

Desktop 3D Printer

# Duplicator 5S

— User Manual —



**WANHAO**

[www.wanhao3dprinter.com](http://www.wanhao3dprinter.com)

This User manual is designed to help you start your experience with Duplicator 5S. .Within these pages, we want to show you how simple and easy it is to produce great prints.You might be familiar with earlier types of Wanhao printers or other 3D-printers. It is essential that your read this manual carefully as there are a lot of new procedures with Duplicator 5S.

WANHAO is excited to welcome you to the world of the WANHAO Duplicator 5S .Following this guide will help ensure that you are getting the most out of your machine, and that you continue to make amazing things.

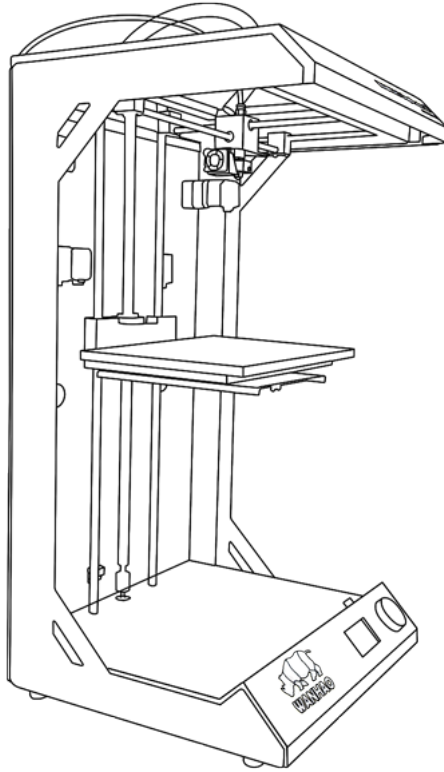
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# Duplicator5S

## User Manual



**MAX 295\*195\*575MM**

Resolution:0.02mm

Speed:300mm/s

Software:Wanhao Maker

# 1 Specification of the D5S

Print Technology:	Fused filament Fabrication(FFF)	Electrical	
Build Volume:	295*195*575mm	Intrpiucta l:	100-240V 4amps
			50-60Hz 200Watt Max
		Power Requirements:	24V DC@9.2amps
Layer Resolution:		Physical dimensions	
	Ultra high: 20 micron	Frame Dimension	Length 455mm
	High:60 micron		Width 415mm
	Medium:100 micron		Height 810mm
	Low:200 micron	Shipping box	Length 575mm
Position precision :			Width 530mm
	X 12.5 micron		Height 910mm
	Y 12.5micron	Net Weight :	28kg(62lbs)
	Z 5 micron	Gross Weight:	39kg(86lbs)
Filament diameter:	3mm ± 0.15mm	Temperature :	
Nozzle diameter:	0.4mm	Ambient Operating:	10 °C -38 °C
Print speed:	30mm/s-300mm/s	Storage Temperatuer :	0-40 °C
Travel speed:	30mm/s-350mm/s	Average Operational:	180—260 °C
Software:		Noise :	48dba
Software Package:	WanhaoMaker	Connectivity:	Stand-alone printing
File Type:	stl,Gcode		SD Card
Support:	windows(XP32bit/7+)		USB (firmware)
	Mac OS X(10.6 64bit)		

**CAUTION** : The Duplicator 5S generates high temperatures and has hot moving parts that can cause injury. Never reach inside of the Duplicator 5S while it is in operation. Always control the Duplicator 5S from the push wheel on the front or with the power-switch on the back.

**WARNING** : Only use power supply provided with your Duplicator 5S.

## 2 Unboxing



1. Place The Duplicator 5S box on the ground next to a clean, flat workspace



2. Cut of the rope and Discard the top cardboard insert.



3. Now remove the inner cardboard box, and take the Duplicator 5S out of its box.



4. Now you can clear away the packing films and get the Duplicator 5S.

# 3 What's in the box



1 pc printer



1 pc bulid plate



1 pc spool holder



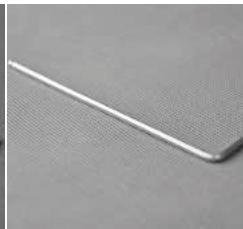
1 pc clamp



1 pc USB cable



1 pc Print raiser



1 pc Print wrench



1pc Power supply unit



1 pc SD card reader



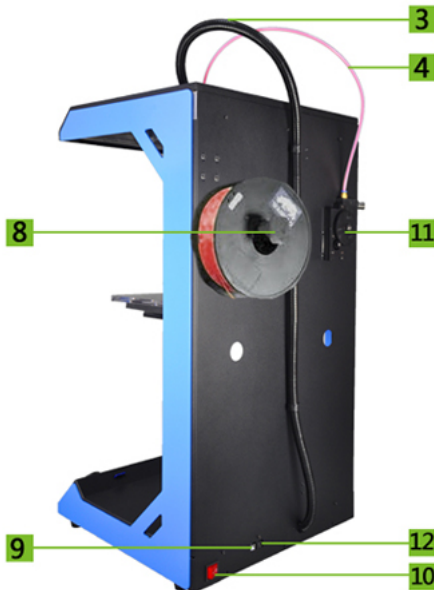
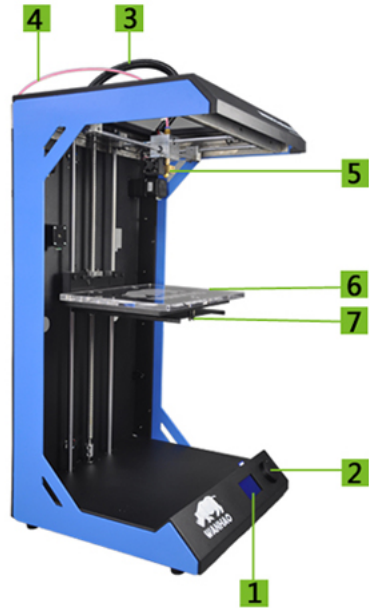
1 pc SD card



1 pc 3mm filament

# 4 D5S glance

1. LED display
2. Push and Rotate button
3. Extruder Cable
4. Filament tube
5. MK10 Extruder
6. Building Plate



7. Building Plate Screw
8. Spool Holder
9. USB Socket
10. Power Switch
11. Material Feeder
12. Power Socket

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# 5 Install Power Supply

Now the next step is to give the Duplicator 5 power. This is done by attaching the external power supply.

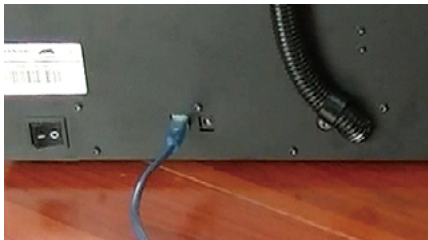
1. If the power supply has to be detached, the first step is to make sure the Duplicator5S turned off.



2. The corresponding power cable (for your country) has to be inserted in the power brick of the power supply.



3. The connector has to be inserted at the back of the Duplicator5S, in the round hole next to the on/off switch and USB slot. The flat side of the power plug has to face towards the top of the Duplicator5S.





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4. Now plug the external power supply into the wall socket.



5. Next take the power plug out of the wall socket.



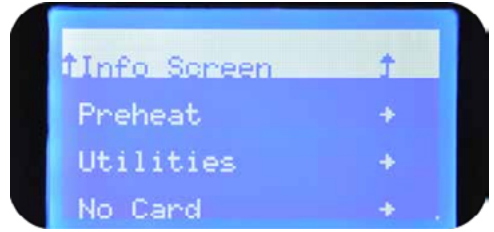
**CAUTION:** Please make sure not to pull the cable.

6. The main cable in the power brick can be detached by pulling it out gently.

# 6 How to level the buling plate



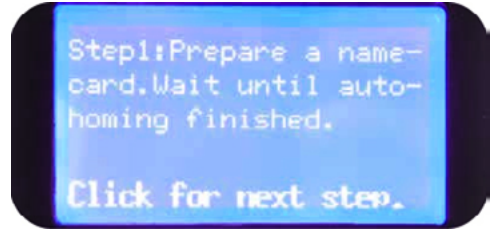
1. Navigate the Rotate button and push the button



2. Navigate the Rotate button to utility and Push the button



3. Navigate to Calibrate plate and push the button



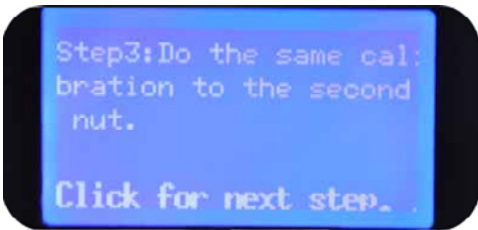
4. Prepare a name card, Wait until auto-homing finished



5. Push the button and adjust nut below the plate



6. Insert one name card between the nozzle and plate(0.1mm thick)

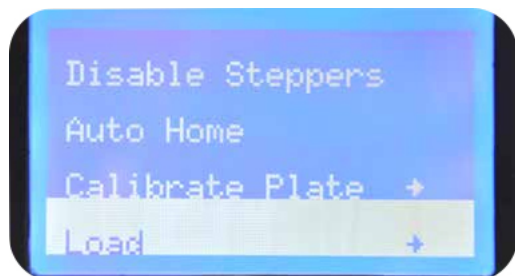


7. Navigate to Step2, 3 and 4



8. Adjust the rest 2 nuts and ensure name card can go through

# 7 Loading filament material



1. Now that we have completed the initial leveling tasks we [Continue] and go to the step where we are going to insert filament material in the material feeder. Navigate the control button to ---Utility---Load

2. Wait the extruder to heat up to 220 °C. Warning, never touch the nozzle while printer power on. You are only allowed to touch the nozzle when the printer is power off.



3. Please make sure you have a filament spool positioned over the spool holder, guided along the filament guide, with the filament in counter clockwise direction.



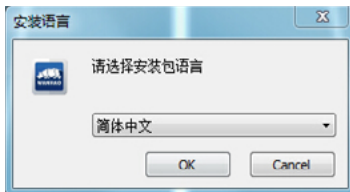
4. This step needs some extra focus. The wheel in the material feeder will start rotating slowly. Take the material and put it in the hole at the bottom of the material feeder. There is a hole where it should go into right above the sticker. Follow the display instruction with the supporting images below but WAIT! before pushing and check the next page for more instructions.



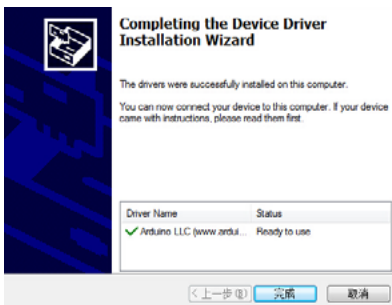
# 8How to Install

Wanhao Maker software prepares your 3D model into Machine language which required to make 3D object. Wanhao Maker is developed by Wanhao International Team aimed to make 3D printing式。Wanhao Maker as affordable and easy as possible.It contains most function you need to prepare a 3D file for printing. It is fully preconfigured to work on every Duplicator5 S.Wanhao comes with a easy setup program that helps you install the latest firmware as well as to calibrate your printer.While you make decisions on the look and quality of your 3D your model at the background. Faster than ever.From there it is just seconds away from your object, Wanhao Maker' s slicer engine prepares your model at the background. Faster than ever.From there it is just seconds away from your printer and ready to become your physical object.

1. Down load Wanhao Maker or copy software from SD card. Double click the Wanhao Maker.exe to install software

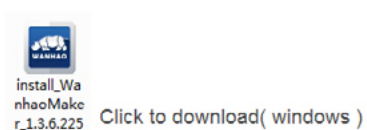


- 3.Folder route. Please take default route for faster slicing speed.



## Duplicator 5 Series

WANHAO DUPLICATOR 5 SOFTWARE INSTALLITION

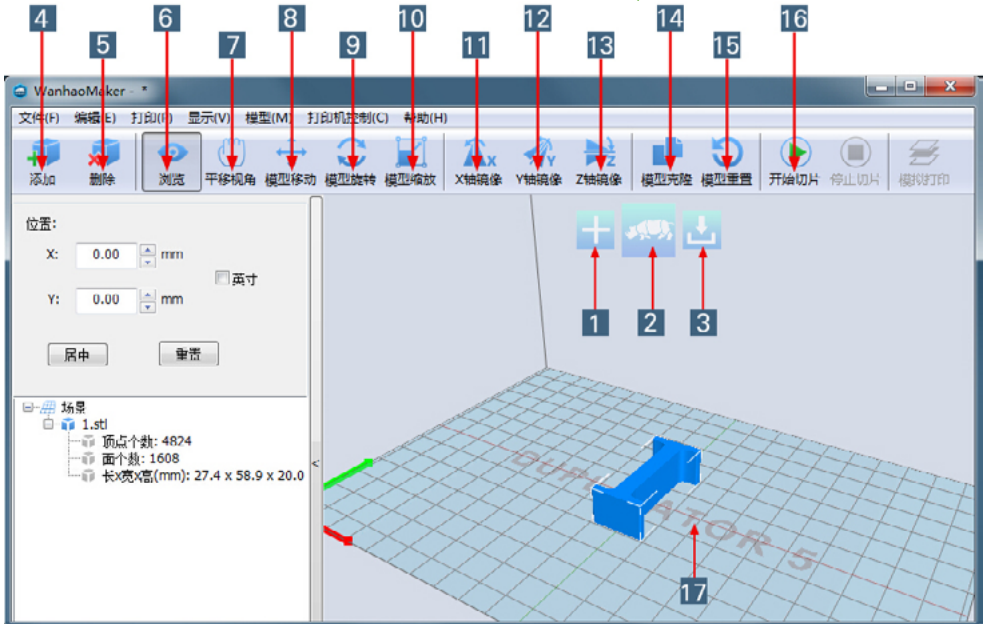


- 2.Language selection. We provide 3 language at present, English, Simplify Chinese, Chinese

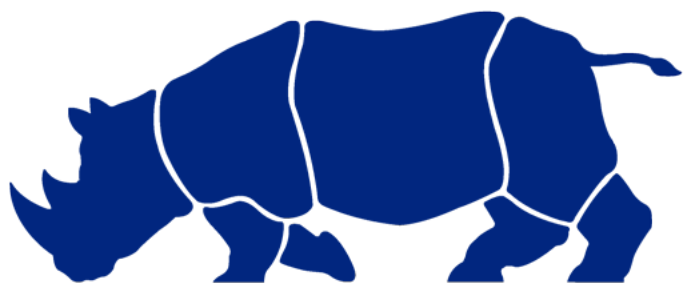


4. Installation wizard will continue to finish the rest steps.

# 9Wanhao Maker 界面



1. Load file: Click this button to load an object to your print area. You can add as many objects as you can fit on the plate.
2. Start Making: Press this button to start Slicing. There will be more options after pressing the button.
3. Save toolpath (SD): When you press this button the prepared toolpath will be saved on the SD card.
4. Load file: Click this button to load an object to your print area. You can add as many objects as you can fit on the plate.
5. Delete: Click on any item then delete an object from the plate.
6. View: Check the object from different directions.
7. Pan: To Move the plate from all directions, so you can check more clear.
8. Move: Move the object left, right, front and back wards.
9. Rotate: Move the object with different angle. X, Y, Z axis can be with suitable angle for printing.
10. Scale: To enlarge to shrink the object.
11. Mirror X: Options to mirror the object from X axis.
12. Mirror Y: Options to mirror the object from Y axis
13. Mirror Z: Options to mirror the object from Z axis
14. Duplicate: To duplicate the object in same size.
15. Reset: Let the object back to start position
16. Start Making: Press this button to start Slicing. There will be more options after pressing the button
17. Build plate: This is the plate your object to be printed.



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