



# XYZware User Manual

# Announcement

## Limitation of Liability Clause

Although we try to procure that the manual and product functions are correct and stable, in no event shall XYZprinting be liable for any direct, special, indirect, incidental, consequential damages (including data loss of your computer), It is strongly recommended to backup or move your important data before using this software to prevent data loss and corruption.

## Trademarks

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## Printing History

New editions of this manual incorporate new and changed material since the previous edition. Minor corrections and updates may be incorporated into reprints of the current edition without changing the publication date or the edition number.

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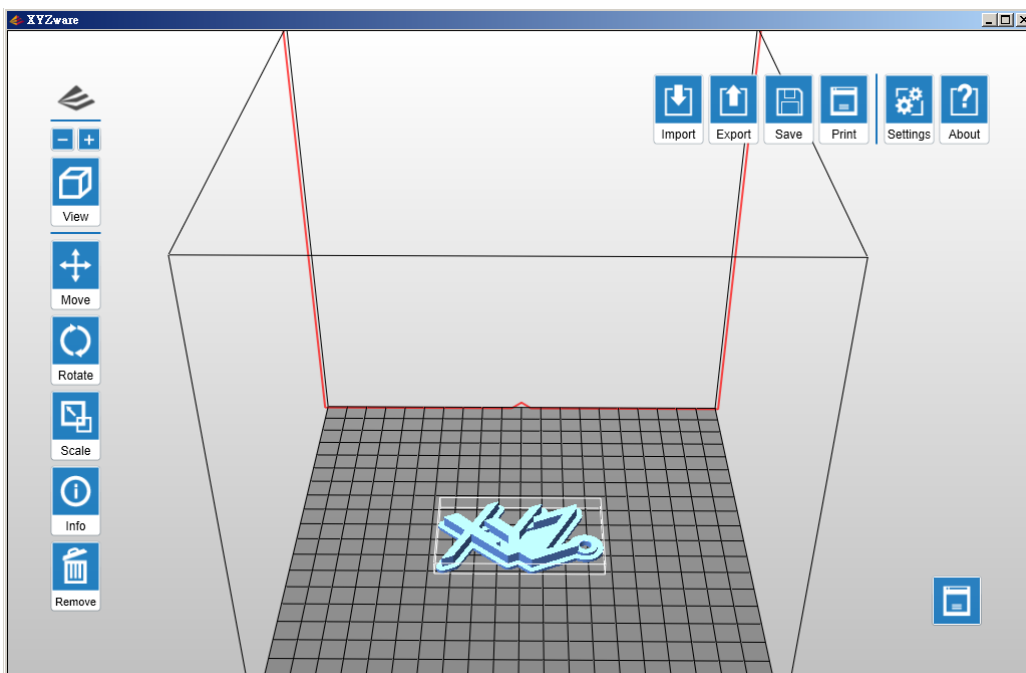
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# 1. About XYZware



XYZware is a brand new application introduced by XYZprinting for designing, customizing and printing digital 3D Models. It can import objects in “\*.stl” file format and create realistic simulated objects.

XYZware is also used with the da Vinci 3D printer series, introduced by XYZprinting to quickly print outreal products. XYZware removes the technical barriers of traditional production resulting in an enriched “Creative Life” for the modern Digital Family.

For Mac OS users

Mac OS users may find compatible software on the master CD supplied with the printer or the website. For information of latest version or technical support, please go to XYZprinting website: <http://support.xyzprinting.com/>



## 2. System Requirements

Please ensure your Operating System is compatible with the following requirements.

Software	Operating System	(PC) Windows XP ( .Net 4.0 required) Windows 7 / Windows 8
		(Mac) Mac OSX 10.8 64-bit above
Hardware	Hardware Requirements	Minimum System Requirements: Memory: 512MB , Storage: 100MB or More Monitor Resolution: 1024 x 768
		Recommended System Requirements: Memory: 2GB , Storage: 500 MB or More

### Other Firmware and third party software

Note: Standard VGA driver on operating system, or a graphics card doesn't support OpenGL 2.1, may cause unknown error in XYZware.

### About .Net Framework

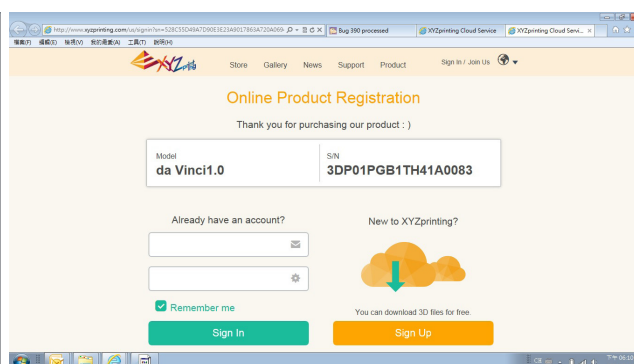
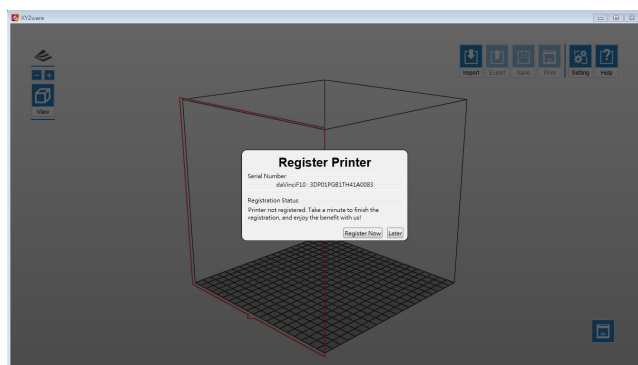
On Windows operating system, XYZware strengthens the stability and smoothness by utilizing .Net Framework installed on the system. Per the feedback from software development and testing, older version of .Net Framework may cause malfunction or installation failure of XYZware. It is strongly advised to make sure the operating system has installed and updated .Net Framework 4.0 or above. For more information about .Net Framework, please refer to Microsoft website.

### Online registration

When use da Vinci 3D printer for the first time, please connect the printer with the PC, and complete online product registration via XYZware. After registration, XYZware may download latest version through Internet connection, and provide the information on updates.

Step 1. On XYZware, press "Sign up now"

Step 2. On the registration page in XYZware, fill in all required information to complete the process.

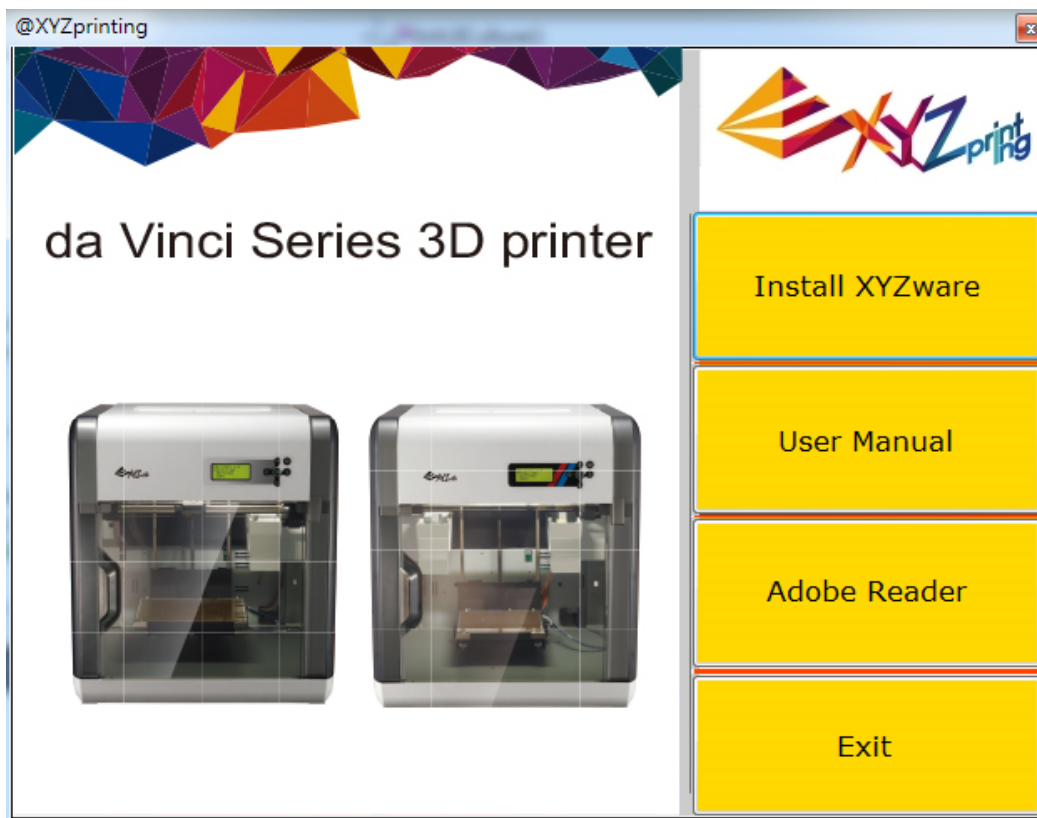


### 3. Installation Instruction

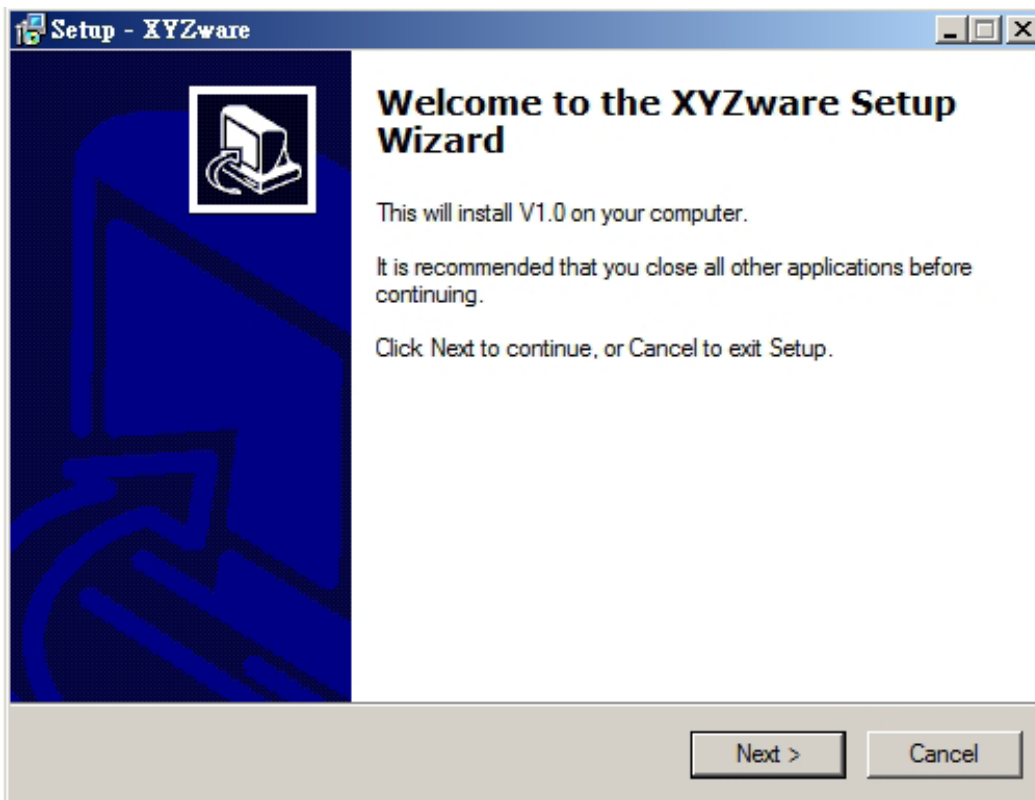
Before working with your printer, please first install XYZware. You can find the installer with the bundled disc. For additional information, system updates and technical support please refer to the XYZprinting online resources: <http://www.xyzprinting.com>



Insert bundled disc into the disc drive, you will then be promoted by the installation launcher as can be seen in the picture below. Please click on **“Install XYZware”**



XYZware Setup Wizard will then appear on your screen. Please follow the on screen instructions to finish the installation.



You can also setup the program manually. Open the file explorer and search Setup.exe shown below in your disc drive. Double click Setup.exe.



(Setup.exe)

Congratulations! Your installation is complete! You can now launch XYZware from the desktop and start creating and printing.





## 4.Quick Start

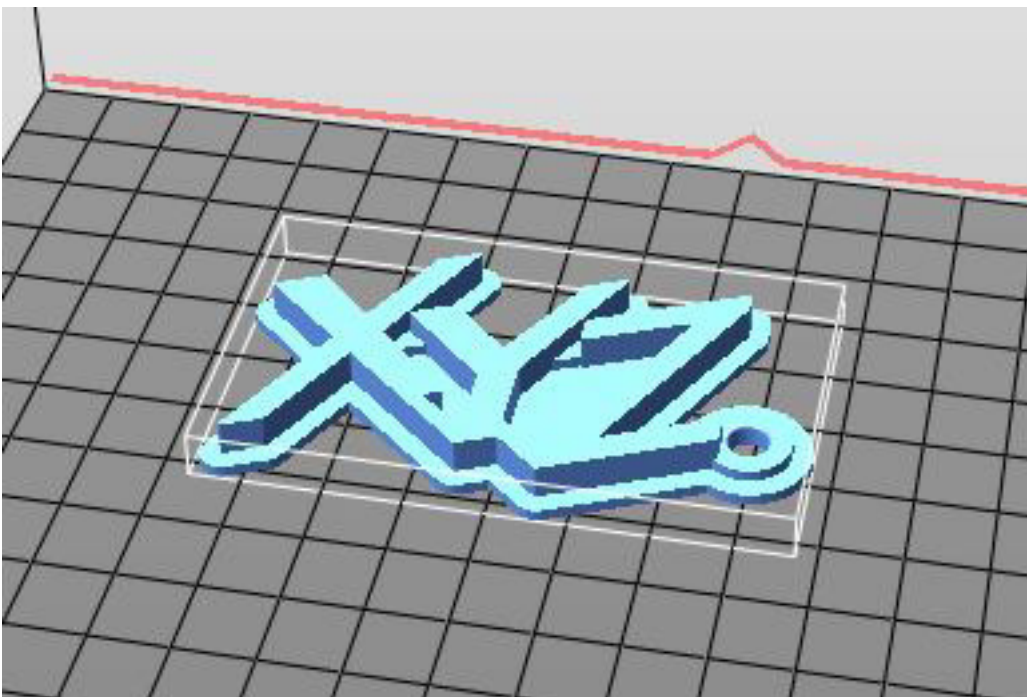
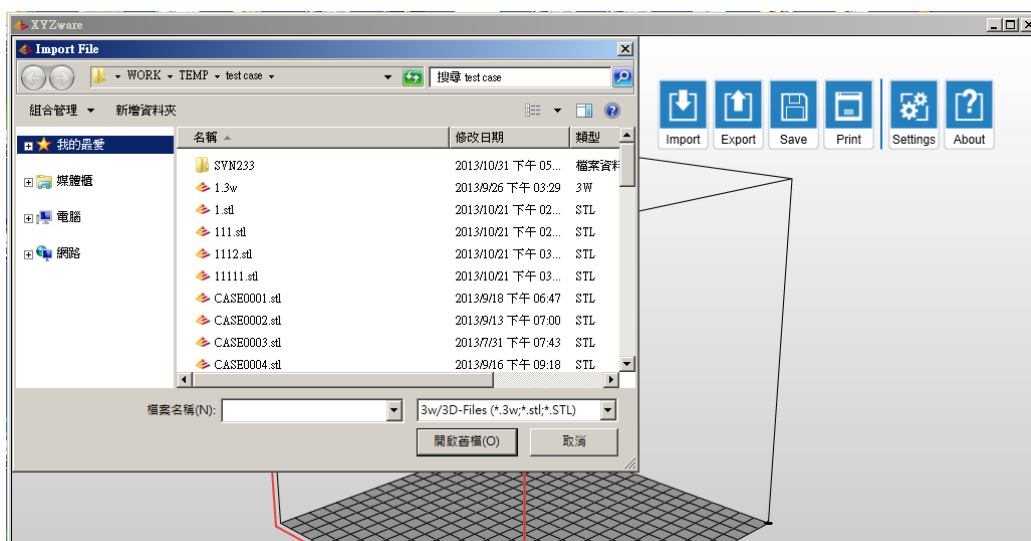
Please use this document as a guide to the 3D Printing process. We recommend using the da Vinci series 3D printers to have the best experience before using XYZware.



### IMPORT Print your first object

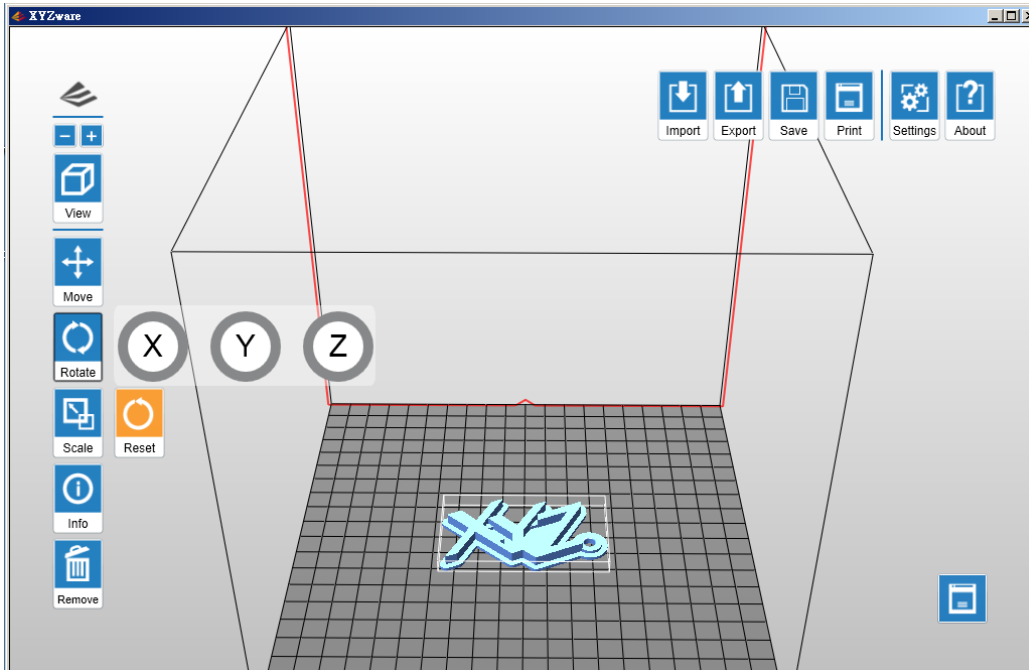
Click on the “Import” icon to select files to be 3D printed. The following instructions use “Sample.stl” as an example on how to print your 3D object.

(Sample file: Sample.stl)



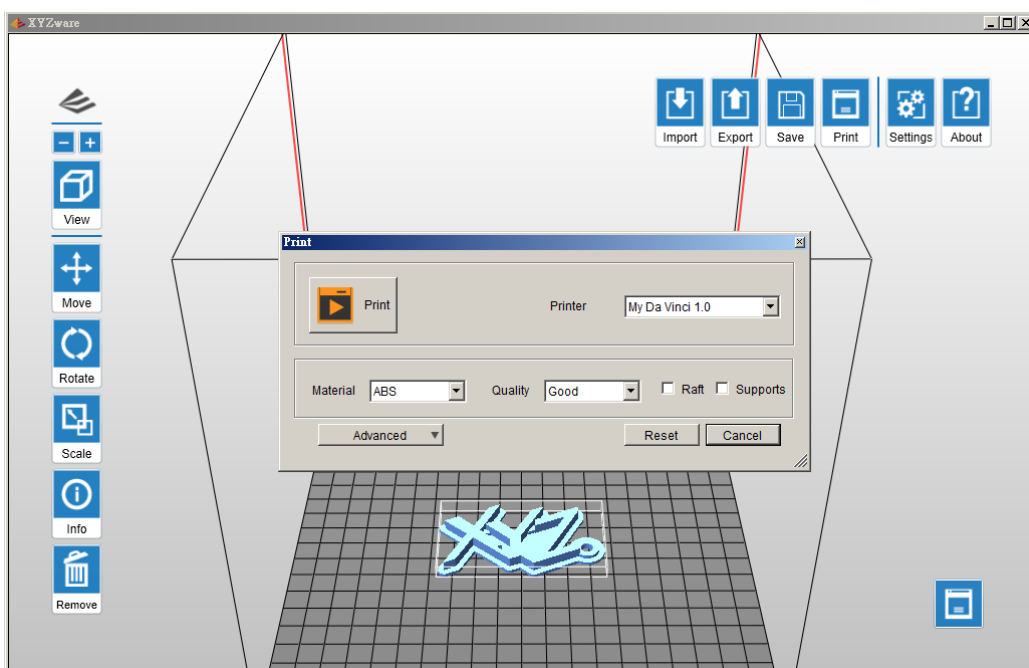
## Edit and adjustment

You can move, resize or rotate the object by using the icons displayed on the left hand side. Please refer to the next chapter “Functions” for details on object manipulation.



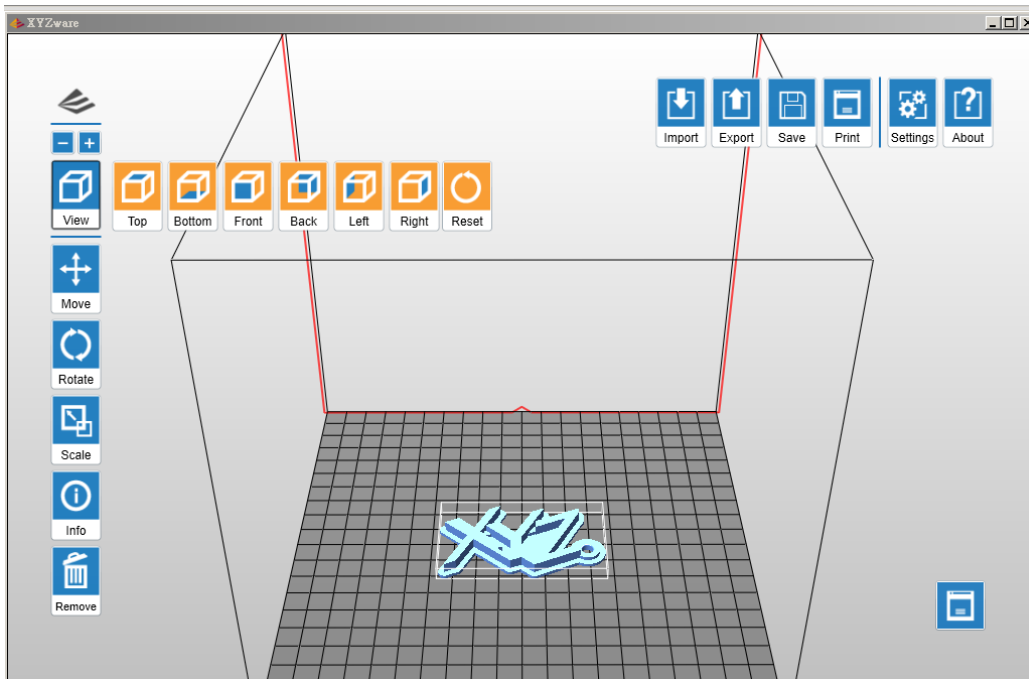
## PRINT Printing Objects

After you have completed editing your object, click on the “Print” icon to prepare your file. The print settings can be changed to suit your requirements, for more details on this please refer to Chapter “Printing Setup”.



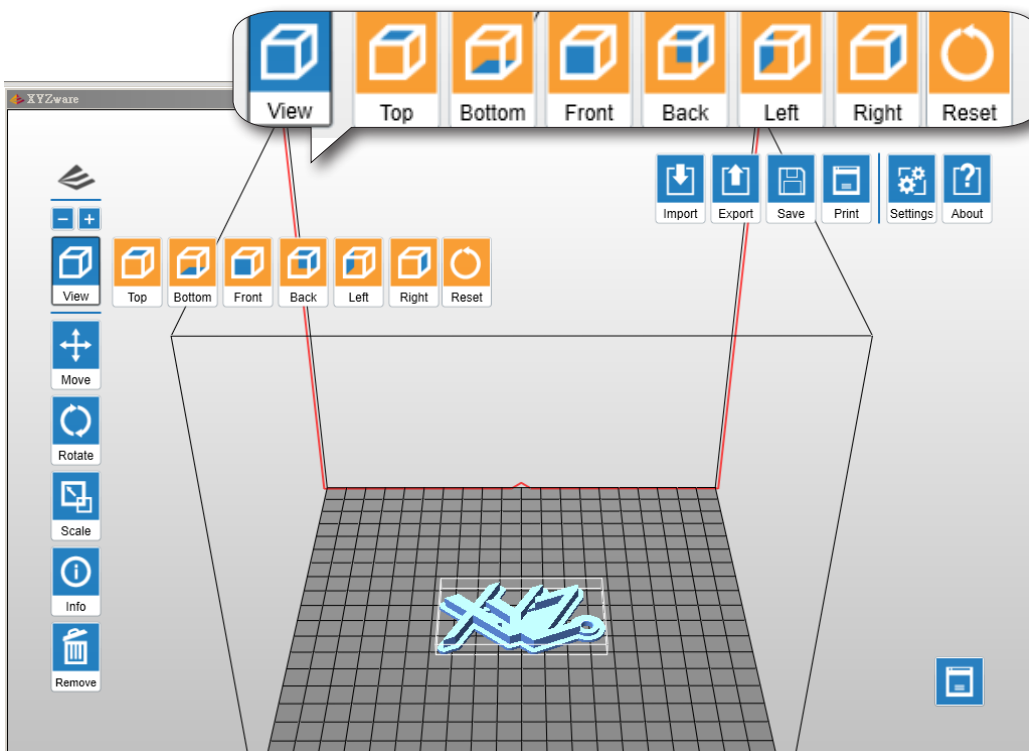
## 5. Functions

In this chapter we will explain the function of the icons on the left hand side.



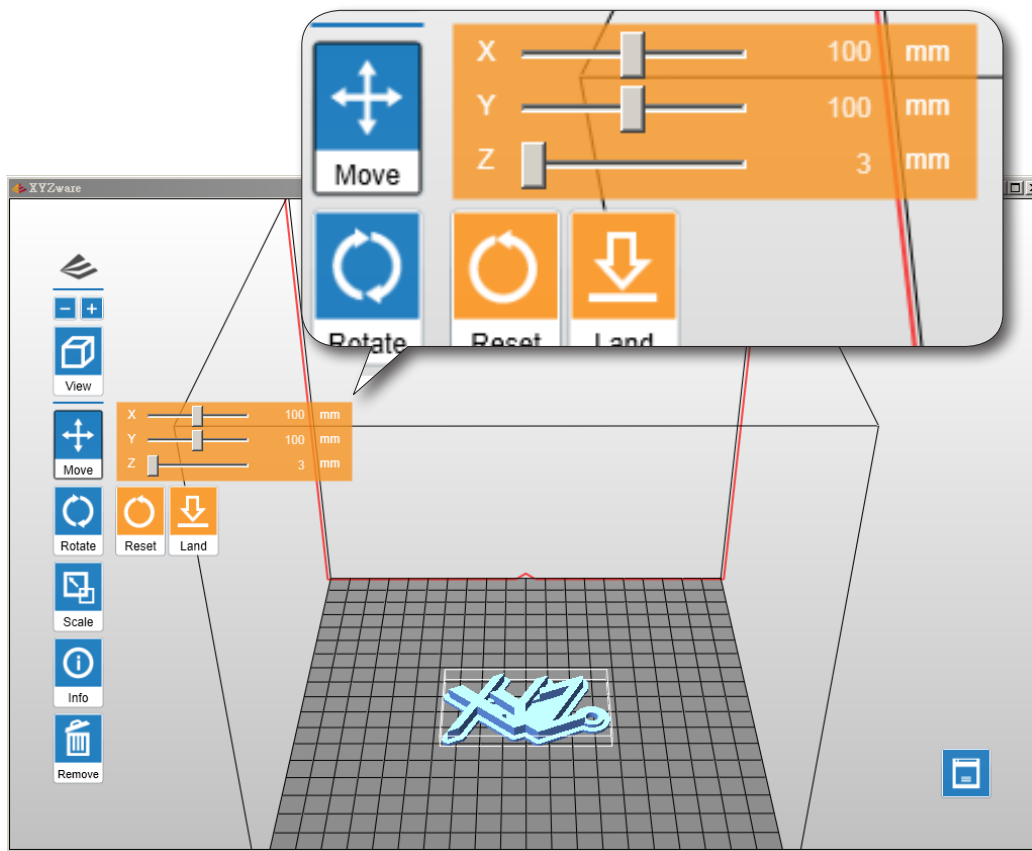
### 5.1 View

Shortcut key: click on the left mouse button and drag.

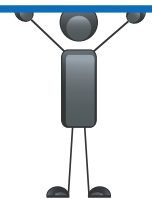


## 5.2 Move

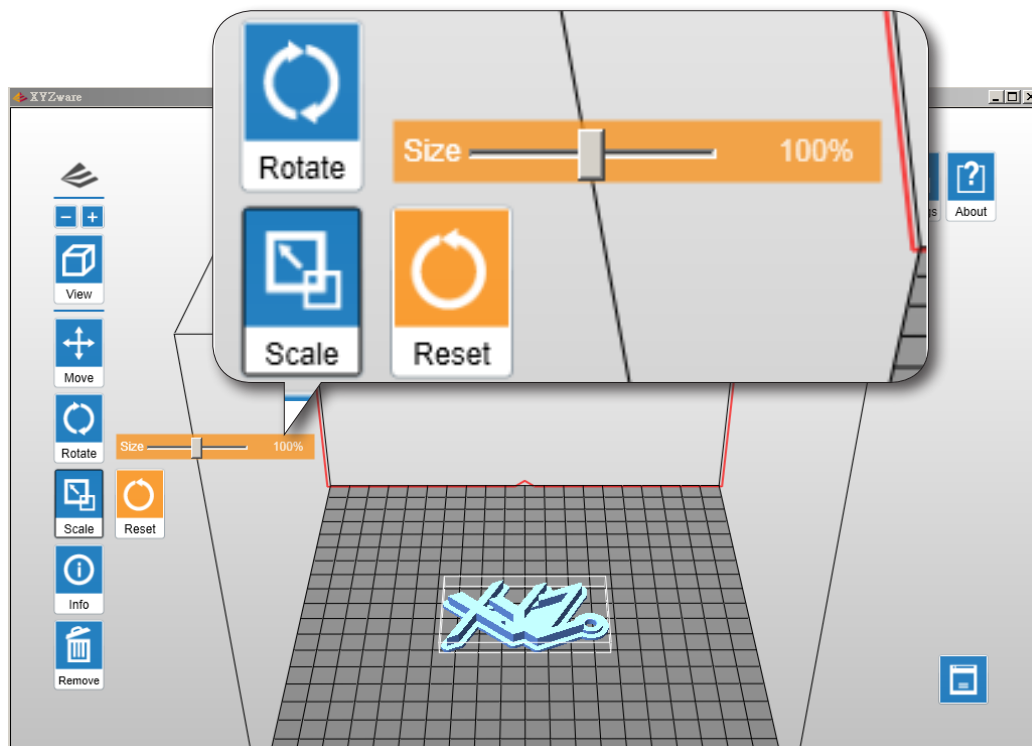
Shortcut key: Press and hold down the ALT key, then left click to start dragging your object



Adjust the value of the X, Y and Z axis to change the printing position of the object on the build plate.



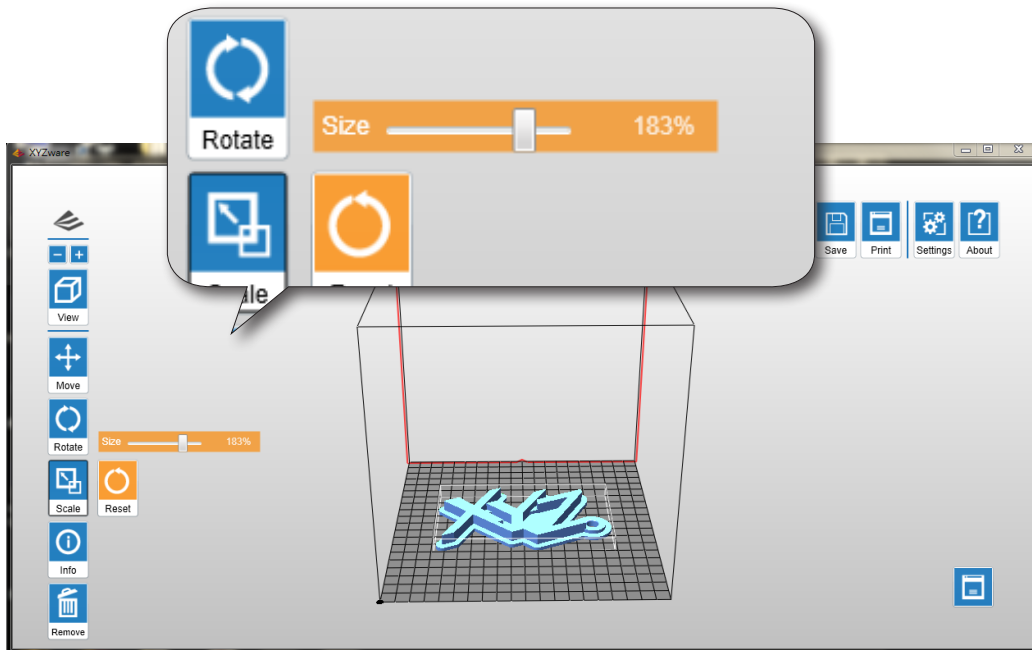
## 5.3 Rotate



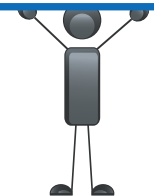
You may want to improve the quality of printing and the strength of the object. This can be done by increasing the contact area between the object and the build plate. **Therefore, consider rotating** and enlarging your object in order to achieve a better result



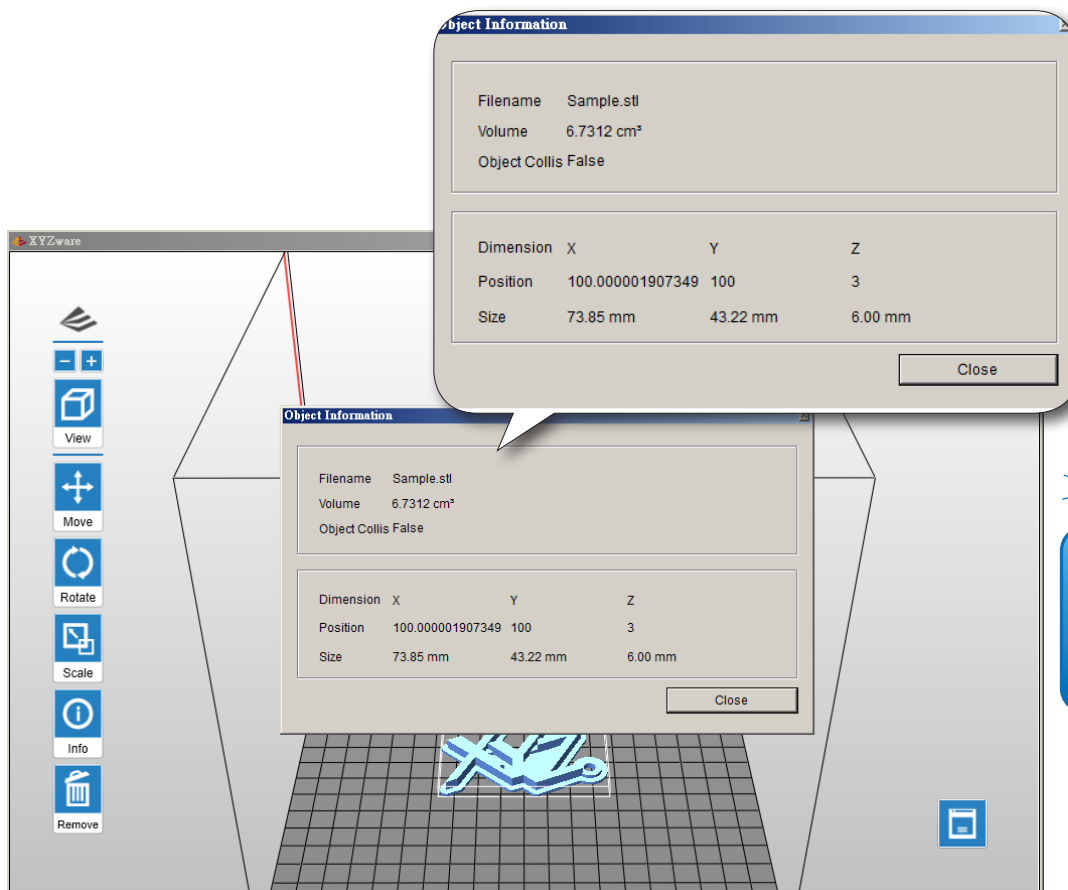
## 5.4 Resize



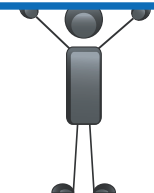
The scale function allows you to enlarge or reduce the printing proportionally without affecting the original file.



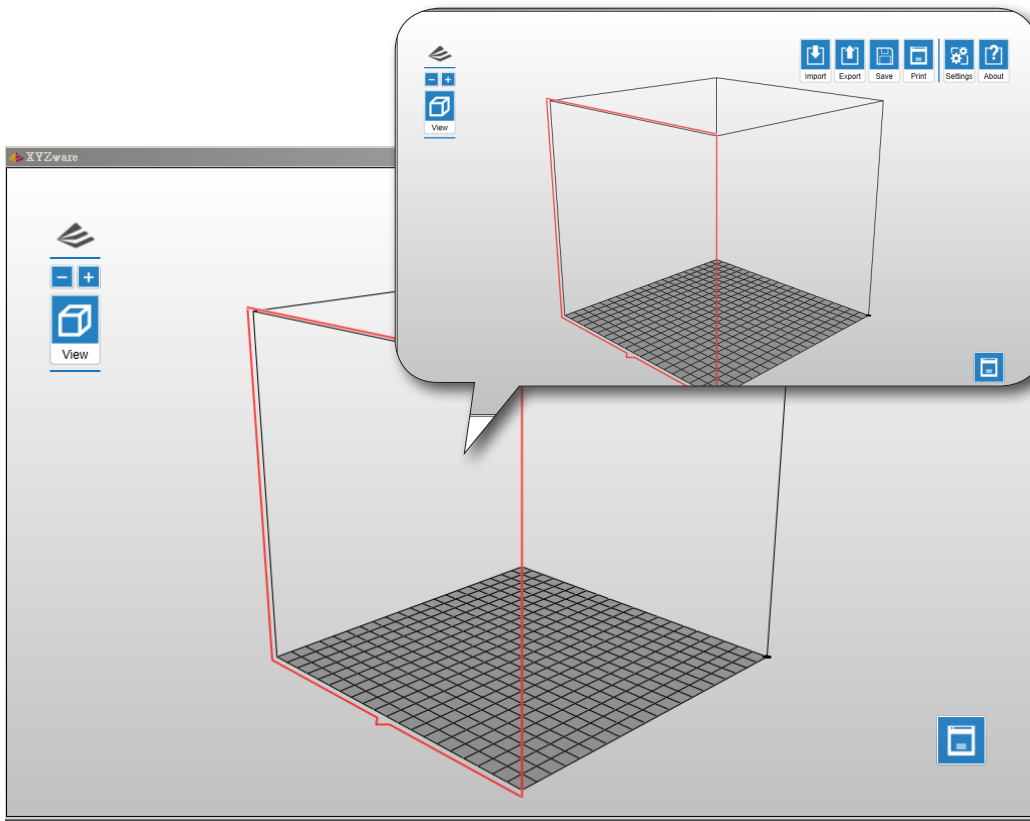
## 5.5 Info



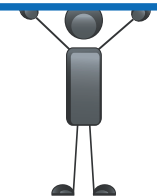
You can find more information about the object size and position in the "Information" window.



## 5.6 Remove

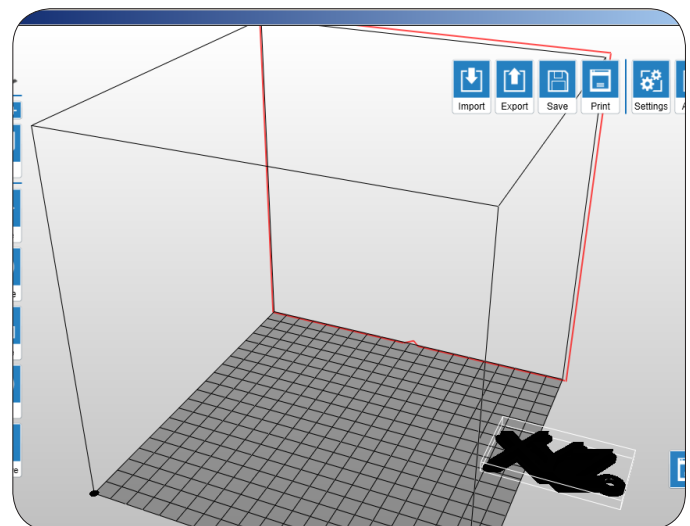
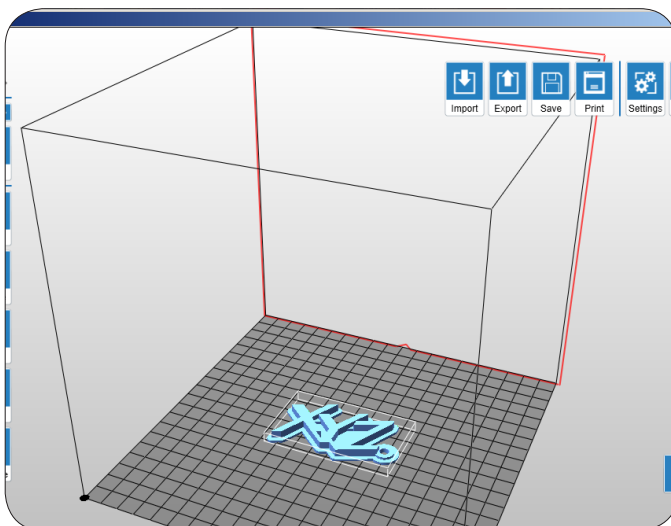


To start a new printing project, select the object and press the remove icon to delete the object(s) on the screen.



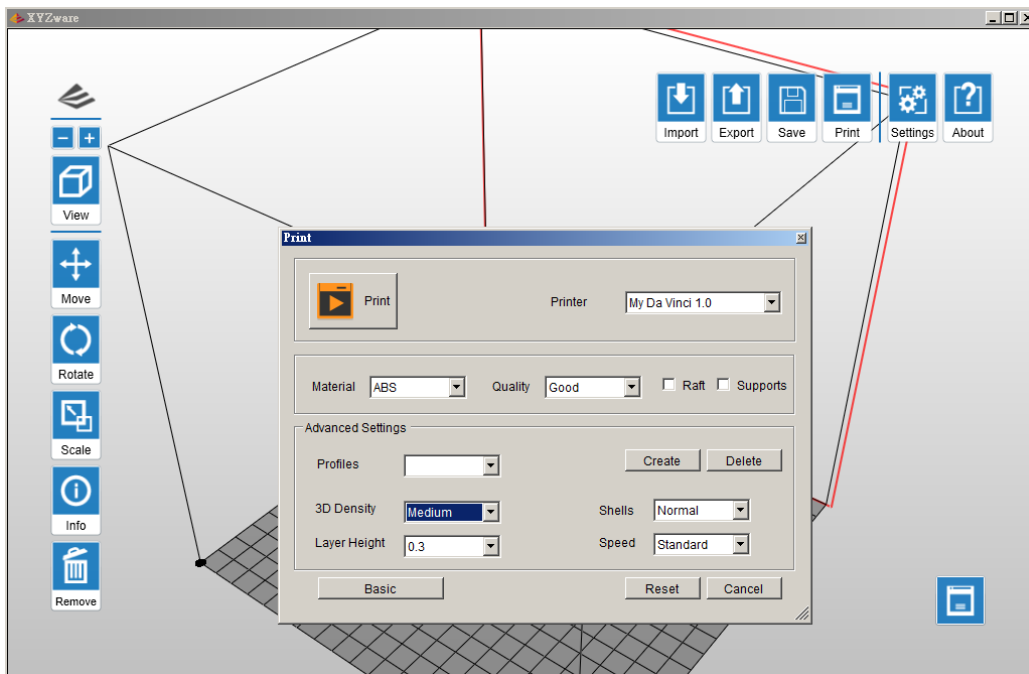
## 5.7 Reminder

The XYZware will automatically find any inappropriately positioned object and mark it with a distinguishing color, this prevents the object from being printed off the build plate.



## 6. Print Setup

You can modify the printing results by changing the printing parameters. For example by setting the print speed to slow and checking the “Supports” box will result in a fine print quality.



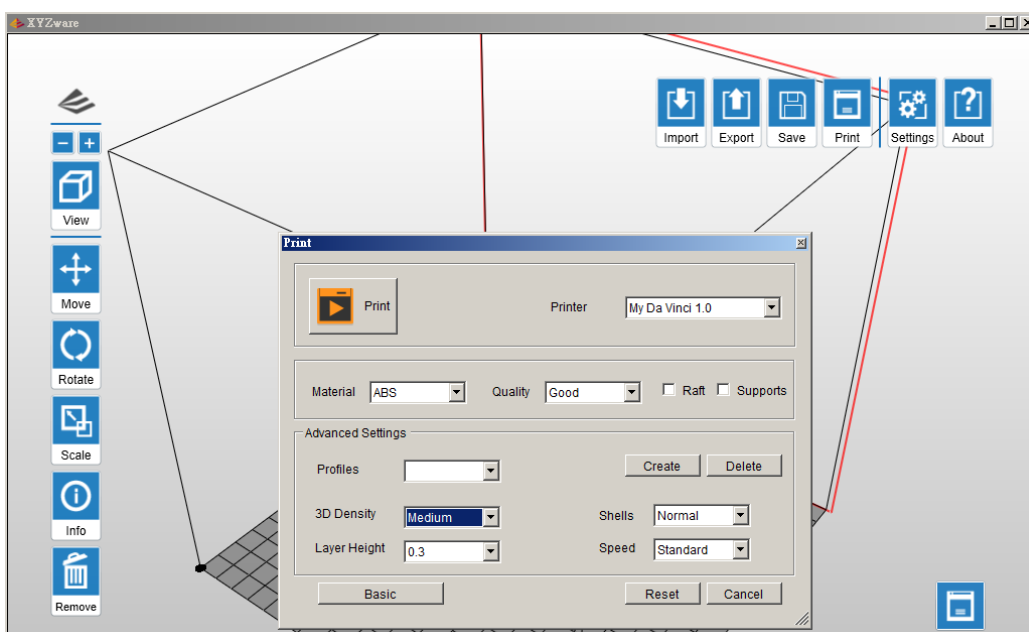
## Setup Description

### 6.1 Print

Start object printing

### 6.2 Printer

Select da Vinci 1.0 / da Vinci 2.0 Duo for output



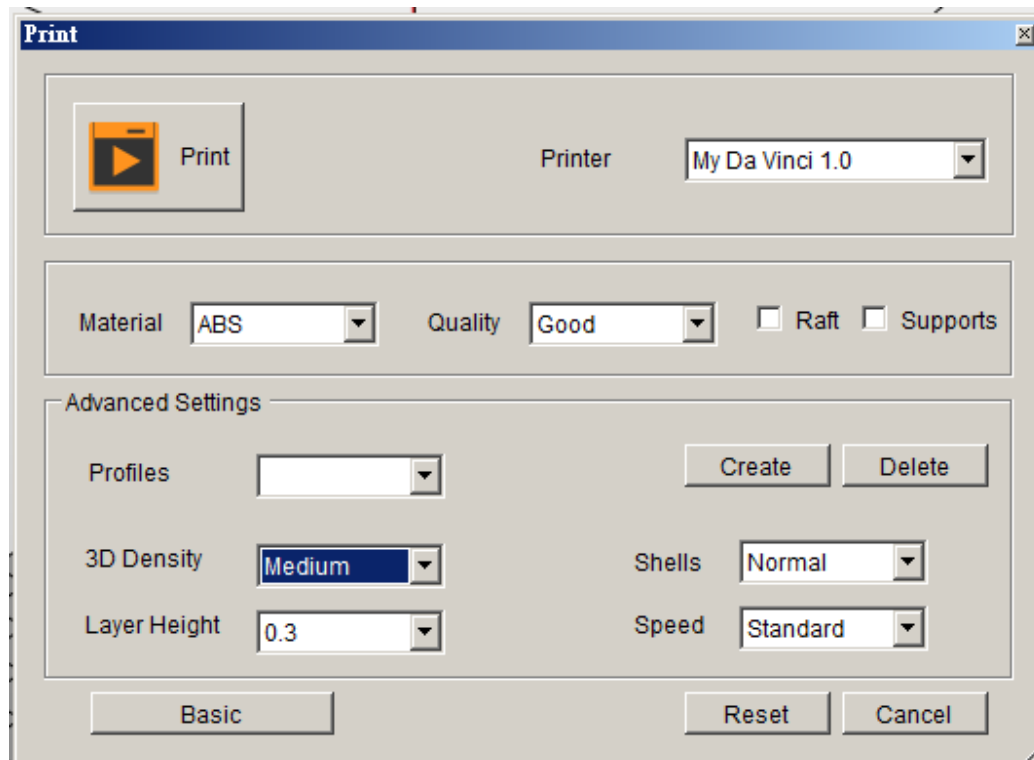


## 6.3 Material

XYZprinting provides a wide range of vividly colored filaments which can be found on our website.

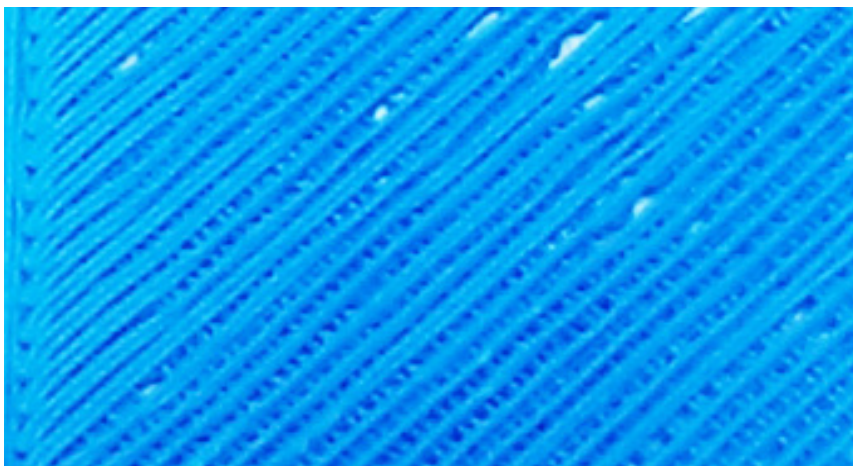
### 6-4.Quality

Selecting a print quality will effect the time it takes to print an object. For example, high quality prints will take longer to make than low quality prints as each layer printed is thinner creating a more detailed finish.



### 6-5.Raft

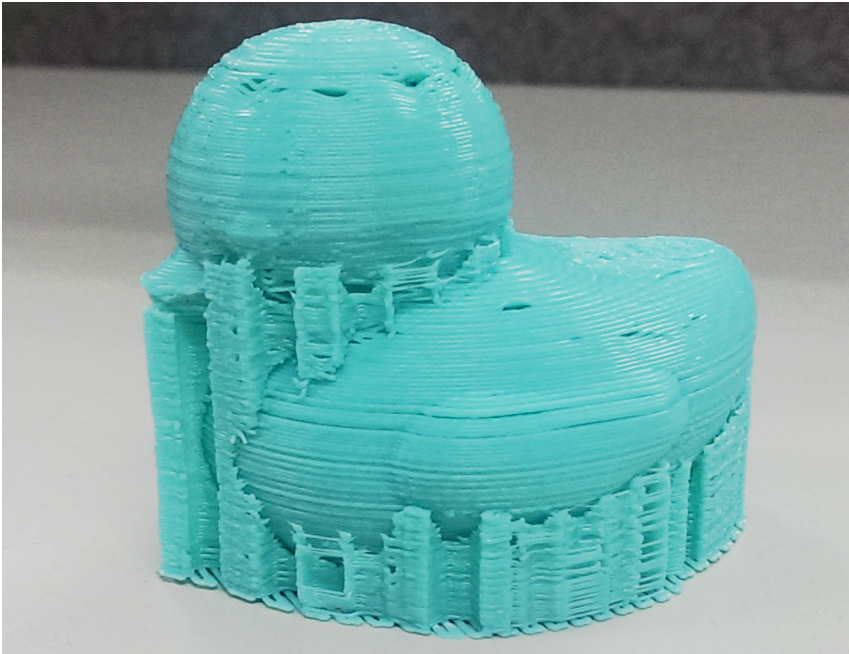
Printing thinner and longer objects require more attention due to the shapes physical instability, the object may buckle or twist under its own weight. When printing long thin objects consider increasing the area of contact between your object and the build plate by checking the “Raft” box. Rafts create stability and can be removed after your object has been printed.





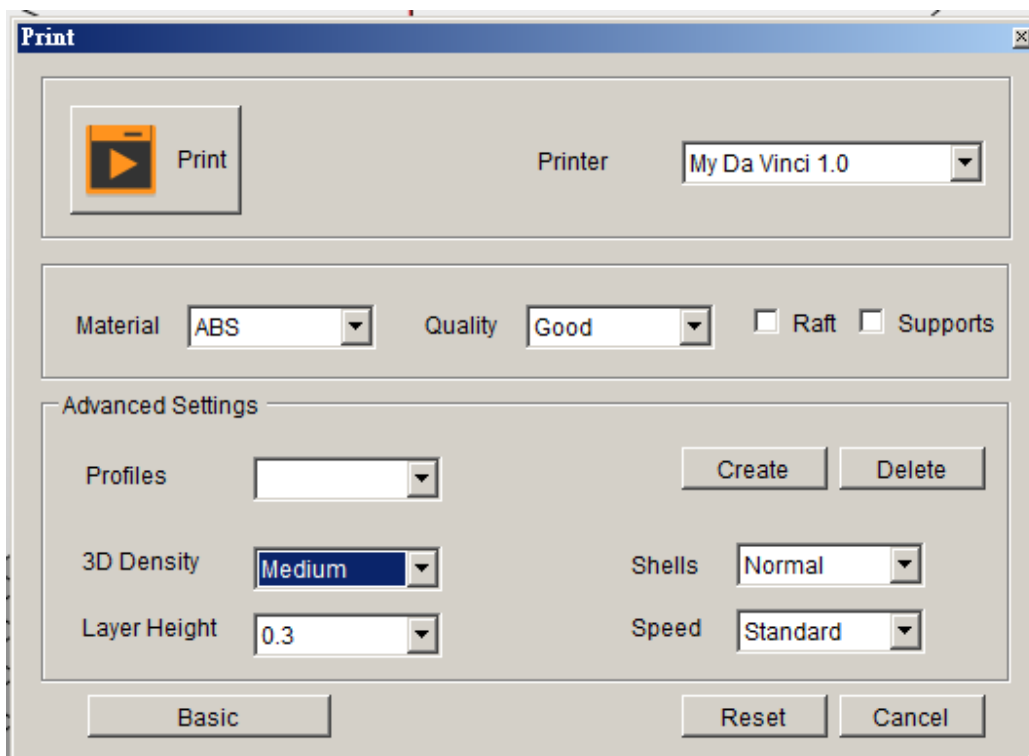
## 6-6.Support

The supportive structures are printed according to the objects features. Support is used to create structural strength and ensure that your model does not collapse during the printing process.



## 6-7.Advanced Settings

Click on the “Advanced” button for more printing options.

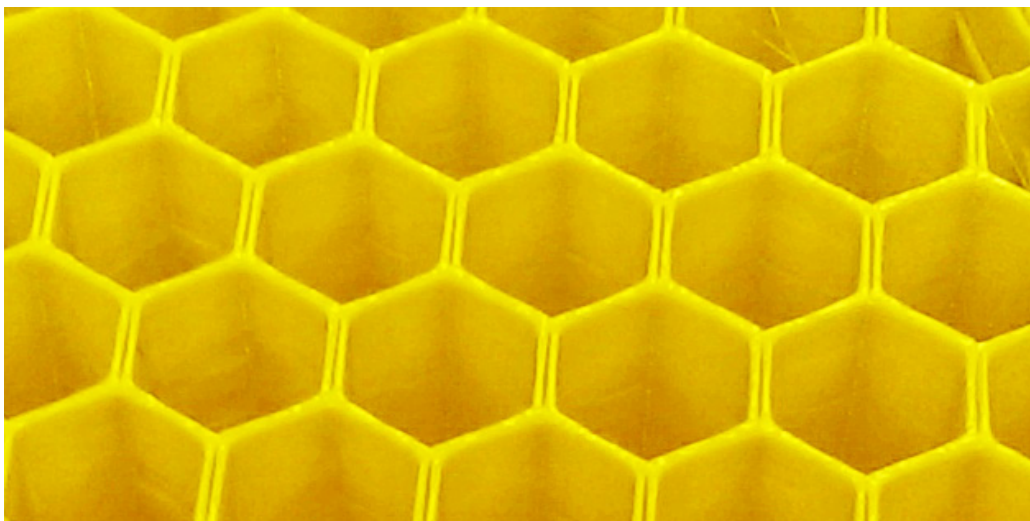


## 6-8.Profiles

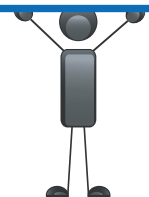
Add or select saved printing preferences through the “Profiles” pull-down menu. Different printing preferences can be created, saved and applied to different models depending on the project requirements.

## 6-9.3D Density

Before printing, users may use this function to adjust the print density of the object(s). The default printer setting on the da Vinci 3D printer series will create the internal structure of the object(s) based on honeycomb structures. Using the 3D density pull-down menu, you can adjust the honeycomb structure density from hollow to high to create desired strength requirements.

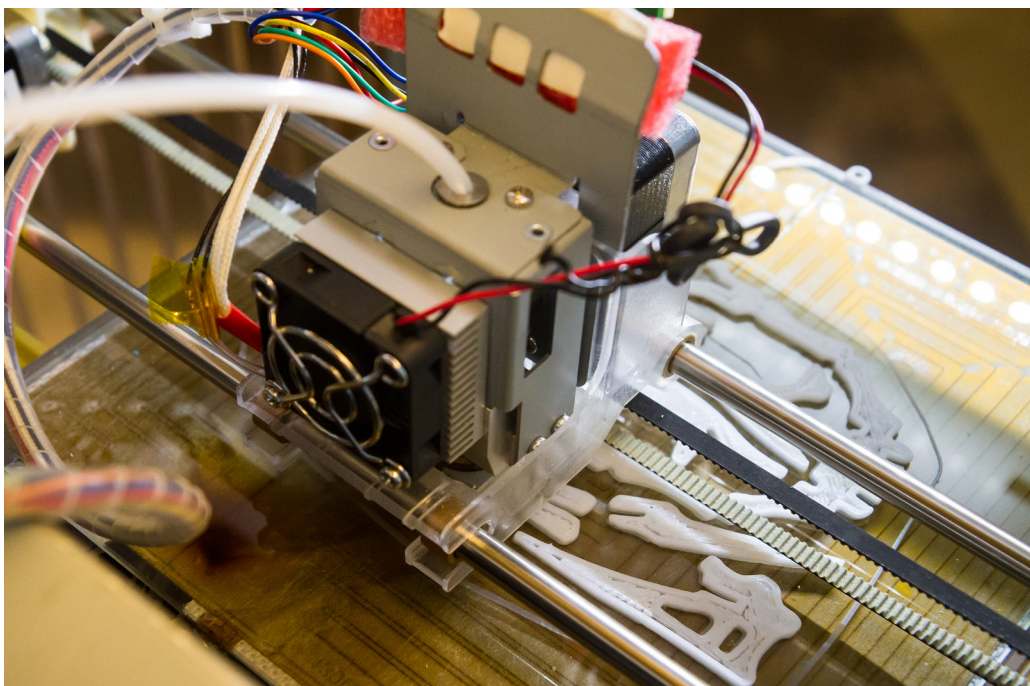


Available 3D densities  
Hollow, fewest and scattered  
honeycomb structure Low  
Medium High Solid



## 6-10.Layer Height

By setting different layer heights, you can alter the thickness of each layer that your printer creates.



The printed layer thickness  
can be adjusted between  
0.1mm – 0.4mm. For best  
results, we recommend 0.2-  
0.3mm layer printing.

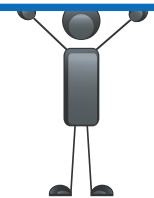


## 6-11.Shells

Shells are the outer layer of the object. Thick shells end in better printing quality but take longer for printing. Thin shells shorten the duration of printing but may be vulnerable to break.

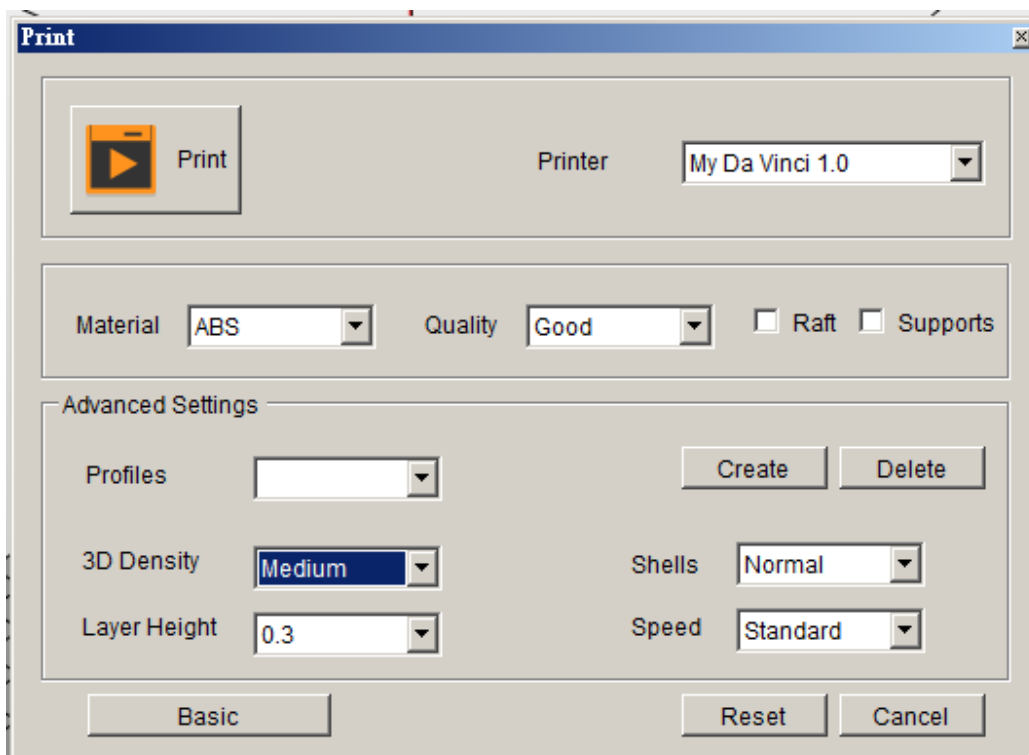


Shell settings  
Thin  
Standard  
Thick, best quality

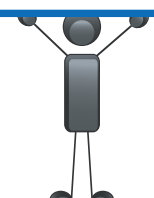


## 6-12.Speed

Use the printing speed adjustment to change the settings based on the size and precision of the object. In general a better object quality is accompanied with a lower printing speed.



Printing speed settings  
Slow, best quality  
Standard  
Fast

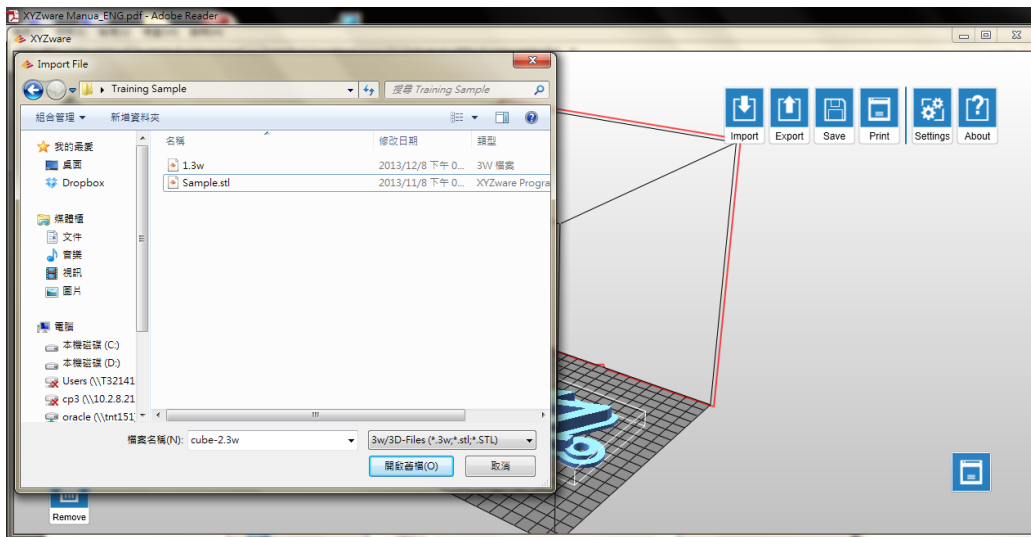


## 7. Other Functions

Once you have finished customising your object to your preferences, it can be 3D printed or saved for future use.

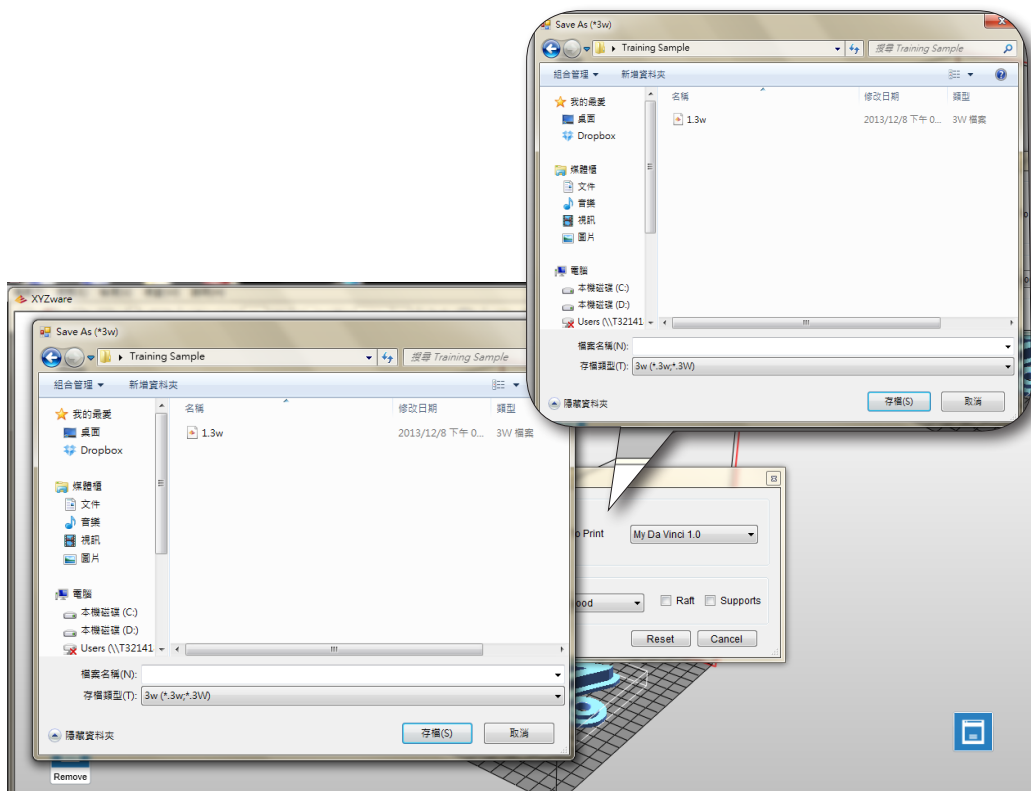
### 7.1 File saving

Click on “Save”, the XYZware will save the file as an \*.stl format.



### 7.2 File export

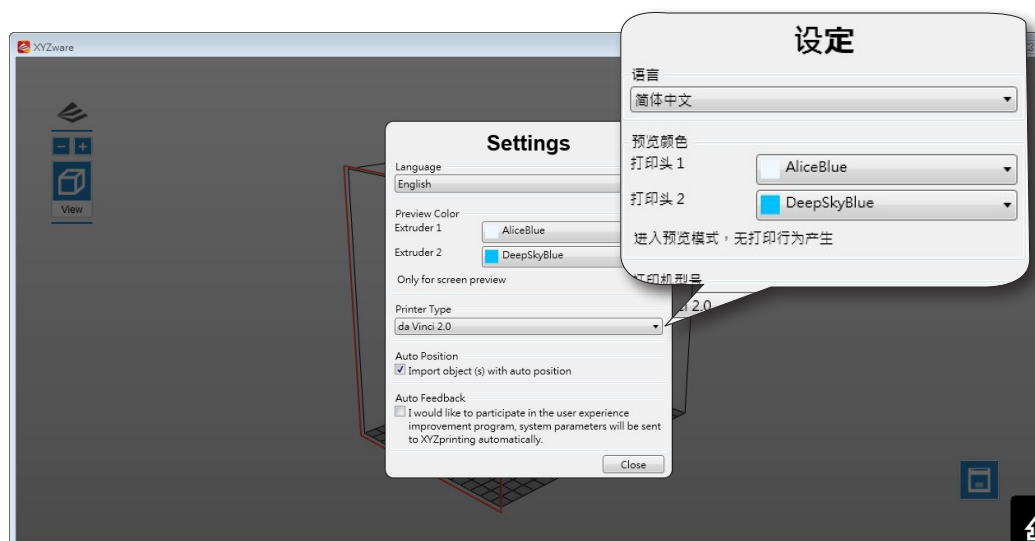
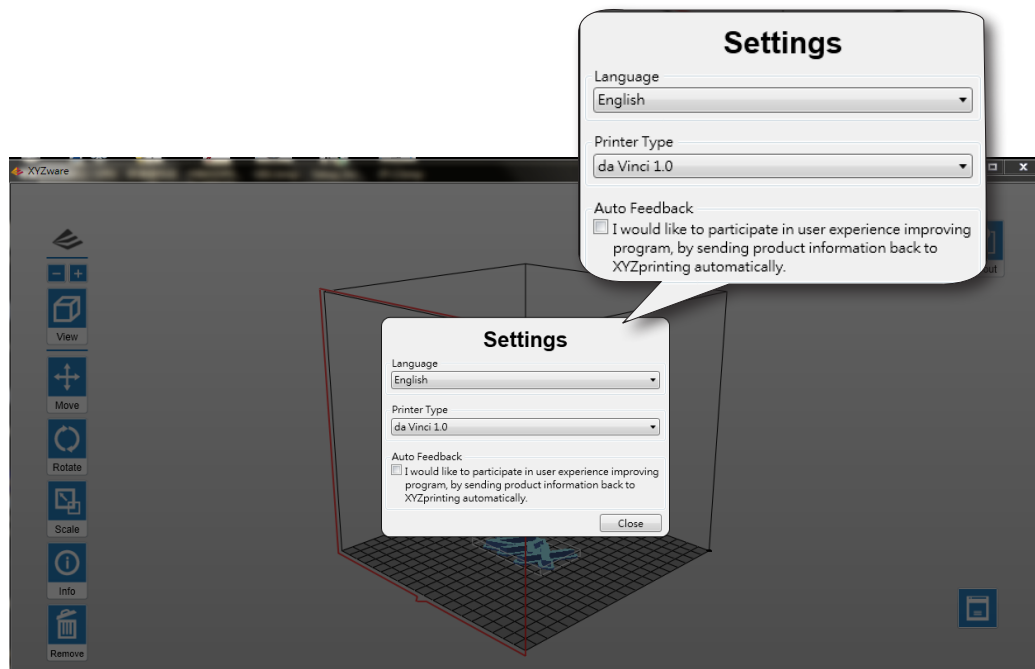
Select “Export”, the XYZware will save the file as a \*.3w format. .3w is the specific file format that is developed solely for the "da Vinci" series 3D printers. Programs like XYZware will make slicing calculations from STL files and store the printing profile within .3w file, which will speed up your next 3D printing project.





## 7.3 Switch language

The XYZware supports multiple languages. You can use the pull-down menu to select a language for your XYZware. After selecting a language preference the change will be instant.



## 7.4 Preview printing color (available for da Vinci 2.0 only)

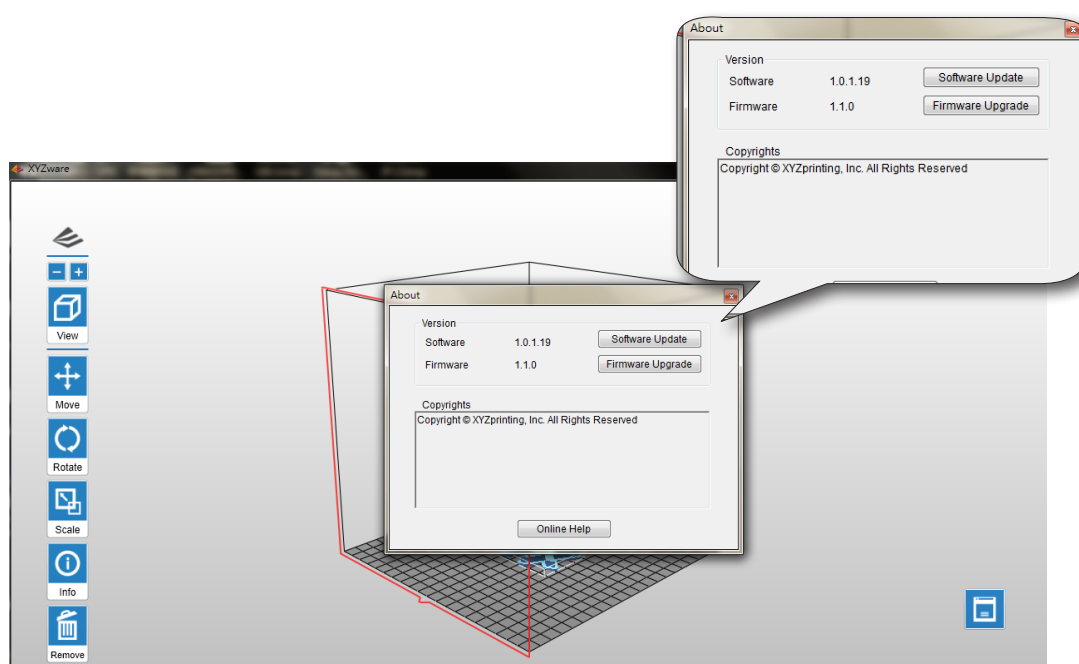
The settings enable the preview of the filament color from each extruder. Please note that the color is for preview only. It may be different from actual color.

## 7-5. Printer type setup

Please select the printer in use from the drop-down list. The size of print bed will be changed according to the selected printer.

## 7-6. Auto position objects

Enable the function when printing with da Vinci 1.0, XYZware will auto position the object(s) on appropriate place on the print bed. When printing separated files that makes up a 2-color object from da Vinci 2.0 Duo, it is recommended to disable this functions. Thus XYZware will position the separated files on the same place at the central of the print bed. This helps to skip the process of reposition of the separated files to the same place.



## 7-7. Firmware Update

For the best 3D printing experience, please keep the software and/or firmware updated. Updating is simple: click "Help" icon and XYZware will check for updates. If the XYZware finds a newer version, click the "Software Update"/"Firmware Upgrade" button for updating.

## 8. Monitor mode

Temperature of print bed and extruders can be accessed by clicking "Monitor" icon on bottom right side. This function is disabled when printer is disconnected to the computer.

