stomdevice

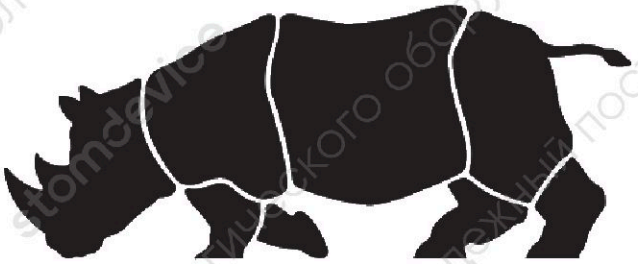
WANHAO DUPLICATOR 6

User manual



WANHAO

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WELCOME TO THE WANHAO DUPLICATOR 6



A1. The WANHAO Experience

This User manual is designed to help you start your experience with D6. 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 or other 3D-printers. It is essential that your read this manual carefully as there are a lot of new procedures with WANHAO D6.

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A2. Specification of the Duplicaror 6

Printing		
Print technology	Fused filament fabrication (FFF)	
Build volume	20 x 20 x 17.5 cm	
Layer resolution	Ultra high	20 micron
	High	60 micron
	Medium	100 micron
	Low	200 micron
Position precision	X 12,5 micron Y 12,5 micron Z 5 micron	
Filament diameter	1.75mm (generally known as 1.75mm filament)	
Nozzle diameter	0.4 mm	
Print speed	30 mm/1 - 300 mm/s	
Travel speed	30 mm/1 - 350 mm/s	
Software		
Software package	Cura - WANHAO EDITION	
File types	STL / OBJ / DAE / AMF	
Supports	Windows (XP 32 bit/7+) Ubuntu Linux (12.04+) Mac OS X (10.6 64bit +)	
Electrical		
AC INPUT	100 – 240 V, ~4 AMPS, 50 – 60 HZ 221 watt max.	
Power Requirements	24 V DC @ 9.2 AMPS	
Connectivity	Stand-alone printing from SD-card USB (firmware)	

Physical dimensions	
Frame Dimension	X 34.8 cm Y 26.4 cm Z 43.0 cm
With all parts attached and the max height filament guide tube	X 36.0 cm Y 44.0cm Z 48.0 cm
Shipping box	X 46.0 cm Y 46.0 cm Z 55.0 cm
Weight	13.9 kg
Total Shipping weight	17.0kg
Temperature	
Ambient Operating Temperature	15°- 32° C
Storage Temperature	0° - 32° C
Operating nozzle temperature	180° - 260°
Operating heated build plate temperature	50° - 100°
Sound	
Average operational noise	49 dBA.

WARNING: The Duplicator 6 generates high temperatures and has hot moving parts that can cause injury.Never reach inside of the Duplicator 6 while it is in operation. Always control the Duplicator 6 from the push wheel on the front or with the power-switch on the back. Allow the Duplicator 6 to cool down for 5 minutes before reaching inside.

CAUTION: When opening the Duplicator 6 for service, ensure that the power supply is turned off and the cord is disconnected from the wall socket.

CAUTION: Only use power supply provided with your Duplicator 6.

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GET STARTED & UNPACK YOUR **WANHAO DUPLICATOR 6**



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B1. Unboxing your Duplicator 6

1. Place the D6 box on **a stable surface**, Placing it centrally on the floor will provide the best accessible position for unpacking.



2. Open the box. Here you will see the User Manual.
We recommend that you use the User manual to guide you through the setup process first

NOTE: You can download a PDF copy of this User manual under manual at the support page



3. Remove black foam protector



4. Lift the printer gently up with 2 hands on the top frame of D6. You may need one person to help to hold the box still.



5. Position the printer on a sturdy table to optimise the approach and with plenty of space surrounding it.
NOTE: Please do not use excessive force when unpacking your Duplicator 6. Excessive force may lead to damage to the Duplicator 6 and its components.



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6. Remove the plastic bag from the top of the printer.



7. Cut the 2 black bindings from the side of the printer.



8.Pull the filament box out from the Printer gently.



9. Pull the Wanhao Masking tap out from the printer gently.



10. Pull the Spare parts box out from the printer gently.



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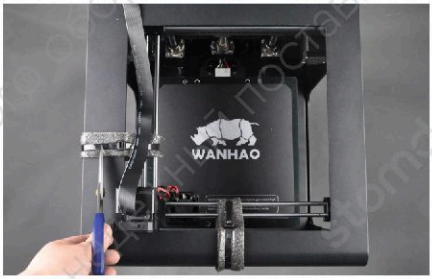
11. Wrap the protection foam and pull it out from the printer



12.. Cut the X axis rail secure binding right at front top of printer.



13. Cut the Y axis rail secure binding



14. Get printer out from the bottom foam cave. You will find the push button is not installed. We place it inside the spare parts box.

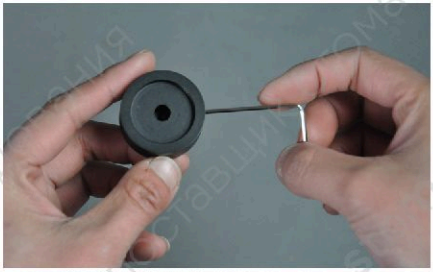


15. Find the push button from the repairing box.



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16. Loose the locking bolt by 1.5mm hex wrench anti-clockwise.



17. Turn the control button pillar flat side upward.



18. Insert the button onto the pillar. Make sure the bolt hole is right towards the flat pillar side.



19. To lock the button by turning the bolt clockwise with 1.5mm hex wrench



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B2.What's in the box

Besides your D6 supplied with SD card in the 3D printer, there are a lot of essential accesoires that comes with this 3D printer. All the following parts should be in the box, please check contents.



Filament spool



Spool holder



Tweezers



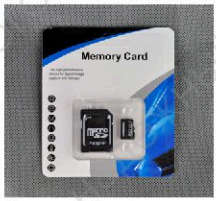
Power supply cable



Hex wrenches



USB cable (only for firmware update)



Memory Card



Card reader



Print Bed Mats



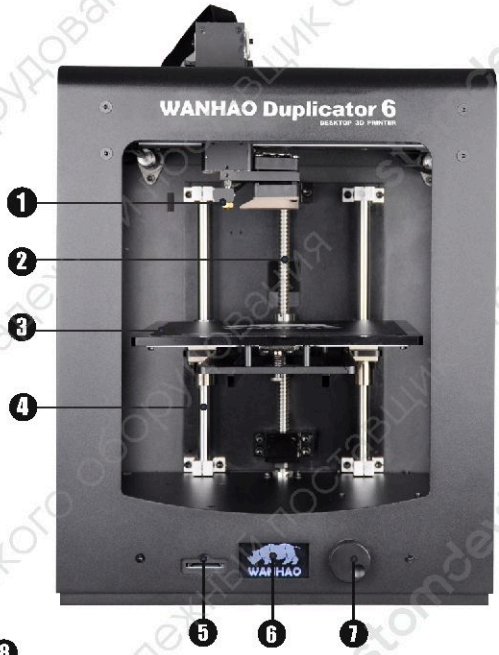
Scrape

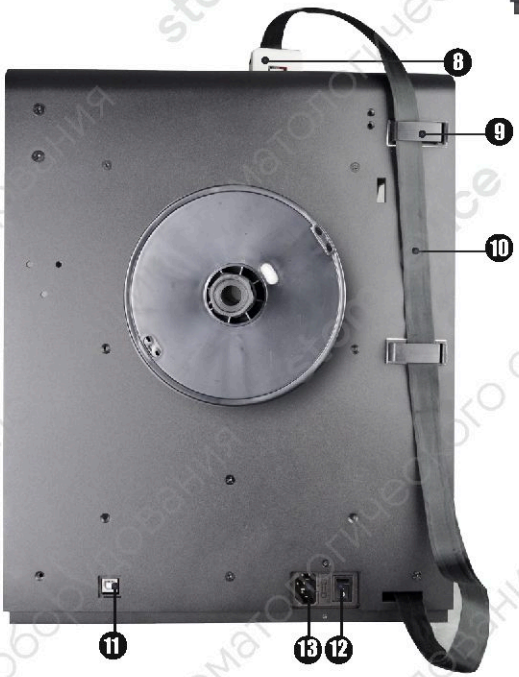


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B3. Duplicator 6 at a glance

1. MK11 extruder
2. Double locking Z axis screw
3. WANHAO printing mat
4. Super thick Guiding Rod
5. SD card slot
6. LCD Display
7. Navigation Dial





8. Cable Quick Coupler
9. Cable locker
10. Extruder Cable
11. USB Socket
12. Power switch
13. Power Socket

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INSTALLING PARTS ON YOUR WANHAO DUPLICATOR 6



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C1. Installing power supply

Attaching power supply

Now the next step is to give the D6 power. This is done by attaching the internal power supply.

1. First make sure the power switch is in the OFF position, this is when the button at the back is **pressed to** [0].



2. The corresponding power cable(for your country) have to be inserted into the Power supply socket at back of printer. The flat side of power plug has to face towards the right of the D6.

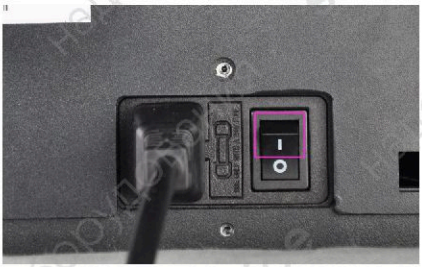
3. The connector has to be inserted at the back of the Duplicator 6, in the round hole next to the on/off switch and USB slot. The flat side of the power plug has to **face towards the top** of the Duplicator 6.



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

Detaching the power supply

1. If the power supply has to be detached, the first step is to **make sure the Duplicator 6 turned off.** This is done by pressing the power switch to 0.



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

3. The plug has a sliding collar. When removing the plug from the machine, gently slide the collar outwards which will release the plug and allow it to come out with ease.

CAUTION: Please make sure not to pull the cable. Excessive force may result in breaking this component.

4. The main plug can be detached by pulling it out gently.



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C2.Installing filament: spool holder

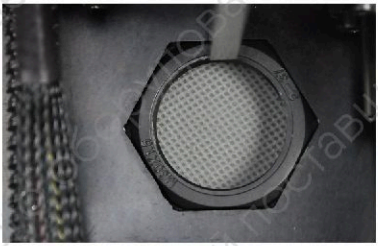
Attaching the spool holder

1. Turn the Z axis screw clockwise to raise the platform.



2. Install the spool holder. Insert the M30 nut from the printing chamber into the Hex cave.

Note: the wrench mark on the nut toward 2 clock direction.

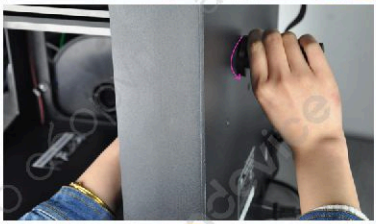


3. One hand hold the nut and the other hand Insert the holder from outside into the nut and turn the holder clockwise until it's tight.

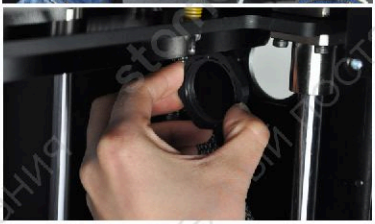


Detaching the spool holder

4.Turn the spool holder anti-clockwise to get holder detached from the printer.



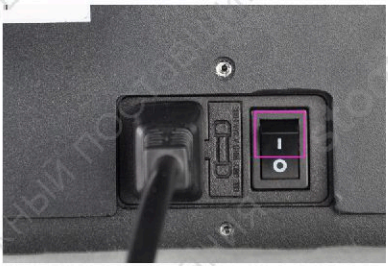
5.Get the M30 nut detached from the inside of printer.



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C3.Switch on/off the Duplicator 6

Switch off the Duplicator 6
The on/off button (a.k.a. ' **–** | **O** ') of the Duplicator 6 is located at the back. The ' **O** ' represents off and the ' **–** ' represents on. When it's switched to the ' **–** ' the Duplicator 6 is turned on and should start up.



After the Duplicator 6 has been turned on, the front LED display should light up and the sides should glow.

Switch off the Duplicator 6
The Duplicator 6 can be turned off by pressing the power switch to ' **O** ' at any time, it is recommended to only turn off the Duplicator 6 when it is NOT in use.



When the Duplicator 6 is switched off, the display and lights will automatically turn themselves off.

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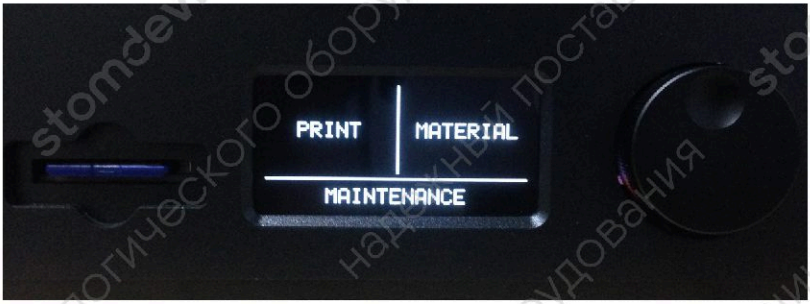
FIRST USE OF YOUR WANHAO DUPLICATOR 6



WANHAO

D1. First time startup

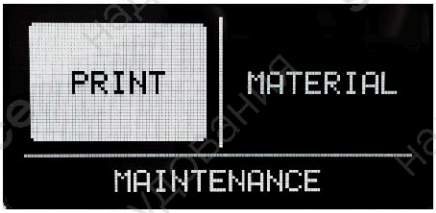
This chapter guides you through the steps and the first run of the D6. After you **switch on your Duplicator 6**, the display will light up and guide you through .



Use of the display

1/21.
You can navigate through the display by using the button. This button can be **pushed and rotated**. By **rotating** you can **select** or **control** an action. By **pushing** you can **confirm** an action. When pushing the button you hear a "beep" sound to confirm your chosen action. A blinking button means the D6 is waiting for user input.

2/21.
Navigate to **[MAINTENANCE], [ADVANCED]** and confirm for a **[Factory reset]** You can use this function for the first run wizard at any time



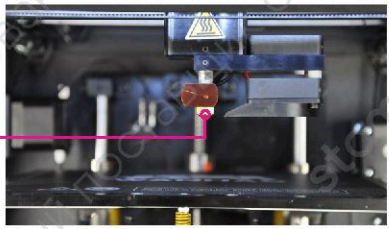
3/21.
When you read this step confirm the **[CONTINUE]** to go the next step: Leveling the build plate



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D2.Leveling the build plate

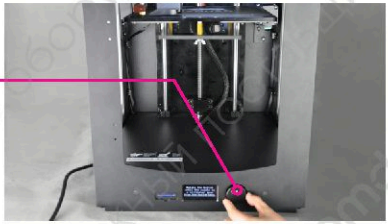
If the build plate is too far away from the **nozzle** your 3D-print might not stick to the build plate. Equally, if you adjust the build plate too close to the nozzle, the build plate can block the filament from extruding from the **nozzle**. It can also scratch the build plate.



NOTE: After transportation you might want to level your build plate to ensure your 3D prints stick well to the build plate

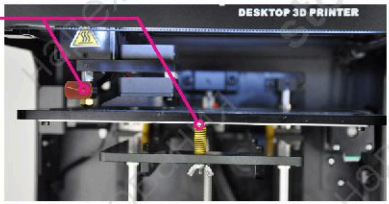
How to level the build plate

When leveling the build plate you must follow the step 4/21 until 10/21 on the display where the first step **4/21 control the height by rotating this button**.



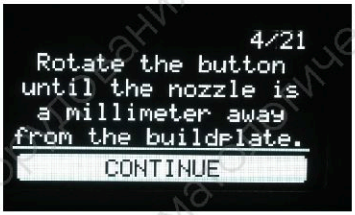
In the step **5/21** you rotate **this left build plate screw** under the build plate to **control the height between the nozzle and the build plate.** In **6/21** you adjust a similar build plate screw on the right hand side.

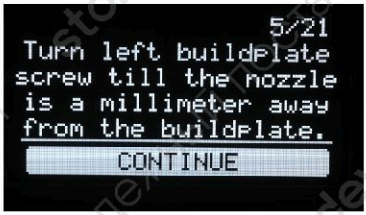
Rotating left means closer to the nozzle.



CAUTION: In these steps the print head will automatically move through the Duplicator 6. Also the Build plate will determine its destination by going up and down again.

Now, follow the display instruction **4/21** and, **5/21**, **[CONTINUE]** when finished.

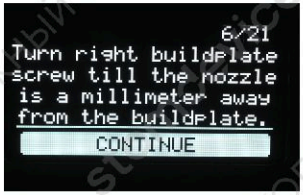




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D2.Leveling the build plate (continued)

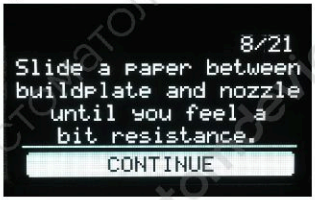
Follow the display instruction 6/21 and 7/21, [CONTINUE] when finish





We are going to do this again to fine tune the build plate. Please, make sure you have a piece of paper within reach and press [CONTINUE] to go to the next step. Make sure you turn the build plate screw to finetune this step if necessary.

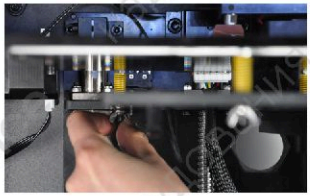
8/21. Follow display instruction as demonstrated in the supporting image and press **[CONTINUE]** when finished.





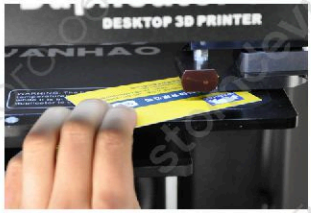
9/21. Follow display instruction as demonstrated in the supporting image and press **[CONTINUE]** when finished.





10/21. Follow display instruction as demonstrated in the supporting image and press **[CONTINUE]** when finished.





NOTE: If you have problems, or if you need to level your build plate again, you can use the [BUILD PLATE] function under [MAINTENANCE] through the standard menu.

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D3. Loading filament material

11/21.
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.



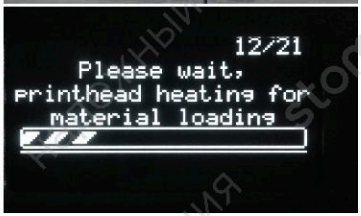
Please make sure you have a **filament spool positioned over the spool holder, guided along the filament guide**, with the filament in counter clockwise direction.





12/21.
In this step, you need to wait a minute while the printhead heats up. Wait for the onscreen progress bar to reach 100%.

NOTE: The printhead will now move itself to the front automatically.



13/21. This step needs some extra focus. The wheel in the material feeder will start rotating slowly. Push the level and insert the filament into filament hole at top of extruder. There is one hole where it should go into right above the feeding gear. Follow the display instruction with the supporting images below but WAIT! Before pushing(CONTINUE) and check the next page for more instructions.

Push the level bar and insert the filament into the hole until very end of the extruder(roughly about 16cm filament length). You can see the filament pop out from the nozzle. This takes some force. Then release the level bar.

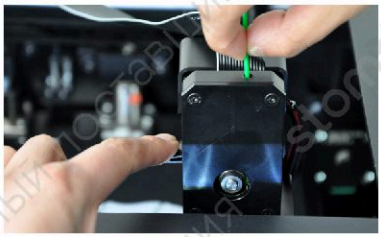




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D3. Loading filament material (continued)

You can **[CONTINUE]** this step, **13/21**, when the material is loaded until it reaches the Mk11 extruder nozzle.





14/21.
The filament is being pulled through the MK11 extruder quickly. Once you see the filament getting out of nozzle, push the button to stop extruding.



15/21.
Follow the instruction on the display. When the filament material exits from the nozzle, click the button to **[CONTINUE]**.

WARNING: Do not touch the extruder while it is heating, it is heating up to 220° C

NOTE: Don't be surprised if the material that initially comes out of the nozzle is not the color you expected. There's probably some filament left inside the nozzle. This is caused by testing the UDuplicator 6 before packing. Wait until you see the color that you loaded comes out of the nozzle before you [CONTINUE

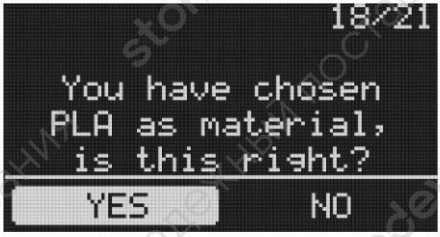


Follow the display instruction **16/21** and **17/21**. Make sure you choose the right material, this material type is usually indicated on the filament spool.

Press the **[READY]** to choose the material.

18/21. Confirm the selection by choosing [YES] or [NO]



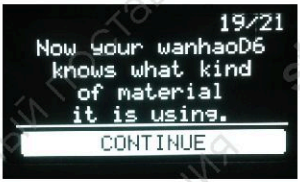


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D4. Make your first 3D print

19/21.
It is important to tell your D6 which type of material it will be using. D6 will adjust its settings to match with specific materials.

[CONTINUE] to go to the next step



20/21.
Now that the D6 has leveled its build plate and has material filament loaded, it can now begin to 3D print.

[ARE YOU READY] to go to the next step!



[LET'S PRINT] to start 3D printing!
Your SD-card comes with the file **[wanhao Robot]** click the button if you would like to print this file.



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D5. 3D printing and print removal

After you have chosen your **[wanhao Robot]** to print your D6 will prepare itself and heat its print head nozzle and build plate. (This can take up to 5 minutes)



WARNING: Do not touch the extruder while it is heating and in use. Temperatures can vary between 220° C and 260° C

While printing, the LCD display will indicate the progress of your print and the remaining time to completion. There is also on screen, the options **[TUNE]** and **[ABORT]**.



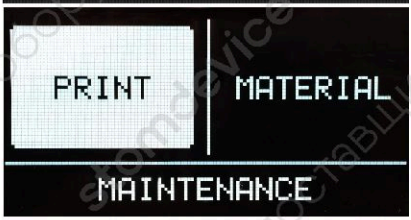
When your 3D print is finished, the display will indicate that the Duplicator 6 is cooling down.The progress bar indicates when it is safe to take out your print.

WARNING: Do not touch the print inside the D6 while it is still cooling down. Wait until the display tells you "Print Finished. You can remove the print". Some parts are cooling down from a temperature of max. 260° C and might be still very hot.





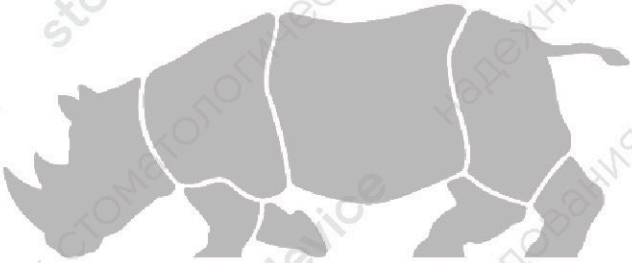
Now your print and your D6 is at a safe temprature. You can remove the print. Select the [**BACK TO MENU]** to start the next print. Also on this screen, you have the options to [**CHANGE MATERIAL]** and **[MAINTENANCE].**



Because you have completed the "First run wizard" this is now your home menu every time you start up your D6.

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MAKE A PRINTFILE WITH CURA SOFTWARE



WANHAO

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E1. Downloading and installing Cura

The preferred software for your D6 is **Cura** from wanhao.
This software package prepares your 3D model into instructions that your D6 uses to produce an object.

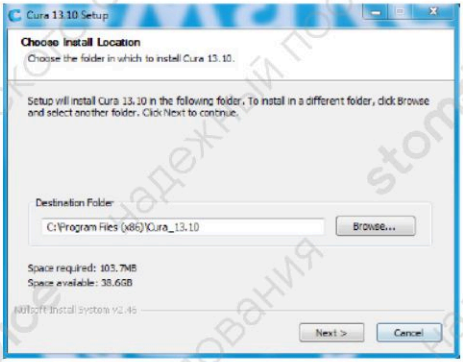
1. The Cura software package can be downloaded from the "**Down load** " section on our website: **http://www.wanhao3dprinter.com/Down/ShowArticle.asp?ArticleID=56**

2. Download the latest version of Cura for your operating system. Our software is available for, WindowsXP or newer, MacOS 10.6 or newer and Ubuntu Linux 12.10 or newer.

3. Open the installer and follow the directions to install the software.

4. After installing Cura, Cura will ask what kind of 3D printer you have. Select the **Duplicator 6**. No other configuration will be required, and Cura will be ready to use.

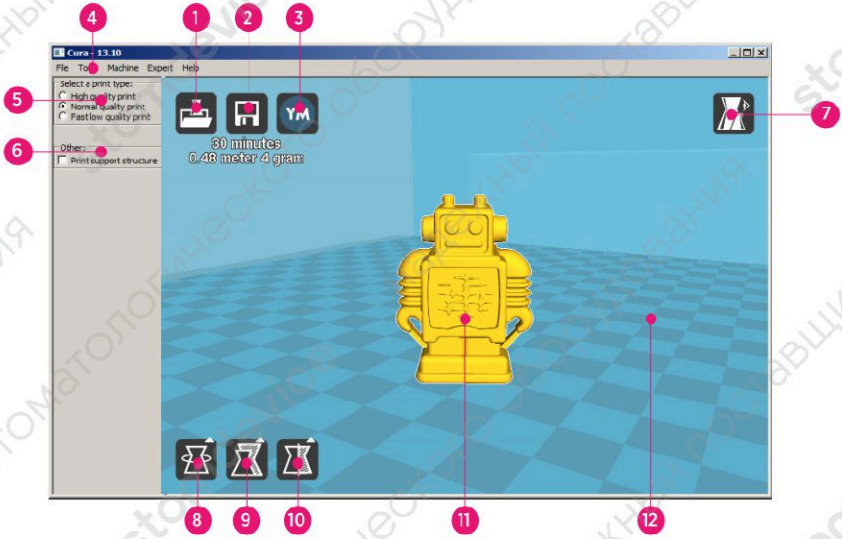
5. After the installation you will see the D6-robot positioned in the Cura interface.



NOTE: We keep on updating our software, so the latest version that you have downloaded might be a newer version than the one in this manual.

E2. Cura software interface

This is the main screen of Cura. Here you can choose which object or objects to print. And how you want them to be printed.



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. Save toolpath (SD)
When you press this button the prepared toolpath will be saved on the SD card.

3. Share on
YouMagine.com
Through this button you can share your 3D files on YouMagine.

4. Menu bar
In this bar you can change to Full settings, preferences and more expert settings

5. Print type profiles
3 options to choose a print profile.

6. Print with support structure
The option to give your model some support material to make the print more successfull.

7. View modes
After your model has been prepared for printing, you can use different view modes to analyse your design.

8. Rotate model options
Option to change the rotation of the object you like to print

9. Scale model options
Option to change the scale of the object you like to print.

10. Mirror model options
Options to mirror the object you'd like to print.

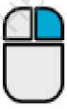
11. Loaded 3D model
This is the object you have loaded through the load file button.

12. 3D print volume
This is a visualisation of the print area of your D6.

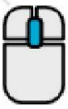
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E2. Cura software interface (continued)

The following mouse actions are used to work, navigate and view the 3D model:



Leftmouse button
Select objects. Hold and move the mouse to drag object on the 3D print area.



Scrollwheel button
Use the scroll wheel to zoom in or out.



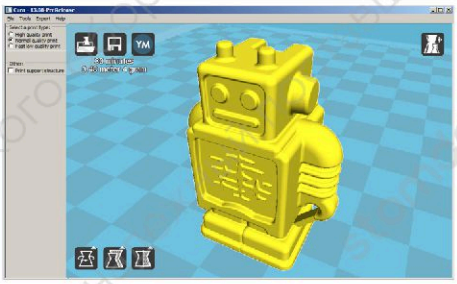
Rightmouse button
Hold and move the mouse to rotate the viewpoint around the 3D model.



Rightmouse button + Shift
Hold and move the mouse to pan the 3D view.



Right and left mouse button
Hold and move the mouse to zoom.



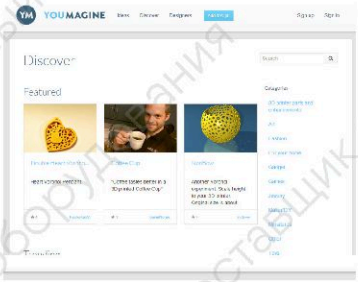
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E3. From YouMagine.com to load file in Cura

Now that you are familiar with Cura we continue to explain how you can download a 3D file from YouMagine.com and load this into Cura.

Youmagine. com is an online community for 3D printing.

1. Open your browser and go to **www,youmagine.com**



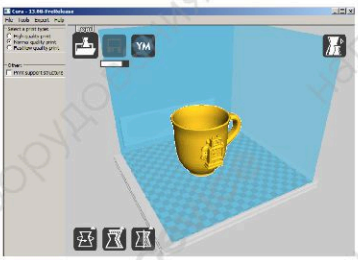
2. Use the search field at the menu bar next to the magnifying glass to find a model of your interest. Let's search for example "coffee cup" and 'Enter'.

3. Choose a design you like.



4. The following page will provide you a 'Download' button where you can get your .stl file which is needed to print a 3D model.

5. The .stl file can be loaded into the Cura software, explained more fully in the next chapter.



Tip: If you've made a 3D design yourself, you can contribute back to the YouMagine community!

NOTE: The screenshots may not look and work exactly the same because this platform is in continuous development.

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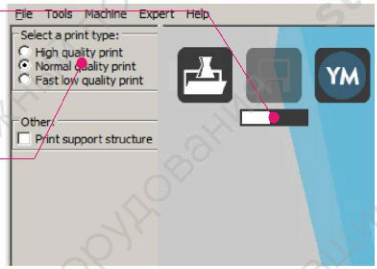
E4. Preparing a 3D model

1. Most 3D printable files that you will find on YouMagine.com are in the STL format. Let's start by clicking on the **Load** button in Cura.

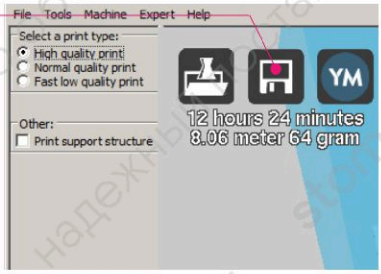


2. When you have loaded a file into Cura you might notice the **progress bar**.
Cura is automatically making the 3D model print ready for you.

3. In the meantime you can adjust settings and select a print type.



4. When the 3D model is prepared, the Save toolpath button shows up and gives you the option to save the prepared model in a directory.
Underneath the button Cura gives you an indication about your print on
- Estimated Print Time
- Amount of material required
- And the weight of your 3D print



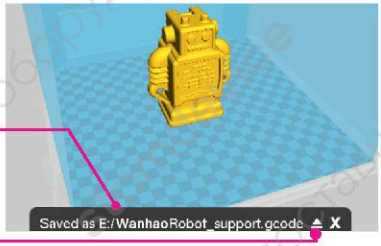
5. After you inserted the included SD-card into your computer, Cura changes the **Save toolpath** Button into the **Toolpath to SD** Button



6. Just after you choose for the **Toolpath to SD** button you will see the same progress bar but now it saves the file on the SD card.

7. When finished saving It will give you the notification that **your file has been saved.**

8. Before taking out the SD-card make sure you always choose the **safely eject** button in Cura.



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E5. From SD-card to print your file

1. After saving the file and safely ejecting your SD-card from your computer, it is time to insert it in the **SD-card Slot** at the front of your D6.



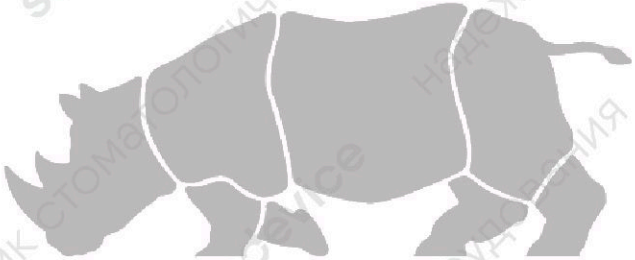
2. By rotating the button and selecting **[PRINT],** you can now choose your desired print model from the SD-card.



Note: If you would like know more about Cura check the total Cura manual on our website: http://www.wanhao3dprinter.com/Down/ShowArticle.asp?ArticleID=56

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MAINTENANCE FOR YOUR WANHAO DUPLICATOR 6



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F1. In General

To achieve the best possible results from your Duplicator 6, some basic annual maintenance is recommended. This chapter contains tips which helps you to keep the Duplicator 6 running at it's best.

Before you make a print a quick check is advised. A visual check is recommended to see if there is not any:
- old prints/objects on the build plate.
- make sure no one can possibly walk over, damage or pull out the power supply cable.

Updating firmware with USB cable
Once a while Cura will give you a mention that new firmware available. New firmware means that we have optimize the control of the electronics which will gives better print results and user experience. If you see this mention, connect the USB cable between your computer and your Duplicator 6 and follow the instructions in Cura.

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F3. Change filament and material feeder

Removing filament

In the Duplicator 6 the filament material can be changed. As you have learned in previous steps there is no need to do this all by yourself because the Duplicator 6 helps you with that.
1. Go to the **[MATERIAL]** tab on the main menu of the display. Press the button: next go to **[CHANGE]**, this can be done by turning the wheel next to the screen. Press the button.
Note: firmware updates in the future may use a different terminology.

2. Your Duplicator 6 will heat up so the material can be removed later. When the required temperature is met, the feeder will turn by itself and retract the filament.

3. Rewind the filament on the filament spool and make sure it cannot uncoil at a later moment (secure with hole in spool, tape or anything that works).

Feeding materia

4. When you took the filament from the spool, you (can) replace it with a new spool, follow the **instructions on the display.**



5. In the last step of the instructions we make sure that the printer knows what kind of material you have inserted in your machine. Select on the display the material that is **identified on the spool.**

Clean material feeder

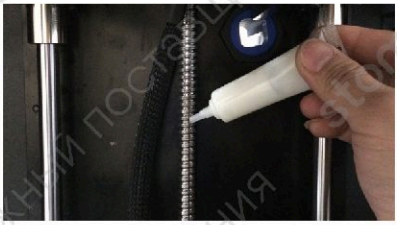
After a lot of printing, the wheel in the material feeder can accumulate small plastic particles.You can clean this by blowing air on the wheel or using **a simple brush**.

F4. Lubricating the axes

Z-Axis

After approximately every half year the threaded rod on the z-stage has to be lubricated. A green grease (Magnalube-G) is included with the D6. This grease is the lubrication which has to be used on the threaded Z-stage rod.

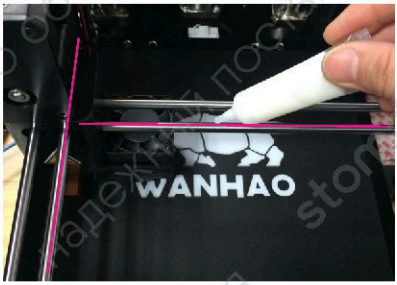
Note: the green grease should be applied as is shown in the photograph.



Make sure you spread 10 drops of grease over the entire exposed threaded rod. With you next print on the Duplicator 6 the Thread will grease itself by moving up and down.

X-Y-Axes

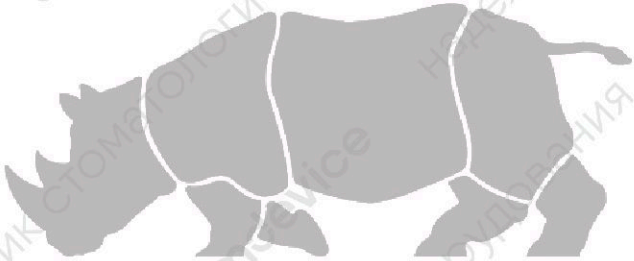
If you notice small wavers in the outside surfaces of your 3D printed objects. It is recommended to add a single drop of sewing machine oil onto the **X and Y steel axes bars**. This will inprove the smooth movement of your Duplicator 6. This lubrication is **not included** in the Duplicator 6 package.



If you choose to lubricate the X- and Y-axis you **MUST use sewing machine oil**. Apply a maximum of one droplet oil on the axis.
Remove any excess oil.

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TROUBLEHOOTING AND SUPPORT FOR THE WANHAO DUPLICATOR 6



WANHAO

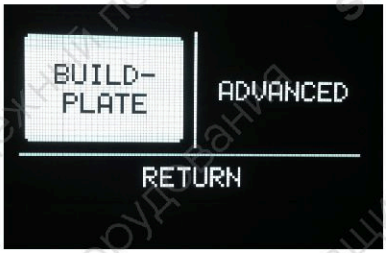
G1. Simple Troubleshooting tips

In case something goes wrong with your D6, the following chapter will help you. From diagnosing and fixing the problem yourself to contacting support.

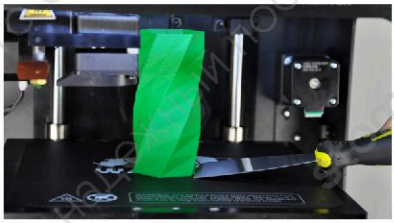
Print detaches during printing or print does not stick at all.
Cause

Build plate is not properly leveled.
Solution

Follow the instructions under **[MAINTENANCE]** and then **[BUILD-PLATE]**



Solution
Use a spatula or another thin object such as a wedge between the glass and the object. Slowly push the wedge under the object from different directions. If the object will not release from the build plate try slightly tapping the wedge.



Caution: be very careful when using a sharp tool to remove objects.

Material feeder ticks when loading new material Cause
Material has reached the nozzle and is exiting the nozzle, the feeder cannot keep up with the flow.

Solution
While loading new material it is normal for the feeder to tick, the feeder is designed to tick backwards instead of grinding the material.

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G1. Simple Troubleshooting tips (continued)

Not enough material is released from the nozzle.
Cause
Material feeder on the back of the Duplicator 6 is ticking while printing. Nozzle is blocked or partially blocked by dirt or burned material.
Solution
Increasing the print temperature to 260C while printing in an attempt to clear the blockage. If the blockage is removed keep printing at 260C for at least 10 minutes to clean out any residue.
Second cause
Printing at 260C does not solve the blockage.
Solution
Something larger than 0.4mm could be blocking the nozzle. Cleaning the nozzle or replacing it is recommended. Contact support: support@wanhao3dprinter.com who will assist in fixing your Duplicator 6.

Material flow stops and material is ground down by the feeder.
Cause
Nozzle could be blocked or partially blocked.
Solution
See "Not enough material is released from the nozzle." for causes and solutions.
Second cause
Too much pressure is put on the material by the feeder.
Solution
Release the pressure on the feeder a bit by adjusting the build plate screw clockwise.
Third cause
Too little pressure is put on the material by the feeder, causing the material to slip.
Solution
Put more pressure on the feeder a bit by adjusting the pressure screw counter clockwise.

Duplicator 6 display only shows "ERROR - STOPPED", "Temp Sensor"
Cause
A problem with the temperature measurement has been detected, the printer has been switched off for safety reasons.
Solution
It indicates an electronics problem. Contact support: support@wanhao3dprinter.com who will assist in fixing your Duplicator 6.

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G2. Contact support

In case you run into difficulty not addressed in this manual, please feel free to contact our support staff through email, phone and of course our support ticket system.
See **support@wanhao3dprinter.com** for details.

There is also a wealth of information, tips and amazing wanhao printed objects on our busy online forum community. These forums can be reached online at
https://groups.google.com/forum/#!forum/wanhao-printer-3d
Drop by and say hello !

If you need any help resolving an issue you can always email our support department at:
support@wanhao3dprinter.com

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G3. Terminology

ABS filament: This is a well-known plastic known for its strength and industrial properties.
Active cooling fan: The fan that cools the print head as it is printing.
Build plate: The frame that supports the glass print plate.
Cura: Open Source Software that allows you to turn your 3D model into a printable file.
Display: The OLED display provides the menu for controlling the Duplicator 6.
Filament guide tube: The plastic tube that guides the filament from the material feeder to the print head.
Firmware: The software that runs on the electronic board.
Gantry: The construction of metal rods that allow movements on the x- y- and z-axis.
G-code: The code that comes out of the slicing process of a 3D model in Cura. It describes the movements of your print head.
Glue: The glue can be used as an adhesive between your build plate and your model.
Knurled wheel: Gives grip to push the filament in the filament guide tube.
LED strip: It is a strip which contains several small lights (Light Emitting Diodes) to light the Duplicator 6.
Material feeder: The feeder that drives the filament through the filament guide tube into the heater.
Material feeder tensioner: The tension with which the filament is pushed through material feeder can be adjusted by tuning this tensioner.
Nozzle: The opening at the end of the print head. The filament is being pushed through the opening and will put down on your build plate.
PLA filament: This is a hard bioplastic that has a low environmental impact. It is derived from renewable, starch-based resources. It has a very low shrinkage which is helpful for great prints.
Build plate screws: These screws can adjust the leveling of the build plate.
Power supply: The A/C power supply. It consists of a block and a power cable. The cable can have different power plugs (US, EU,AU,UK). It depends on what kind of electric outlet is used in a country.
Power switch: Turns the wanhao on or off.
Print head: The assembly that melts the filament and pushes it through the nozzle onto the build plate.
Print head fans: The fans which cool the filament as soon as it is put onto the build plate.
Push button: By rotating and pushing the button in front of the Duplicator 6, you can access the control panel.
SD-card: Secure Digital memory card that can store digital data. The card that can be used with the wanhao has to be an SD-card and not an SDHC card.
It has to be formatted with FAT16 or FAT32 with a maximum capacity of 2GB.
Slicing: The process that turns a 3D model into code that can be used with 3D printers.
Slider blocks: The slider blocks maintain the connection between the gantry axes.
Spool holder: The plastic piece attached to the back of the Duplicator6. It can hold different kinds of filament spools.
.stl: A widely used file format for 3D models.
Threaded rod: The long rod behind the build plate which is threaded. This rod makes the build move up and down.
USB cable: The cable that allows direct communication between the D6 and a computer, using
the USB interface on the computer.
YouMagine.com: A website where you can share your models and download (3D) models from the people within the youmagine communnity.

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G4. Safety and Compliance

Warning
This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

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Repair and Refurbished Goods or Parts Notice

Unfortunately, from time to time, faulty products are manufactured which need to be returned to the Supplier for repair.

Please be aware that if your product is capable of retaining user-generated data (such as files stored on a computer hard drive, telephone numbers stored on a mobile telephone, songs stored on a portable media player, games saved on a games console or files stored on a USB memory stick) during the process of repair, some or all of your stored data may be lost. **We recommend you save this data elsewhere prior to sending the product for repair.** You should also be aware that rather than repairing goods, we may replace them with refurbished goods of the same type or use refurbished parts in the repair process.

Please be assured though, refurbished parts or replacements are only used where they meet WANHAO's stringent quality specifications.

If at any time you feel your repair is being handled unsatisfactorily, you may escalate your complaint. Please telephone us on 86-571-23290996 or write to us at:

WANHAO Precision Casting Co.,Ltd
77, RENMING ROAD, JINHUA, CHINA
WANHAO Help Desk 86-571-23290996
(Operating Hours: Mon - Sat; 8:00am - 5:00pm)
support@wanhao3dprinter.com
www.wanhao3dprinter.com



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