# you can **WANHAO**

# MARK II Duplicator 6 Plus



**USER MANUAL** 



# **Table of Contents**

A.	Weld	come to WANHAO D6 Plus	4		
	A1.	The wanhao experience	5		
	A2.	Specifications of the WANHAO D6 Plus	6		
В.	Get started and unpack your WANHAO D6 Plus				
	B1.	Unboxing your WANHAO D6 Plus	8		
	B2.	What's in the box	12		
	В3.	WANHAO D6 Plus at a Glance	13		
C.	Installing parts on your WANHAO D6 Plus				
	C1.	51 117	15		
	C2.	Installing filament: spool holder and guide	16		
	C3.	Switch on/off the WANHAO D6 Plus	17		
D.	First use of your WANHAO D6 Plus				
	D1.	First time startup	19		
		Leveling the build plate	20		
		Loading filament material	22 24		
		Make your first 3D print	25		
		3D Printing and print removal	23		
E.	Make a print file with Cura software				
	E1.		27		
		Cura software interface From YouMagine.com to load file in Cura	28 30		
		Preparing a 3D model	31		
		From SD-card to print your file	32		
F.		intenance for your WANHAO D6 Plus	33		
г.	F1.	•	34		
	F2.		35		
	F3.	3	36		
G.					
	G1.		38		
	G2.	Contact support	40		
		Terminology	41		
	G4.	3,	42		
	Rep	air and Refurbished Goods or Parts Notice	43		
	NO	TES	44		

# WELCOME TO THE WANHAO D6 PLUS



# **A1.** The WANHAO Experience

This User manual is designed to help you start your experience with D6 Plus. 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 Plus.

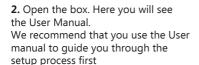
Technical Specifications							
Primary Attributes	FDM Type Printer, Fully assembled. Entry Level						
of the Technology	Desktop Home Printer.						
Software	CURA, Repetier Host, Simplify 3D, & Others						
Extruder System	MK11 Extruder with Full Metal Hot End						
Material Support	PLA, PVA, PC, PETG, ABS, Most Other Filaments						
Bed Leveling	Auto bed leveling,Manual leveling						
Max Printable Area	200*200*180mm						
Filament Diameter/Light	1.75mm						
Max Printing Speed	70mm/S						
Case Material	Steel Case						
With Enclosure?	Optional						
Extruder Quantity	1						
Accuracy	X 0.0125mm						
	Y 0.0125mm						
	Z 0.005mm						
Material Cost	USD12-34						
Net Weight(kg)	20kg						
Gross Weight(kg)	22kg						
Packing Size(cm)	46x46x55cm						
Plateform Holder	Steel frame holder						
Layer Thickness	100 micron- 400 micron						
Rail Locking System	Steel Locking Frame						
Print Bed Type	Aluminum Plate, Heated						
Resume Printing	Can Resume Printing After Power failture						
LCD Display	English/Chinese or Customize Any Language						
Power Supply	Internal 110V or 250V(optional), 50/60Hz, 4.0A						
	(Input), Uses Standard IEC Cable						
Typical Application	•A perfect printer for educators who intend to						
	use the printers in technical education.						
	•Great printer for DIY Hobbyist.						

# GET STARTED & UNPACK YOUR WANHAO D6 PLUS



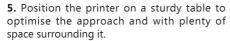
# **B1. Unboxing your D6 Plus**

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



**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.



**NOTE:** Please do not use excessive force when unpacking your D6 Plus. Excessive force may lead to damage to the D6 Plus and its components.











**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 mat out from the printer gently.



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



**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.



**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



# 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.









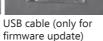
Filament spool

Spool holder

Tweezers

Power supply cable







Memory Card



Card reader







Scrape



**B3. D6 Plus at a glance** 

- 1. MK11 extruder
- 2. Leveling Sensor
- 3. WANHAO printing mat
- 4. Super thick Guiding Rod
- 5. SD card slot
- 6. LCD Display





**WANHAO Duplicator 6** 

- 9. Cable locker
- 10. Extruder Cable
- 11. USB Socket
- 12. Power switch
- 13. Power Socket

# INSTALLING PARTS ON YOUR WANHAO D6 PLUS



# **C1.** Installing power supply

## Attaching power supply

Now the next step is to give the D6 plus 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 D6 plus, 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 D6 plus.
- **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 D6 plus 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.









# **C2.Installing filament: spool holder**

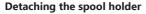
## Attaching the spool holder

**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.



**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.











# C3.Switch on/off the D6 Plus

## Switch off the D6 plus

The on/off button (a.k.a. '- | O') of the D6 Plus is located at the back. The 'O' represents off and the '-' represents on. When it's switched to the '-' the D6 Plus is turned on and should start up.

After the D6 plus has been turned on, the front LED display should light up and the sides should glow.



## Switch off the D6 plus

The D6 plus can be turned off by pressing the power switch to '**O**' at any time, it is recommended to only turn off the D6 plus when it is NOT in use.

When the D6 plus is switched off, the display and lights will automatically turn themselves off.



# FIRST USE OF YOUR WANHAO D6 PLUS



# D1. First time startup

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

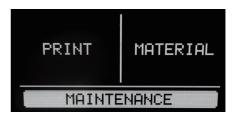


# Use of the display

### 1.

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.

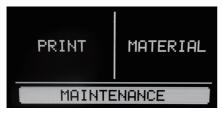
2.
Navigate to [MAINTENANCE],
[ADVANCED] and confirm for a
[Factory reset] You can use this
function for the first run wizard
at any time



3. When you read this step, Click the [AUTO BED LEVELING] to go the next step: To level the bed automatically.



# **D2.Leveling the build plate**





By click the **[AUTO BED LEVELING]**, the printer would start sensing 9 different spot on the building plate and record the offset data. All the leveling procedure would be finished automatically.



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

**NOTE:** Before proceed anything ,use a soft fabric to Wipe off the dusts from the building plate surface and clean it.

.

# D2. Manual leveling the build plate

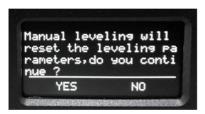
If the Auto leveling cannot meet your requirement or you would like to have specific Leveling. You can Manual level the bed.

Click ADVANCED - MANUAL LEVEL THE BED





**NOTE:** Manual leveling would remove all the former leveling parameters. By confirm yes, you can go on manual leveling.



**NOTE:** If you want to restore the auto leveling parameters. You need to do Auto Leveling again.

# D3. Loading filament material

Now that you have completed the initial leveling tasks. Please navigate----ADVANCE----Move 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.



In this step, you need to wait a minute while the printhead heats up. Wait for the temperature reach target.

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



**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 10cm filament length). You can see the filament pop out from the nozzle. This takes some force. Then release the level bar.





# D3. Loading filament material (continued)

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

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.



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 your D6 Plus before packing. Wait until you see the color that you loaded comes out of the nozzle before you [CONTINUE].

Follow the display instruction.

Make sure you choose the right material, this material type is usually indicated on the filament spool.

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

Confirm the selection by choosing [YES] or [NO]

# D4. Make your first 3D print

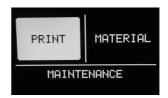
It is important to tell your D6 Plus which type of material it will be using. D6 Plus will adjust its settings to match with specific materials.

[CONTINUE] to go to the next step

Now that the D6 Plus 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.





# D5. Resume Printing after power failture

If you encounter a power failure, for any reason such as power interruption or

accidentally cut the power cord during printing. Don't worry, D6 PLUS comes with printing resume feature. After power interruption

can power on the printer and select [Continue] and you can proceed with the unfinished model

you









**NOTE:** For resuming printing Don't move the extruder until the printer finish printing, Otherwise the resume printing position would not be as accurate as it should be. Wait for the Extruder to be heated, and do not touch the nozzle with your hand which may cause burning.

# D6. 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].

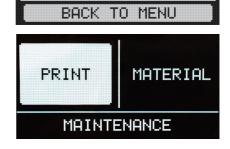
When your 3D print is finished, the display will indicate that the D6 Plus is cooling down. The progress bar indicates when it is safe to take out your print.

**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 Plus 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 Plus.





# MAKE A PRINTFILE WITH CURA SOFTWARE



# 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



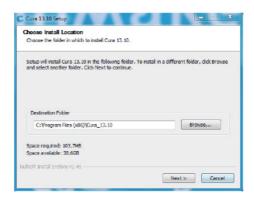
2. Download the latest version of Cura for your operating system. Our software is available for, WindowsXP or newer, MacOS 10.6 or newer and Ubuntu Linux 12.10 or newer.







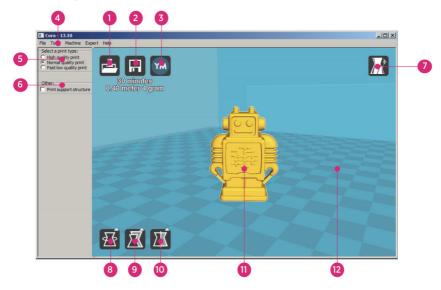
- 3. Open the installer and follow the directions to install the software.
- 4. After installing Cura, Cura will ask what kind of 3D printer you have. Select the **D6 Plus**. No other configuration will be required, and Cura will be ready to use.
- After the installation you will see the D6-robot positioned 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.

# **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.



# 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'.

YM YOUMAGINE

- 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!



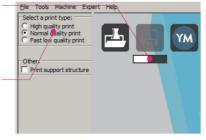
NOTE: The screenshots may not look and work exactly the same because this platform is in continuous development.

# 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.



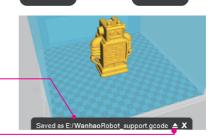
4. When the 3D model is prepared, the Save toolpath button shows up and gives you the option to save the prepared model in a directory.

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



- 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.

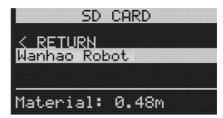


# E5. From SD-card to print your file

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 Plus



**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

# MAINTENANCE FOR YOUR WANHAO D6 PLUS WANHAO

# F1. In General

To achieve the best possible results from your D6 Plus, some basic annual maintenance is recommended. This chapter contains tips which helps you to keep the D6 Plus 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 D6 Plus and follow the instructions in Cura.

# F2. Change filament and material feeder

### Removing filament

In the D6 Plus 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 D6 Plus 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 D6 Plus 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.

# F3. 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 D6 Plus 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 D6 Plus. This lubrication is **not included** in the D6 Plus 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.

# TROUBLEHOOTING AND SUPPORT FOR THE WANHAO D6 PLUS



# **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** 

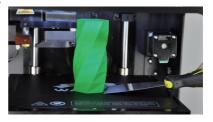
Follow the instructions under [MAINTENANCE] and then [Auto bed leveling]



### 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

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.

# **G1. Simple Troubleshooting tips (continued)**

### Not enough material is released from the nozzle.

### Cause

Material feeder on the back of the D6 Plus 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 D6 Plus.

# 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.

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.

Put more pressure on the feeder a bit by adjusting the pressure screw counter clockwise

# D6 Plus 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.

It indicates an electronics problem. Contact support: support@wanhao3dprinter.com who will assist in fixing your D6 Plus.

# **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 <a href="https://groups.google.com/forum/#!forum/wanhao-printer-3d">https://groups.google.com/forum/#!forum/wanhao-printer-3d</a>
Drop by and say hello!

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

support@wanhao3dprinter.com

# **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 D6 Plus.

**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 D6 Plus.

**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 D6 Plus, 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 D6 Plus. 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 community.

# **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.





# 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



NOTES:			



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