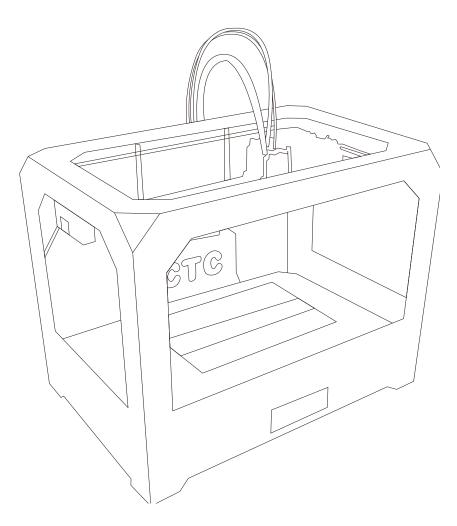
CTC Desktop 3D Printer Manual

FDM Series



Company Name: CTC Co., Ltd.



Catalogue

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1.Instructions

1.1 Introduction

This Instructions consist of the product overview, operating instructions, printing test model, maintenance and troubleshooting. Please read it carefully and operate the 3d printer according to the brochure.

1.2 Precautions

Since different area have different voltage, please make sure how much is your voltage (110v and 230v generally)

After using this product over a period of time ,it is necessary to maintain it .Proper maintenance can often extend the life of the printer

1.2.1 Safety Precautions

It is not suggested that using other brands of printing-supplies . To get the best results of 3D printing, please use the supplies of our company . The maintenance and repair caused by using other supplies ,are not included in the Company's warranty

Touch is prohibited when the printer is working or the moment after finishing the printing since the temperature is quite high in the model, the head the printing platform or the other parts of the printer .

1.2.2 Contact

If you need after-sales service, you can directly add our business group, which number is 102304634. SD Card User's Guide: the information on using and troubleshooting the 3D printer is available in our enclosed instructions. Online technical support is also provided by adding our group(102304634).

You can also add Sina microblog of our company so as to have a better understand of the update of new technology as well as the upgrade of software in our company. Besides , random rewards would be got by adding our microblog .The luckiest one would get one

Tablet PC. Enter into the Sina microblog then search 西通 3D 打印未来. The more attention

and forwarding, the more opportunities you will get the prize .

1.3 Accessories List

No	Material name	Quantity	Unit
1	3D printer	1	set
2	Power line	1	stick
3	USB Data Cable	1	stick

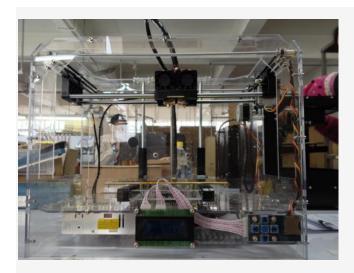
4	Kit	1	set
5	SD card	1	single
6	Printing Supplies	1	reel
7	Hanging material column	2	strip

2. Product Category

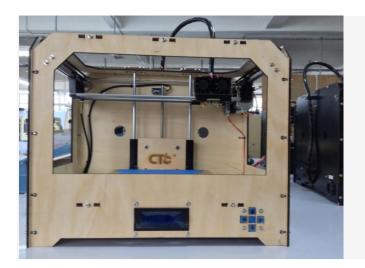
2.1 Product Overview

CTC 3D printer is a rapid prototyping device based on the fuse deposition manufacturing process (FDM), which prints by connecting to the computer via USB cable online or SD card offline and just an ordinary computer can finish printing. A STL 3D file format can complete a variety of print job of complex three-dimensional solid model. The device is easy to operate, so even if you have never used 3D printer, CTC 3D printer is also a good choice for your to finish types of printing of 3D models.

2.2 Appearance



Third generation



First generation



Second generation

2.3 Product Specifications

2.3.1 Parameters

The total volume of printers : 320*467*381mm

Package Size : 565*430*535mm

Weight (with packaging) : 13.5KG

Build Size : 225*145*150mm

Power: 210V

Build platform's temperature: about 110 (proper winter heating and summer cooling)

Extrusion nozzle flow: about 24cc / h

Supported operating systems: Windows XP Windows7 / 8 (32 bits / 64)

Software: ReplicatorG or CTC Chinese version (compatible on MakerWare software)

Print materials: ABS, PLA

Material properties: 3D printing special ABS and PLA (exclusive qualities recipe)

Layer accuracy: 0.1mm-0.5mm

Positioning accuracy: XY axis 0.011mm

Filament diameter: Z axis 0.0025mm

Nozzle diameter: 0.4mm

Motion axis speed: 30mm/s_100mm/s

Recommended head movement speed : 35-40 mm / s

Input file types: stl, gcode

2.3.2 recommended environment

Operating environment: clean install in a well ventilated area. Temperature: 15 $^{\circ}$ C to 35 $^{\circ}$ C. Humidity: 20-80% (non-condensing).

Storage environment: Temperature: 0 ° C to 40 ° C Humidity: 10-80% (non-condensing). The presence :non-corrosive gases and cleaning place

3.Operating Instructions

3.1 Unpacking and preparation before printing

(1) Check whether there are some scratches and other defects on the appearance of 3D



printers outside the box bumps

Check whether there are some deformations caused by squeezing or rupture in the corners of the box.

(2) Open the box and remove the printer then cut the nozzle and fix tie (tied to the front left side of the Z-axis X-axis Y-axis.



Cut fixed print head straps with water-nose pliers.

(3) Open the foam of the surface of print head (Note: Try not to use the face of knife so as to prevent the print head was hanged up) Mount the print head to a bracket on the X-axis, installation direction as shown ,then tighten the two screws.



(Picture1)

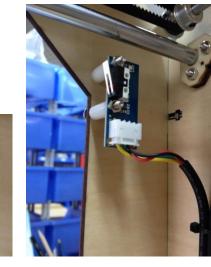


(Picture2)

(4)Take out the hanging tube and then install it in the hole of the hanging tube at the back of the printer, load the printing supplies into the hanging tube, then pull printing supplies, insert one of a printing supplies section into the round role of the print head (Note: insert in the left when use the left print head while insert in the right then use the right one)



(5) Check whether the Limit switch cable of the printer losing or falling off the surface.





(Z-axis limit)

(Y-axis limit)

(X-axis limit)

(6) Check whether the voltage match to the printer's (110 or 220, judged by the power

at the bottom of the printer)

(7) Take out the SD card , read printer driver inside the SD card, then install the driver.

(8) Turn on the printer and manipulate the control panel so that the Z axis went to the top of the printer, check whether the distance of printer nozzle and print platform meets the criteria (optimal distance test method: Put a piece of A4 paper in printing platform surface, control panel so that it went to the top of the Z-axis, then pull A4 paper. The printing paper can be pulled out with a little effort so that the paper will not be scratched) Note: the blue paper of the surface of the platform cannot be torn, otherwise it will affect the printing quality.

(9) Prepare for files of STL format ,open the file through the software already installed in the printer .Then adjust the parameters and you can start printing

3.1 Computer preparations

3.1.1 Install the Replicatorg driver software

(1) take out SD card and read printer driver inside it . Looking for the 3d setup folder

名称	修改日期	类型
퉬 3dsetup	2013/12/19 12:31	文件夹

(2) Open the 3dsetup folder and then search for the file of software

				o · 💷 🐨
•	名称	修改日期	类型	大小
	\mu ICO	2013/12/19 12:31	文件夹	
	퉬 soft	2013/12/19 12:32	文件夹	
	📕 software	2012/3/30 5:03	应用程序	988 KB
	🗿 software	2013/12/10 20:04	配置设置	5 KB

(3) open the file of software by Right-clicking then enter into the software installation manager

CTC 3D打印安装程序 V2.	4.1 betallo				
软件	安装管理器 软件安装管理器				
▲ 金部状件 (14) ▲ Replicatorg (2)	Replicatorg (2微)				
 Makerware (4) drivers(§度定力)	Repikatorg0040828 Repikatorg00408328				保存安装包
≛ help(帮助文	■ Replicatory = X 我計丁 現代99%以上: 功能符金(Eli to Oli)				保存安装包
	Makerware (4∰)	_	_	_	
	 Windows (XP) 2.2.2 for Windows (XP),安装目录和5TL文件目录与文件名不允许有中文字样 				保存安装包
	Windows (7/8 64-bit) 2.4.1 for Windows (7/8 64-bit)安装目录和STL文件目录与文件名不允许有中文字样				保存安装包
	Image: Windows (7/8 32bit) 2.4.1 for Windows (7/8 32bit)安装目录和STL文件目录与文件名不允许有中文字样				保存安装包
	Other OS(Hac or Linux)(Win8.1) Mac OS X (10.6).Mac OS X (10.7+).Linux (12.04+).				保存安选包
	dnvers(382.5) (3款)		_	_	
	四 Python python 2.7.5.mii,必须音音对抗解释器				保存安装包
	Pypy-2.0.2 均均加度软件				保存安装包
	□ Ditites drives 32位设得dpint532.exe,64位安装dpint54.exe.				保存安装包
	heb(術動交情) (5款)				

(4) Click Replicatorg software installation (both English and Chinese is available to install depending on your preferences)



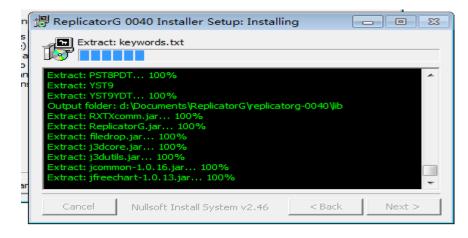
(5) Click "automatic installation" in Replicatorg software .When a icon be shown then click the "Next "button.

😤 ReplicatorG 0040 Installer Setup: Installation Fold	- • •					
Setup will install ReplicatorG 0040 Installer in the following folder. To install in a different folder, click Browse and select another folder. Click Next to continue.						
Destination Folder						
d:\Documents\ReplicatorG	Browse					
Space required: 255.3MB						
Space available: 99.4GB						
Cancel Nullsoft Install System v2,46	Next >					

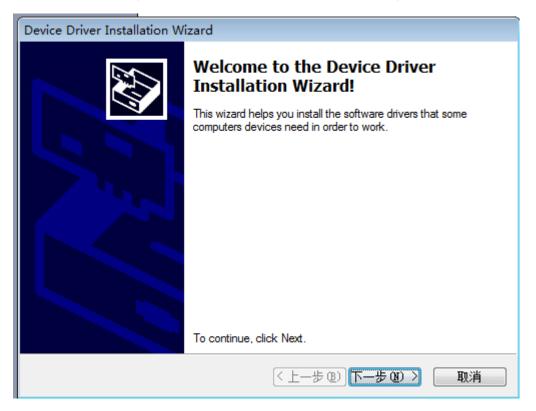
(6) Another icon will be shown after click the "Next" button ,then click the "install" button.



(7) A window will jump out after the install button, please wait a minute at this time.



(8) After clicking the Install button ,there is a dialog box, then click the next button.



(9) After clicking, the computer will appear five Prompts . Please click "Install this driver software anyway."

😵 Windows 安全		
₽ ra ra	\bigotimes	Windows 无法验证此驱动程序软件的发布者
ra ra		
ra ra ra		→ 不安装此驱动程序软件(N) 应查看制造商的网站,获得设备的更新驱动程序软件。
		→ 始终安装此驱动程序软件(I) 仅安装来自制造商网站或光盘的驱动程序软件。其他来源的未签名软件可能会 损坏您的计算机或窃取信息。
st	e 1	适看详细信息(D)

(10) After Clicking "Install this driver software" button five times, the installation procedure is completed basically,while a dialog box will pop up . Please check carefully if all the programs are installed. (check method: examine the bar of Driver Nane , if all things are matching that means the software is installed successfully, if there are X number or! number that means installation is unsuccessfully.Finally , click "Finish."

Device Driver Installation Wi	Device Driver Installation Wizard				
	Completing the Device Driver Installation Wizard				
	The drivers were successfully installed on this computer.				
	You can now connect your device to this computer. If your device came with instructions, please read them first.				
	Driver Name	Status			
	 MakerBot Industries (usb MakerBot Industries (usb MakerBot Industries (usb 	Ready to use			
	〈上一歩 (3)	完成 取消			

(11) Click the Finish button, then the "Next" button in the main page begin to lit. Left-click the "Next" button, then the Replicatorg printing software installation was completed.

🚏 ReplicatorG	0040 Installer Setup: Completed			
Completed				
Extract: Arduino MEGA 2560.inf 100% Output folder: d:\Documents\ReplicatorG\drivers Extract: MightyBoard.inf 100% Extract: Replicator.inf 100% Extract: Replicator2.inf 100% Output folder: d:\Documents\ReplicatorG\drivers Execute: "d:\Documents\ReplicatorG\drivers\dpinst64.exe" /m Output folder: d:\Documents\ReplicatorG\replicatorg-0040 Delete file: C:\Users\Administrator\AppData\Roaming\Microsoft\Windows\ Create shortcut: C:\Users\Administrator\AppData\Roaming\Microsoft\Windows\				
Cancel	Nullsoft Install System v2.46	< Back Next >		

3.2.2 Software Description

(1) Connect the machine to the electricity supply., then connect USB and open replicator, (Choose The Replicator Dual machine for the first double nozzles and the Replicator Single for the first single nozzle)

Ĩ	A ReplicatorG - 0	040				
	File Edit GCode	Machine Thingiverse Help				
		Machine Type (Driver)		The Replicator Single		
	Connection (Serial Port)	۲	The Replicator Dual			
H	Not Connected	Control Panel Ctrl+J		Replicator 2X		
	Not Connected	Upload new firmware		Replicator 2		
	Machine information			Thingomatic w/ HBP and Stepstruder MK7 (Sailfish)		
	Untitled gcode Preheat Machine Thingomatic w/ HBP and Stepstruder MK7 (Accel					

(2) Next is to choose the correct serial port (Please note the machine's serial number is often not com1)

A ReplicatorG - 0040					
File Edit GCode Machine Thingiverse Help					
	Machine Type (Driver)				
	Connection (Serial Port)	•	COM1		
Not Connected	Control Panel Upload new firmware	Ctrl+J	Rescan serial ports		
Untitled gcode	Machine information				

(3) Click online

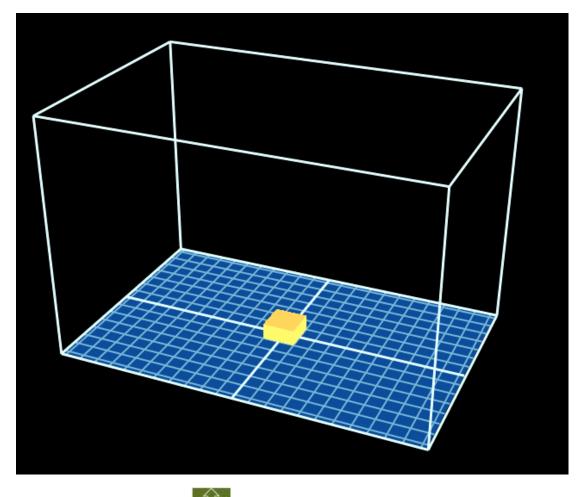


Stop Ctrl+Period		Estimate	Ctrl+E		25	a a
onr Build Ctrl+B Pause Ctrl+E Stop Ctrl+Period GCode Generator Slic3r 0.X - Experiment	<u>ما</u> [Simulate	Ctrl+L		30	
Build Ctrl+B Pause Ctrl+E Stop Ctrl+Period GCode Generator Slic3r 0.X - Experimental	onr	Generate	Ctrl+Shift	t+G		
ed Stop Ctrl+Period GCode Generator Slic3r 0.X - Experimentation	NOT COM	Build	Ctrl+B			
Stop Ctrl+Period GCode Generator Slic3r 0.X - Experiment	Untitled	Pause	Ctrl+E			
		Stop	Ctrl+Peri	od		
Edit Slicing Profiles Ctrl+R Skeinforge (50)		GCode Generator		►		Slic3r 0.X - Experimental
		Edit Slicing Profiles	Ctrl+R		۲	Skeinforge (50)
Swap Toolhead in .gcode			Ctrl+D	Þ		Skeinforge (47) - Legacy Skeinforge (35) - Legacy

(4) And then select the file you want to print:

<u>A</u> F	ReplicatorG - 0040		
File	Edit GCode Machine	Thingiverse H	lelp
	New Open Save Save As	Ctrl+N Ctrl+O Ctrl+S Ctrl+Shift+S	
	Recent	۲	
	Examples	+	20mm_Calibration_Box.stl
	Scripts	•	3D_Knot.stl
	Preferences Reset all preferences	Ctrl+Comma	Snake.stl whistle.stl dual ▶
	Quit	Ctrl+Q	single •
			upgrades •

Then there will be the design of the file:



🔺 Control Panel	
Homing	
Jog Controls Jog Mode SDmm X D Center X Y D Center Y Z O Center Z Make current position zero XY Speed I329 mm/min Z Speed I36 mm/min I36 mm/min I36 mm/min	- mko Leit Target (C) - mko Leit Current (C) -
TEN COTOL.	

Set the nozzle temperature : set enter key in the box of Target Tempriture

Due to different temperature conductivity of different machines, there are a relatively large differences between the temperature. It would be best to try out the wire from 215 degrees,. The temperature rises rapidly, reaching 190 degrees, indicating the large heating allowance, otherwise the small heating allowance. If there is some trouble in the process of wire, the temperature may not be enough. If the wire has bubbling noises, that means the temperature is high. From low to high, set a suitable temperature according to the actual situation. If you click the "reverse", Extrusion head motor will reverse, the almost completely used materials will be sent back. Shear new material flatly,stuff it into the hole .After that, click stop, then click forward. Extrusion head motor is transferred, it is needed to insert a little tight so that the material is bitten, then send the nozzle until the spinning. Please note, it won't continue to down to the bottom of the surface until the temperature arrive at a predetermined value when we print.

How to start printing:

Move the figure to the appropriate location, click on the button below

<u>A</u> ReplicatorG - 0040	
File Edit GCode Machine Thingiverse Help	
Not connected	
20mm_Calibration_Box model	
	Move Object
	Center
	Put on platform
	X- 10 X+
	Y- 10 Y+
	Z- 10 Z+
	Lock height
	Left drag to move object
	Right drag to rotate view Mouse wheel to zoom
	View
	Move
	Rotate
	Mirror
	Scale
	Generate GCode
[17:04:42] Couldn't find a port to use!	
[17:04:45] Firmware updater: network unavailable.	
[17:09:40] Loading D:\Documents\ReplicatorG\replicatorg=0040\examples\20mm_Calibration_Box.st1	
[17:09:42] D:\Dooumonts\Roplicator(\roplicatorg=0040\overnlos\20mm_Colibration_Boy_cti	

Selection:

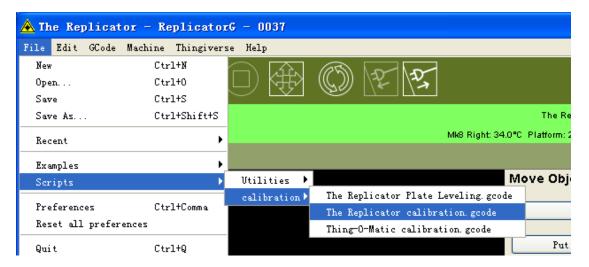
Please note that the above options, click Generate Gcode then Gcode is generated . After generating gcode, move the print head to the home position

🔺 Generate GCode	×			
Slicing Profile: Replicato	or slicing defaults 💙			
✔ Use Raft/Support				
Use support material Exterior support 💙				
✓ Use default start/end gcode				
✓ Use Print-O-Matic (stepper extruders only)				
Settings Plastic Extrud	er Defaults			
Object infill (%)	3			
Layer Height (mm)	. 27			
Number of shells:	1			
Feedrate (mm/s)	40			
Travel Feedrate	55			
Print temperature	220			
	Caraltan Carana			
Generate	Gcode Cancel			

You can modify Feedrate (mm / s) to 20, Tralvel Feedrate 20 to have a higher accuracy printing.

How to calibrate (normally do not need calibration):

Move the nozzle to the place just stick to the platform through the control panel



Tips after running:



Click OK, then the machine will calibrate the procedure automatically.



Click OK, and then disconnect **Mark**, reconnect and the correction is completed.

Generate gcode print:

Click , then the machine will start printing.

Please note, it won't continue to down to the bottom of the surface at the place of 10mm until the temperature arrive at a predetermined value when we print.

3.2.3 Install the driver software of Makerware

(1) take out SD card and read the printer driver inside it , looking for the folder of 3dsetup

1	名称	修改日期	类型
	🐌 3dsetup	2013/12/19 12:31	文件夹

(2) Open 3dsetup folder and look for the file of software

,				o · 💷 🐨
-	名称	修改日期	类型	大小
	\mu ICO	2013/12/19 12:31	文件夹	
	퉬 soft	2013/12/19 12:32	文件夹	
	📕 software	2012/3/30 5:03	应用程序	988 KB
	📰 software	2013/12/10 20:04	配置设置	5 KB

(3) Right-click the file of the software and then enter into the software installation manager

CTC 3D打印安装程序 V2	A1 beta版		(#-)
软件	安装管理器 软件安装管理器		
▲ 全部校注(14) ▲ Replcatorg (2)	Replicatory (2菜)		
Makerware (4) drivers(\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Replicatory00400(\$2) Replicatory0040(6);2) Replicatory0040(6);2) Replicatory0040(6);2)		建存安盖的
	Registratorg-32 (2計丁 Stip9940上-2 3第5年金(EH to Oi)		保存安静的
	Makerware (4tt)		
	□ 1 Windows (XP) 2.2.2 for Windows (XP)安装国景和STL文件国景均文件系示允许两中文字样		建存安满的
	Windows (7/8 64-bit) 2.4.1 for Windows (7/8 64-bit)安装日景相511文(月日景句文)牛老不分注有中文字样		ansan.
	■ Windows (7/8 32b#) 2.4.1 for Windows (7/8 32b#).安装目录和STL交付目录与交件起不允许有中交字将		经在安徽机
	Other OS(Hac or Linux)(With: 1) Mar OS X (10.6).Mac OS X (10.7+).Linux (12.04+).		现在安然的
	dnvers(設計) (3款)		
	□ Pythan pythan (小高書好換新祥書		经存起基本
	Prov-2.0.2 我们能够许		<u>RATER</u>
	diffees 32(2):537.doinst.32.exe.64(2):928.doinst.64.exe.		<u>Rectilin</u>
	heip(周的文件)(5款)		

(4) Click "Makerware". There will be software-driven system that match to different computer. To find suitable printer drivers that correspond to your own computer system. Then click automatic installation

No. 2017 SD打印安装程序 V1.2	2 beta版		_ 0
软件3	安装管	管理器	
 全部软件 (16) 条 Replicatorg (2) 	۵	Windows (XP) 	保存安装包
 Makerware (6) drivers(驱动) help(帮助文 		Windows (7/8 64-bit)	<u>保存安装包</u>
		Windows (7/8 32bit) 76.60 MB <u>手动安装</u> 自动安装 1 2.4 for Windows (7/8 32bit).安装目录和STL文件目录与文件名不允许有中文字样	<u> 保存安装包</u>
		Windows (8.1 64-bit)	保存安装包
		Windows (8.1 32bit)	保存安装包
		Other OS(Mac or Linux) 0.00 MB <u>手劼安装</u> 自动安装 介 Mac OS X (10.6).Mac OS X (10.7+).Linux (12.04+).	保存安装包

(5) Click automatic installation of the Makerware software. After a icon appears , then click "Next" button.

🚺 MakerWare Bundle of Awesome Setup	
Choose Install Location Choose the folder in which to install MakerWare Bundle of Awesome.	5
Setup will install MakerWare Bundle of Awesome in the following folder folder, click Browse and select another folder. Click Next to continue.	. To install in a different
Destination Folder C:\Program Files\MakerBot	Browse
Space required: 0.0KB Space available: 74.1GB	
MakerWare 2.4.0.14	kt > Cancel

(6) And then click "Next" button

🕼 MakerWare Bundle of Awesome Setup				
Choose Components Choose which features of MakerWare Bundle of Awesome you want to install.				
Check the components you want to install and uncheck the components you don't want to install. Click Next to continue.				
Select components to install:	MakerWare MakerWare for Digitizer	Description Position your mouse over a component to see its description,		
Space required: 0.0KB				
MakerWare 2,4,0,14				
< Back Next > Cancel				

(7)Then click the "I Agree" button.

🚺 MakerWare Bundle of Awesome Setup 📃 📼 🎫	
License Agreement Please review the license terms before installing MakerWare Bundle of Awesome.	
Press Page Down to see the rest of the agreement.	
MAKERWARE END USER LICENSE AGREEMENT	
IMPORTANT - PLEASE READ CAREFULLY THE TERMS OF THIS MAKERWARE END USER LICENSE AGREEMENT ("AGREEMENT"). BY CLICKING ON THE "I AGREE" BUTTON, (1) YOU ACKNOWLEDGE THAT YOU HAVE READ, UNDERSTAND, AND AGREE TO BE BOUND BY THIS AGREEMENT AND (2) YOU REPRESENT THAT YOU HAVE THE AUTHORITY TO ENTER INTO THIS AGREEMENT PERSONALLY, OR IF ON BEHALF OF THE COMPANY ENTERING INTO THIS AGREEMENT (EACH A "COMPANY"), AND TO BIND THAT COMPANY TO THE TERMS OF THIS AGREEMENT. IF YOU DO NOT AGREE TO ALL TERMS AND CONDITIONS OF THIS AGREEMENT, OR IF YOU DO NOT HAVE SUCH AUTHORITY, YOU SHOULD CLICK ON THE "CANCEL" BUTTON TO DISCONTINUE THE DOWNLOAD OF	
If you accept the terms of the agreement, click I Agree to continue. You must accept the agreement to install MakerWare Bundle of Awesome.	
MakerWare 2,4,0,14	
< Back I Agree Cancel	

(8) After clicking the "I Agree" button, there will be a dialogue box, please click Next

(9) After clicking, the computer will appear five Prompts . Please click "Install this driver software anyway."

e	😵 Wir	ndows 安全
ra ra	\bigotimes	Windows 无法验证此驱动程序软件的发布者
re re		
ĉ		→ 不安装此驱动程序软件(N) 应查看制造商的网站,获得设备的更新驱动程序软件。
		→ 始终安装此驱动程序软件(I) 仅安装来自制造商网站或光盘的驱动程序软件。其他来源的未签名软件可能会 损坏您的计算机或窃取信息。
st	v 1	查看详细信息(D)

(10) After Clicking "Install this driver software" button five times, the installation procedure is completed basically, while a dialog box will pop up. Please check carefully if all the programs are installed. (check method: examine the bar of Driver Nane, if all things are matching that means the software is installed successfully, if

there are X number or! number that means installation is unsuccessfully.Finally, click "Finish."

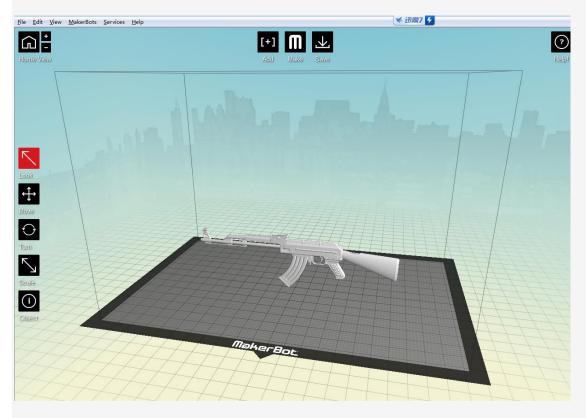
Device Driver Installation Wizard					
	Completing the De Installation Wizard				
	The drivers were successfully ins	stalled on this computer.			
	You can now connect your devi came with instructions, please re		vice		
	Driver Name	Status			
	 MakerBot Industries (usb MakerBot Industries (usb MakerBot Industries (usb 	Ready to use	4 III		
	〈上一步 (B)	完成 取消			

(11) Click the Finish button, then the "Closet" button in the main page begins to lit. Left-click the "Close" button, then the Makerware printing software installation was completed.

🐻 MakerWare Bundle of Awesome Setu	р		• 🕅
Installation Complete Setup was completed successfully.			
Completed			
Show details			
MakerWare 2,4,0,14	< Back C	lose Ca	incel

3.2.4 Software Description

(1) Makerware software function interface.



(2) Function keys Description:



Viewer Tool



Placed Tool of File Location



Rotary tool



Adjustment tool of File Ratio



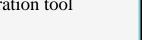
object tool



Save

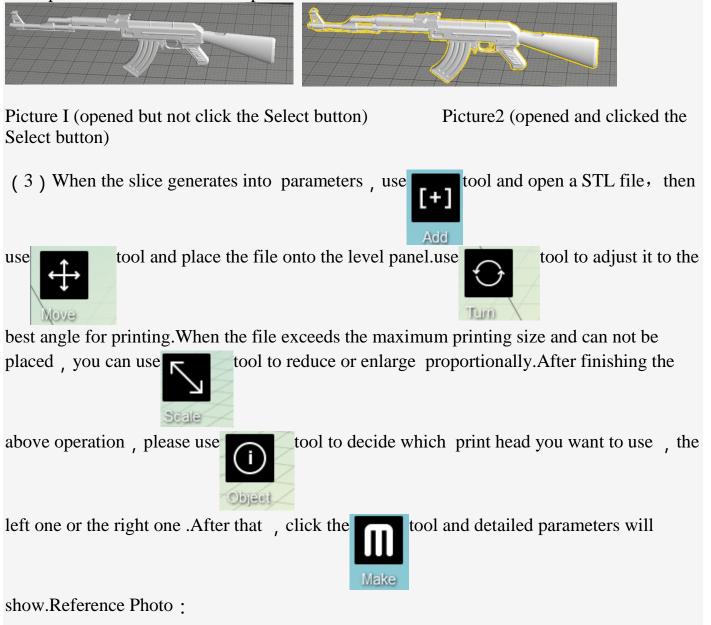


File slicing generation tool



Save tool

• (Note: Before all tools are used , left-click the file until the outline color is changed Examples are as follows and the picture 2 is the correct one.



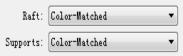
•			? 💌
I want to:	🔿 Make It Now	0 1	Export to a File
Export For:	The Replicator (Dual)		•
Left	MakerBot ABS	 Right: 	MakerBot ABS 💌
Resolution	🔘 Low (Faster)	Raft:	Color-Matched 💌
	🔘 <u>S</u> tandard	Supports:	Color-Matched 💌
) <u>H</u> igh (Slower)		For help with our Advanced Dual Extrusion settings, click <u>here</u> .
▶ Ad <u>v</u> anc	ed Options		Extruder: Right
Cancel			Export!

In this interface you must select the printer model of "The Replicator (Dual)".in the option of "Export for "then, select Left or Right according to your materials.

Left: MakerBot ABS 🔹 Right: MakerBot ABS 💌

The tool "Raft" is used to render on the material-bearing printer before you print. Raft:

Supports tool is used for adding support materials automatically by the software of the floating graphic so as to make sure to finish the printing successfully.



Resolution: There are three options in the resolution tool. You can select different

```
printing precisions according to your
```

```
requirement. O Low (Faster) coarse O Standard standard O High (Slower) high
```

Officially recommended the standard print

Click Advanced options to set the parameter.

🔽 Ad <u>v</u> anc	ed Options					Extrud	ler:	Right
Pr <u>o</u> file:	Standard							•
Slicer:	MakerBot Sl	icer						
	Quality	Temper	ature	S <u>p</u> eed				
	I <u>n</u> fill:		10%					*
	N <u>u</u> mber of	Shells:	2					-
	La <u>v</u> er Hei;	ght:	0.20 m	IM				-
	Use <u>D</u> efault Preview 1		rinting			<u>C</u> reate 1	Profi	le
Cancel							Ex	port!

 $Pr_{\underline{o}file:}$ There are also three options : low, standard, high. Make a selection accordingto your requirement.Officially recommended the standard print

There are three options in the Slicer: they are Quality Temperature and Speed

Quality quality is the detailed precision parameters Infill: is the fill rate

Number of Shells: is the thickness Layer Height: is the accuracy

Every data can be adjusted according to your requirements.Parameters Officially suggested are as follow

Temperature the	temperature
Quality Temp	erature S <u>p</u> eed
Left Extruder:	230 ° C
Right Extruder:	205 ° C
	📝 Heat the Build Plate
Build Plate:	110 ° C

Left Extruder: Left nozzle Right Extruder: Right nozzle Build Plate: Build plate, select different temperatures as your materials.

Officially recommended : materials of ABS nozzle's temperature : 220-230 degree floor's temperature : 110degree

materials of PLA nozzle's temperature : 205-210 degree floor's

temperature : 40-60degree

Speed recommended that the maximum speed would not exceed 80

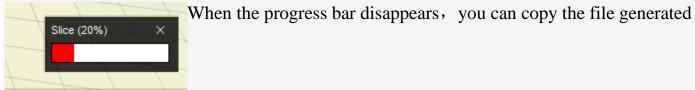
Idverpor Prices		
Quality <u>T</u> emperature	Speed	
Speed while Extr <u>u</u> ding:	50 mm/s	▲
Speed while Traveling:	60 mm/s	* *
Officially recomme	ended speed: ABS up:30-35	down:40-45

PLA up:50-55 down:55-60

After setting all above, please click **Export!** when a dialog box of path selection pop up, please choose a address to save the file.

🕲 Export			—
Vuan :	zhuo mian wen 🕨 gua fang zi 🛛 👻 🐓	搜索 gua fang zi	٩
组织 ▼ 新建文件夹	Ę	:==	• 0
☆ 收藏夹	▲ 名称 [▲]	修改日期	类型
🚺 下载	1.x3g	2014/1/25 9:09	X3G 文件
📃 桌面	2.x3g	2014/1/25 9:26	X3G 文件
🗐 最近访问的位置	≡ 3.x3g	2014/1/25 9:42	X3G 文件
 □ 库 1 视频 □ 图片 □ 1 文档 □ ① 江雷下载 ↓ 音乐 	★ 4 III		•
文件名(N): ak	47		
保仔类型(1): X3	G, SD print for firmware 7.0 or later (*.x3g)		
💿 隐藏文件夹	(保存(S)	取消

After pressing the save bottom, a progress bar will show at the lower right of the software



into the X3hG format with SD card in the place of saving the file \circ And then you can insert it into the printer and start printing.

3.3 The instructions of the key of LCD screen

" \blacktriangle ": For moving the cursor; " \triangleright ": for moving the cursor to the right; " \checkmark ": for cursor down; " \blacktriangleleft ": for moving the cursor to the left and returning to the previous menu; "M" (middle button): for the item's confirmation , selection and setting

Menu Item Description

Menu Options	Function	Explanation		
Build from SD	SD Card Print	Select the files of s3g or x3g to		
		print from SD card		
Preheat	Preheat	Start preheating		
Utilities	Tool	Enter the submenu aids		
Monitor Mode	Monitor Mode	Enter into the control interface and		
		monitor the temperature of the		
		nozzle and the bottom		
Change Filament	Change Filament	Replace Silk material according to		
		the screen prompts		
Lever Build Plate	Lever Build Plate	Level the print platform according		
		to the screen prompts		
Home Axes	Return to origin	Make the nozzle to the origin of X,		
		Y, Z axis		
Jog mode	Jog mode	Jog control X, Y, Z axis motor		
Run Startup Script	Run Startup Script	Run your first boot wizard		
Enable Steppers	Enable Steppers	Enable / disable all motor		
Blink LEDs	Blink LEDs	LED switch (not used)		
Exit menu	Exit menu	Return to main menu		
Info and Settings	Info and Settings	Enter the parameter setting menu		
Bot Statistics	Bot Statistics	View equipment uptime statistics		
General Settings	General Settings	General parameter settings		
Preheat Settings	Preheat Settings	Preheat parameter settings		
Version Number	Version Number	View the version number		
Restore Default	Restore Default	Restore the factory default		

		parameter settings	
Exit menu	Exit menu	Return to main menu	

Main menu

Connected to electricity , the main menu will show <u>http://translate.google.cn/</u>, just like the picture 1.By \blacktriangle "and" \checkmark "key to move to move the cursor, then press the"M"key to enter the selected item.

Picture 1 Main menu



Print with SD card

Select "Build from SD" and then enter into the SD card file to skim (see picture 2).By " \blacktriangle " and " \blacktriangledown " key to move the cursor, press the "M" button to select the file you want to print and start printing.

Picture 2 SD card file selection



Select "Preheat" and start an operation of pre-heating (Picture 3),

By " \blacktriangle " and " \checkmark " key to move the cursor to select the nozzle or floor, press "M" button to turn on / off the warm-up operation, and finally move the cursor to "Start Preheat!", Click the "M" button, and the machine starts warming .

Picture 3 Preheat



Submenu of the accessibility tools

Select the "Utilities" and then enter into the submenu of the accessibility tools(picture 4, picture 5), use " \blacktriangle " and " \blacktriangledown " keys to move cursor and to select the tool item,.Press "M" key to confirm the selection.

Picture4 the first submenu of the accessibility tools



Picture5 the second submenu of the accessibility tools

Monitor Mode

Select the "Monitor Mode" and then enter the monitoring interface (Figure 6), monitor the current temperature of the nozzle and the platform

Picture 6 the monitoring interface



Silk material replacement

Select"Change Filament" to replace silk material, exit the material of nozzle according to the prompts on the screen, and then insert the new silk material.

Printing platform adjustment

Select"Lever Build Plate"to level the print platform and then follow the prompts on the screen.

Return to origin

Select"Home Axes"to control the nozzle so as to return the position of mechanical origin

Jog mode

Select"Jog mode"to enter the jog control interface(Figure 7), use the " \triangleleft "and" \blacktriangleright "button to select X, Y, Z axis as well as " \blacktriangle "and" \checkmark "keys to control the front and rear direction of movement of the selected axis

The interface of the Jog mode



Run Startup Strip

Select the "Run Startup Stript" the printer will operate the wizard the first time you turn on it.

Enable Steppers

Select "Enable Steppers", it will enable three axis motor

Parameters and settings submenu

Select "Info and Settings" and then enter into the sub-menu (Figure 8), use the " \blacktriangle " and " \blacktriangledown " keys to move the cursor so as to select tool item, press "M" button to confirm the selection.

Figure 8 parameters and settings submenu



Device Information

Select "Bot Statistics" to enter into the device information screen (Figure 9), check the total length of the printing as well as the last printing.

Figure 9 Device information screen



General parameter settings

Select "General Settings" to enter the general parameters setting interface (Figure 10).Use the " \blacktriangle " and " \blacktriangledown " keys to move the cursor to select the parameters, press the "M" key to modify the parameters.

Figure 10 Conventional parameter setting interface



Preheat parameter settings

Select "Preheat Settings" and then enter into the interface of parameter settings (Figure 11), use the " \blacktriangle " and " \blacktriangledown " keys to move the cursor to select the parameters, press the "M" key to modify the parameters.

11 The interface of preheat parameter setting



The version number

Select "Version Number", then you can view the version number of the operation of the software

Restore Default Settings

Select "Restore Default", you can restore the factory parameter settings

4. Take out model



Use the rasp to gently tilt the bottom of the object, so that the printed article can slowly leave the heating platform.Try not to move it with your hand

5.Maintain

5.1 clean the print head

The print head has to be cleaned after the printer is used for a period of time, the

appearance of the print head as shown in Figure 1, in the bottom of the print head you can see two white screws, at both ends of the print head, as shown in Figure 2, the two screws can be taken down after taking out from the print head, as shown in figure 3. After removing the two black within six angle 2.5 screws which are in the front of the print head and below the fan, please move away the fan and heat sink, as shown in Figure 4. Removing the fan and the radiating surface and the motor you can see a piece of aluminum strip, as shown in Figure 5. The stepping motor is also removed after the fan is lifted down, and on the above of it is the glue extruding gear of the print head, as shown in Figure 6 .disassembling and cleaning extruding gear, after cleaning the plastic in the tooth of glue extruding gear and it can be installed to use.



(Figure1)

(Figure2)

(Figure3)





(Figure 5)

(Figure 6)

5.2tighten the belt

Attention : 1. tight belt need to make the belt silk contact with the pulley dovetail.

- 2. the left and right force of Y axis pulley needs to be consistent.
- 3. X axis and Y axis must form into a right angle.



(Y-axis on the right belt)

(X-axis belt)

(Y-axis on the left belt)

5.3 maintenance of the optical axis and the screw rod

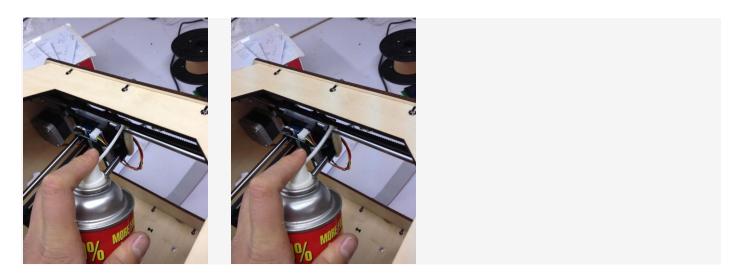
Using much better lubricant, spread the lubricant on the above of XYZ bearing steel, coated measurement should not be too much, just a little on the surface to make lubricant oiling. Figure (2345)



(Figure 1)

(Figure 2)

(Figure 3)



(Figure 4)

(Figure 5)

6.Troubleshooting

6.1 Printing offset, or offset after the screw fastening, please check the printer pulleys, pulley to see whether they are staying in a parallel line.

6.2 Temperature is displayed 0-1024 improperly, please check the thermocouple connection. If the connection is normal, you need to replace the thermocouple.

6.3 If the Temperature is displayed NA, you need to check the thermocouple connection. If the connection is normal, you need to replace the thermocouple.

6.4 X-axis move is not normal and there is chattering. It is to illustrate X-axis motor line has problems and it needs to replace the X-axis motor cable.

6.5 LCD blue screen does not display; the boot suddenly restart, the motor does not stop after touching limit switch. Please check the sensor cable. If sensor cable is connected properly, the sensor cable may has a problem.

6.6 Fan does not run, to make sure the temperature is above 50 degrees and place your hands to dial to see whether it can run. If it still do not run, please reconnect the interface with a screwdriver under examination, or use battery test. If the problem do exists, please replace the fan.

6.7 Motor does not run. Replacing the motor driver board.

7. Common Problems and Solutions

7.1 Kasi - wire is too thick - split nozzle

7.2 skid - Silk meticulous - minus some silk material

7.3 blocking the nozzle - heating pipe plug wire - heating element apart, heated to 220, silk material removed with tweezers

7.4 temperature anomalies - thermocouple is damaged - replace the thermocouple

7.5 Print dislocation - screw loose - Check the screws and tighten the screws

7.6 Print sample Alice - floor height is too high - floor height adjustment

7.7It cannot be turned into G code – not choose the number of sprinklers and models the storage path is wrong - select and change it.

7.8 sticky silk material is above the nozzle - support material is pulled by nozzle - re-set parameters

7.9 no wire - the model in question - after repairing the model code and reset the parameters the code numbers

7.10 driver or software could not install - system configuration problem - reinstall the system

7.11 print sample does not stick platform - too much distance between the nozzle and the platform – readjust the platform

7.12 blue tape is difficult to take down - Platform heating and when it is heated into are 20-degrees or 30 degrees , you can take down completely.

8. Warranty and License Agreement affirms

Quality Assurance:

CTC has committed to you behind each product. CTC has strict processing standards and assembly parts inspection process to ensure that every product is qualified highquality products.

After-sales warranty

1 After receiving the product within 7 days due to product quality problem , we will bear the return shipping for you free replacement or repair.

2 Receiving the goods within 7-30 days, we will help you free replacement or repair, repair freight should be born half because of quality problems

3 From 30 to 90 days of receipt of the goods, we will help you free replacement or repair, but please bear the return shipping cost because of the quality problems. 4.90 days after the issue of all products, you can be provided for free advice. If you need replace the accessories, you need to pay it and the return shipping cost

Returns Policy

Returns basic conditions: (1) to ensure that the product packaging, product accessories, manuals and keep the original products and it does not affect the secondary sales. Just missing one, you cannot accept returns of service, such as a replacement, the pro-retention gifts, such as return, please return the gifts together.
 Replace the products with quality problems. After receiving the product, please carefully review the integrity of the product. If you find any quality problems, please take a photo within 5 days and get in touch with us.

3. We will not provide you the return service for the following conditions: (1) You have met the requirements of the returned goods when you receive the goods packaging, accessories, manuals, etc. Missing one cannot be provided for return. (2) After purchasing goods and it has obvious stains, or vandalism could not provide return. (3) The scope of the gift does not engaged in after-sales service. (4) If a non-West-brand consumables, or supplies using PLA nozzle sum game lead product, not

covered by warranty. (5) The products will be issued an invoice cannot be returned, only quality replacement.

4 .Care the product: the end (1) After the printing job has been done, you should try emptying nozzle and residual printing supplies extruder to avoid the next print nozzles will sum game, which is a basic 3D printer maintenance. Note: If you use other manufacturers and distribution of supplies caused by the nozzle sum game, will no longer be within the scope of the warranty. (2) Rail can be added the preservative lubricant each month. (3) Do not print directly in the printing process or ending the printer's conductor assembly by using metal objects.