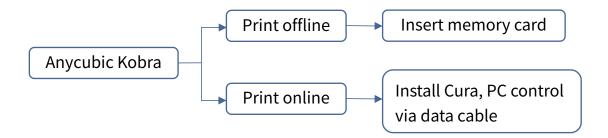
Use the layer slider and simulation view to check important parts of your 3D slice.



6. Print offline and online

There are two operational modes for Anycubic Kobra: print offline and print online.

- **Print offline:** Insert memory card into the memory card slot, click on the Home Menu "Print" to enter the file list, and print a selected file (GCode files ONLY).
- **Print online:** Install CH340 driver to bridge PC and machine, and install Cura for slicing and control the machine to print via data cable.

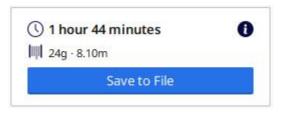


It is suggested to use **Print Offline** mode to minimize the noisy signal via data cable.

• Print offline (Recommended)

After slicing, click **Save to File** in the bottom right corner. Save the GCode file to the memory card, and then insert the memory card to the printer and control via the touch screen for offline printing.

* GCode file name should only contain English letters, underscore and space. File name contains special characters could not be recognized by the printer. In order to let the printer better recognize the GCode file in the memory card, you need to back up all the files in the memory card to the computer, and keep the memory card only for the GCode file. Please save all the GCode files in root directory of the memory card.



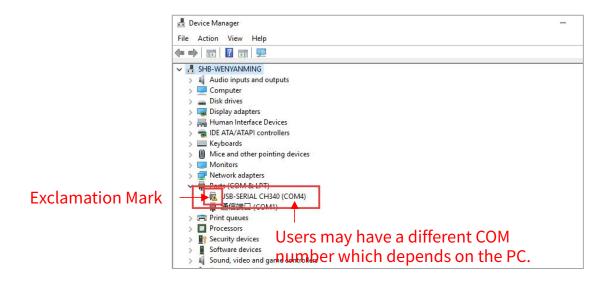
• Print online

Printing online requires the installation of a driver. And you can control the printer through Cura after connecting the data cable.

(1) Turn on the machine, connect the printer (data cable port) and your PC via data cable. The driver may not be installed automatically, so it is required to check that. Right-mouse click "This PC" \rightarrow "Properties" \rightarrow "Device manager", if there is an exclamation mark as shown below, then it needs to be installed manually.

* Anycubic Kobra uses CH340 chip for communication.

* CH340 driver file path: "Files_English_Anycubic Kobra" → "Driver_CH341". There are two versions, Windows and Mac version. (* CH341 driver file is suitable for CH340 chip).



(2) Here we take Windows PC system for example. Double click

"CH341SerSetup.exe" and follow the wizard to install it. If the driver has installed automatically in step (1), skip this step.

* After the installation is completed, refer to the method in step (1) to see if the driver has been identified (no exclamation mark).

(3) After slicing, click **Print via USB** in the bottom right corner to go to the monitor stage. After waiting for about ten seconds, the operation panel will be displayed on the right side of the interface. And the printing platform will be heated up for printing.

* If the printer is not connected properly, the Monitor interface will be blank. Please plug the data cable to connect again.

* In the process of printing, do not plug the data cable, or it will interrupt the printing.

* In case of abnormal sound during the printing process, you can directly turn off the power of the machine. Please check the Troubleshooting chapter for more detail or contact Customer Service.

JUltimaker Cura					-	
le <u>E</u> dit <u>V</u> iew <u>S</u> ettings E <u>x</u> tensions F	references Help					
ะบาล	PREPARE	PREVIEW	MONITOR		Market	tplace Sign in
		ubic Kobra	<			
	Allyc	UDIC KODIA	×	Anycubic Ko	bra	
				сомз	bru	
				COMS		
				Extruder 1		24°C o" Pre-heat
				Build plate		58.29°C 60° Pre-heat
				Printer control		
				Jog Position	X/Y	Z
					~	^
					< # >	49
					\sim	\sim
				Jog Distance	0.1 1	10 100
				Send G-code		
				Active print		
				Job Name	AI3M_owl	
				Printing Time	01:45:18	
				Estimated time left	01:45:18	
				Printing		0%
				F	Pause	Abort Print

Resume from Outage

In case of a power loss during printing, the machine will automatically save the printing status. After restarting, you will see the interface shown below, please click "Continue" to continue your printing or "Cancel" to cancel it.

		ps!	
			happens d running
	1	ō %	
	Pro	gress	
	owl.	gcode	
	File	name	
Cont	tinue	Ca	ncel

It is necessary to perform routine maintenance to the 3D printer to achieve consistent and quality results.

Some maintenance suggestions are shown as below:

- 1. Clean the nozzle with a needle under preheating conditions. If the filament residue in the nozzle could not be cleared 100%, please replace the nozzle.
- 2. Regularly add lubricating oil to smooth rods, linear bearings, lead screws, brass nuts, etc. It can minimize the wear-out failure of those moving parts.
- 3. Regularly clean the filament residue and dirt on the nozzle, platform, guide rail, motor, fan, etc.
- 4. Pay attention to the wear conditions of the D-shape wheels. Although they could be used for long time, please replace the D-shape wheels if they have been wore-out.
- 5. After finishing a printing, clean the printing platform to ensure the adhesion of the bottom layer of the model for next printing.
- 6. Check the belts regularly and tighten them if necessary.

1. Motor shaking or abnormal sound

- ① The motor cable are not connected properly. Please Check each connection and then inspect the cable routing for any faults.
- ② Drive current is too large / small (please contact customer service).
- ③ The motor is damaged.
- ④ The motor driving wheel is loose.
- (5) The belt is loose, please check the belt tension at each position of X/Y/Z. And whether the belt is slippery during motor movement or not.

2. File not printing or memory card failure

- ① Remove the memory card and insert into PC. Open the GCode files using text editor (eg. Notepad), and inspect if GCode is readable or not. If file contains of multiple "ÿÿÿ" symbol, then file has been corrupted. Try reformatting the memory card to FAT32 format and reloading the GCode file.
- ② Memory card is not readable, ensure file name does not contain special characters or Change memory card.
- ③ Touch screen freeze, reboot the machine and try again.

3. No extrusion or extrusion motor knocking

- ① Filaments tangled on spool or the Teflon tube is out of shape. Please straighten out the filaments and Teflon tube, and pull the filaments to observe whether the resistance is normal.
- ② Ensure that the nozzle temperature has been set to match the filament. (PLA is generally set at 190-210 ° C, and ABS set at 230-240 ° C)
- ③ Nozzle clogged. Please try to briefly heat the print head to a temperature higher than 230°C and manually push the filament into the extruder. You can also clean it with 0.4mm nozzle cleaning needle. If it doesn't work, you may need to replace it.
- ④ Not enough cooling for the hotend.

- (5) The printer has been working above the maximum speed for a long time, please reduce the speed.
- 6 Check whether the extruder is normal and whether the friction force of the extruder to the filament is sufficient. Try to tighten or clean the extruder wheel.

4. Filament leaking

 Nozzle, heating block or throat tube is not tightened properly, try to fix/replace it after cooling or contact customer service.

5. Layer shifting

- ① Print head moves too fast, please slow down the print speed.
- ② Check the belts and driving wheels and ensure they are properly installed.
- ③ Drive current is too small.

6. No sticking to the bed

- ① The nozzle is too far from the platform, please try to re-level; at the same time set the "initial layer thickness" to 0.2 in Cura, and set the "initial layer line width" (for example, set to 150) to improve the first layer adhesion.
- ② Print too fast at the bottom layer speed, reduce it to ~20mm/s.
- ③ Ensure that the print platform is clean.
- ④ Add a brim or raft to the model in slicing software.

7. Freezing screen

- ① Please check if the soft cable above the screen is loose.
- ② Inspect if the touchscreen has been pressed by something.
- ③ Check if screen has cracks, if so, please contact our after sale service via official website <u>www.anycubic.com</u>

8. T0 sensor abnormal

- ① Check the wiring of the hotend and ensure a good connection.
- ② Check if there is any pins bent inside the connector.

9. Print head move abnormal

 The setting of machine type in slicing software is wrong. Please see page 41 to check the right setting.

10. Print stopped halfway

- ① Use print offline mode (memory card) instead of print online via data cable.
- ② Check if the GCode file is corrupted.
- ② Delete plugins in the GCode file.
- ③ The quality of the memory card is unstable. Try changing another brand memory card.
- ④ The power supply voltage is unstable. Please print again when the voltage is stable.

11. Some of the structure of the model cannot be printed

If your model includes overhangs or bridges, you may need to add support on the model or adjust the angle of the model in the slicing software. It is recommended to preview the print layer to check the printability of the model.

12. Drawing is more serious

- The retraction distance is insufficient. It should be set larger in the slicing software.
- ② The retraction speed is too slow. It should be set a bit faster in the slicing software.

③ The printing temperature is too high, which causes the fluidity and viscosity of the filament to be strong. The printing temperature needs to be set a little lower.

13. Nozzle is too low or too high when printing

- Nozzle is too close to the platform, resulting in insufficient extrusion of filament. Click "Settings" → "Z offset +" to rise the nozzle.
- ② Nozzle is too high and the gap is large, which lead to poor adhesion of filament to the platform. Click "Settings" → "Z offset -" to lower the nozzle.

ATTENTION

- 1. Anycubic 3D printer generates high temperature. DO NOT reach inside of the printer during operation. Contact with extruded materials may cause burns.
- 2. Use high temperature resistant gloves when operating the product.
- 3. This equipment is not suitable for use in locations where children are likely to be present.
- 4. The fuse rating for the printer is 250V 10A. Never replace the fuse with one of a higher amperage, otherwise it may cause fire.
- 5. The socket-outlet shall be easily accessible.

Thank you for purchasing **ANYCUBIC** products! Under normal usage and service, the products and its parts have a warranty period up to one year. Please visit <u>support.anycubic.com/en</u> to report issues with **ANYCUBIC** products. Our professional after-sale service team would response within 24 hours and help you to solve the issue.