Tiger3D Series

XHD / HD / XL / XXL / MD
3D Printers

Operators Manual
Version 1.0.2

Contents

Contents

1. Product Information

1.1 Regulatory Statements

FCC NOTICE

This equipment has been tested and found to comply with the limits for a class "A" digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference. This equipment generates, uses, and can radiate radio frequency energy. If not installed properly and used in accordance with the instruction manual, may cause harmful interference with radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at their own expense.

COMPLIANCE

This equipment conforms with International Electric Committee (IEC) 60950-1 and meets the requirements of the applicable EC directives.

$C \in$

1.2 Safety Precautions

Please read through the following **Safety Precautions** before you begin using your printer.

(1)   Use only the power adapter and accessories provided by the manufacturer for this printer.

(2)   Before plugging the power adapter into an electrical outlet, verify the local power rating conforms with the specified voltage and frequency.

(3)   This printer needs a grounded, 1-phase electrical power source.

(4)   Make sure power and communication cables are well managed to prevent injury.

(5)   Only use resins supplied by the Tiger3D manufacturer. Use of other unauthorized resins may cause printing failure.

(6)   Do not expose the resin tank to a direct light source; the resin will solidify under UV light.

(7)   Chemical substances like resin may cause skin irritation. Please read the guidelines in the Material Safety Data Sheet (MSDS) supplied by the manufacturer. It is recommended that the user wear protective gloves when handling resin.

(8)   Before lifting and moving the printer, be sure to dispose of the remaining resin in the reaction tank. Clean the tank in advance to prevent resin overflow.

(9)   Keep printer doors closed during printing or curing to prevent UV leakage.

(10) UV light may cause injury to the eyes. Do not stare directly into the printer when it is in operation. Wearing UV protective glasses is reccomended during printer operation.

(11) Place the printer on a level surface and keep it in an upright position at all times.

(12) Do not store the printer in extremely hot or cold temperatures.

(13) Do not attempt to disassemble or repair the printer yourself. Doing so may cause device malfunction or injury.

1.3 General Information

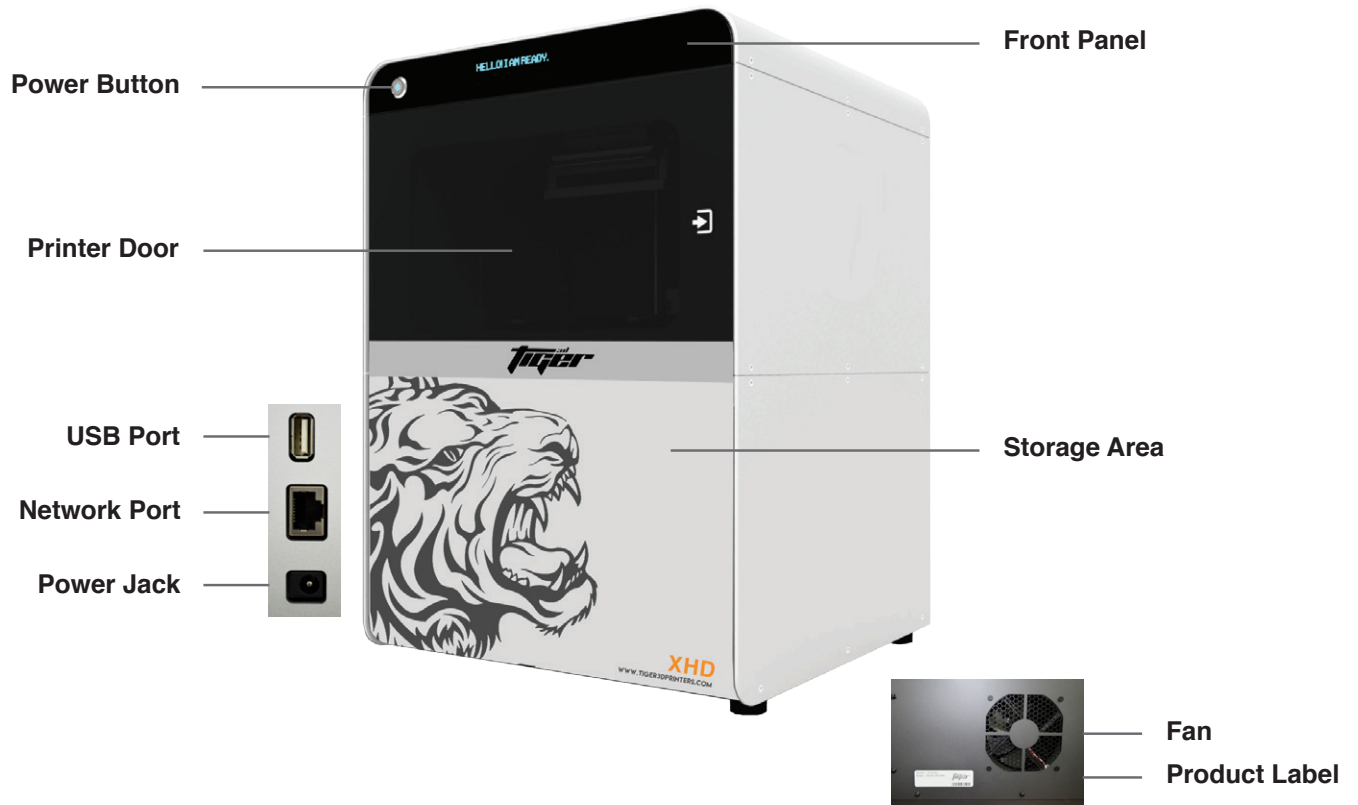|	
Product Names	Tiger XHD / HD / XL
Model Number	(XHD) 78-5050 (HD) 78-5080 (XL) 78-5000
Build Area (mm)	(XHD) 57 x 32 x 120 (HD) 80 x 45 x 120 (XL) 125 x 70 x 123
Resolution	(XHD) 30.μm (HD)41.5μm (XL)65μm
Wavelength	(XHD / HD / XL) 405nm LED
Layer Thickness	5 ~ 200μm
Printer Size	17 x 17 x 23 1/2" 83 - lbs
Printer	24V DC, 3.75A
File Input	.SLC, .ZIP(PNG), .CWS, .WRK
File Input Limitation	TigerController file input limitation from PC: 130 TigerController file input limitation from USB: 1GB
Interface	Ethernet Connection, USB (Direct Printing)
Power Input	With Adapter : 100~240V AC, 2A, 50/60Hz
Operating System	Windows 7, Windows 8, Windows 10
Network Browser	Google Chrome
Packaged Size and Weight	32 x 32 x 37 1/2" (including packing materials) 127.60 lbs
Operating Temperature	10°C to 30°C
Ideal Temperature	50 to 86°F (10°-28°C)
Humidity (RH)	40% to 60% The printer should be kept in a dry environment Store the materials at ambient temperatures, from 15°C to 28°C
Storage of Printing Material	Do not expose material to UV light; the resin may solidify.

● Please follow the operating manual as directed. Failure to do so may result in liable damages and possible injury.

● Repair should only be carried out by the authorized manufacturer.
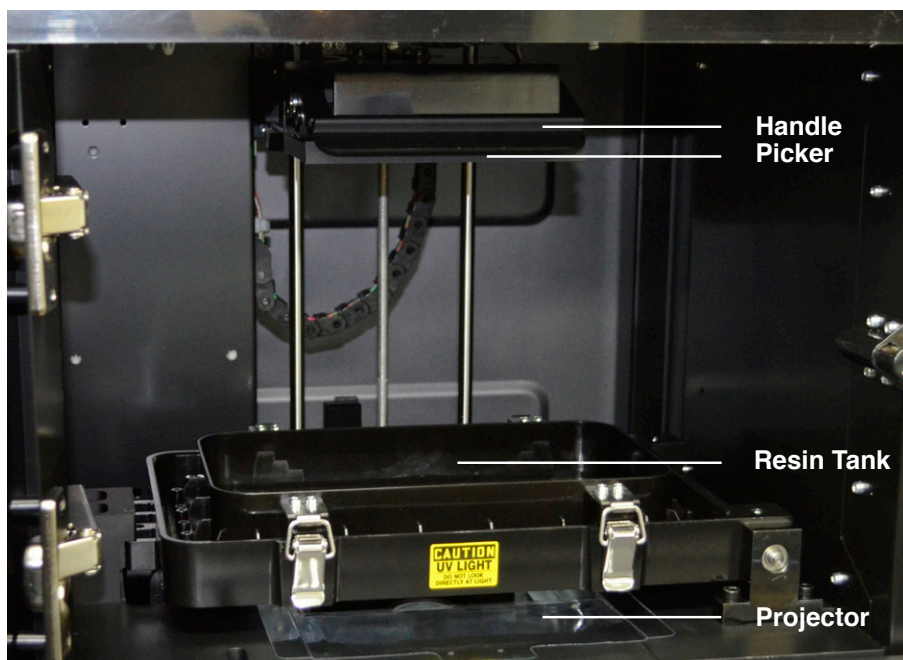
1.4 Package Contents

Please verify that you have received the correct printer and accessories. Contact our sales team if the printer or accessories are missing or damaged.

1.5 Product Overview

Front View

Power Button

Printer Door

USB Port

Network Port

Power Jack

Front Panel

Storage Area

Fan

Product Label

Inside

Handle

Picker

Resin Tank

Projector

# 2. Setting up your 3D Printer - Hardware

2.1 Unpacking

WARNING: Do not attempt to unpack or move the Tiger3D printer without assistance. Always use proper lifting techniques to avoid injury.

(1) Remove the top cardboard

(2) Remove the EPE inside the inner box

(3) Remove the side cardboard

(4) Remove the inner box

2.2 Connecting to the Power Adapter and Cable

(1) Connect the power cord and adapter to the printer before you plug it into an electrical outlet

(2) Connect the printer to your computer or laptop

- Basic : Connect printer to laptop with RJ-45 cable (Graph1.) [Initiating time; 1 minute]

- LAN : Connect both printer and laptop to local area network [Initiating time; a few seconds]

- IP sharer : Connect both printer and laptop to IP sharer [Initiating time; a few seconds]
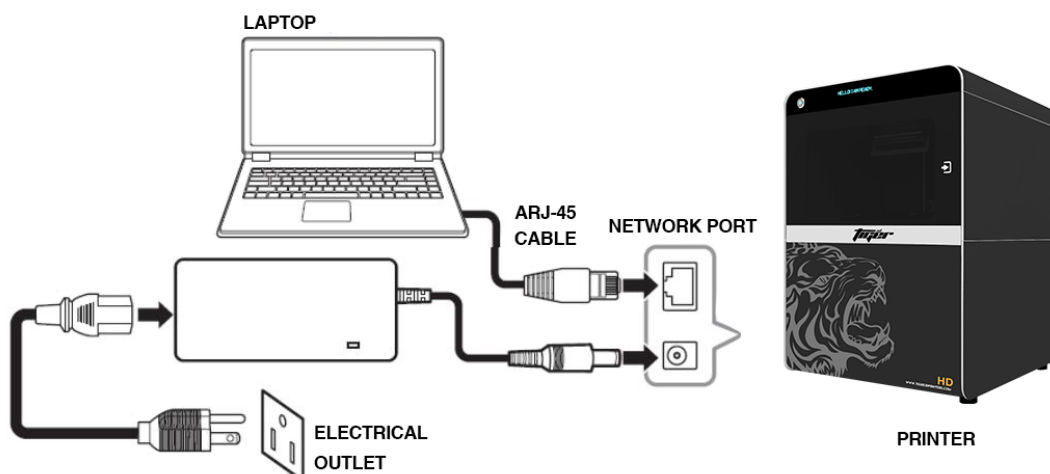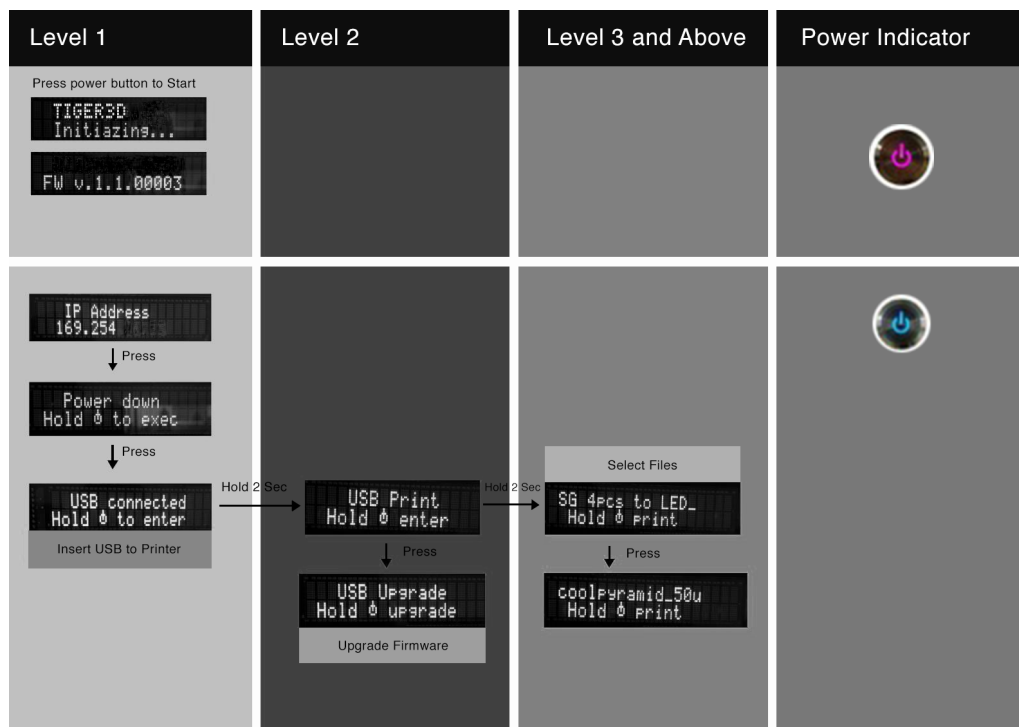
2.3 Power Button Control

To turn your printer on, press the Power button located at the top left corner of the printer. The system will begin warm up and the indicator light will turn purple. After a few seconds the indicator light will turn blue and the printer will be ready for use. The Power button is also used to select a file on a USB drive to print. Download the latest firmware from our website, or execute firmware upgrade by USB.

- **Press power button**: change mode in the same level
- **Press and Hold power button:** hold down the power button for up to 2 seconds to enter the next level

Level 1	Level 2	Level 3 and Above	Power Indicator
Press power button to Start TIGER3D Initiazing... FW v.1.1.00003			(purple indicator)
IP Address 169.254 ↓ Press Power down Hold ⏻ to exec ↓ Press USB connected Hold ⏻ to enter Insert USB to Printer	USB Print Hold ⏻ enter ↓ Press USB Upgrade Hold ⏻ upgrade Upgrade Firmware	Select Files SG 4pcs to LED_ Hold ⏻ print ↓ Press coolpyramid_50u Hold ⏻ print	(blue indicator)

Power Indicator:

Color		Behavior	Printer Status
Purple		Blinking	System warming up
Blue		Solid	Standby mode
		Blinking	Printing in progress
Red		Solid	Error

2.4 Installing the Picker

(1) Pick up and hold both ends of picker and carefully install it onto the machine.
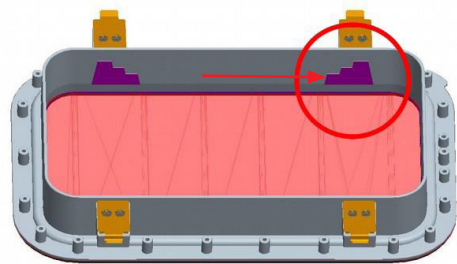

(2) Pull down the top handle to lock the Picker into place. To remove the Picker, lift the top handle and pull it out.
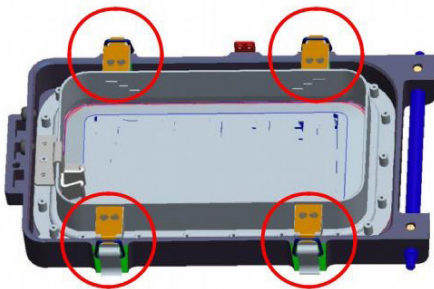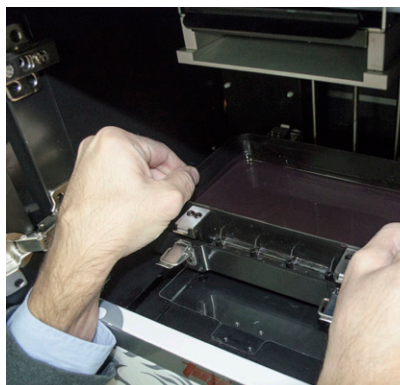
2.5 Filling the Resin Tank

(1) Pour resin into the resin tank.

(2) Fill resin up to the bottom step. **Do not exceed top line.**

(1) To remove resin tank, unlock the tank from the four corners.

(2) Pick up the tank and store in a clean black container.

NOTE: Before you begin printing, please remove EPE under resin tank.

If you remove the material tank, be sure to not contaminate the underside surface of the teflon.

3. Using PrinterTool - Software

3.1 Installing PrinterTool Software

(1) Download PrinterTool.exe from www.tiger3dprinters.com/support

System Requirements:

- Windows OS: Windows 7 , Windows 8, Windows 10 or other updated versions

- Browser: Google Chrome

(2) Unzip the downloaded file

(3) Click PrinterTool.exe to create shortcut of PrinterTool.exe

(4) Open PrinterTool.exe

3.2 Quick access Tool Bar

File Management

(1) View the quick access tool bar on the top of the screen.

(2) To enable "Create new file" , "open .2dp file" and then "Save .3dp file" . Your .3dl file will now be

in an editable format for PrinterTool. You can save your working status as a .3dl file

anytime, and open the .3d1 file to continue editing.

(3) Enable "undo" , and "redo action" to go back or forward to past actions.

(4) Enable "perspective view"   or "orthogonal view"   to change perspectives.

(5) The primary method of setting your view of the build area is to drag the mouse inside the viewport.

with the following key combinations:

Right Mouse Button - Rotates your view of the build table

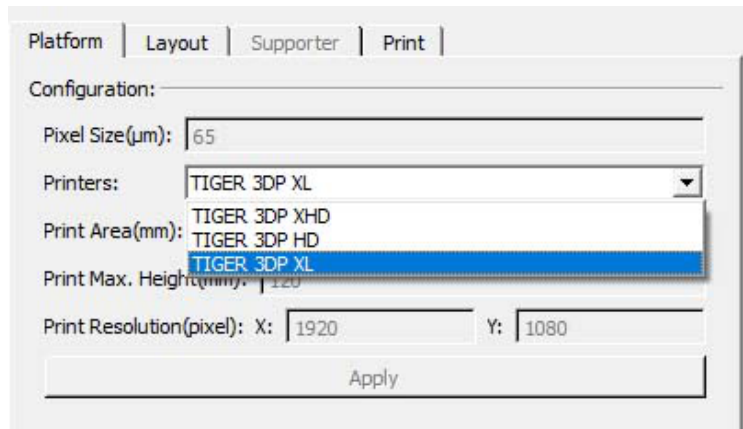**Middle Mouse Scroll** - Zooms in and out making the view of the build area larger or smaller

**Middle Mouse Button** - Move the build plate

Overview

There are 4 modes in the PrinterTool. Selection of modes appear on the right side of the screen. You
can switch between the 4 modes at anytime by clicking on the Platform, Layout, Supporter, or Print tabs.
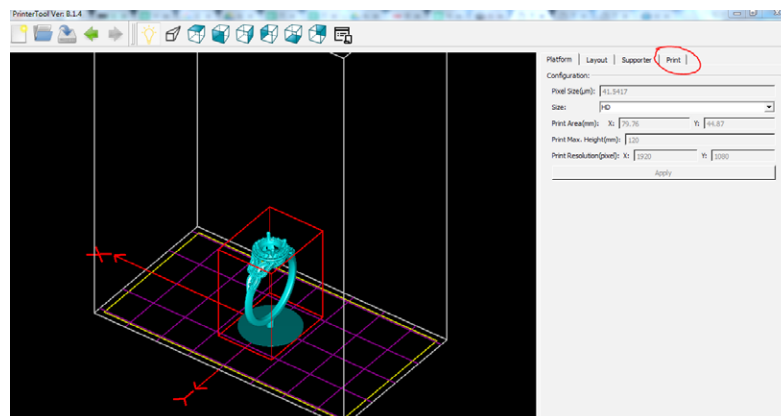
3.3 Platform Mode - Software

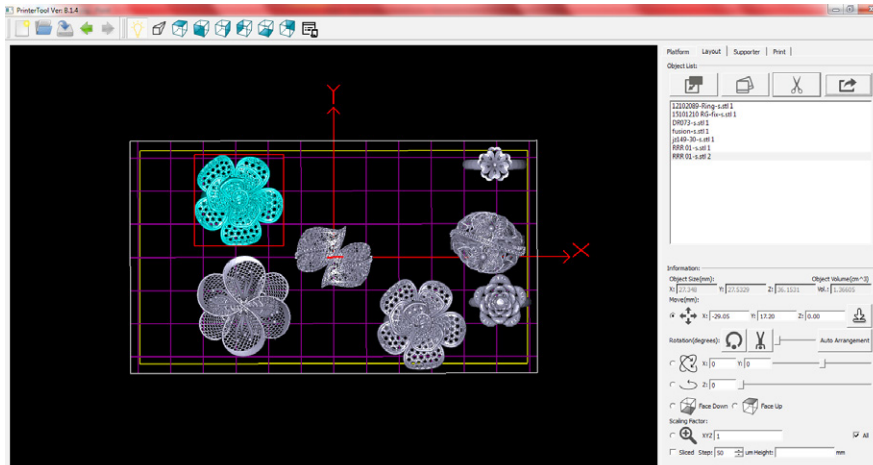The platorm mode allows you to select the printer configuration using the following drop-box.
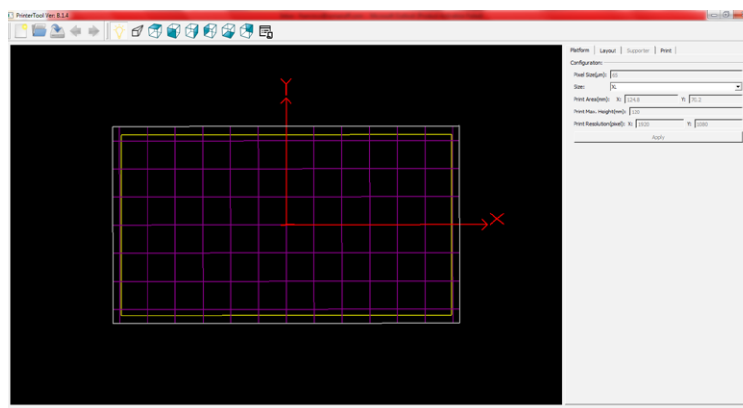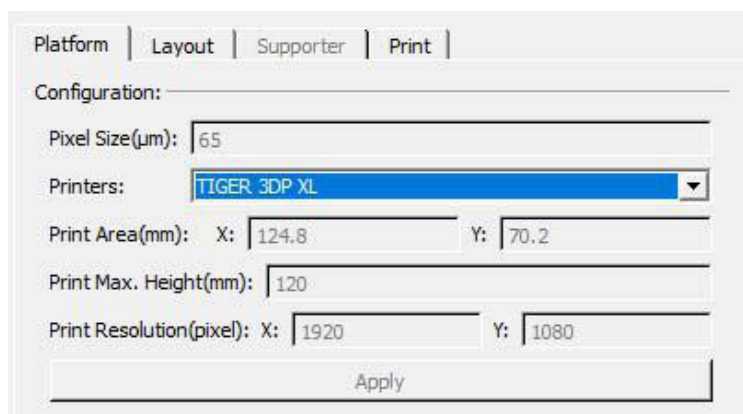
Select printer type -> Then the printers boundary will show in the preview panel.

3.4 Layout Mode - Software

Object List

This allows you to arrange objects in the build area.

Import the STL files to be oriented in the build area.

- Once the object is imported, that object will appear in the center of the build area in the viewport and will be selected. The object is then ready to be oriented and supported.

- Select more than one object in the list : *Shift + Left mouse button.*

- You can import as many STL files as you want. Those STL files will be listed in the box on your right and models will be displayed in the build area.

- A new window status bar will appear to show the importing program.
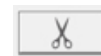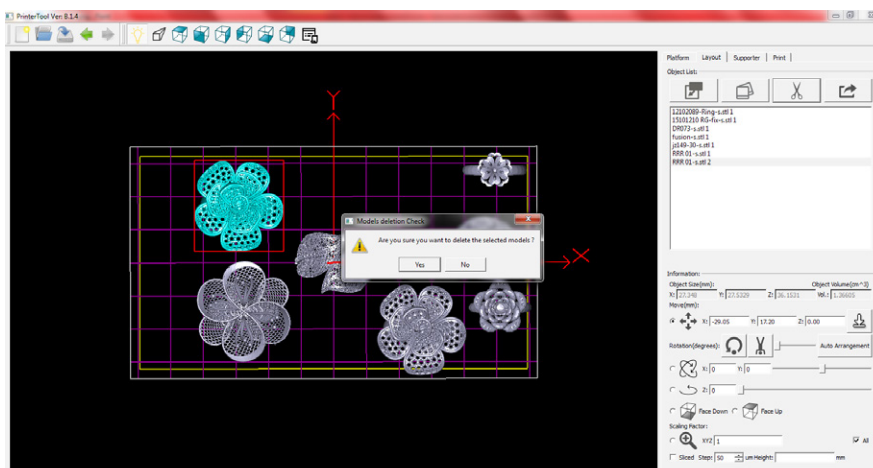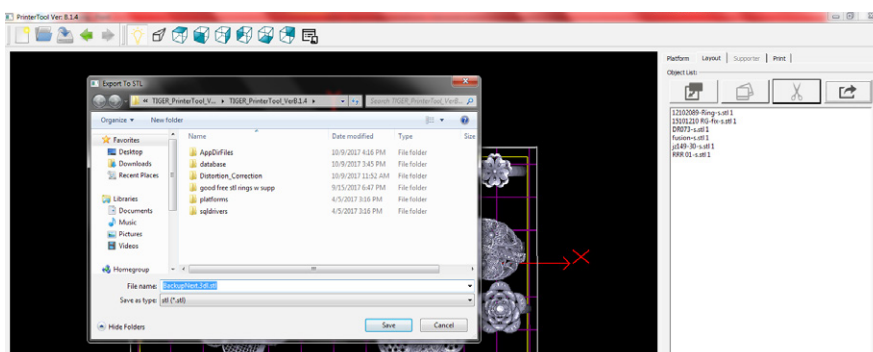
3.4 Layout Mode - Software

Object List

Duplicate the selected object.

Delete the selected object.

Export a whole layout as an STL file.

This tool is handy if you want to save the layout once it is ready to be printed. It is not required to export the layout to an STL file. You can skip this step and go directly to the **Supporter Mode**.

3.4 Layout Mode - Software

Information

Move the object.

- Select this item to enable clicking and dragging of the object around the build table.
- To move a object, left click the object in the viewport and drag until it is in the desired position. Then release the mouse click.
- When moving the object across the build area, it is best to use this tool in the top view.
- When raising or lowering the object, it is best to use this tool in a front tool.
- Hold the shift key while dragging up and down to lift the object in the Z direction or enter the value in coordinate (X ,Y , Z).

- Put the object to the ground (=Z : 0.00)

Rotate the object.

- Reset (X, Y, Z) rotations back to (0, 0, 0).

- Upside down (=X rotate 180 degrees).

X, Y rotation.

- Select this item to enable X rotation and Y rotation.
- Add in the X and Y rotations of the object, in degrees, and press "Enter".
- Moving the slider will rotate the object from 0 to 360 degrees.

Z rotation.

- Select this item to enable Z rotation.
- Add in the Z rotations of the object, in degrees, and press "Enter".
- Moving the slider will rotate the object from 0 to 360 degrees.

Rotation of objects surface.

- Select this option and click on any point of the object's surface.
- Once this option is selected, the object will face down / face up.

Scaling Factor.

- Select this option to scale a selected object.
- Add your desired number and press enter to scale the object.

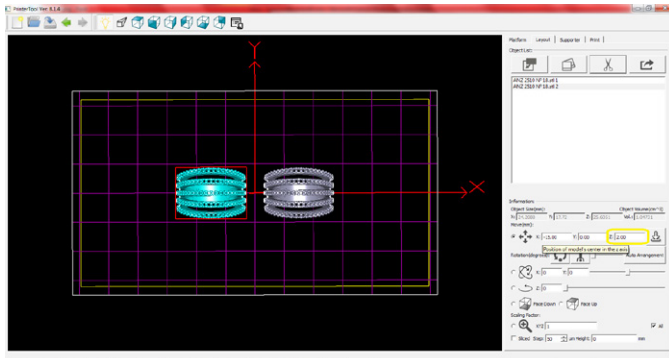- Select this option to view the object in slices/layers.

   Hint: Press F1 on your keyboard to increase height or F2 to decrease height.

3.4 Layout Mode - Software (continued)
### Information

Hint: Before you go into **Supporter** mode, enter into **Layout** mode in preparation for the adding of the support structure. In **Layout** mode elevate the model from 1 to 4mm, allocating space for the supports to be added on.
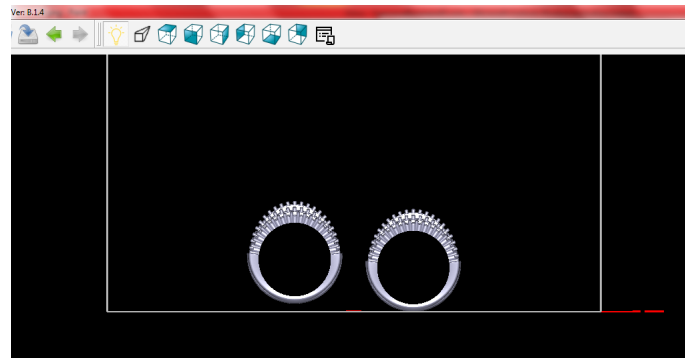
This picture shows the side view of the two identical parts. The piece on the left shows the allocated space for supports.

3.5 Supporter Mode - Software
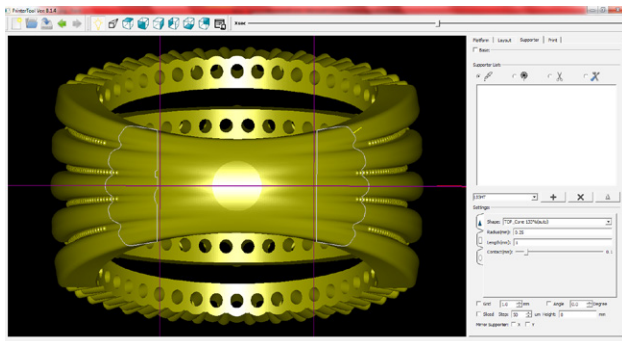
Support Mode is only available when the desired object is selected. It allows the user to edit supports on one object at a time.

Hint: Use bottom view to easily edit or add supports. Zoom in to see details and layering guide.
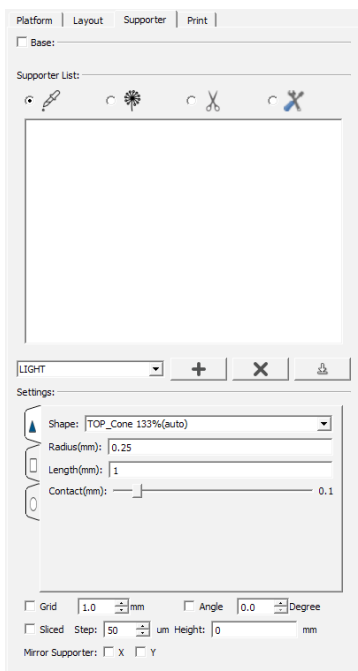
Supporter List

⊙ ✏ **Add Support**

- Enable adding of supports with the mouse.
- To add a support, left click on the object where the support should connect to.
- Parameters of added supports can be altered in the "Setting" tab.

○ ❋ **Add Multi-Support**

- Enable multi-support or branches from this selected support column.

○ ✂ **Delete**

- Enable deletion of supports with the mouse.
- To delete a support, left click on that support with the mouse.

3.5 Supporter Mode - Software

Supporter List (Continued)

⚬ ✕ *Modify*

- Enable modification of supports.
- Supports can be modified with the mouse or via the Settings tab.
- Clicking and dragging the top or the middle of a support, will move the top of the support across the objects surface.
  - While holding *control +* while dragging the joint of the support, the length of the joint will be altered.
  - While holding *control +* while dragging the middle of the support, the loverall width of the support will be altered.
- Clicking and dragging the bottom of the support, this will move only the bottom of the support.
  - While holding *control +* while dragging the bottom of the support, the overall thicknness of the support will be altered.

Supporter Settings

- The Supporter Setting was created to specify the size and shapes of the supports.
  - If the user is using the *"Add Support"*, the interface will show the parameters that the support added will have.
  - If the user is using the *"Modify"* and a support is selected, the interface is used to edit the parameters of the selected support.
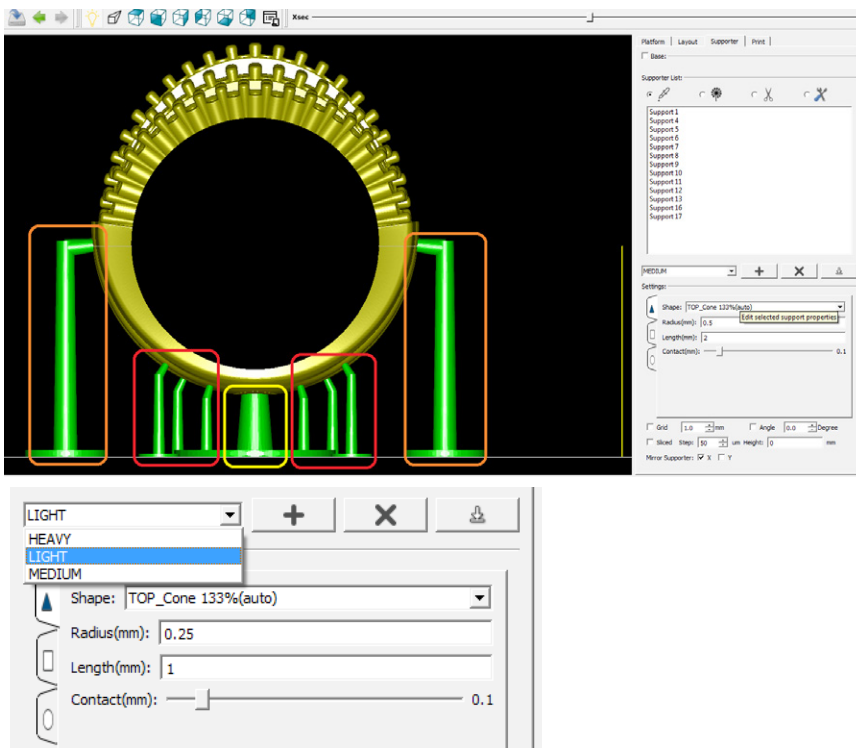
Heavy Support

- When selected, this brings a heavier construction to support columns.
- Use "HEAVY" to support the bone of the model and larger sections of the piece *(see example in yellow box)*.

Medium Support

- When selected, this brings a medium construction to the support columns.
- Use "MEDIUM" to support the taller sections of the piece *(see example in orange box)*.

Light Support

- When selected, the support will be light and delicate.
- Use "LIGHT" as the default structure *(see example in red box)*.

＋ **Adding Support Setting Parameters**
- PrinterTool has 3 preset support modes. The user can edit and set custom supports using this tool. PrinterTool will save the users settings for future reference.

✕ **Deleting Support Setting Parameters**
- Deletes the users parameters previously saved.

⚓ **Save Current Supporter Setting Parameters**
- PrinterTool will save users settings for future reference.

3.5 Supporter Mode - Software

The supporter is made up with 3 sections : *Joint*, *Middle*, and *Bottom*. These sections are accessible in the interface by clicking on the corresponding sideways tab in the interface :
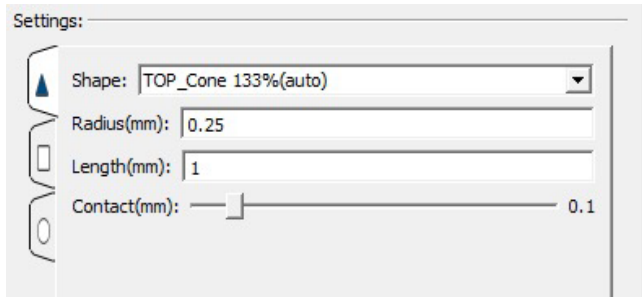
Supporter Sections

- Shape : The shape of the joint.
- Radius : The radius of the joint.
- Length : The length of the joint.
- Contact : How far the joint should extend past its position and into the object.

Supporter Settings - Joint Shapes

PrinterTool incorporated 7 different shapes of the joint section. For a slight joint or stronger support, you can select the shape of the top contact between the support and the model.
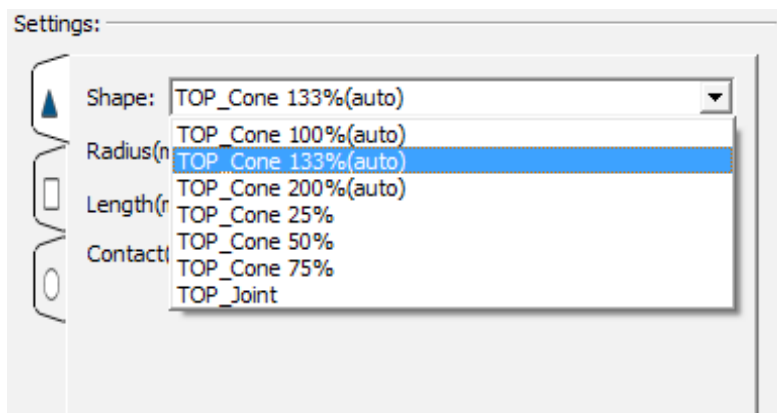
Top Shapes are:

- Top Cone : 100%
- Top Cone : 133%
- Top Cone : 200%
- Top Cone : 25%
- Top Cone : 50%
- Top Cone : 75%
- Top Joint

3.5 Supporter Mode - Software

PrinterTool Special Features
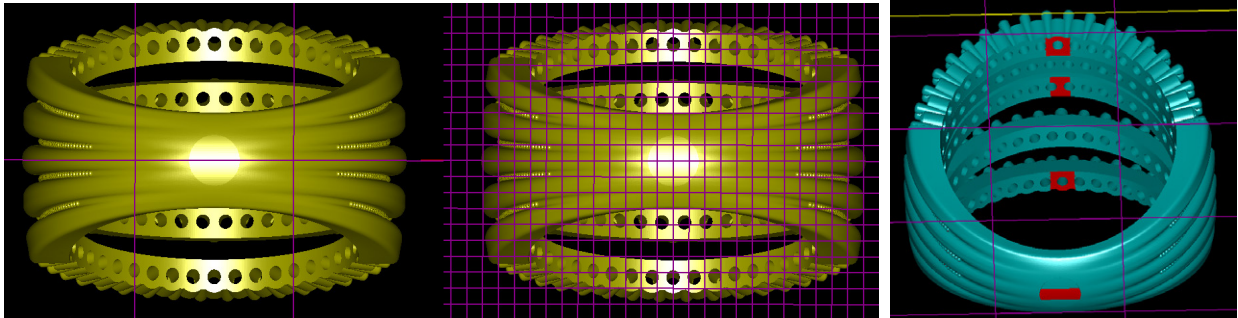

Grid : When enabled, shown is a grid over the plate.

Angle : Enables a visual indicator of the most common undercuts and overhangs. PrinterTool will show in red the areas where supports might be needed.

- **Hint :** Use this tool to familiarize with the support structure concept. Try from 6 to 20 degrees.
- **Disclaimer :** Due to the variety of geometries and possibilites, always visually check for other areas where supports must be carried.

Sliced: Enables the Slice Tool from the Platform Mode.
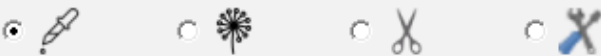
- **Mirror Supporter:** Creates mirror supports as two dimensional axis reference.
- **Hint :** Use this handy tool to quickly and accurately create supports in symmetric models.

Base: Creates a base at the bottom of the model. Use can select shape, thickness and size of the base.
- **Hint :** It is recommended to create a FULL BASE in one of the models of the build plate. This will generate a complete base to all the models on the build plate. It is a good practice to extend the life expectancy of the foil of the tank and cohesion through the first printed layers.
- **Hint :** it is recommended to change the thickness of the base to 0.3mm.

3.5 Supporter Mode - Software

Supporter Setting in Modify Mode
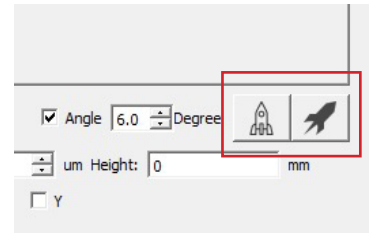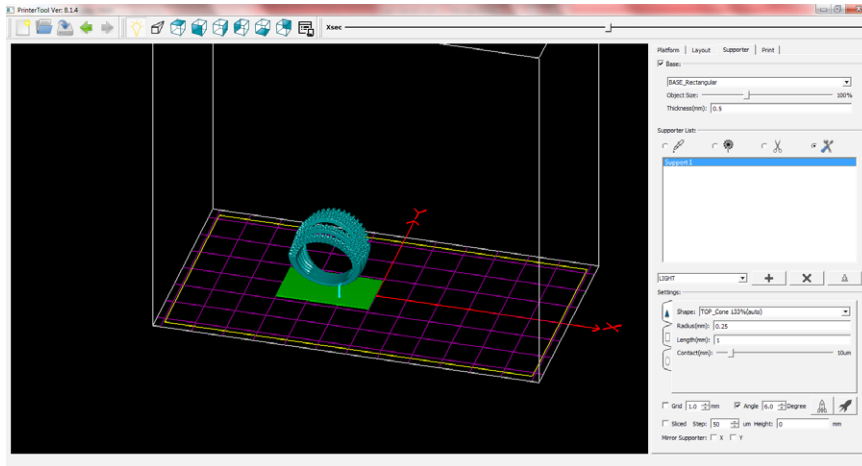
- Support will become vertical to object.

- Undo the vertical supporter.

3.6. Print Mode - Software
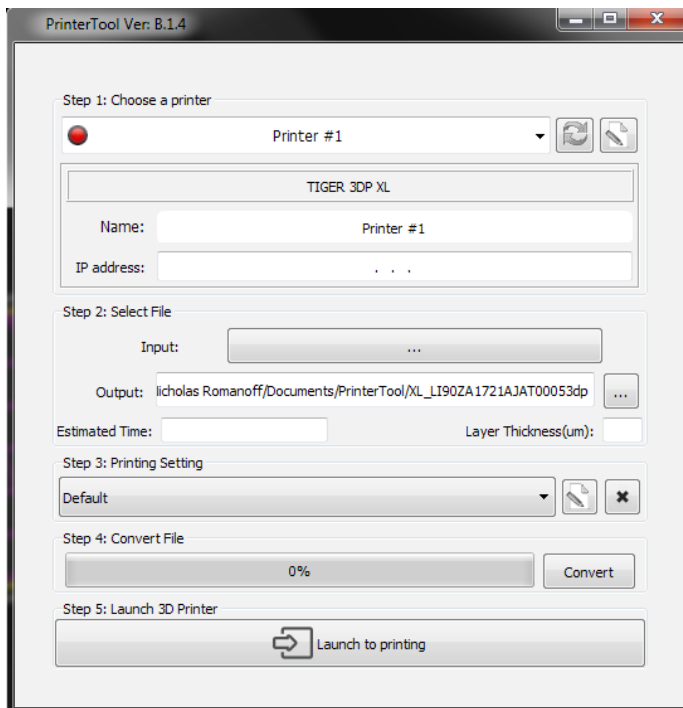
Once your model(s) have been oriented and supported properly, click on the **Print tab**.

Hint : Make sure the printer matches your selection on Step 1. If the printer is online, the IP address will be shown.

3.6 Print Mode - Software (continued)
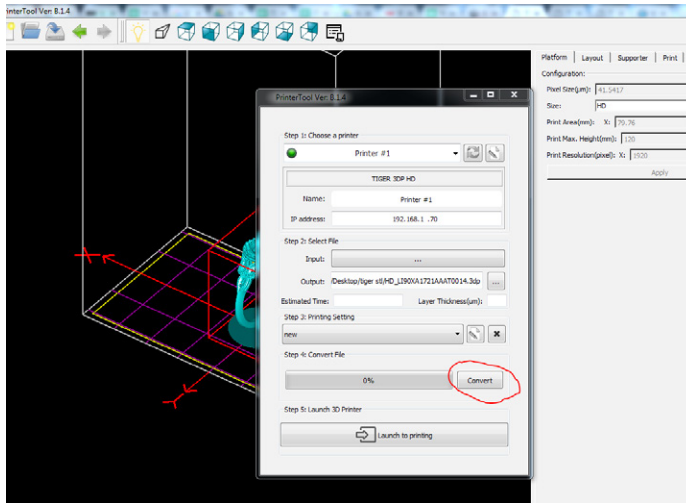
Let the utility page load. Then click on the **Convert button**.
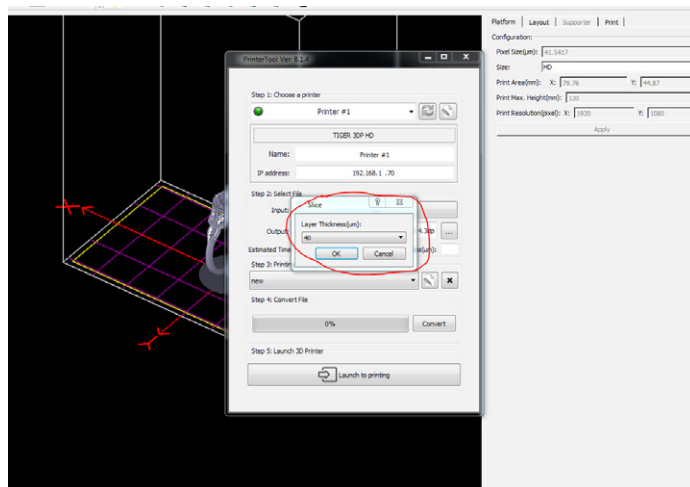
Select the thickness you would like to slice the file.
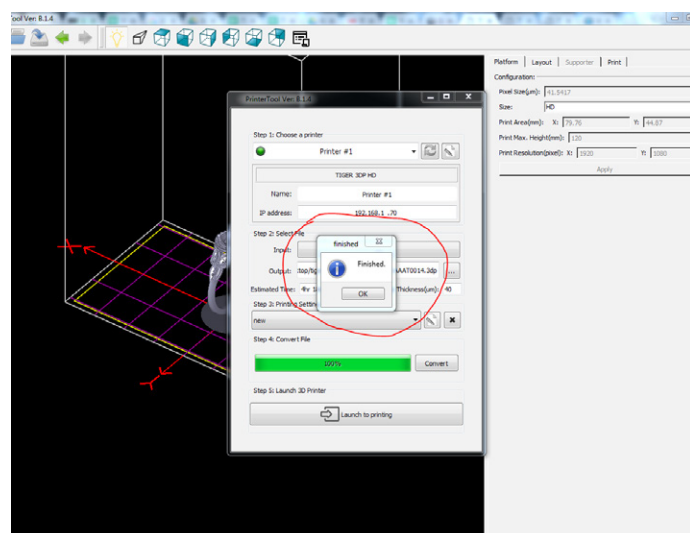
Once the file slicing and conversion are finished, click on **Launch to Printing** button in order to connect to the printer.

Connection is also possible through an Internet browser. Find the Printer IP address on the electronic display and enter it as a site address on your Internet browser. The IP address must be followed by: ":8080" *(example: 192.168.1.51:8080)*.

3.7 Advanced Settings - Software
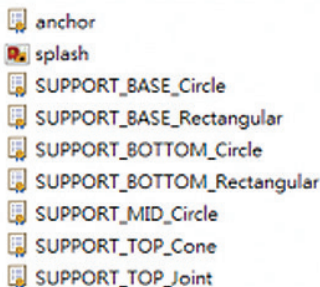
User Defined Supporter

- You can design your supporter and put it into PrinterTool's supporter setting drop-box.

- Design a 1mm* x 1mm* shape, and save as a STL file.

Naming Files

- Name your file as follows :

    - **SUPPORT_(PART)_(SHAPE)**   Example: **SUPPORT_TOP_CIRCLE**

    - *(PART) = TOP, MID, BOTTOM, and BASE*

    - *(SHAPE) = Joint, Cross, Cone, Circle, ... etc.*

- Copy your file and paste it into the downloaded files folder in PrinterTool.

- **File : PrinterTool_version1.07\AppDirFiles**

- Open PrinterTool again, the new supporter will show in the drop-box.

PrinterTool_Version1.0.1 ▸ PrinterTool_Version1.0.1 ▸ AppDirFiles

- anchor
- splash
- SUPPORT_BASE_Circle
- SUPPORT_BASE_Rectangular
- SUPPORT_BOTTOM_Circle
- SUPPORT_BOTTOM_Rectangular
- SUPPORT_MID_Circle
- SUPPORT_TOP_Cone
- SUPPORT_TOP_Joint

Troubleshooting

How to resolve " Fatal Error" when installing

Please go to the links below to install the x86.exe
Make sure you have Installed software from both of the links.

Visual C++ Redistributable Packages for Visual Studio 2013
https://www.microsoft.com/en-us/download/details.aspx?id=40784

Visual C++ Redistributable for Visual Studio 2015 Update 1
https://www.microsoft.com/en-us/download/details.aspx?id=49984

Fatal Error!

⚠ TigerUtility returned - 1

OK
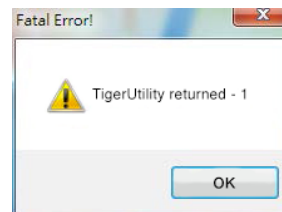
3.8 PrinterTool Features - Software

Surface Smoothing

Surface Smoothing	Surface smoothing from Z axis, the greater number means higher compensation from Z axis
Sharpness	Enabling sharpness from X and Y axis + →Sharpen an image — →Soften an image
Resin Shrinkage Compensation	Compensate resin shrinkage +0% to 9.9% →Enlarge an image -0% to -9.9% →Shrink an image
Flip Image	Flip image by X axis or Y axis

Print Setting

Select file: Insert your 3D image (.EDP)

Thickness (um): Thickness per layer

Curing Time(s): The amount of time for UV curing (seconds)

Speed: Peeling speed

Gap Adj.(mm): Adjust thickness of the first layer (Basic is 0.2mm)

Base Layers: Define number of base layers

Base Curing(s): Curing time for base layers

Buffer Layers: Set the number of buffer layers

What is a buffer layer?

Pre-View ✔

20
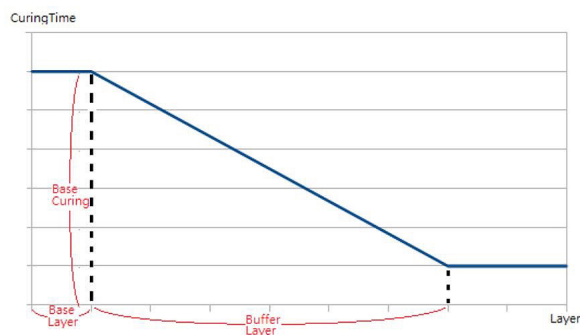
3.8 PrinterTool Features - Software

(1) How to use Tiger Controller

Save to Printer or Save to USB on printer (Printer's memory capacity is 3GB)

Delete file in Printer or Delete file in USB on printer

	Save	Save as	Delete
Select file from PC	X	O	X
Select file from Printer	O	O	O
Select file from USB on printer	O	O	O

(2) Print and Inspect
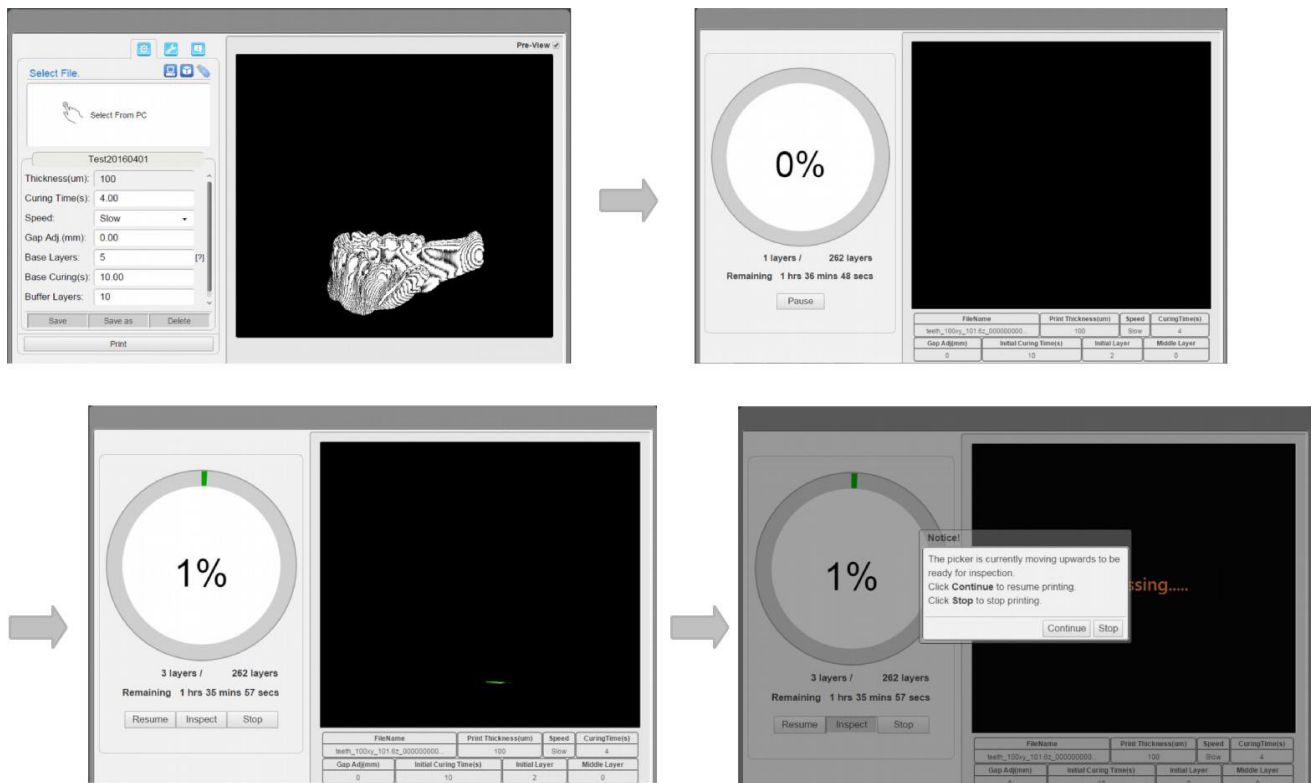
WARNING: *Do Not* put your hand in the printer while it is printing.

3.9 Engineering Mode - Software

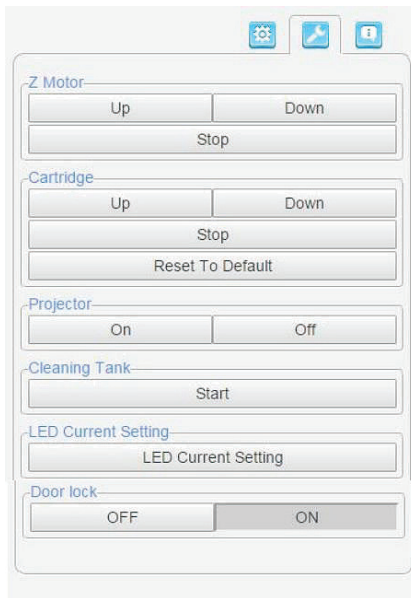| Test Module	Action	Verifying Correct Module Behavior
Z-Motor	Up Down Stop	The Z-platform moves upwards. The Z-platform moves downwards. The movement stops.
Cartridge	Up Down Stop Reset	The cartridge moves upwards. The cartridge moves downwards. The movement stops. The cartridge moves to default height.
Projector	On Off	The projector turns on. The projector turns off.
Cleaning Tank	Start	(1) Project a complete pattern to tank, the residue will be transformed into a solid layer. (2) Using the scrape, scoop up one side of the layer. Then carefullylift to remove the layer from the tank.
LED Current	LED	Change the current of optical engine, range from 0.3A to 6A
Setting	Current / Reset	Reset LED current to default
Door lock	On Off	Door lock warning open. Door lock warning close.

Advanced Settings:

(1) Here you can set the actions of the cartridge and picker. The setting will be saved as one motion cycle. You can repeat for every layer.

(2) Start from action 1, choose object module first, and choose action item, then choose its step and period. Keep adding a new action item until one cycle is finished.

Object Module	Action	Step (5um/step)	Half step period (micro second)
Cartridge	Up Down	Max.2500 Max.2500	
Stay	NA	NA	Min.800
Picker	Up Down 1 Layer	Max.2500 Max.2500 1 Layer	

3.9 Engineering Mode - Software

Advanced Settings (continued)

(3) Save and go back to the **Print** setting.

(4) Within the Speed column, select **Advanced** setting to implement the motion cycle.
- **File** setting : The motion cycle setting existing in this file.
- **Advanced** setting : The newly saved motion cycle setting.

Print, Record, and Update

Name: File name
- SN: Serial number
- FW: Firmware version
- Manual IP : Set a static IP address for the Printer.
- Upgrade FW : Download the latest firmware from http://www.tiger3dprinters.com/support
  Save as .ZIP file, and select it for upgrade
- Print record
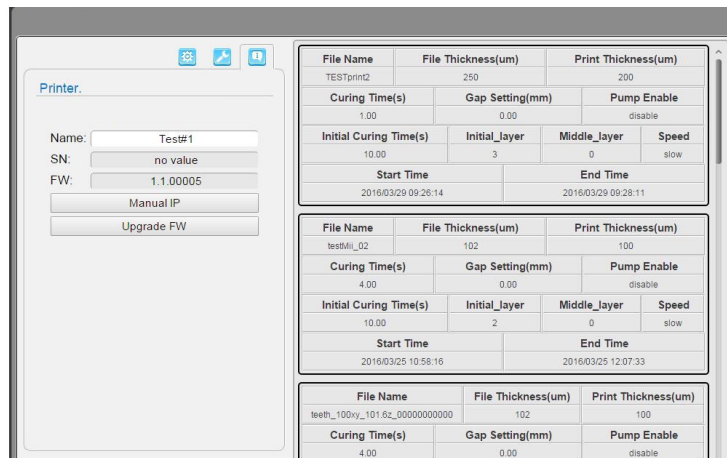
More Information:

- *How to use the Manual IP function :*
  The Manual IP function is for a user whose environment doesn't have a DHCP network and would like to speed up the printer connection. First, use the Manual IP function to set a static IP address on your printer. Second, set the same static IP address on your computer.

- **Troubleshooting IP :**
  If a connection error occures due to manual IP's typing error, please download the DHCP recover file from http://www.tiger3dprinters.com/support .
  - Save the file onto the USB, and follow the USB upgrade process to unlock.

4. After Printing is Complete

4.1   Casting Preparation and Burn-Out process
with Tiger3D Burgundy Castable Resin

(1) Printing

Print the model as usual. Once finished, remove the printed model from the picker (metal plate) using a putty knife.

(1.2) Printing

If you printed multiple models on the same plate, separate the selected models from the base by cutting with a knife or regular scissors.

Always use a putty knife to remove the printed model from the picker (metal plate).

(2) Cleaning

Use a spray bottle with denatured alcohol (SKU: 80-092) to remove the excess resin from the surface of the model. For best results, soak the model for 2 – 3 minutes in the denatured alcohol.
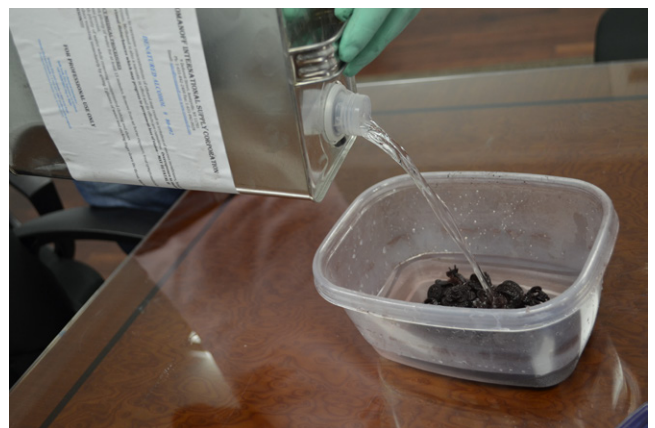
The Tiger3D Burgundy castable resin reacts slowly as it is exposed to alcohol solutions. Quick baths are the best way to clean parts. Longer baths might affect the surface quality.

4. After Printing is Complete (continued)

4.1 Casting Preparation and Burn-Out process
with Tiger3D Burgundy Castable Resin

(3) Drying

Using compressed air, dry the model to a matte finish look. This will normally take a 1-2 minutes.

If the surface of the model appears too shiny after cleaning, additional time in the denatured alcohol soak may be needed.

(4) Curing

Place the model inside the post curing UV lamp unit. Depending on the model's geometry, it may take up to 30-45 minutes to cure.

(4.2) Curing

Immerse the model completely in water in a transparent container. Cure for an additional 60 minutes.

After curing, the surface of the model should not feel sticky. The build base may shrink a bit but this will not affect the quality of the model.

4. After Printing is Complete (continued)

4.1   Casting Preparation and Burn-Out process
with Tiger3D Burgundy Castable Resin
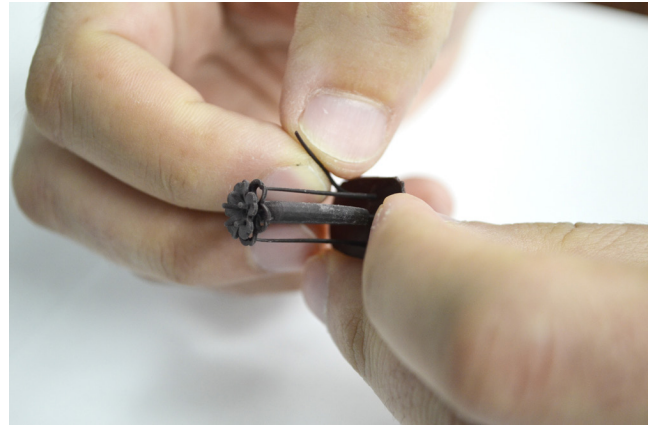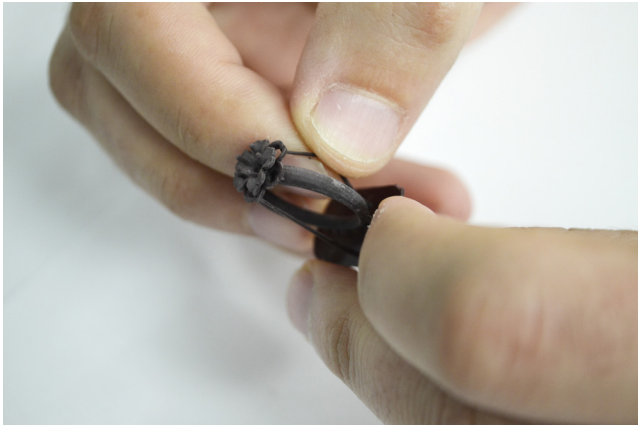
(5) Support Removal

The PrinterTool software includes different types, sizes and shapes of supports. Supports can be easily removed by hand, otherwise, use pliers or knives remove smaller or more delicate areas.

For best results, you may remove supports before curing the pieces.

(6) Casting Preparation

Sprue the model to the casting tree. The support structures must not be used for spruing due to it's dimensional ratio.

The sprue diameter must be at least 50% larger than the thickest/heaviest section of the model. It should be attached directly to this section if the design permits.

4.2. Cleaning Picker and Tank

(1) Cleaning Picker

Use a putty knife or similar object to scrape away the excess printed model resin from the picker. If any greasy residue persists, use a soft cloth dipped in alcohol to rub and clean the surface until the grease is removed.

(2) Cleaning Resin Tank
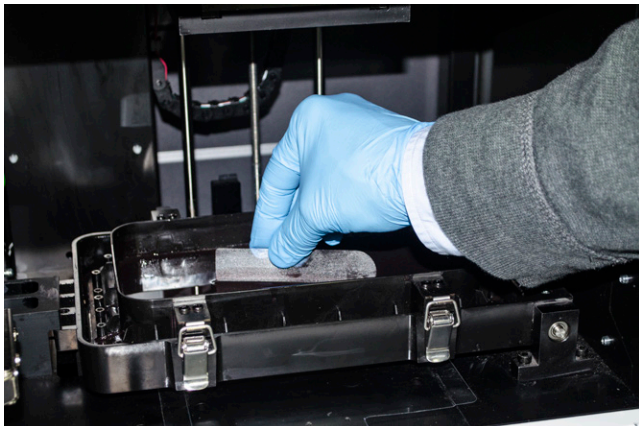
(1) Using the plastic scraper, scrape the entire surface of the material tank clean.

NOTE: Do not remove the tank for this procedure

NOTE: Do not fill exceed the top line, when refilling otherwise the resin will spill over when printing.

NOTE :

- **Do not shut down the power during printing**

- **Do not interrupt the firmware upgrade process. Any interruptions during the firmware upgrade may cause your printer to malfunction.**

- **Update the firmware frequently for a better user experience**

Appendix 1. Specifications

Printer Specifications

		78-5050	78-5080	78-5000
Category	Item	TigerXHD	TigerHD	TigerXL
Printing Area	Max. Building Size (mm)	57x32x120	80x45x120	125x70x123
	XY Resolution	30μm	41.5μm	65μm
	Z - Axis Layer Thickness	5 ~ 200μm		
Lighting	Wavelength	405nm LED		

Category	Item	Specification
Operating Environment	Temperature	50 to 86°F
	Humidity (RH)	40% - 60%
Software	Operating System	Windows 7, Windows 8 , Windows 10
	Network Browser	Google Chrome
	File Input	.SLC, .ZIP(PNG), .CWS, .WRK
	File Input Limitation	PrinterTool file input limitation from PC: 130 PrinterTool file input limitation from USB: 1GB
System Properties	Printer Size	17 x 17 x 23 1/2" 83 - lbs
	Weight	3.75 kg
	Interface	Ethernet Connection, USB (Direct Printing)
	Power Input	Printer: 24V DC, 3.75A With Adapter: 100-240V AC, 2A 50/60HZ
	Packaged Size & Weight	32 x 32 x 37 1/2" (including packing) 127.60 lbs
Printing Material	Model Printing	Tiger3D Burgundy 78-5002 Tiger3D Blue 78-5004 Tiger3D Orange 78-5003 Tiger3D Pink 78-5013 Tiger3D Smart-Res 78-5003-R1 Tiger3D Clear 78-5011

**All Specifications & Designs subject to change without notice.

Appendix 2. Resin Curing Time

Tiger3D Burgundy
78-5002

Tiger3D Burgundy 78-5002 is a Photopolymer resin suitable for direct investment casting in jewelry.The resin resembles normal casting wax and is specifically formulated for producing investment casting.

Tiger3D Orange
78-5003

Tiger Orange 78-5003 is a Photopolymer resin suitable for direct investment casting in jewelry. The resin resembles normal casting wax and specifically formulated for producing investment casting in accurate patterns.

Tiger3D Smart-Res
78-5003-R1

Tiger3d Smart-Res is a Photopolymer resin suitable for clean burn-out process. Smart-Res is the ideal choice for printing precious metal patterns and dental models that are used in laboratories. Smart-Res changes it's color to indicate a complete polymerization. This unique feature makes it the best choice for precious metal fabricators and laboratories. Thie resin's precise construction, feel and stability meet the high demands of model production.

Tiger3D Clear
78-5011

Tiger Clear 78-5010 is a photopolymer suitable for printing industrial design, jewelry and models for the education industry. This resin is transparent and specifically made for very fine and detailed models.

Tiger3D Blue
78-5004

Tiger Blue 78-5004 is a Photopolymer resin for engineering and rapid prototyping.

Tiger3D Pink
78-5013

Tiger3D Pink is a photopolymer resin with flexibility characteristics. It is ideal for high grade rapid prototyping and provides the structural representation of ABS plastic. Combining Pink Resin with Tiger3D DLP technology gives you the absolute closest 3D representation of ABS plastic.

Appendix 4. Tiger Settings for Burgundy & Smart-Res Resin

SETTINGS	HD 25 nm thick(um)	HD 30 nm thick(um)	HD 40 nm thick(um)	HD 50 nm thick(um)
CURING TIME(S)	5.5	6	6.5	7
SPEED	slow	slow	slow	slow
GAP AD(MM)	0	0	0	0
BASE LAYERS	1	1	1	1
BASE CURING TIME(S)	50	50	50	50
BUFFER LAYERS	5	5	5	5

SETTINGS	XHD 25 nm thick(um)	XHD 30 nm thick(um)	XHD 40 nm thick(um)	XHD 50 nm thick(um)
CURING TIME(S)	4.7	4.8	5	5.2
SPEED	slow	slow	slow	slow
GAP AD(MM)	0	0	0	0
BASE LAYERS	1	1	1	1
BASE CURING TIME(S)	50	50	50	50
BUFFER LAYERS	5	5	5	5

SETTINGS	XL 25 nm thick(um)	XL 30 nm thick(um)	XL 40 nm thick(um)	XL 50 nm thick(um)
CURING TIME(S)	6	6.5	7	8
SPEED	slow	slow	slow	slow
GAP AD(MM)	0	0	0	0
BASE LAYERS	1	1	1	1
BASE CURING TIME(S)	50	50	50	50
BUFFER LAYERS	5	5	5	5