

Ultimaker Cura 4.5

Installation & Operation Manual

SHENZHEN KYWOO 3D TECHNOLOGY CO., LTD.



Contents

Chapter 1: Installation and Settings

1.1 Install Cura	3
1.2 Language & Printer Setting	6
Printer Setting	7
Language Setting	9

Chapter 2: Operation

2.1 Open File	10
2.2 Edit Model	11
Move Model	11
Scale Model	12
Rotate Model	12
Mirror Model	13
2.3 Print Settings	13
2.4 Export Sliced File	18
Start Slicing	18
Save File	19

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Chapter 1: Installation and Settings

1.1 Install Cura

i . Double click to open "Ultimaker.Cura-4.5.0" package.

↑ 📙 > Cura切片软件	ٽ ~		├软件"
名称 ^	修改日期	类型	大小
Ġ Ultimaker.Cura-4.5.0-win64(1).exe	2020-11-09 9:24	应用程序	159,971 KB

ii. Click "Next"→ "I Agree".





Ultimaker Cura 4.5 S	etup		<u>10220</u>		>
	License Agre	ement			
	Please review 4.5.	the license terms be	fore installing U	lltimaker C	ura
Press Page Down to se	ee the rest of the agr	eement.			
GNU LESSER GENER	AL PUBLIC LICENSE 3, 29 June 2007				^
Copyright (C) 2007 F Everyone is permittee of this license docum	ree Software Founda d to copy and distribu ent, but changing it is	tion, Inc. < <u>http://fs</u> te verbatim copies not allowed.	<u>f.ora/</u> >		
This version of the G the terms and condition License, supplemente	NU Lesser General Pu ons of version 3 of the d by the additional pe	blic License incorpor e GNU General Public rmissions listed belov	ates : w.		~
If you accept the term	s of the agreement, o	dick I Agree to contin	nue. You must a	accept the	
agreement to install U	tmaker Cura 4.5.				
llsoft Install System v2	.51			-	

iii . Select the installing address. You can use the default address or custom the address as you wish.

Chasses Install Lass	tion			
Choose Install Loca	tion			
Choose the folder in v	which to insta	II Ultimaker	Cura 4.5.	
Setup will install Ultimaker Cura 4.5 in the following Browse and select another folder. Click Next to con	folder. To ins tinue.	tall in a diff	erent folder,	dick
Destination Folder	-			
Destination Folder C:\Program Files\Ultimaker Cura 4.5			Browse	
Destination Folder C:\Program Files\Ultimaker Cura 4.5 Space required: 573.3MB			Browse	
Destination Folder C:\Program Files\Ultimaker Cura 4.5 Space required: 573.3MB Space available: 50.6GB			Browse	
Destination Folder C:\Program Files\Ultimaker Cura 4.5 Space required: 573.3MB Space available: 50.6GB			Browse	



iv . Select related components. It's recommended to select by default and click "install".

Ultimaker Cura 4.5 Setup	—	
a	hoose Components	
	Choose which features of Ultimaker Cura 4.5 you v	vant to insta
Check the components you wa install. Click Install to start the	ant to install and uncheck the components you don installation.	/t want to
35		
Select components to install:	Vltimaker Cura	^
	Arduino Drivers	
nic	Install Visual Studio 2015 Redistributable	
(r	Open 3MF files with Cura	
-	Open AMF files with Cura	
=		
The second second second	Open GLB files with Cura	
Space required: 558.7MB	Open dITF files with Cura	
		~
Nullcoft Install Sustan v2 51		
Noisore Install System V2/S1		
	< <u>B</u> ack <u>I</u> nstall	Cancel
		1
	Check the components you we install. Click Install to start the Select components to install: Space required: 558.7MB Nullsoft Install System v2.51 —	Choose Components Choose Which features of Ultimaker Cura 4.5 you v Check the components you want to install and uncheck the components you don install. Click Install to start the installation. Select components to install: Varduino Drivers Install Visual Studio 2015 Redistributable Open 3MF files with Cura Open CTM files with Cura Open GLB files with Cura

v. Install completed.







1.2 Language & Printer Setting

i . Double click to start Ultimaker Cura 4.5.







ii. Click "Agree"→"Next".

		Help us to in	nprove	Ultimaker Cura
	What's new in Ultima	Ultimaker Cura collects a and use	inonymou r experien	s data to improve print quality ce, including:
User Agreer	4.5.0	Machine ty	ypes	Material usage
Disclaimer by Ultimaker Please read this disclaimer carefully.	Ultimaker Marketplace sync. Plugins and print profiles downloaded fro Marketplace will now become associated	Number of	slices	Print settings
Except when otherwise stated in writin Ultimaker software or third party softw warranty of any kind. The entire risk as performance of Ultimaker software is v	account when logged in. If changes are d installation after logging in, an option to s packages will become available. You can a your installation using the web-based Ulti	ítái	í.	<u>±</u> 111
Unless required by applicable law or ag event will Ultimaker be liable to you for general, special, incidental, or consequ of the use or inability to use any Ultima	Layer preview number. The layer slider number in preview mode instead of on the left, for a neater fit next	Data collected by Ultim. informa	aker Cura ation. <u>More</u>	will not contain any personal <u>e information</u> Next
software.	Project name in window title. In the same way your browser shows the name of the application. Cura now shows	page title next to the the name of the		
Decline and close	Agree	Next		

iii. Select custom printer

Choose "Add a non-networked printer" \rightarrow "Custom" \rightarrow "Custom FFF printer", name the printer as "Kywoo Tycoon" and click "Next".

Add a printer	
Add a networked printer	<
Add a non-networked printer	~
✓ Custom	
Custom FFF printer DeltaBot	
> 101Hero	
> 3Dator GmbH	
> 3DMaker	
> 3DTech	
> ABAX 3d Technologies	
> Alfawise	
Anet	
Anycubic	



Set the the size of the printer: 240mm*240mm*230mm, tick "Heated bed", then set the Nozzle size: 0.4mm, the Compatible material diameter: 1.75mm, and click "Next".

Custom FFF pr	Machine	e Settings			Mach Custom FFF printer #	iine So 3	etting	s /
Printer		Extrud	er 1		Printer			Extruder 1
Printer Settings		Printhead Setting	ıs		Nozzle Settings			
X (Width)	240 mm	X min	-20	mm	Nozzle size	0.4	mm	
Y (Depth)	240 mm	Y min	-10	mm	Compatible material diameter	1.75	mm	
Z (Height)	230 mm	X max	10	mm	Nozzle offset X	0	mm	
Build plate shape	Recta 🗸	Y max	10	mm	Nozzle offset Y	0	mm	
Origin at center		Gantry Height	240	mm	Cooling Fan Number	0		
Heated bed	~	Number of Extruders	1	~	Extruder Start G-code	E	xtruder E	nd G-code
Heated build volume		Shared Heater						
G-code flavor	Marlin 🗸							
Start G-code		End G-code						
G28 ;Home G1 Z15.0 F6000	;Move the r	M104 S0 M140 S0						

The main screen of Cura is as shown in the following picture.





iv. Language Setting

Click "Preferences" in the upper-left corner of the screen, then click "Configure Cura..." to next page, then language can be set in "General" tab.

G Ultimaker C	Cura			
<u>F</u> ile <u>E</u> dit <u>V</u> iew	<u>S</u> ettings E <u>x</u> tensions <mark>F</mark> 2	eferences H	[elp	
Ultimak	(er Cura 🌙	Configure	Cura	PREPARE
	Kywoo Tycoon	<	Generic PLA	

C Preference	es			×
General Settings	General			
Printers Materials Profiles	Interface Language: English			-
	Theme: Deutsch <i>You will r</i> Español		for these changes to have effect.	
	Slice a Françai Italian	5		
	¥le♥port 日本語 ✓ Display Center 한국어 Invert Nederlas	nds		
	Zoom to Portugu Ensure Portugu	ês do Brasil ês		
	✓ Automat Pycc ✓ Caution Force 1 ✓ Restore Camera ren 正體字	кий	plate estart required)	
	Perspective 💌			
	Opening and savi Scale large mode ✓ Scale extremely Select models wi	ng files els small models nen loaded		
	Add machine pres	tix to job name alog when saving proj	ect	+
Defaults				Close



Chapter 2: Operation

2.1 Open File

Open a 3D model file. Cura supports STL, 3MF, AMF, OBJ files, etc.

- (1): You can click "file" \rightarrow "Open File" \rightarrow select the file.
- (2): Or drag and drop the file in the screen of Cura.



→ ∽ ↑ 📕 > Th	iis PC > 资料 (E:) > 模型 > files	✓ Ŭ	✓ Search files	
织▼新建文件夹				. 🔳 📀
• OneDrive	Name	Date modified	Туре	Size
This DC	Black1.stl	2018-08-24 16:26	3D Object	4.
	Black2.stl	2018-08-24 16:26	3D Object	1,4
J 3D Objects	Black3.stl	2018-08-24 16:26	3D Object	1,4
11 视频	Black4.stl	2018-08-24 16:26	3D Object	
■ 图片	Black5.stl	2018-08-24 16:26	3D Object	
🖹 文档	Black6.stl	2018-08-24 16:26	3D Object	
➡ 下载	Black7.stl	2018-08-24 16:26	3D Object	
♪ 音乐	Black8.stl	2018-08-24 16:26	3D Object	
卓面	Black9.stl	2018-08-24 16:26	3D Object	
	Blue1.stl	2018-08-24 16:26	3D Object	1
talt (D)	Blue2.stl	2018-08-24 16:26	3D Object	d.
◆ 秋1千 (D:)	Brown1.stl	2018-08-24 16:26	3D Object	1,61
~ 资料 (E:) ∨	<			>
File <u>n</u> ar	ne: Black1.stl	~	All Supported Types	(*.gltf *.obj ~
			0.000	Concol





2.2 Edit the model

*You need to click and check the model before editing it.

i . Move the model. Click the first icon on the left, then the model can be dragged to from top to bottom and move around, or you can input a value to X, Y, and Z.





ii. To scale the model, click the second icon on the left to assign a value to one of X/Y/Z or fill in the scale ratio. You can select "Snap Scaling" or "Uniform Scaling".



iii. Rotate the model. Click the third icon on the left, and drag the red, green and blue circles to rotate the model around X-axis/Y-axis/Z-axis. Besides, you can also rotate the model to make its one side fit the platform.





iv. Mirror the model and change the model's display. Click the fourth icon on the left

to mirror the model around a certain axis and the fifth icon to change the model's display.



2.3 Print Settings

i . The icons on the upper-right corner are for a quick setting to layer height and infill. Click "Custom" to enter the complete custom parameter settings screen.

		- 0
PREVIEW	MONITOR	Marketplace Sig
	<	룩 Fine - 0.1mm 🕅 20% 🗳 Off 📫 On 🖋
	12	Print settings X
		Profiles > 0.06 0.1 0.15 0.2 0.3 0.4 0.6 Default
		∑ Infill (%) 0 20 40 60 80 100 Gradual infill
		Support
		÷ Adhesion
		Custom >



In the custom page, you can choose one default profile, Cura will automatically match other corresponding settings, or manually set in the listed parameters.

PREVIEW MONITC	R		Mark	ketplace Sign in
	<	Fine - 0.1m	m 🖾 20% 🗳 Off 📫	On /
		Print settings		×
		Profile	Fine - 0.1mm	* ~
		Q Search setti	Extra Fine - 0.06 mm	
		🚍 Quali	Fine - 0.1 mm	
	~	🛛 Shell	Normal - 0.15 mm	
		🖾 Infill	Draft - 0.2 mm	
		iiii Mate	Extra Fast - 0.3 mm	
		⑦ Speed	Coarse - 0.4 mm	
		🔄 Trave	Extra Coarse - 0.6 mm	
		※ Cooli	Create profile from current settings/override	s
		🗳 Supp	Update profile with current settings/override	is.
		😤 Build	Discard current changes	
		🕅 Dual	Manage Profiles	Ctrl+J

PREVIEW	MONITOR		Marketplace Sign in
	<	루 Fine - 0.1mm 🕅 20% 🗳 Off	‡ On ∥
		Print settings	×
		Profile Fine Office	* ~
	_	Q Search settings	=
		Quality	<
		∴ Shell	<
		🛛 Infill	<
		IIII Material	<
		O Speed	<
		Travel	<
		券 Cooling	<
		Support	<
		+ Build Plate Adhesion	<
		🔠 Dual Extrusion	<



ii. The introduction of listed parameters

Quality: also layer height, the height of every printed layers. It is the parameter that most affects the printing quality. The general setting range is 0.1mm-0.3mm. The smaller the layer height, the better the surface quality and the longer the printing time.



Shell: the setting of the outer wall of the model, mainly the wall thickness, which affects the strength and impact resistance of the model. The greater the wall thickness, the higher the strength, and the longer the printing time. Generally, it is set as a multiple of the nozzle diameter, such as 0.8mm; 1.2mm.

Shell		~	
Wall Thickness	0.8	mm	
Wall Line Count	2		Wall
Top/Bottom Thickness	0.8	mm	Thickne
Top Thickness	0.8	mm	
Top Layers	8		
Bottom Thickness	0.8	mm	
Bottom Layers	8		
Optimize Wall Printing Order			
Fill Gaps Between Walls	Everywhere	\sim	
Horizontal Expansion	0	mm	
Enable Ironing			

Infill: the infill density inside the model. 0% means hollow and 100% means solid. It also determines the strength of the model. The more the infill, the higher the



strength. It's generally set as 10%-30%. You can also set the infill pattern, generally, the grid is used.

🖾 Infill		~	
Infill Density	20	96	Infill
Infill Line Distance	4.0	mm	
Infill Pattern	Grid	~	
Infill Line Multiplier	1		
Infill Overlap Percentage	10	96	
Infill Layer Thickness	0.1	mm	
Gradual Infill Steps	0		

Material: mainly the temperature of nozzle and hotbed need to be set. They are often set as:

PLA: Nozzle 195° C - 210° C, hotbed 50° C - 55° C ABS: Nozzle 230° C - 240° C, hotbed 95° C - 105° C

Material	~		
Printing Temperature		200	°C
Printing Temperature Initial Layer	200	°C	
Initial Printing Temperature	190	°C	
Final Printing Temperature	185	°C	
Build Plate Temperature	0 ⁰	60	°C
Build Plate Temperature Initial Layer	60	°C	

Speed: the parameter adjustment of various speeds in the printing process, mainly the print speed, generally 50-80mm/s.

O Speed		~
Print Speed	60	mm/s
Infill Speed	60	mm/s
Wall Speed	30.0	mm/s
Outer Wall Speed	30.0	mm/s
Inner Wall Speed	60.0	mm/s
Top/Bottom Speed	30.0	mm/s
Travel Speed	120	mm/s
Initial Layer Speed	30.0	mm/s
Skirt/Brim Speed	° 30.0	mm/s
Enable Acceleration Control	d ^o	
Enable Jerk Control	d ^o	



Travel: mainly the retraction needs to be set. Please make sure to tick "Enable Retraction", because setting retraction can effectively avoid stringing and ensure the printing quality. Generally, the retraction speed is set to 90mm/s and the retraction distance to 9mm.

Enable Retraction	~	
Retract at Layer Change		
Retraction Distance	9	mm
Retraction Speed	90	mm/s
Retraction Retract Speed	90	mm/s
Retraction Prime Speed	90	mm/s
Retraction Extra Prime Amount	0	mm ³
Retraction Minimum Travel	0.8	mm
Maximum Retraction Count	90	
Minimum Extrusion Distance Window	9	mm

Support: If the overhang angle of the model is greater than 60° , it is recommended to choose support. If some part of the model is completely overhung, you must add support. This option can edit the support density/pattern/angle. The placement can be set to touching build plate or everywhere support.

Support				~
Generate Support	°	う	~	
Support Placement		P	Everywhere	~
Support Overhang Angle		°	50	P
Support Pattern		°	Zig Zag	~
Support Density		°	15	96
Support Horizontal Expansion		°	0	mm
Support Infill Layer Thickness		°	0.1	mm
Gradual Support Infill Steps		°	0	
Enable Support Interface		°		
Enable Support Roof	87	0	~	
Enable Support Floor		°		



Build Plate Adhesion: Users can set Skirt, add Brim or Raft.

Build Plate Adhesion	n		~
Build Plate Adhesion Type	0 ⁰	Skirt	~
Skirt Line Count	oo	2	



2.4 Export Sliced File

i. Start Slicing

After the printing parameters are set, click "Slice" button in the lower-right corner of the screen to slice the model. After the slice is completed, you can see the estimated printing time. Click "Preview" and drag the slider on the right to preview the effect of each ayer.







ii. Save Gcode File

After all parameters are set, the file can be exported for printing. Click "Save to File" in the lower-right corner to export. In the pop-up dialog box, you can modify the file name and save.

					~		
· → · ↑ • ·	This	PC > USB Drive (F:)	~	O		Search USB Driv	e (ŀ:)
目织▼ 新建文件系	ŧ						≣ • 🕜
➡ 下载	^	Name	Date modif	ied		Туре	Size
♪ 音乐		CFFFP_Christmas_Tree.gcode	2020-11-10	9:43		GCODE File	6,109
💶 桌面		CFFFP_chuan.gcode	2020-11-11	15:52		GCODE File	6,151
 Local Disk (C:) 软件 (D:) 资料 (E:) 		Christmas_Tree (MAX) .gcode	2020-11-10	14:07		GCOD <mark>E F</mark> ile	4,345
USB Drive (F:)	ľ						
Setwork							
	× .	<					1
File name: ab	с						~
Save as type: G-	code	File (*.gcode)					~