

万物 VANSHAPE

# LCD 3D 打印机

USER MANUAL FOR LCD 3D PRINTER



专业3D  
3d printer manufacturer  
打印机制造商











专业 敬业 合作 共赢  
profession Dedication Cooperation Double-win

## 目录 CONTENTS











一、注意事项 Warnings	1
二、机器参数 Parameters	5
三、机器配件 Printer and spare parts	6
四、设备部件名称 Spare parts	7
五、操作屏功能内容 Functions on the operation screen	8
六、打印平台调平说明 Instructions on adjusting the printing platform	13
七、首次打印说明 Instruction on first printing	16
八、软件安装 Software installation	17
九、界面简洁 Interface	18
十、信息修改 Printing process	21
十一、常见问题汇总及机器的维护 Common issues and machine maintenance	30

## 一、注意事项 Warnings

在组装、使用时请时刻谨记以下注意事项,不遵守这些警告可能会使机器损坏,甚至造成人身伤害。

-  收到货后 若缺少任何配件 请即刻联系客服核对以便进行补发!
-  从打印平台取下模型时,注意不要将尖锐物品划向手指。
-  如遇紧急情况,请直接关闭万协VAN30 3D打印机的电源。
-  万协VAN30 3D打印机包含高速运动的工作部件,谨防夹手。
-  组装万协VAN30 3D打印机或者打磨模型,建议戴上护目镜。
-  请将人万协VAN30 3D打印机及其配件放在儿童触碰不到的地方。
-  请于宽敞、平整、通风良好的环境下使用万协VAN30 3D打印机。
-  长时间不使用机器,请注意对,万协VAN30 3D打印机进行防雨、防潮保护。
-  环境温度建议为8°C-40°C,湿度为20%-50%,  
在此范围之外使用,可能带来不良的打印效果。
-  切勿私自拆装万协V30 3D打印机,如有问题,请联系万协科技售后服务。

If the following cautions are not observed, machine breakdown and even bodily injuries.

-  If you find that any spare part is lost when you receive the package, please contact our customer service team immediately for check and re-sending.
-  When removing the model from the printing platform, be careful not to scratch your fingers with sharp objects
-  When emergencies occur, please turn off the power of Van 30 printer directly.
-  Van30 3D printers have fast-operating components, please be careful in case that your hands will be clipped.
-  It is suggested to wear goggles when you assemble the van 30 3D printer or print 3D models.
-  Please put van 30 printers in a place out of a child's reach.
-  Please use van 30 3D printers in a spacious, flat and well-ventilated environment.
-  Please protect van30 3D printers from rains and humidity if it is not used for a long time.
-  We suggest you use this printer at the temperature of 8°C-40°C and humidity of 20%-50%, otherwise bad printing effects will be delivered.
-  Please do not assemble the Van 30 3D printer. For any question, please kindly contact our customer service team.

## 前言

尊敬的用户：

感谢您选择、使用本公司的产品。为了您使用方便，请您在使用之前仔细阅读该说明书，并严格按照说明书的指示进行操作。

我们团队时刻准备为您提供优质的服务。在使用过程中无论遇到什么问题请按照说明书结尾所提供的电话、邮箱与我们进行联系。

本次V1.0说明书依据工程样机编制而成。固件升级将导致界面软件出现变动，但不影响产品的使用。操作界面以实际收到的货品为准，感谢大家对本产品的支持。

为了您能够更好地体验我们的产品，您还可以从以下方式获取设备操作知识：  
随机使用说明：你可以在USB内找到相关使用说明及视频。

Dear customers,

Thanks for choosing our products.To use this equipment better,please kindly read the user manual carefully before operation.

The user manual of this version is compiled according to the true conditions about this machine. Due to the upgrading of related spare parts, the interface of software may be changed.But this will not affect the use of the machine. The operation interface is subject the actual products you receive. Thanks for you support.

To get a better experience of our products,you can acquire the instructions in the following way. User manual,you can find the instructions on using this product and operation video.

## 使用须知

1. 请勿尝试任何使用说明中没有描述的方法来使用本机，避免造成意外人身伤害和财产损失；
2. 请勿将本机放置在易燃易爆物品或高热源附近，请将本机放置在通风、阴凉、少尘的环境内；
3. 请勿将打印机放置在振动较大或者其他不稳定的环境内，机器晃动会影响打印机打印质量；
4. 建议使用厂家推荐耗材，以免造成打印机的损坏；
5. 电源插头需接插在带有地线的三孔插座，请使用本机附带的电源线，勿在安装过程中使用其他产品电源线代替；
6. 请勿皮肤直接接触光敏树脂或接触到眼睛，若引发皮肤过敏或者不适，请立刻用清水冲洗，如情况严重请及时就医；
7. 请勿清洗打印成品或接触光敏树脂时触碰到皮肤，光敏树脂是一种对皮肤有刺激的环氧树脂，请务必带上防护手套进行操作；
8. 请勿随意取出料槽，防止成型平台上的树脂滴漏到屏幕上；
9. 请勿用尖状的锋利品刮到料槽离型膜，料槽如有打印残留物，可先取下成型平台再取出料槽，清空树脂，用过滤网过滤掉残留物，清理料槽残留物时注意保护好料槽，料槽为易耗品；
10. 请勿阳光直射或有强光的空间使用，机器应在空气清洁，无明显漂浮物，温度： $26 \pm 5$ 摄氏度，为了优质的打印质量，请在室内恒温的环境下打印。

## Operation guidance

1. Please do not try any method not described in this manual to use the machine to avoid bodily injuries and property loss.
2. Do not place the machine near flammable , explosive materials or high temperature heat sources . Please place the machine in a ventilated , cool and dust-free environment ;
3. Do not place the printer in a vibrating or other unstable environment . The shaking of the machine will affect printing quality of the machine.
4. It is recommended to use consumables recommended by the manufacturer to avoid damage to the printer .
5. The power plug needs to be plugged into a three-hole socket with a ground wire.Please use the power cord provided with this machine . Please do not replace this power cord with power cords designed for other products when installing the printer .
6. The skin and eyes can not get exposed to the photopolymer resin . If skin allergy is caused or you feel bad after touching it , please wash your skin immediately . If the condition is worse , please go to the hospital immediately.
7. Do not wash the printed product or touch the photosensitive resin in the skin. Photosensitive resin is a kind of epoxy resin with pungent smell , please wear protective gloves for operation .
8. Please do not take out the resin tray randomly in case that the resin on the platform will drip onto the screen .
9. Please do not scrape the resin tray film in the resin tray. If there is residue in the tray ,you can take out the molding platform, then take out the resin tray. After taking out the tray, please remove the resin in it and filter the residue in the tray with a filter screen. At the same time, please protect your tray because it is a consumable.
10. Please do not use the machine in direct sunlight or in space with strong light. To ensure good printing quality,the machine should be used in a indoor environment where the air is clean,without obvious floating objects and the stable temperature is  $26 \pm 5$  degree celcius.
11. Please do not look at the screen with your naked eyes when testing it to avoid damage to the eyes.Wear ultraviolet-proof glasses to check if the irradiation on the screen is normal.

## 二、机器参数 Parameters

操作 Operation	4.3 inch color screen
切片软件Slicing software	3D print
打印方式Printing method	USB stick,WIFI,network cable
X Y XY resolution	51 $\mu$ m(1620*2560)
Z轴精度Zresolution(layerthickness)	0.01mm-0.1mm
打印速度Max printing speed	50mm/hour
专用耗材Printing size	Photosensitive resin
光源配置Light source	Parallel UV light
打印屏幕Printing screen	6.08 inch monochrome screen
操作系统XY resolution	Win7 or above
额定功率Projection resolution	72W
打印方式Printing method	130*80*140mm(L*W*H)
成型尺寸Support function	202*220*365mm
设备尺寸Slice software	365*310*465mm
包装尺寸File format	9.2KG
设备净重Suitable system	Windows 7 or above
额定电压materials	110-220V,50/60Hz
输出电压Wavelength	12V-6A

### 三、机器配件 *Printer and spare parts*

3D 打印机



3D printer

打印平台



Printing platform

工具包



Spare parts package

料盘



Tray

序号	配图	配件名称	数量
1		U 盘	1
2		金属铲刀	1
3		塑料铲刀	1
4		油漆刷	1

序号	配图	配件名称	数量
5		螺丝刀	1
6		电源	1
7		清洁垫板	1

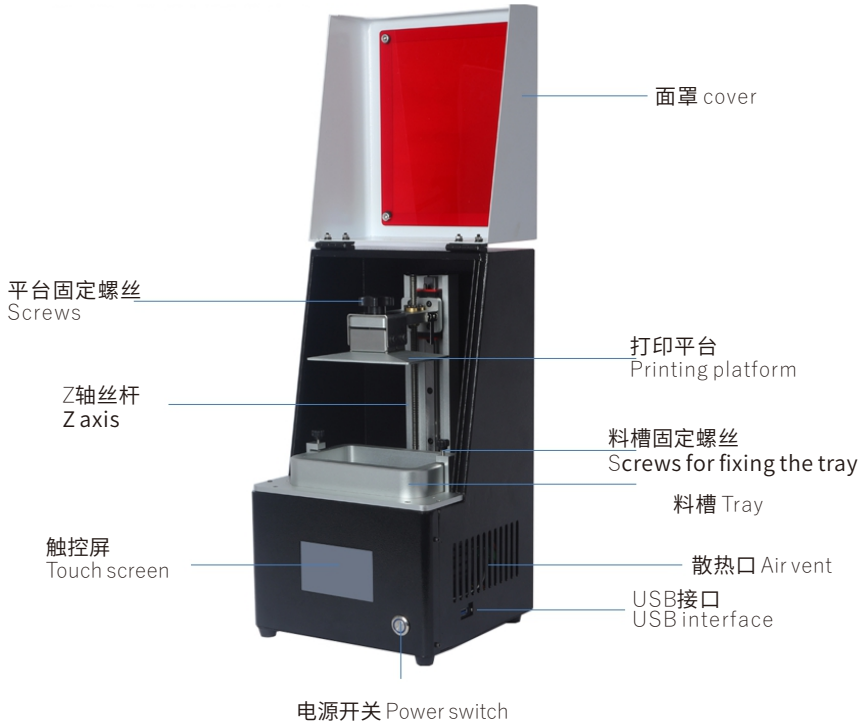
序号	配图	配件名称	数量
8		口罩	2
9		纸漏斗	2
10		手套	2
11		离型膜	1

序号 NO    配图 Image    配件名称 name    数量 quantity

- |                           |                        |                         |
|---------------------------|------------------------|-------------------------|
| 1. U盘    USB stick        | 5. 螺丝刀    Screwdrivers | 8. 口罩    Face mask      |
| 2. 金属铲刀    Metal shovel   | 6. 电源    Power cord    | 9. 纸漏斗    Funnel        |
| 3. 塑料铲刀    Plastic shovel |                        | 10. 手套    Glove         |
| 4. 油漆刷    Paint Brush     |                        | 11. 离型膜    Release film |



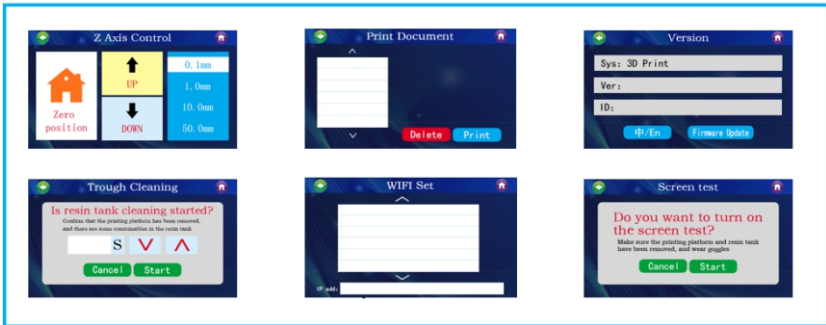
#### 四、设备部件名称 Spare parts



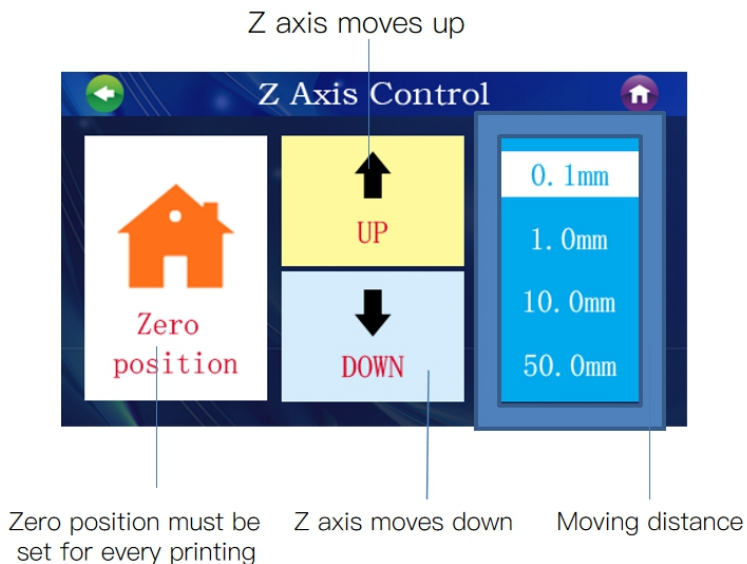
## 五 Functions on the operation screen

### Operation interface

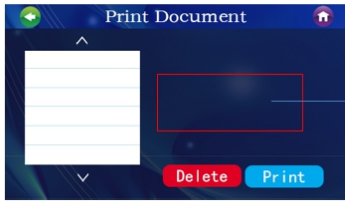
Main interface



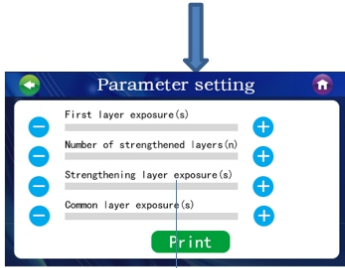
## Control interface



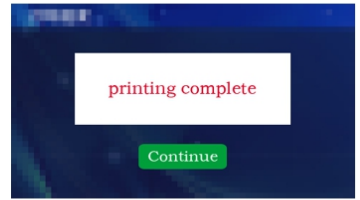
## Print interface



File preview



Adjust printing parameters



## Version software



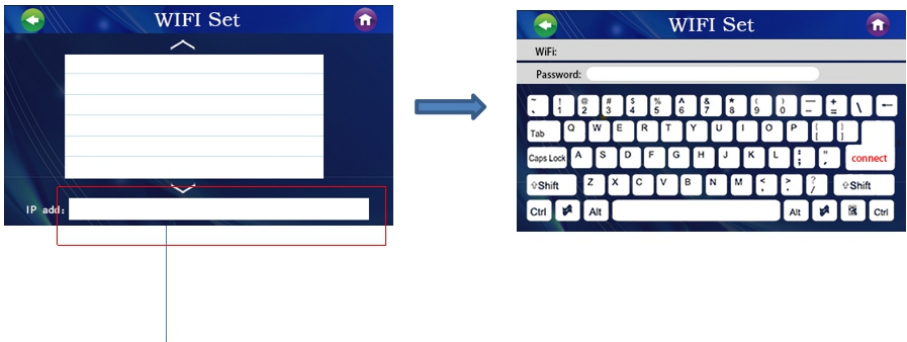
Versionno of up dated firmwares

input ID no. when installing the slice

# Clean tray

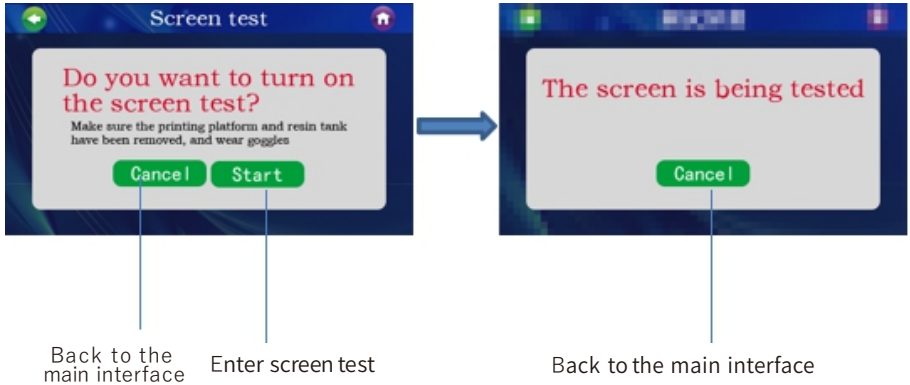


# Internet



input IP address when printing files through

## Screen test



## 六、打印平台调平说明 Instructions on adjusting the printing platform

### Instructions on adjusting the printing platform

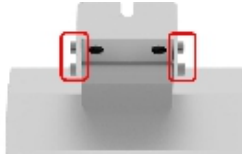
1. Open the package and take out all the spare parts.  
Plug in the power cord and turn on the switch.



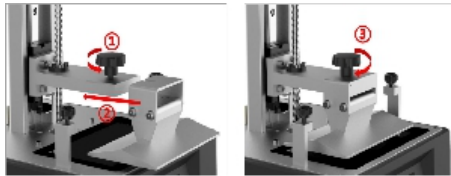
2. Back to home page, click "tool" -> "move Z axis", and lift Z axis to 10mm



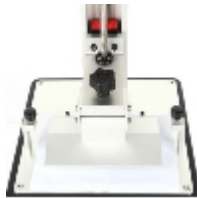
3.loosen the four screws on the printing platform



4.install the printing platform

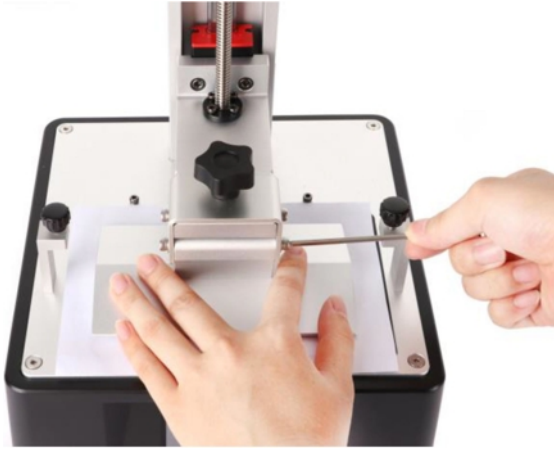


5.Put a piece of paper on the curing screen(a gift for this printer),

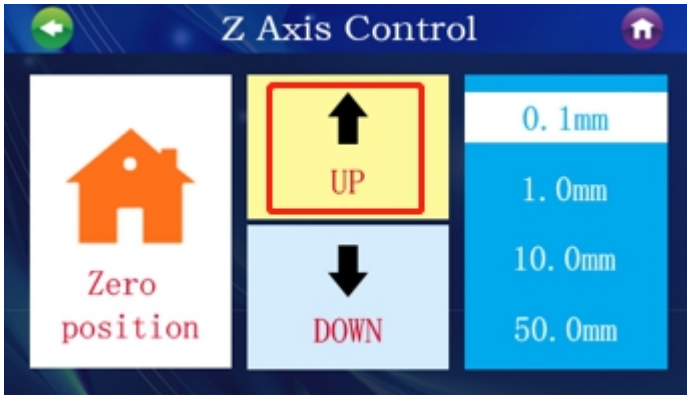




7.Press the platform and fasten the 4 screws.

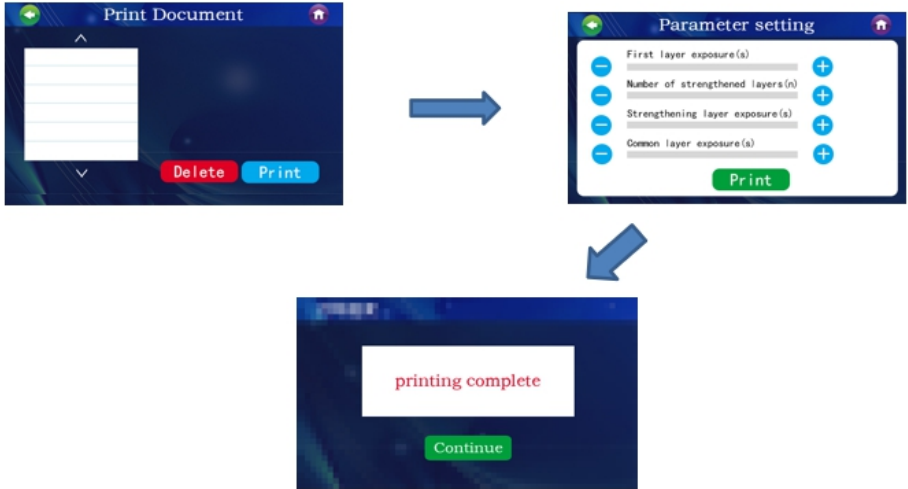


8.After the operations above, click back to control interface.  
When the platform will moves up to the height of the tray,  
remove the paper out of the platform.



## 七、首次打印说明 *Instructions on first printing*

### Instructions on first printing



1、打印模型将U盘插入机器U盘插口(测试模型“1.yxp”已保存至U盘内),先戴上口罩和手套,然后向料槽中缓慢倒入树脂,(注意树脂不能直接接触皮肤)。盖上盖子,点击操作屏上的“打印”,选中“1.yxp。”模型,然后调打印参数,开始打印。(操作屏上显示的打印时间仅为预估时间,模型打印时间请以实际打印时间为准。)

1. Plug the USB stick into the USB socket on the machine (Test model 1.yxp has been stored in the USB stick).
2. Wear your face marks and gloves, then pour resin into the resin tray slowly (Please do not touch the resin directly on skin).
3. Close the cover, click “print” on the operation screen, select the model “1.yxp”. Then adjust the printing parameters to start printing.

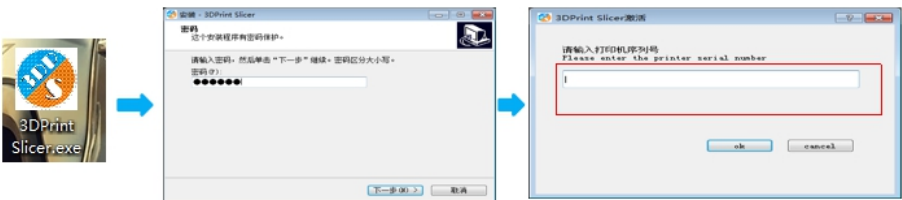
## 八、软件安装 Software installation

### Check ID address



Serial number

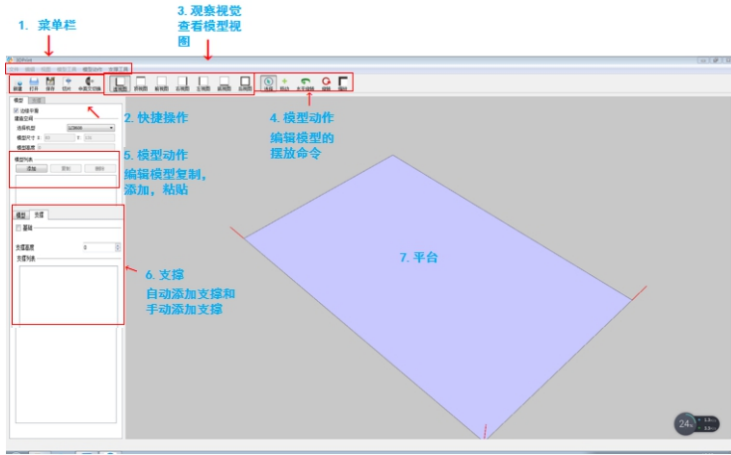
The ID number of every printer is different. The printer can be used after "add printer" is input. **password needs to be input when installing the software. Serial number needs to be input to activate the the software before opening it.**



Double-click the installation package to finish installation-open the 3D printing software -input ID number of the 3D printer.

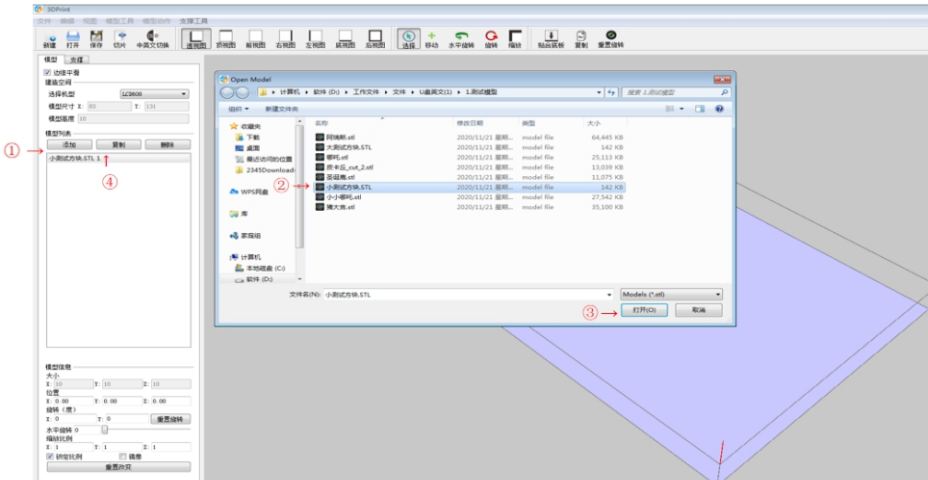
## 九、界面简介 Interface

### 界面简介 Interface



1. 菜单栏 Menubar
2. 快捷操作 Quick and simple operation.
3. 观察视觉查看模型视图 Vision observation,check model view.
4. 模型动作编辑模型的摆放命令。 Editing position of models.
5. 模型动作编辑模型复制添加粘贴 Copyadd and glue models.
6. 支撑自动添加支撑和手动添加支撑 Support automatically and manually add support.
7. 平台 Platform

## 添加模型 Add models



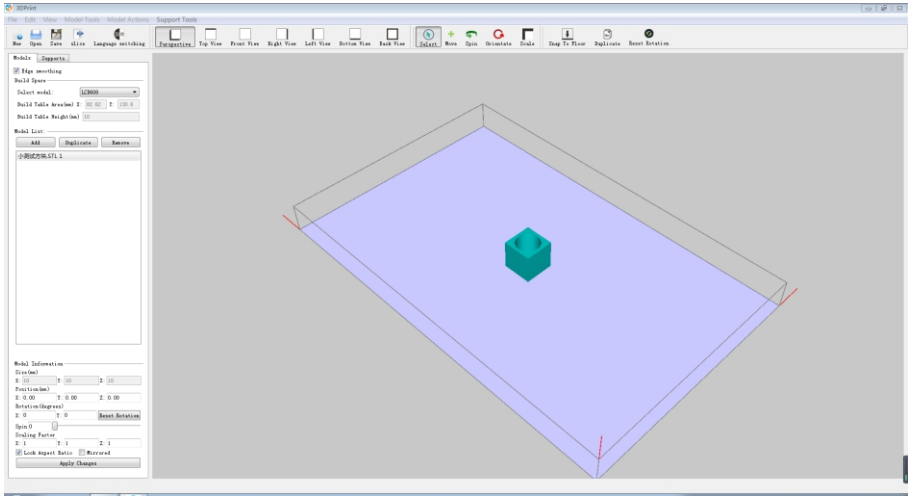
### 添加模型

- ① 点击添加-②选择Stl格式文件模型-③打开模型
- ④ 复制同个模型或删除

### Add models

- ① Click add-② Select model in Stl format-③ Open the model
- ④ Duplicate or remove the same model

## 观察视图 Observe view



### • 查看视图

- ① 右键移动画面。
- ② 点击要查看的视角

### Check view

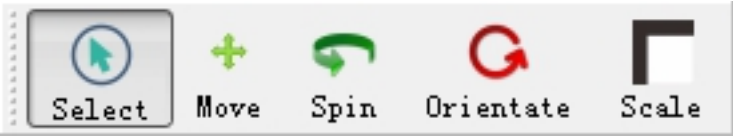
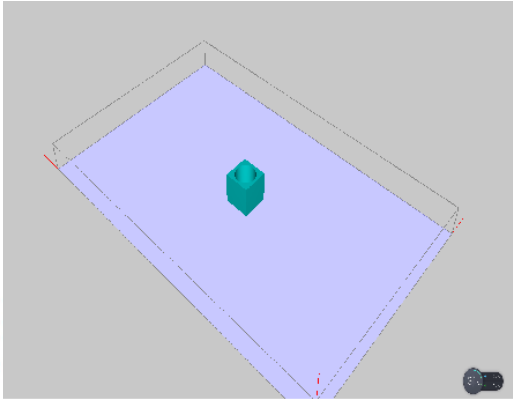
- ① Click on the right side of the mouse to move the view.
- ② Click the perspective you want to check.

可输入数值改变模型的位置、角度、和大小

The position, angle and size of the model can be changed by inputting figures

# 十、信息修改 information revision

The screenshot shows a software interface with a sidebar on the left and a main 3D view on the right. The sidebar contains a '模型' (Model) section with a '选择' (Select) button and a '模型列表' (Model List) area. Below this is a '模型信息' (Model Information) section with fields for '大小' (Size), '位置' (Position), '水平旋转' (Horizontal Rotation), and '缩放比例' (Scale Ratio). The '位置' field has sub-fields for X, Y, and Z coordinates. The '水平旋转' field has a '重置旋转' (Reset Rotation) button. The '缩放比例' field has a '锁定' (Lock) checkbox and a '重置比例' (Reset Ratio) button. The main 3D view shows a blue cube on a light blue plane, with a red dashed line indicating a selection or manipulation path.



**Models**   **Supports**

Edge smoothing

Build Space

Select model: LCD608

Build Table Area(mm) X: 82.62 Y: 130.6

Build Table Height(mm) 10

Model List:

Add   Duplicate   Remove

小测试方块.STL 1

Model Information

Size (mm)

X: 10 Y: 10 Z: 10

Position (mm)

X: 0.00 Y: 0.00 Z: 0.00

Rotation (degrees)

X: 0 Y: 0   **Reset Rotation**

Spin 0

Scaling Factor

X: 1 Y: 1 Z: 1

Lock Aspect Ratio    Mirrored

**Apply Changes**



- 模型信息(Enter键确认)
- model information (click Enter to confirm)

大小:大小数据

Size: data about size

位置:XYZ坐标的值确定位置。

Position: The value of XYZ coordinate determines position.

缩放因子改变模型的大小比例, 勾选锁定比例等比例缩放, 镜像物体。

旋转:垂直旋转角度, 更换不同角度, 重置旋转。

Orientate: models can orientate at a vertical and different angle, orientation can be reset.

模型动作 Models

移动:与位置功能相似, 鼠标左键移动任意摆放。

Nove: similar to position. Models can be moved and randomly placed by clicking the left key of the mouse.

缩放:与缩放因子功能相似, 鼠标左键拖动任意大小。

Scale: similar to scaling factor. Press the left key of the mouse and move the mouse to change the size of models.

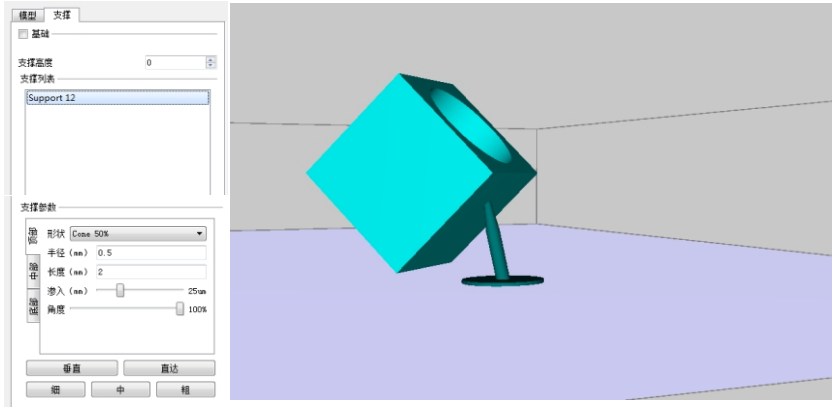
水平旋转:与旋转功能相似, 鼠标左键拖动任意旋转。

Spin: similar to orientate, Press the left key of the mouse and move the mouse to spin the model

垂直旋转:鼠标左键拖动模型任意垂直旋转。

Vertically orientate: Press the left key of the mouse and move the mouse to orientate the model vertically.

## 添加支撑 Add support



### 手动支撑

#### 1. 支撑高度:

设置为0时贴合底面,0以上模型会悬浮。

#### 2. 支撑参数:

- ① 图形:支撑“图形”为形状,顶部一般设为cone50%,中部和底部一般设为cylinder
- ② 半径:设置接触面的大小。
- ③ 长度:每个部分的高度,中部会自动换算。
- ④ 渗透:支撑对模型浸透的深度
- ⑤ 角度因子:决定支撑倾斜度。

#### 3. 快捷修改:

Shift+左键:随意改变支撑角度。Ctrl+左键:随意改变半径和长度。

左键:随意移动顶部和底部支撑位置。(修改支撑角度可以避开模型重要部位)

## Manual supports

### 1. Support altitude:

When you set 0, the supports overlap the bottom.

When you set the value of over 0, the supports will float.

### 2. Parameters:

① Image: the images of supports are shapes.

The tops of supports are set cone50%, mid and bottoms are cylinder.

② Radius: set the size of contact areas.

③ Length: the height and middle part of every support will be automatically converted.

④ Penetration: the depth at which the supports penetrate the model

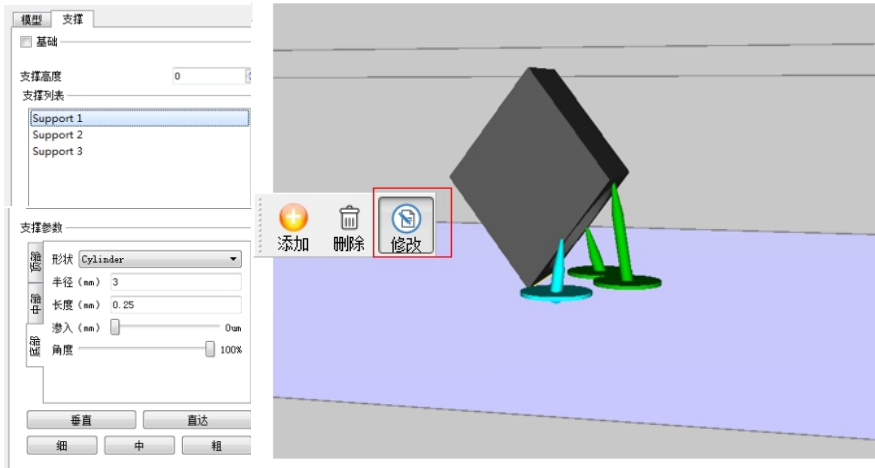
⑤ Angle factor: determines the slop of supports.

### 3. Quick modification:

Press shift+left mouse button: modify the angle of supports.

Ctrl+left mouse button: modify radius and length.

Left mouse button: move the position of support on the top or beneath the bottom.



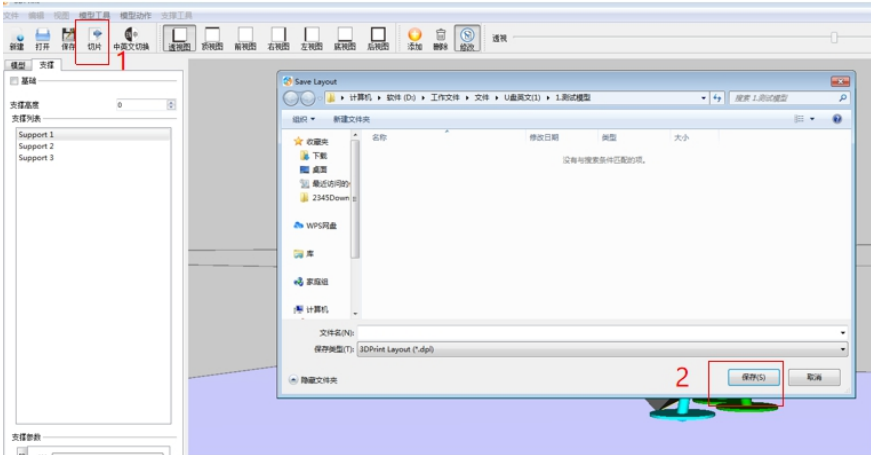
### 添加支撑

1. 底板:增加底板可以加大粘性。
  2. 删除支撑:选中后删除、修改部分支撑。
  3. 修改支撑1 :删除所有支撑、重置支撑参数、修改支撑粗细。
  4. 修改支撑2 :选择添加、删除、修改,支撑的更改。
- X光透视:查看内部结构

### Add supports

1. Bottom: stockiness can be increased by adding to bottom
  2. Delete supports: select supports to delete or modify some of supports.
  3. Modify supports1: delete all supports, reset support parameters and modify thickness of supports.
  4. Modify supports 2: click add, delete, or modify to edit supports.
- X-ray perspective: check inside structure.

## 切片保存 Store sliced file

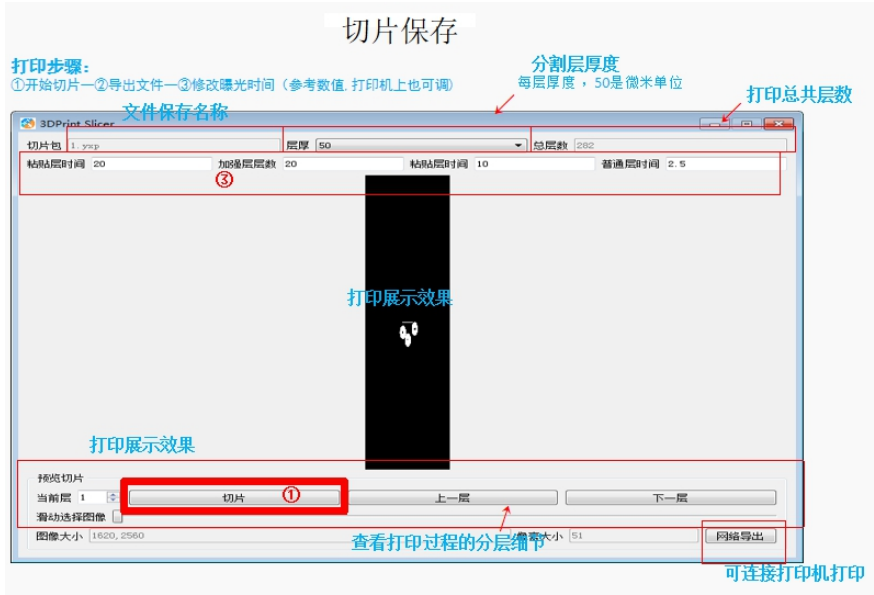


① 切片

② 保存dpl格式:可以保存添加后的支撑数据

① Slice

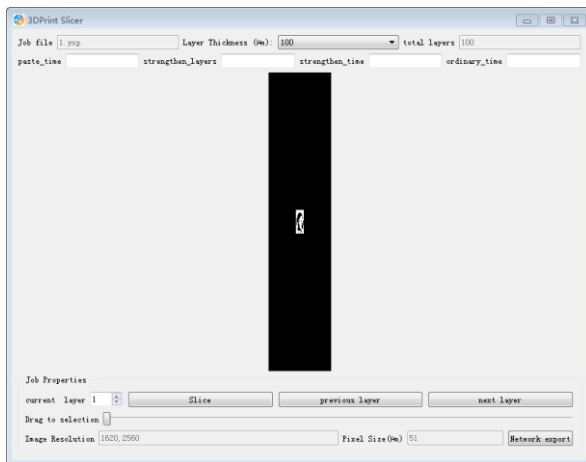
② Store the sliced file as DPL format: the model can be stored after supports are added.



## 切片保存 Store sliced file

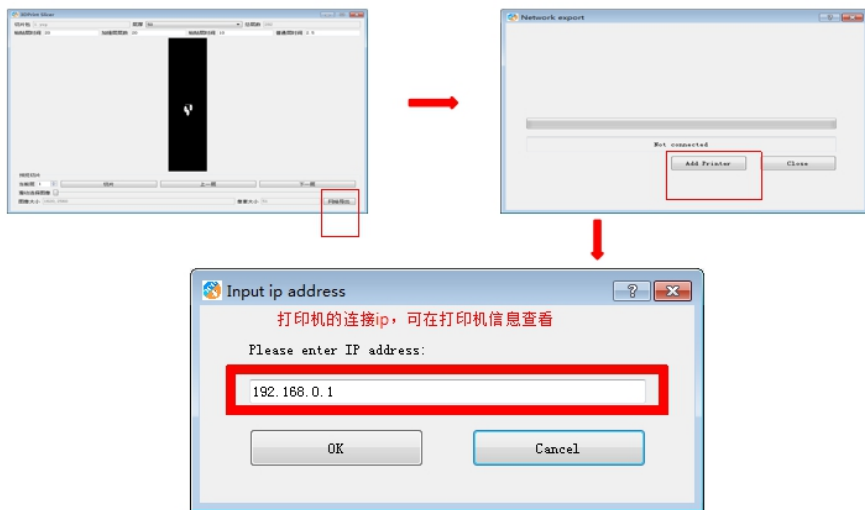
打印步骤:Printing steps:

- ① 开始切片—②导出文件—③修改曝光时间(参考数值,打印机上也可调)
- ② Start slicing--- Export file Revise exposure time  
(parameters can be adjusted)  
分割层厚度 Layer thickness  
每层厚度, 50是微米单位 Every single layer is 50um



## 网络导出 network export

### 网络导出



## 十一、常见问题汇总及机器的维护 Common issues and machine maintenance

### 常见问题汇总及机器的维护 Common issues and machine maintenance

#### 1、常见问题汇总

##### (1) 模型不粘平台

底层曝光时间不足, 请增加曝光时间

模型底面与平台接触面积小, 需要添加底衬

调平没调好(打印的首层过高, 或平台一边高一边低)

#### 1、Common issues

##### (1) Models don't stick to the platform

Exposure time of the bottom of the model is not enough. Please increase the exposure time.

the contact area between the model and platform is small, you need to set the bottom larger.

The platform is not leveled well. (the first layer of the model is too high, or partly high)

##### (2) 模型断层开裂

打印过程中机器晃动

离型膜长时间使用后松动, 需更换打印平台或者料槽没有拧紧

##### (2) There are cracks in on the printed models.

The machin shakes in printing.

A release film will be loose after a long time of use. It needs to be changed.

The printing platform or resin tray is not fastened well.

##### (3) 打印完成后续

待模型打印好后, 工作台会自动升高, 拿一张纸巾放在树脂槽往外这边,

以免我们取下工作台的时候会有树脂滴落到机器里面。

取下工作台后用手倾斜拿着, 让模型表面上的树脂滴到树脂槽里, 减少树脂浪费。

拿出来后用刀片轻轻的把底板和工作台分离开, 用镊子夹底板放入无水乙醇中清洗,

过两遍无水乙醇清洗掉表面液体树脂, 洗干净后用吹风机吹干。

处理时候要小心谨慎没有固化之前不能用手触摸模型, 否则会坏模型表面。

再放到装着80摄氏度热水的石英杯中, 水要没过模型, 放到固化箱中固化一小时左右。

固化好后表面干脆, 粘手。



### (3) After printing

After the 3D model is printed, the platform will move up. Put a piece of paper outside of the resin tray in case the liquid will drop in the machine when we take out the platform. Hold the platform by hand and tilt it so the liquid on the model will drop into the tray reduce a wast of resin. After taking out the platform from the printer, please take the following steps:

- (1) Separate the bottom from the platform with a blade.
- (2) Clamp the bottom with a tweezer and put the model in a absolute ethanol for cleaning. The liquid will be cleaned after two times of cleaning.
- (3) Dry the model with a hairdryer. (Attention: do not touch the model by hand, otherwise, the model will be damaged)
- (4) Put the model into a quartz cup with 80°C hot water. The depth of water must be smaller than the height of model. Then put the cup in a curing box to cure 1 hour. After being cured, the model will dry and sticky.

## 2、机器的维护 Machine maintenance



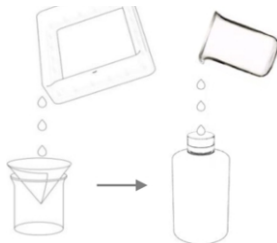
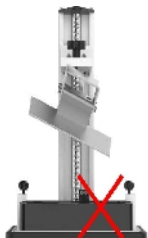
1、如Z轴工作过程中发出摩擦异响，请在Z轴丝杆上涂抹适量润滑油脂。

1.If any friction or noise occurs when Z axis screw works, please apply a proper amount of lubricating oil to the screw.



2、请不要用尖锐物品刮铲离型膜,以免损坏。

2.Please don't scratch the release film with sharp items.



3. 取平台时注意不要滑落,以免压碎固化屏
4. 48小时内不使用机器时需将树脂倒回储存罐里(需过滤掉残渣)。
5. 打印结束后注意清理干净平台(用纸巾直接擦干净或用酒精清洗)和料槽里面的残渣(用过滤漏斗过滤掉残渣)。
6. 若机器上不慎沾有树脂时,可用酒精清洗干净。
7. 切换不同颜色的树脂时应先将原来颜色的树脂清理干净。

再次感谢您选用万协科技产品!我们为产品(及配件)提供最高1年质保期。  
如遇任何问题,请登录万协科技官方网站(<http://vanshape.cn/>)  
提交售后申请,将有专业的售后技术团队倾力为您服务。

3. When taking the platform, please be careful in case that the platform slips from your hands to crush the curing screen.
4. If you don't use the machine for 48 hours, please pour the resin into the resin bottle back (The resin needs to be filtered)
- 5 After printing, please clean up the platform (with tissue or alcohol) and the residue in the tray (filter the residue with a funnel)
6. If the machine is stained with resin, you can clean it with alcohol.
7. If you need to print resin of other colors, please clean up the resin in the tray you printed last time.

Thanks again for choosing Vanshape brand products. Our machines are covered in 1 year warranty. For any problems, please visit our website (<http://vanshape.cn/>) and submit your after-sales service application to us. Our after-sales service team will provide you with satisfactory service.

# 万协 VANSHAPE

广州市万协科技有限公司  
Guangzhou Vanshape Technology Co.,Ltd

---

## 广州市万协科技有限公司

Guangzhou Vanshape Technology Co.,Ltd

地址: 广东省广州市番禺区沙湾镇福涌牛眠岗工业区一街10号

Add.: No.10, First Street, Niumiangang Industrial Park, Fuchong, Shawan  
Town, Panyu District, Guangzhou City, Guangdong province, China

电话/Tel: +86-20-3483-3255 传真/Fax: +86-20-3483-3255

邮箱/Email: [export@vanshape.com](mailto:export@vanshape.com)

网址/Web: [www.vanshape.com](http://www.vanshape.com)