



# Beginner WLAN 3D Printer with Filament Bundle

Art. Nr. 2010300



## User manual

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# Introduction

Note: Each unit is subjected to a factory test before shipment. Residues on the extruder or the smallest of scratches on the construction tape are normal and have no influence on the print quality.

Bresser GmbH would like to take this manual as an opportunity to thank the technicians of Bresser GmbH as well as the users of this 3D printer for their tireless efforts and the ( the braucht man nicht ) extremely important support.

This Bresser GmbH Saurus user manual is intended for the users of Saurus who are now starting their journey into the future of printing with Bresser GmbH Saurus. Even if you are familiar with the older models of Bresser GmbH equipment or 3D printing technology, we recommend that you read this manual. It contains a lot of important information for you to know about Saurus and to improve your 3D experience:

## **(1) BRESSER SAURUS Quick Start Guide**

The Quick Start Guide is included with the printer. The information it contains will help you start printing in no time.

## **(2) BRESSER SAURUS product page on the Internet**

Visit the product page on the Internet at [www.bresser.de/P2010300](http://www.bresser.de/P2010300) for additional information, available updates or software for this printer and related accessories.

# General Information

## Important note:

- Please read this manual carefully before using the machine.
- This manual assumes that you are using the Windows 7 operating system to operate the 3D Printer.
- The current version of the REXprint software is used.

This manual contains all necessary information for setting up and operating the device.

The operating instructions consist of the following parts: Introduction, general and safety information, operation and product service.

## For service requests, please have ready:

Art.-No.: 2010300

Product reference BRESSER SAURUS beginners WLAN 3D printer with filament bundle

Manual:

Manual\_2010300\_WLAN-3D-Drucker-SAURUS\_en\_BRESSER\_v092020a.docx

# Safety Instructions

## IMPORTANT NOTE:

Familiarise yourself with this manual and read all the instructions it contains before you start setting up and operating the machine. Failure to heed warnings and instructions may result in personal injury, fire, and damage to the unit or other property.

STRICTLY FOLLOW ALL SAFETY AND OTHER INSTRUCTIONS GIVEN IN THIS MANUAL AT ALL TIMES!

## Safety in the working environment

- ① Keep the workplace clean!
- ② Do not operate the 3D Printer in the presence of flammable liquids, gases or dust.
- ③ Keep children and untrained persons away from the 3D printer.

## Security of power supply

- ① Operate the 3D Printer only from an earthed power outlet. Do not make any changes to the power plug of the 3D Printer.
- ② Do not operate the 3D printer in a hazy or humid environment.  
Do not expose the 3D printer to direct sunlight.
- ③ Do not use the power cord for any purpose other than its intended use.

- ④ Do not operate the unit during thunderstorms.
- ⑤ To avoid accidents, disconnect the device from the power supply if you are not going to use it for a long period of time.

#### • Safety of people

- ① Do not touch the nozzle or pressure plate during printing.
- ② Do not touch the nozzle after printing is completed.
- ③ Wear suitable clothing. Do not wear loose clothing or loose-fitting jewellery. Make sure that your hair, clothing and gloves do not come into the vicinity of moving parts.
- ④ Do not operate the device if you are tired or under the influence of drugs, alcohol or medication.

#### • Precautions

- ① Do not leave the device unattended for a long time.
- ② Do not make any changes to the device.
- ③ Lower the pressure plate before inserting/removing filament. (The distance between nozzle and pressure plate should be at least 50 mm)
- ④ Operate the device in a well-ventilated environment.
- ⑤ Do not use the device for unlawful purposes.
- ⑥ Do not use the appliance to make containers for storing food.

- ⑦ Do not use the device to manufacture electrical equipment.
- ⑧ Do not put models in your mouth.
- ⑨ Do not remove the models by applying force.

- **Environmental conditions**

TEMPERATURE: Room temperature 15 to 30 °C

Moisture: 20% to 70%

- **Filament specifications**

Use filament only for the intended purpose! Use only the BRESSER filament or filament of the brands authorised by BRESSER!

- **Filament storage**

A certain degree of decay can be observed in all polymers over time. Only unpack the filament when you need it. The filament should be stored in a clean and dry environment and protected from sunlight.



## **Legal notice**

All information in this document can be extended or adapted without prior notice.

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Furthermore, BRESSER GmbH does not assume any liability for errors contained in this manual or for incidental consequential damages in connection with the delivery, performance or use of this material.

## **EC DECLARATION OF CONFORMITY**

Bresser GmbH hereby declares that the 3D printer with article number: 2010300 complies with Directive 2014/30/EU. The full text of the EC declaration of conformity is available at the following Internet address

[www.bresser.de/download/2010300/CE/2010200\\_CE.pdf](http://www.bresser.de/download/2010300/CE/2010200_CE.pdf)

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# Chapter 1: 3D printing technology

3D printing transforms three-dimensional models into physical objects that you can touch and hold in your hand. This printing form is also called additive manufacturing, because the 3D model is created by applying as many layers as necessary until the object is completely formed.

Fused Filament Fabrication (FFF) is the most common method of 3D printing used by this 3D printer. In this printing method, a plastic, the filament, is melted at high temperature and applied to a printing surface. The filament solidifies during cooling, i.e. practically immediately after leaving the nozzle. 3D objects are formed by applying the filament in several layers on top of each other.

## 1.1 procedure

3D printing involves three steps:

- 1.) Create or download a 3D model
- 2.) Slicing and exporting the 3D model
- 3 Building the 3D model

### 1.1.1 Creating a 3D model:

There are currently three ways to create a 3D model:

- **Design from scratch:** You can use free computer-aided design (CAD) software such as 3DTADA, AutoCAD, SolidWorks, Pro-E or our own software Happy 3D to design your own 3D model.
- **3D Scanner:** As an alternative to creating a 3D model, you can also scan an object. A 3D scanner digitalises a physical object by capturing the object's geometric data and storing it in a file on the computer. It is also possible to use a mobile device as a 3D scanner by using an app.
- **From the Cloud:** Currently the most common method for obtaining a 3D model is to download a 3D model from a website where users can upload their own 3D models. Flash Forge Cloud [cloud.sz3dp.com](http://cloud.sz3dp.com)  
Example: [www.thingiverse.com](http://www.thingiverse.com)

### 1.1.2 Slicing and exporting a 3D model:

Slicer software is used to prepare 3D models for printing and converting them into instructions for the 3D printer. REXprint is the slicer software for this 3D printer. With REXprint, STL files can be converted to G or GX files for printing. These are then transferred to the 3D printer via USB cable, USB stick or W-LAN.

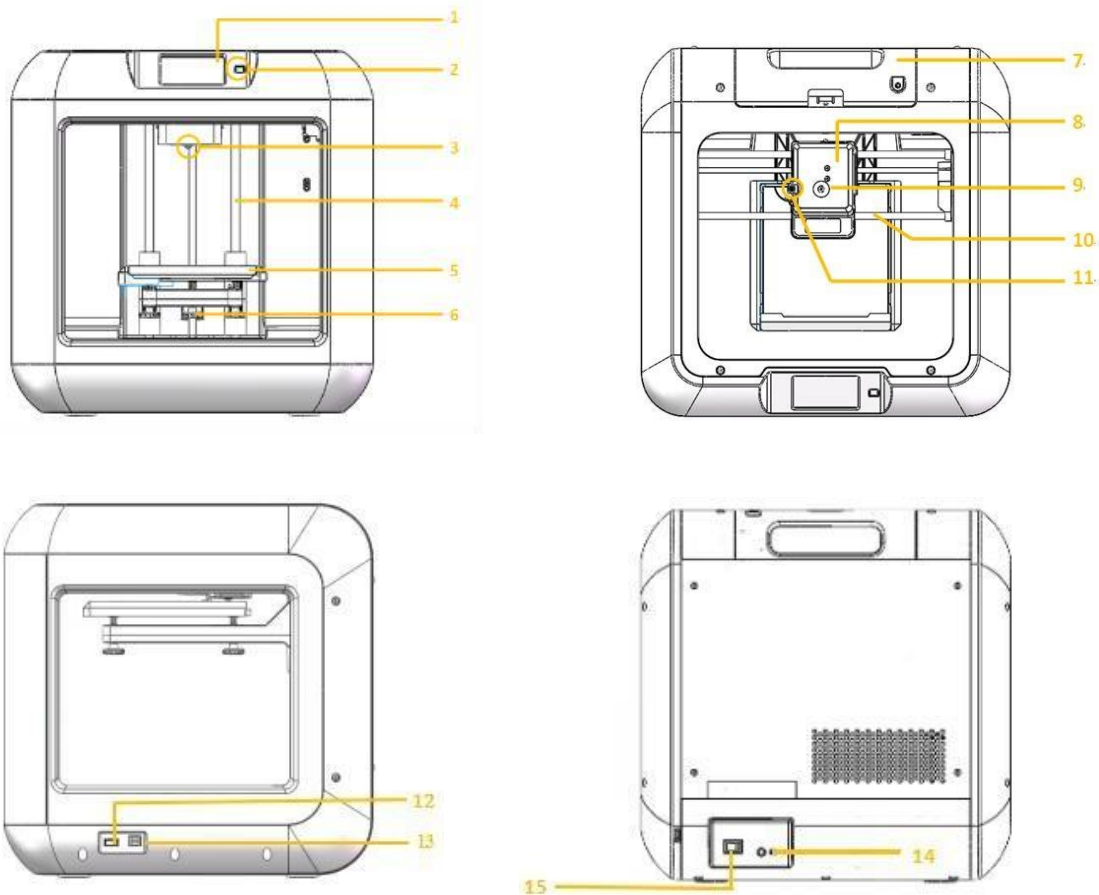
### 1.1.3 Structure of the 3D model

After the output file is sent to the 3D printer, the printer begins to transfer the 3D model into a physical object by applying layers of filament over each other.

# Chapter 2: About the 3D Printer

## 2.1 About the 3D Printer

### 2.1.1 Parts overview



1. Touch screen

2. Touch screen key

3. Nozzle

4. Z-axis guide rod

5. Pressure plate

6. Leveling button

7. Filament cartridge

8. Extruder

9. Filament supply

10. Z-axis guide rod

11. Spring compressor

12. Input USB cable

13. Input USB stick

14. Power consumption

16. Power switch

## 2.1.2 Terms and definitions

Pressure plate	The surface on which the 3D printer builds an object.
Printing foil	The blue film that covers the printing plate of the 3D printer to ensure optimal adhesion of the object to the printing plate.
Print volume	Three-dimensional perimeter that an object occupies after completion. The maximum print volume of the 3D printer is 140 x 140 x 140 mm.
Levelling buttons	Knobs under the pressure platform, which are used to adjust the distance between nozzle and pressure plate.
Extruder	Component that draws the filament from the spool, melts it and then applies it to the printing plate through a nozzle.
Nozzle	The nozzle is also called the "print head" and is located at the bottom of the extruder where the heated filament is pressed out.
Extruder fan	For cooling the outer parts of the extruder and gear motor.
Filament supply	An opening located on the top of the extruder.
Filament guide tube	A black plastic part that guides the filament from the filament container to the feeder.
Filament container	A box to accommodate the BRESSER filament.

Glue stick	A solid adhesive that is used to make the model stick firmly to the plate.
Cleaning Tools	A tool for removing blockages and cleaning the extruder.
Open-end wrench	A tool for gripping the metal cube of the nozzle.

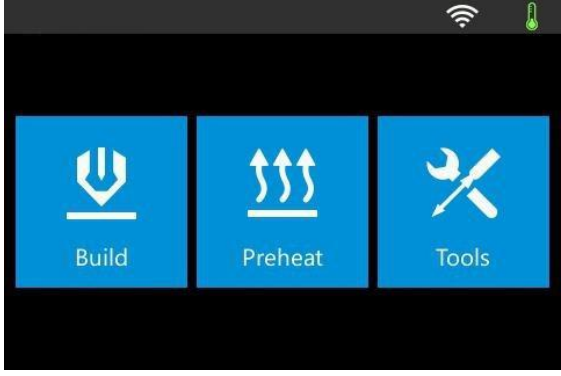
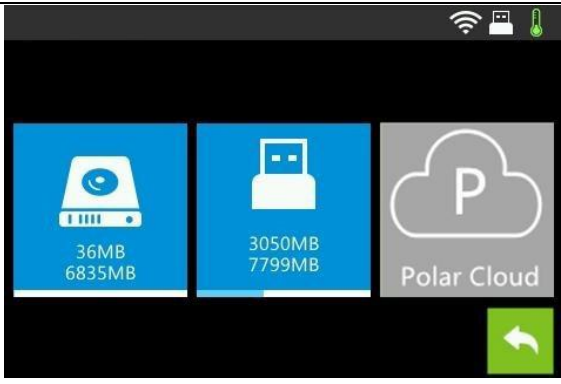

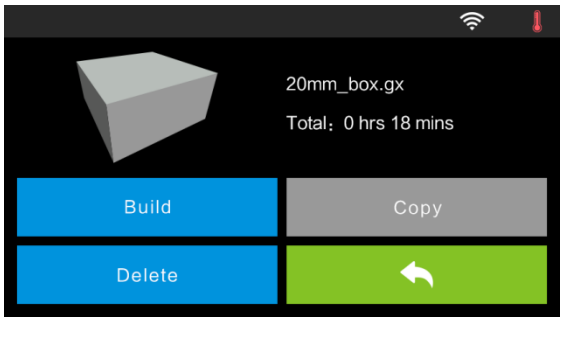
### 2.1.3 Device data



Name	SAURUS
Number of extruders	1
Printing Technology	Fused Filament Fabrication (FFF)
Display size	8.9cm (3.5") IPS colour touch screen
Print volume	140 x 140 x 140 mm
Layer resolution	0,05-0,4 mm
Printing accuracy	±0.2 mm
Positioning accuracy	Z-axis: 0.0025 mm, XY axis: 0,011 mm
Filament diameter	1.75 mm (±0.07)
Nozzle diameter	0,4 mm
Print speed	< 30 m/s
Software	REXprint, Simplify3D support
Supported file formats	Input: 3MF/STL/OBJ/FPP/BMP/PNG/JPG/JPEG Output: GX/G

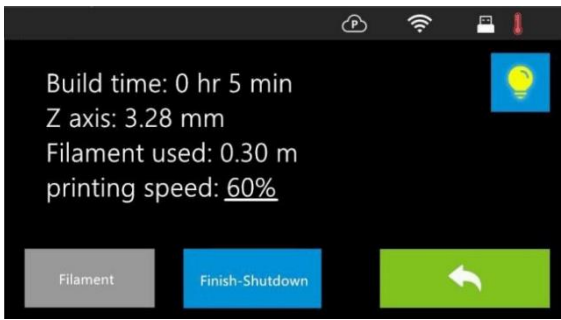

Operating system	Windows XP/Vista/7/8/10、 Mac OS、 Linux
Unit dimensions	420 x 420 x 420 mm
Net weight	9 kg
Input voltage: Supply voltage	Input voltage: 24 VDC, 2.71 A, 65 W
Connections	USB cable, USB stick, W-LAN, Ethernet Bresser GmbH Cloud, Polar Cloud

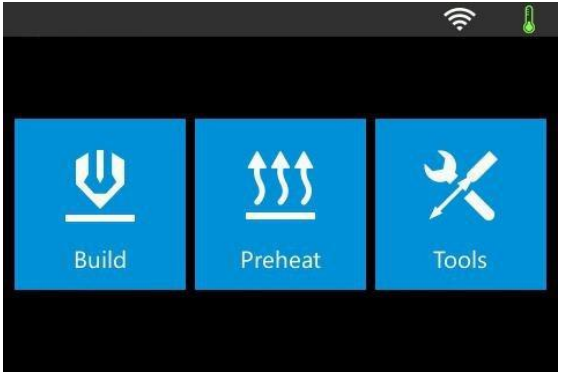
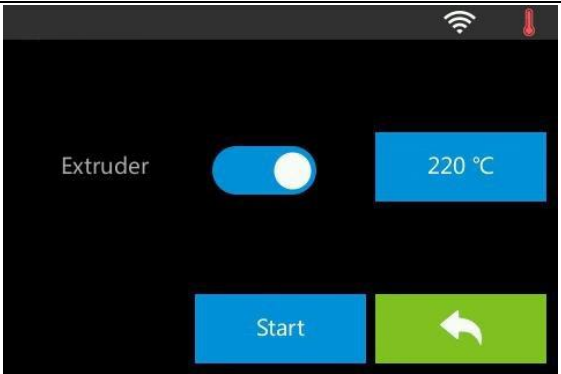




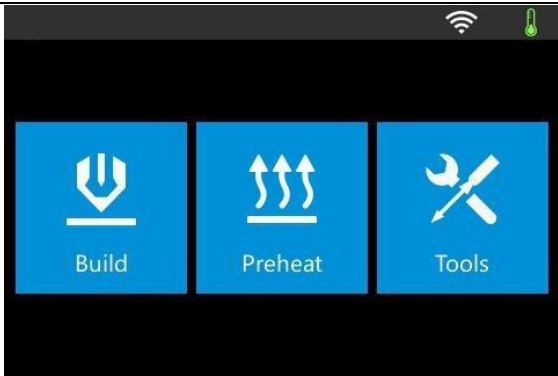
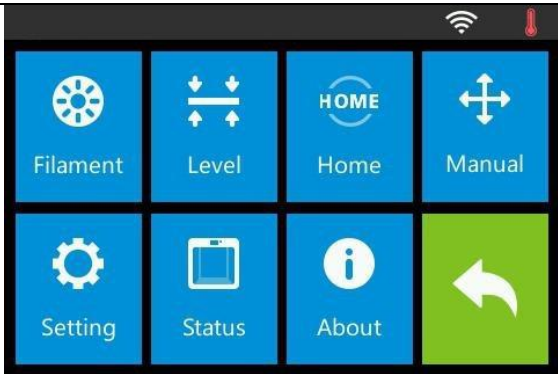
## 2.1.4 Touch screen menus

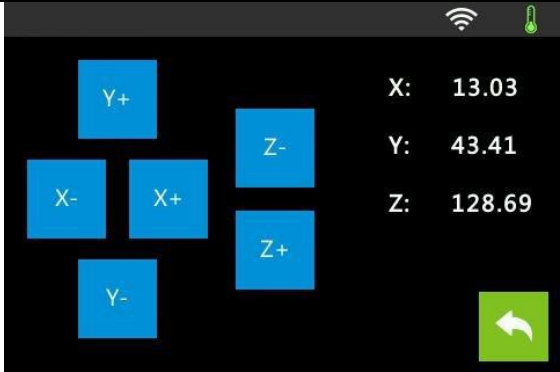
	<p><b>"Build"</b></p>
	<p>Read the print file from</p> <ul style="list-style-type: none"> <li>• the local memory card</li> <li>• the USB stick</li> <li>• Bresser Cloud or PolarCloud printing</li> <li>• Arrow back</li> </ul>
	<p>Selection of the print files.</p> <ol style="list-style-type: none"> <li>1. Touch and hold to select the file.</li> <li>2. Select the file to be deleted.</li> <li>3. The selected file is highlighted (right).</li> <li>4. Touch the "Delete" icon in the upper right corner to delete all selected files.</li> </ol>
	<p>Select the desired print file from the list.</p> <ul style="list-style-type: none"> <li>• "Build." To start printing</li> <li>• "Copy: For copying files from the USB stick to the local memory card. (The button is not available when</li> </ul>

	<p>printing from the local memory card)</p> <ul style="list-style-type: none"> <li>• "Delete." To delete the print file</li> </ul>
	<p>Print menu</p> <ul style="list-style-type: none"> <li>• "Abort." To cancel the print job</li> <li>• "Break/Resume." To pause/resume the print job</li> </ul> <p>"Tools" Check status or change settings during printing: Design time, Z-axis, thread, print speed, light status, thread change, exit-shutdown.</p> <p>Extruder temperature: The temperature can be changed during the printing process</p>
	<p>Adjust extruder temperature</p> <p>As soon as the extruder temperature has reached the target temperature, the temperature value is underlined on the pressure surface and can be adjusted by tapping.</p> <p>Tap the <b>[-]</b> or <b>[+]</b> button to adjust the temperature.</p> <p>Tap the <b>[Yes]</b> button to save the setting. Press <b>[No]</b> to leave the settings unchanged.</p>

	<p>Tools of the print menu</p> <p>Print speed To change the print speed during printing, tap the underlined speed.</p> <p>Light bulbs button: TURN ON/OFF ALARM</p> <ul style="list-style-type: none"> <li>• „Filament“: For changing the filament during printing.</li> </ul> <p>NOTE: The running operation must first be interrupted)</p> <ul style="list-style-type: none"> <li>• "Final shutdown." Automatic shutdown after the end of the print job.</li> <li>• "Cancel: To exit the tools and return to the print menu</li> </ul>
	<p>Set print speed</p> <p>Tap the <b>[-]</b> or <b>[+]</b> button to adjust the print speed.</p> <p>Tap the <b>[Yes]</b> button to save the setting. With <b>[No]</b> you leave the settings unchanged</p>

	<h2>"Preheat"</h2>
	<p>Press the [Preheat] button to open the warm-up menu. Press the [Start] button to start heating up to the set temperature.</p> <p>The default temperature is 220 °C °C.</p> <p>Press the bar on the display to set the temperature.</p>
	<p>Set the warm-up temperature as follows:</p> <p>Press [Yes] to save the setting, or press [No] to cancel the setting.</p>
	<p>The picture shows the warm-up menu. The current temperature and the target temperature are displayed. Press the [Abort] button to cancel the warm-up.</p>

	<p><b>"Tools"</b></p>
	<p>Touch [Tools] to display the options for the tools.</p> <ul style="list-style-type: none"> <li>• „Filament“: For insertion/removal of filament.</li> <li>• „Level“: To adjust the pressure plate</li> <li>• "Home": To restore the zero point for the X, Y and Z axes</li> <li>• "Manual: For manual adjustment of the X, Y and Z axis positions</li> <li>• "Setting." To set up important relevant functions</li> <li>• "Status": To check the printer status in real time</li> <li>• "About." Information about the printer.</li> <li>• Arrow back</li> </ul>

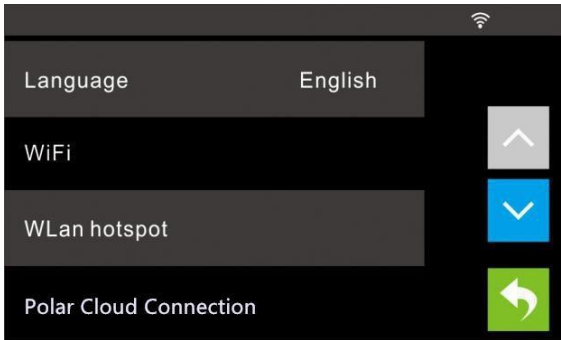
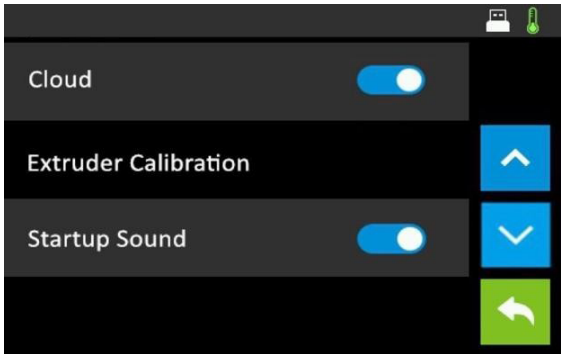
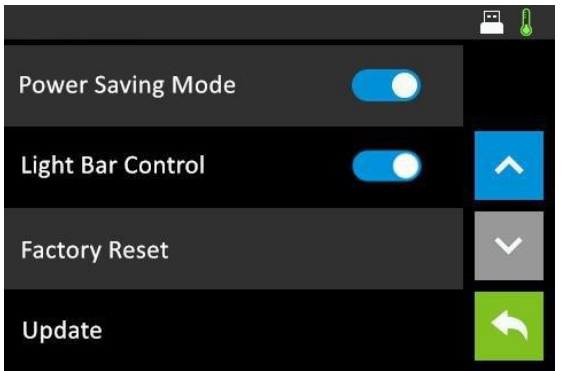


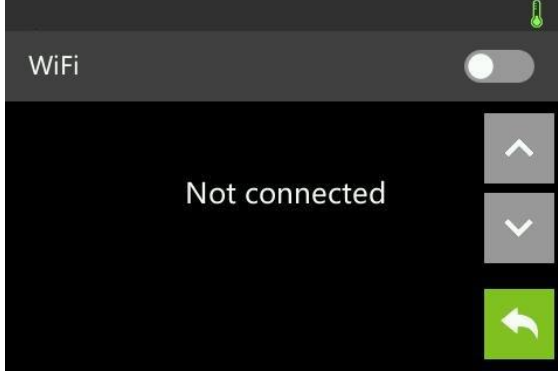
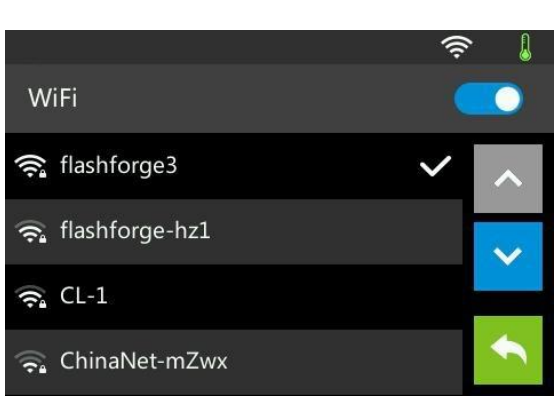


### Manual adjustment

- „Y+“: The extruder moves to the zero point, i.e. to the rear of the unit.
- „Y-“: The extruder moves in the opposite direction to the "Y+" position.
- „X+“: The extruder moves to the zero point, i.e. to the right.
- „X-“: The extruder moves in the opposite direction to the "X+" position.
- „Z+“: The pressure plate moves downwards.
- „Z-“: The pressure plate moves upwards.
- Arrow back



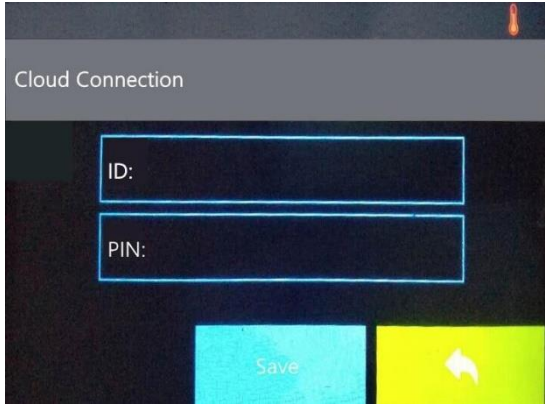
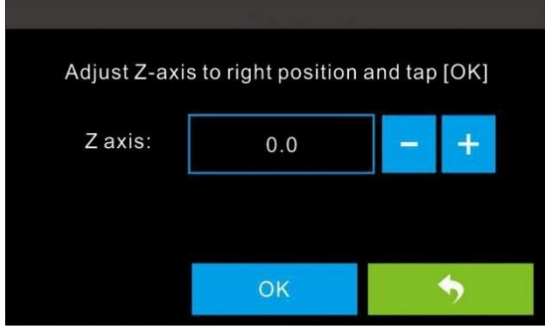


The picture shows the warm-up menu. The current temperature and the target temperature are displayed. Press the [Abort] button to cancel the warm-up.

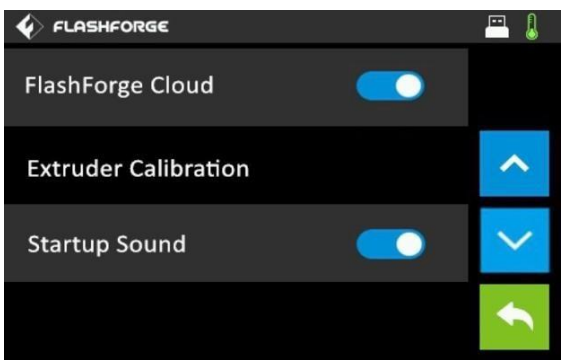
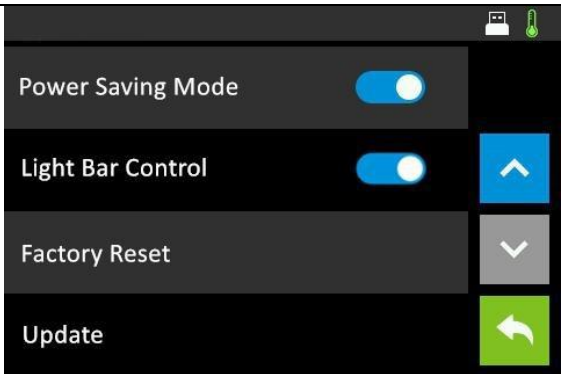
	<p>Touch [Setting] to enter the setting menu.</p> <ul style="list-style-type: none"> <li>• "Language." To set the display language</li> <li>• "WiFi." To switch the W-LAN on/off</li> <li>• "Wlan hotspot." To switch the W-LAN hotspot on/off</li> <li>• "Polar Cloud Connection: Switch PolarCloud connection on or off.</li> </ul>
	<ul style="list-style-type: none"> <li>• "Flash Forge Connection: Turn Flash Forge Cloud connection on or off.</li> <li>• "Resume Print": To resume printing after restarting Guider II</li> </ul>
	<ul style="list-style-type: none"> <li>• "WiFi." To switch the W-LAN on/off</li> <li>• "Wlan hotspot." To switch the W-LAN hotspot on/off</li> <li>• "Extruder Calibration." For adjusting the initial distance between extruder and pressure plate</li> <li>• "Filament Check Off": To switch the filament test on/off</li> <li>• "Factory reset: To restore the factory settings</li> <li>• "Update." To update the firmware version</li> <li>• Arrow back</li> </ul>

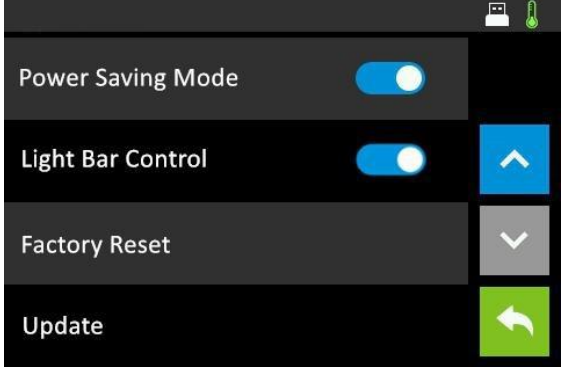
	<p>"WIFI"</p> <ul style="list-style-type: none"> <li>• Switch on the W-LAN: Switch on the W-LAN, release the W-LAN hotspot and set the W-LAN on the computer</li> <li>• Arrow back</li> </ul>
	
	<p>"Wi-Fi hotspot"</p> <ul style="list-style-type: none"> <li>• On/off: To switch the W-LAN hotspot on/off</li> <li>• "Set up wireless hotspot." To set the SSID and password</li> <li>• "SSID name." The name of the hotspot</li> <li>• "Password": The hotspot password</li> <li>• "Save: To save the setting</li> <li>• Arrow back</li> </ul>
	

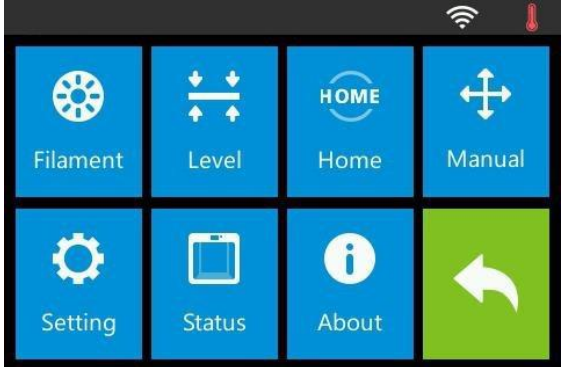
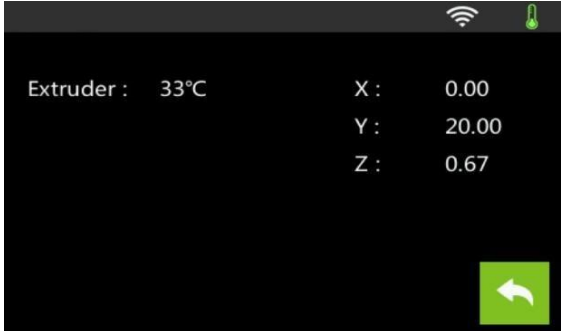


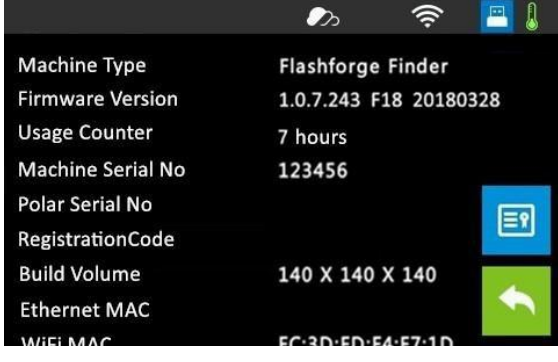
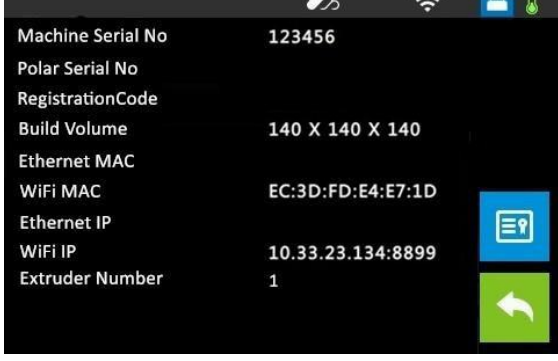
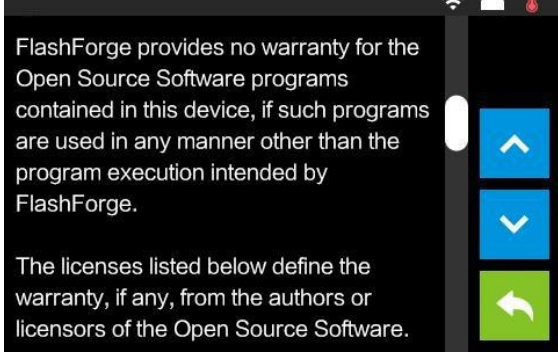
	<p><b>"PolarCloud Connection"</b></p> <p>Please register in advance under:  <a href="http://polar3d.com">http://polar3d.com</a></p> <ul style="list-style-type: none"> <li>• "Polar Cloud Connection: Tap to turn on/off the Polar Cloud connection.</li> </ul> <p>Setting up the WIFI connection Tap the Setup Cloud Connection button</p> <ul style="list-style-type: none"> <li>• "ID." Enter the email address of your cloud account here.</li> <li>• "Pin: Enter your cloud account PIN code here.</li> <li>• " Save: To save the setting</li> <li>• Arrow back</li> </ul> <p>Note: To use the PolarCloud printing feature, you must connect the printer to the Internet via wireless LAN.</p>
	<p><b>Extruder Calibration</b></p> <p>First make sure that there is no filament hanging down from the nozzle. Therefore, heat the extruder to about 200° C with "Preheat".</p> <p>Naviagate via the integrated touch screen by selecting "Tools &gt; Settings &gt; Sheets (down arrow) &gt; Extruder calibration".</p> <p>Once the printer has finished moving, you</p>
	
	

	<p>must place a single sheet of paper on the print bed.</p> <p>Next, click once on the "-" symbol on the screen and move the sheet of paper. You will not feel any resistance at first. Repeat this process, and as you continue, the paper will begin to get caught between the print bed and the nozzle. As soon as you feel resistance when moving the paper back and forth, you can click on "Okay" and "Finish".</p>
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	<p>Switching on/off "Flash Forge Cloud"</p> <ul style="list-style-type: none"> <li>• "Flash Forge Cloud: Tap to disconnect the Flash Forge cloud connection.</li> </ul> <p>Start Sound</p> <ul style="list-style-type: none"> <li>• "Start up Sound." Tap to turn the sound on or off when the printer restarts.</li> </ul>
	<p>Power saving mode "Off"</p> <ul style="list-style-type: none"> <li>• "Power Saving Mode." Power save mode is off by default. Automatic shutdown is de-activated.</li> </ul>

	<p>Light strip control</p> <ul style="list-style-type: none"> <li>• "Light Bar Control: Tap to switch the extruder lighting on or off during a restart.</li> <li>• "Factory reset: Resets the printer to its factory defaults.</li> <li>• "Update." Update of the firmware version.</li> <li>• Arrow back</li> </ul>
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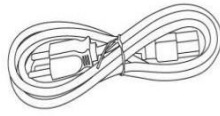
	<p>Real time status</p> <ul style="list-style-type: none"> <li>• "Status": Display of real-time status of extruder temperature and XYZ coordinates.</li> </ul>
	

	<p>"About." First page</p> <p>Displays basic information about the printer.</p>
	<p>"About." Second page</p> <p>Displays basic information about the printer.</p>
	<p>Licence</p> <p>Display basic information about the licence.</p> <ul style="list-style-type: none"> <li>• Arrow back</li> </ul>

## 2.2 Accessories



Filament spool (2x)



Power cable



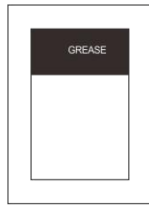
USB cable



Filament guide  
tube



Quickstart guide



Fat (Grease)



Screwdriver



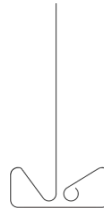
Allen key  
(M2,0/2,5)



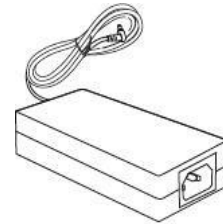
Glue stick



Open-end  
wrench



Pin tool



Power adapter



• Warranty/Service  
card



PTFE tube

## 2.2.1 Accessories manual

### **Filament spool**

Use for printing. Detailed instructions and information on how to install the hardware are contained in the corresponding chapter of the user manual.

### **Power cable**

Power supply to the printer; detailed instructions are provided in the "Unpacking" section of the manual.

### **USB cable**

Connection of computer and printer for the transfer of print files and for the printing process. Detailed instructions are given in the chapters "Unpacking" and "7.2 Printing methods" of the manual.

### **Filament guide tube**

Feed-through of the thread from the thread spool (behind the thread detector) to the extruder thread take-up. Detailed instructions are given in the chapters "Unpacking" and "4.3 Loading thread" of the manual.

### **Quickstart guide**

First instructions on how to operate the printer and for first successes in printing.

### **Grease**

Lubricate the X, Y and Z axes or other parts. Please contact the Bresser GmbH support team before starting the maintenance and regarding the protection against printer damage and personal injury.

### **Screwdriver**

Tighten and loosen screws and nuts. Please contact the Bresser GmbH support team before starting maintenance of the printer regarding protection against printer and personal injuries.

### **Allen key**

Tighten and loosen screws during maintenance work. Please contact the Bresser GmbH support team before starting maintenance of the printer regarding protection against printer and personal injuries.

### **Glue stick**

Fixing the model on the construction platform during printing. Apply a thin layer

of the adhesive to the construction platform and make sure that the lower layers of the model are correctly printed and attached.

### **Open-end wrench**

Tighten and loosen nozzles, teflon tube and other parts during maintenance work. Please contact the Bresser GmbH support team before the first maintenance of the printer and regarding the protection against printer damage and personal injury.

### **Pin tool**

Cleaning of clogged extruder parts (thread take-up, thread feed wheel, Teflon tube and nozzle) during maintenance of the extruder. Please contact the Bresser GmbH support team before starting the maintenance and regarding the protection against printer damage and personal injury.

### **Power adapter**

Power supply to the printer; detailed instructions are provided in the "Unpacking" section of the manual.

### **Warranty/Service card**

This is required for maintenance. Please keep them and present them to the Bresser GmbH support team.

### **PTFE tube**

Use in the extruder. At the end of the life cycle the tube can be replaced. Please contact the Bresser GmbH support team before starting the maintenance and regarding the protection against printer damage and personal injury.

# Chapter 3: Unpack

This chapter describes how to unpack completely the 3D Printer.

---

**Note:**

**Please read the unpacking guide completely.**

---

Place the outer carton on a clean surface.



3-1

(3-2) Open the outer packaging and then lift your Saurus out of the box.



3-2

(3-2) Remove the side insert.





3-3

(3-3) Remove the top insert.



3-4

(3-4) You will see the Quick Start Guide, power cord, service card, yarn guide tube and tool bag.



3-5

(3-5) Remove the blue tape from the flat cable. Be careful when handling the flat cable.



3-6

(3-6) Cut the four packing tapes from the guide rod. Then check the condition of the extruder.



3-7

(3-7) Remove the middle insert. Remove the filament spool.



3-8

(3-8) Lift up the design platform and remove the adhesive, power supply and USB cable.



3-9

(3-9) Remove the two tabs from the Z-axis guide rods.

Congratulations!

You unpacked your Saurus. Now we want to assemble the hardware of the Saurus.

# Chapter 4: Hardware structure

The 3D Printer is pre-installed at the factory, which means that you can use it to print directly after you have inserted the filament spool and the levelling is complete.

## 4.1 Filament installation



4-1%

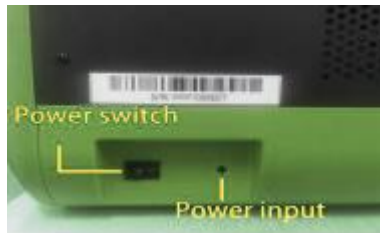
(4-1) The filament container is located at the rear of the printer. Remove the container from the printer.

(4-2) Remove the filament and guide it through the filament detection.

**Note:** The filament must be passed from the bottom of the bobbin to the top.

After the filament is installed, replace the filament container back into the printer.

## 4.2 Starting the printer



4-3

(4-3) Plug the power cord into the connector (B) on the back of the printer. Then turn on the power switch. Move the on/off switch (A) to position 'I' to switch on the unit.



4-4

(4-4) Press the touch screen button to start the machine.

## 4.3 Inserting the filament

The filament guide tube must be inserted correctly so that the filament is stuck and the device is not damaged.

(4-5) Remove the filament guide tube and feed the filament from the filament spool through the tube



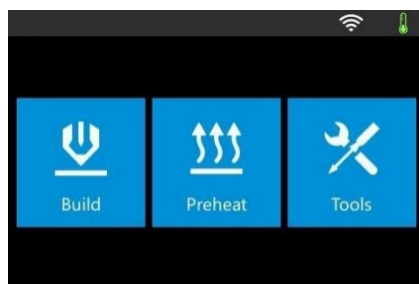
4-5

(4-6) Insert the filament from the filament guide tube into the filament holder.



4-6

**Note:** Lower the pressure platform so that the distance between the nozzle and pressure platform is at least 50 mm to avoid jamming the nozzle.



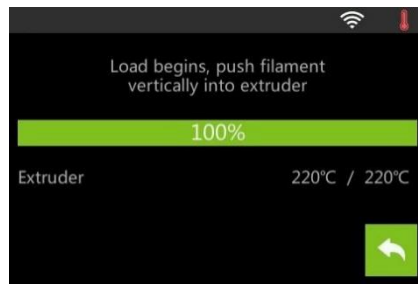
4-7

(4-7) Press **[Tools]**.



4-8

(4-8) Touch **[Filament]** > **[Load]**.



4-9

(4-9) After the extruder reaches a temperature of 220°C, a printer beep will sound as a prompt to feed the filament into the extruder.



4-10

(4-10) Insert the filament vertically into the filament feeder as shown. The filament is then drawn in by the extruder.

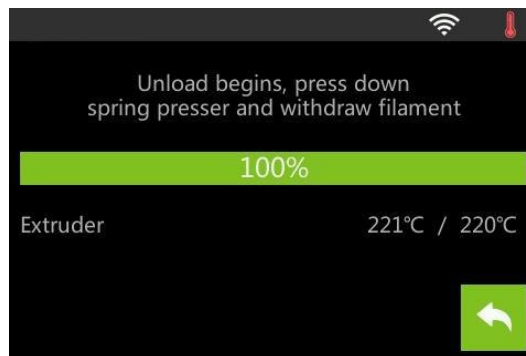
**Note:** Do not touch [Cancel] until the filament has been drawn a little bit into the extruder.

# Loading/Unloading filament



4-10%

(4-11) Press **[Tools] > [Filament] > [Unload]**. The heating process of the extruder is then started.



12

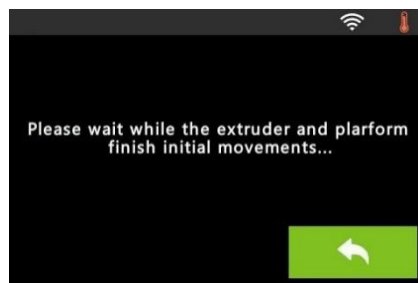
(4-12) After the extruder reaches a temperature of 220 °C, a printer beep sounds as a request to remove the filament from the extruder. Press the spring tensioner, push the filament down for about three seconds and then carefully pull the filament out.

**Note:** Do not pull out the filament by force, as this may damage the gear wheels. When the molten filament has cooled down in the extruder, repeat the above steps if necessary.



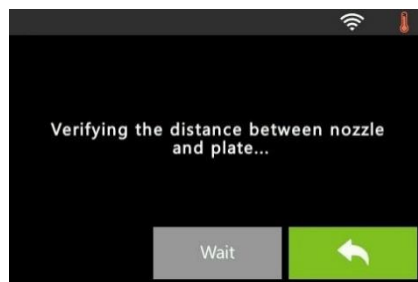
# Chapter 5: Levelling the printing platform

The 3D printer uses an intelligent three-point levelling system with clear and traceable feedback for the user. There are three spring-loaded buttons under the pressure platform. The distance between the plate and the nozzle increases as the tension on the knobs is increased. Releasing the voltage leads to a reduction of this distance.



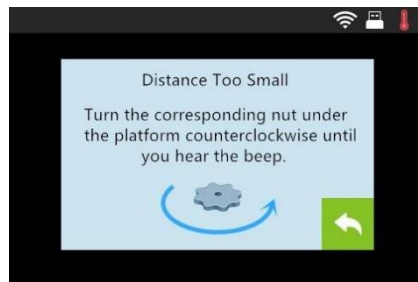
5-1

(5-1) Touch [Tools] > [Level] on the touch panel of the 3D Printer. Wait until the first movements of the extruder and the platform are completed. Follow further instructions on the touch screen.



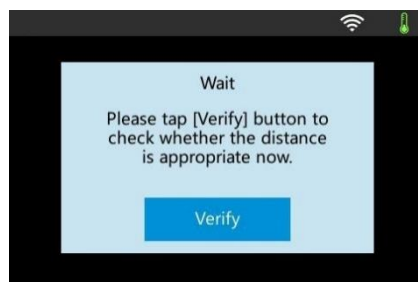
5-2

(5-2) After touching **[Yes]**, the extruder moves to the start position and the sheet moves up and down to check the distance between the nozzle and the platform again.



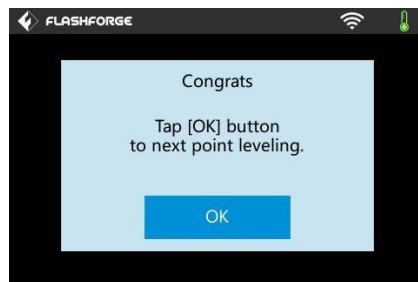
5-3

(5-3) If the distance proves to be too great, loosen the corresponding nut under the platform clockwise until a continuous beep is heard and the **[Verify]** button is displayed.



5-4

(5-4) if the distance is appropriate, press **[OK]** to perform the second point levelling. If the distance is still not suitable, follow the further prompts to make another adjustment until the **[OK]** button is displayed.



5-5

(5-5) Repeat steps 2 to 4 to complete the levelling of the second and third points. Then press **[Finish]** to finish the adjustment.



# Chapter 6: Information about the software

## 6.1 software installation

### 6.1.1 Procurement of the software

#### Method 1: USB stick

The complete installation package is located on the USB stick that is included in the scope of delivery:

 REXprint_3.7.1_win64	2016/1/8 8:48	Windows Install...	41,637 KB
 REXprint_3.7.1_win32	2016/1/8 8:48	Windows Install...	37,995 KB
 REXprint_3.7.1_mac	2016/1/8 8:47	压缩(zipped)文件...	16,599 KB

#### Method 2: Internet download

Access the 3D printer product page on the Internet via the following link:

<http://www.bresser.de/P2010300>

The software packages can be found under the tab "Downloads" and can be downloaded from there.

### 6.1.2 Installing and setting up the software

1. Extract ZIP file (Mac) or double-click to start the installation program (Windows) Follow the instructions for installing the software.
2. Start the software via the start menu or by clicking on the software icon. (see 6-1)



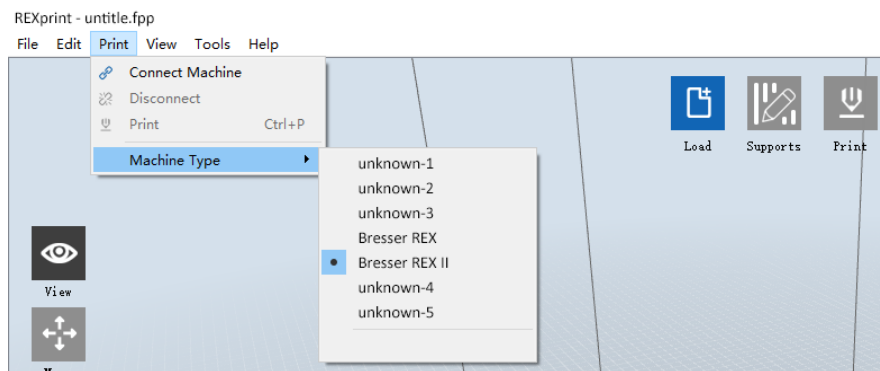
6-1

## 6.2 First steps with REXprint

### 6.2.1 Selecting the device type

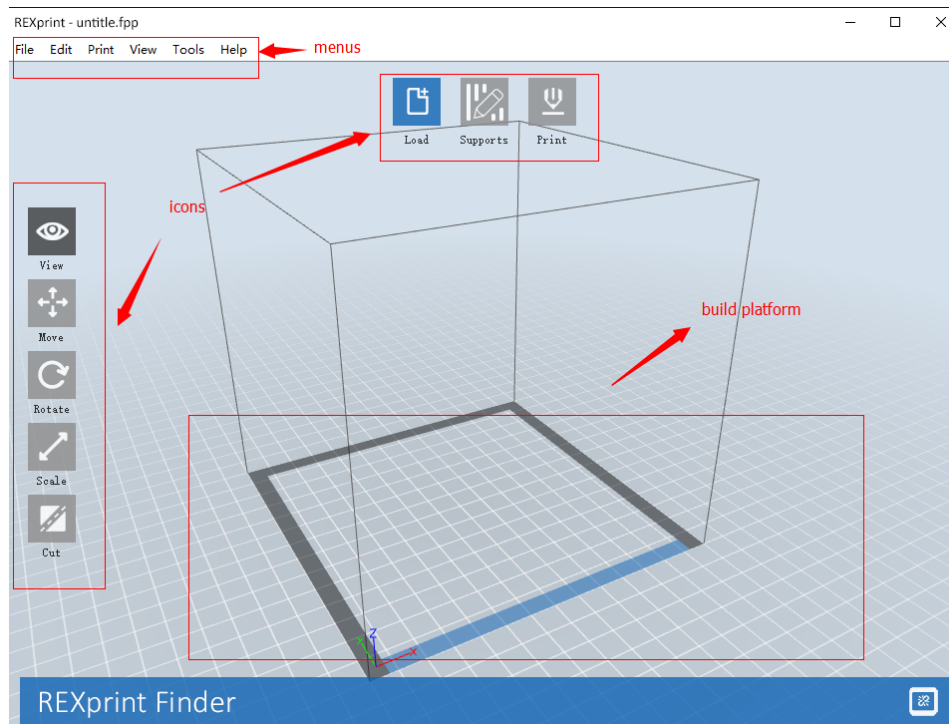
After starting REXprint, select the device type.

A dialogue box opens when you start REXprint. Select "**BRESSER SAURUS**" from the list of device types and click on **[OK]**. The device type can also be changed via the software menu **[Print] > [Machine type]** (see 6-2)











6-2

## 6.2.2 First steps with the software



6-3

	Load one or more files
	Switch to the column editing mode
	Print directly via the 3D printer or export files to a USB stick
	View the REXprint start screen from one of six viewing angles
	Move the model in the XY plane, press Shift and click to move in the Z axis
	Turn and rotate the model

	Scale the object size
	Cut the model into several parts

## 6.2.3 Loading

There are six ways to load a model file or Gcode file into REXprint:

**Method 1:** Click on the "Load" symbol  in the main menu. Select the desired object file.

**Method 2:** Drag the desired object file into the programme window.

**Method 3:** Click on [File] > [Load File]. Select the desired object file.

**Method 4:** Click on [File] > [Examples] to load example files.

**Method 5:** Click on [File] > [Recent Files] to load the most recently opened files.

**Method 6:** Select the desired object file and drag it onto the REXprint icon.

**Note:** REXprint supports editing of 3D models in the following formats: .STL, .OBJ and .FPP.

## Designing reliefs

Load an image file in PNG, JPG, JPEG or BMP format into REXprint. This opens the following dialogue box (6-3). In this dialogue box, you can specify settings for the shape, mode, maximum thickness, base thickness, bottom thickness, width and height, top diameter and bottom diameter.

"Shape": includes the shapes "Plane", "Tube", "Canister" and "Lamp".

"Fashion": includes "darker is higher" and "lighter is brighter".

"Maximum Thickness": Z-value of the model

"Base Thickness": The minimum thickness of the base plate, the default value is 0.5 mm.

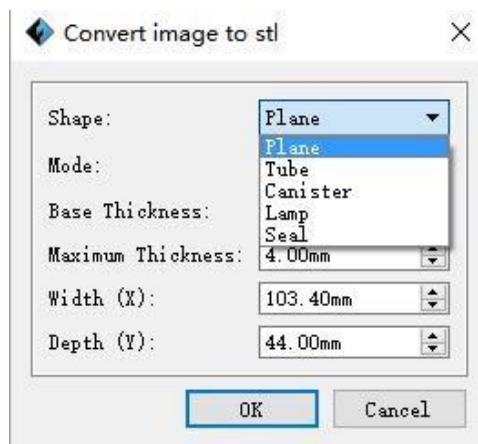
"Width: X-value of the model

"Depth." Y-value of the model

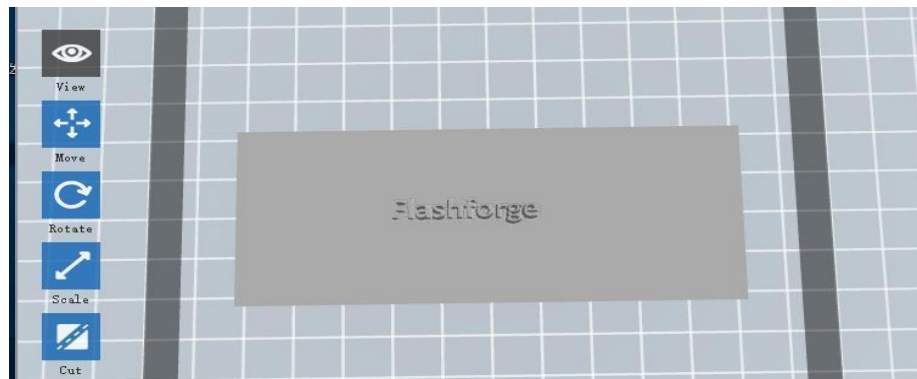
"Bottom Thickness." To set the lower thickness for the "Tube", "Canister" and "Lamp" shapes

"Top Diametre." To set the upper diametre for the "Tube", "Canister", "Lamp" and "Seal" shapes

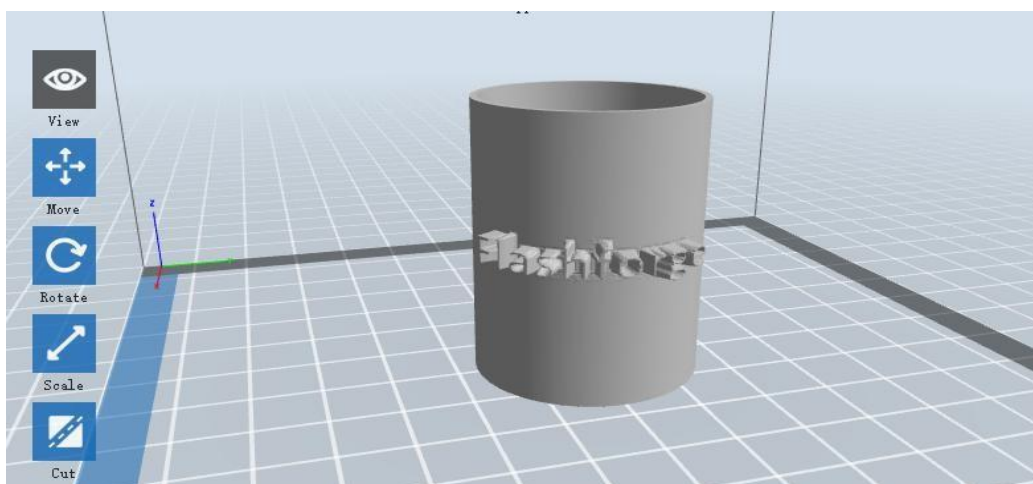
"Bottom Diametre." To define the lower diametre for the "Tube", "Canister", "Lamp" and "Seal" shapes



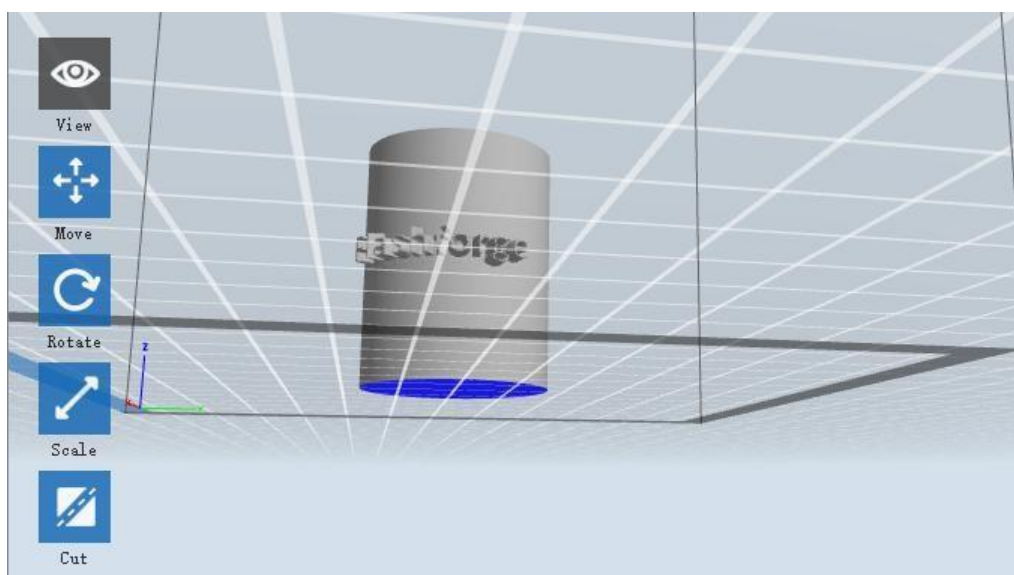
6-4



Tarpaulin (6-5)

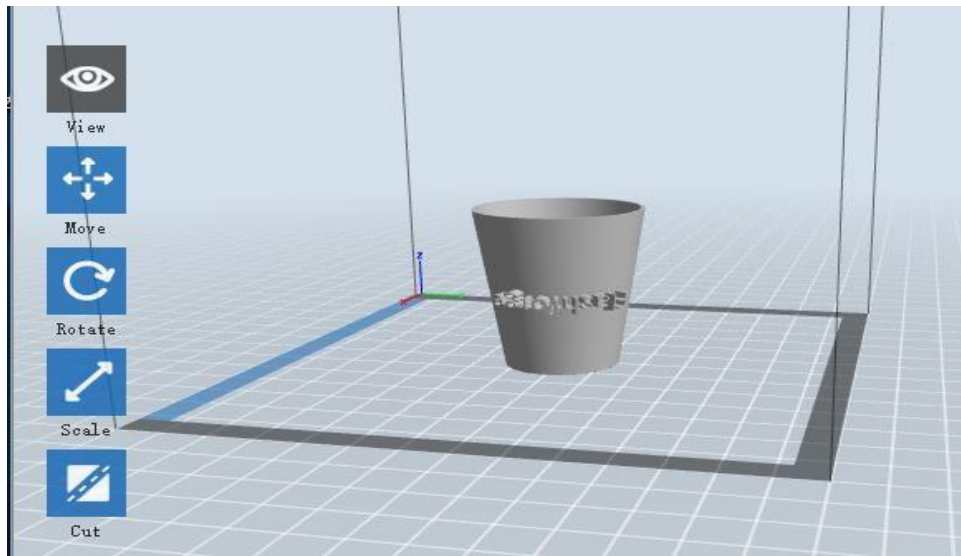


Tube (6-6)

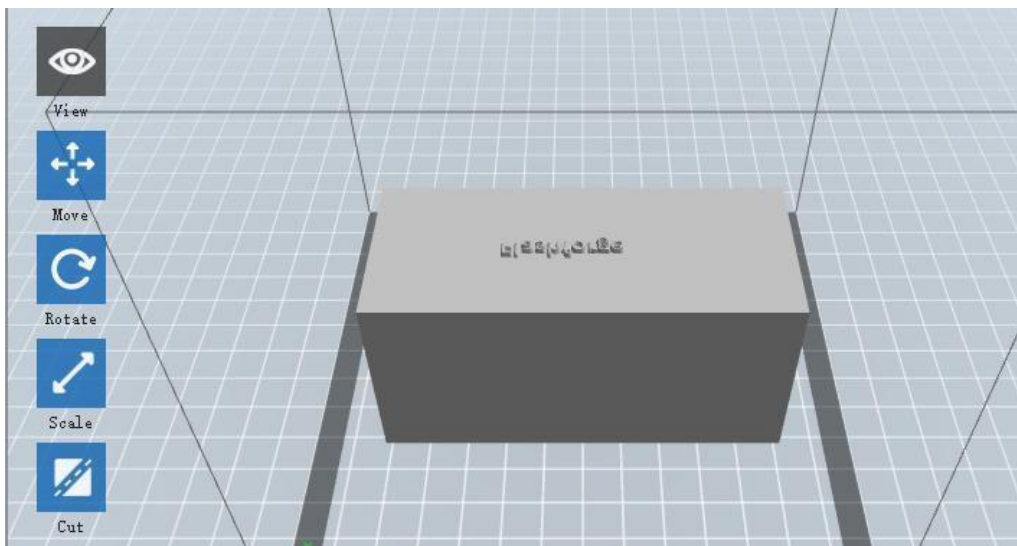


Canister (6-7)





Lamp (6-8)




Seal (6-9)

## 6.2.4 Views

### ① Changing views

Change the model views by moving, rotating and scaling.

#### • Pulling


Click on the "View "  icon. The object can then be moved using one of the following three methods:

**Method 1:** Drag the mouse while holding down the left mouse button.

**Method 2:** Drag the mouse while holding down the middle mouse button.

**Method 3:** Drag while holding down the **Shift key** and right mouse button.

#### • Rotate

Click on the "View "  icon. The object can then be rotated using one of the following two methods:

**Method 1:** Hold down the right mouse button and drag.

**Method 2:** Hold down the Shift key and left mouse button and drag.


#### • Scaling

Turn the mouse wheel to enlarge or reduce the printing plate.

### ② Set the view

The user can view the object on the printing plate. There are six views available in the View menu, i.e. the home view, the view from below, from above, from behind, from the front, from the left and from the right.


**Method 1:** Click the  [View] button. The drop-down list then lists six views.

**Method 2:** Click on the  [View] button and then click again to open a submenu with the six views available for selection.

### ③ Reset the view

There are the following two ways to reset views:


**Method 1:** Click the **[View]** menu and select **[Home View]**.

**Method 2:** Click the  **[View]** button on the left, and click it again to display the display options. You may then click on **[Reset]**.

#### ④ Display the model outline


Click  **[View] > [Show Model Outline]**. The yellow outline of the object is then highlighted.


#### ⑤ Display of a steep overhang

Click  **[View] > [Show Steep Overhang]**. If the angle of intersection between the model surface and the horizontal line is within the range of the overhang threshold, the surface has a steep overhang and is displayed in red in the software. The threshold value for the overhang can be adjusted as required. By default the value is set to 45°.

## 6.2.5 Moving

Select the desired object and move it using one of the following two methods:


**Method 1:** Left click on the  **[Move]** icon, hold down the left mouse button and drag to move the position of the model in the XY direction. Hold down the **Shift key** and left mouse button and drag to move the position of the model in the Z direction. The distance and direction of movement are displayed.


**Method 2:** Click the  **[Move]** button on the left, and then enter a value for the distance. Click **[Reset]** to reset the distance values.

**Note:** After adjusting the position, you should click **[Centre]** and **[On Platform]** to ensure that the models are in the print area and on the print platform. If a specific position is required, click only **[On Platform]**.

## 6.2.6 Turning


Select the desired object and rotate it using one of the following two methods:


**Method 1:** Click the  **[Rotate]** icon on the left. Three rings at right angles to each other are then displayed around the object. Click on a ring and make a rotation around the current axis. You can then see the angle of rotation and the direction in the middle of the ring. This allows you to rotate the model around the X/Y/Z axes.

**Method 2:** Click the  **[Rotate]** icon on the left, and then enter the rotation angle values for positioning for the X/Y/Z axes. Click **[Reset]** to reset the rotation angle values.

## 6.2.7 Scaling


Select the desired object and scale it using one of the following two methods:

**Method 1:** Click on the symbol  **[Scale]** on the left, keep the left mouse button pressed and scale the model. The corresponding values are displayed next to the object.

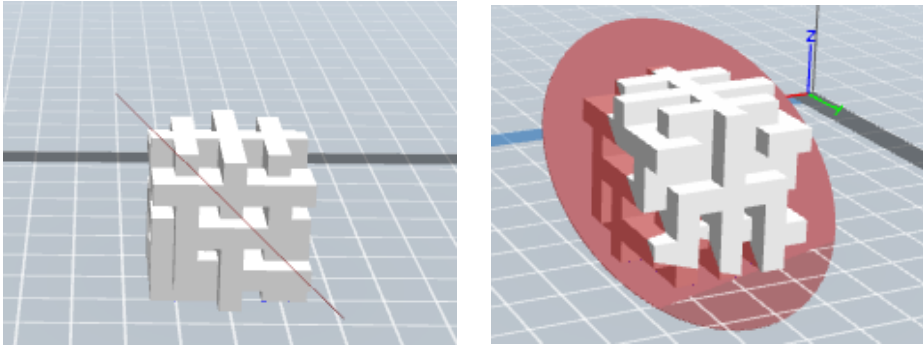
**Method 2:** Click the  **[Scale]** icon on the left, and then enter the positioning scale values for the X/Y/Z axes. Click the **[Maximum]** button to achieve the maximum possible size for printing. Click **[Reset]** to reset the size of the model.

**Note:** If you clicked the **[Uniform Scaling]** radio button, the model will be scaled to scale when you change any **value** of the model's positioning. Otherwise, only the corresponding item value is changed.

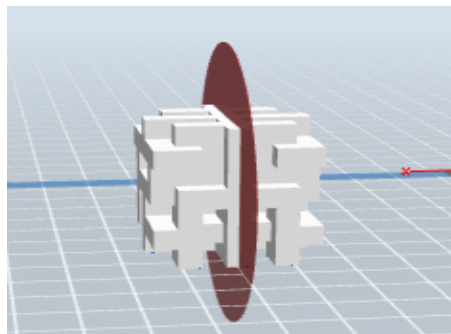
## 6.2.8 Cutting

**Left-click** the model to select it, then double-click the **"Cut"** icon  to set the cut plane. You can set the direction and the position.

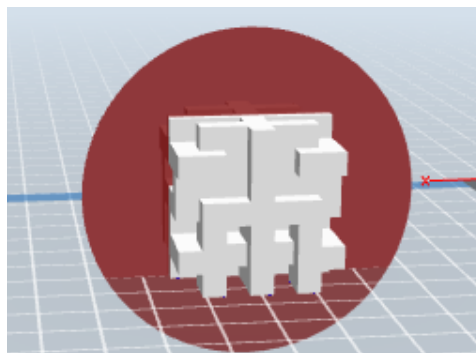
### ① Draw with mouse



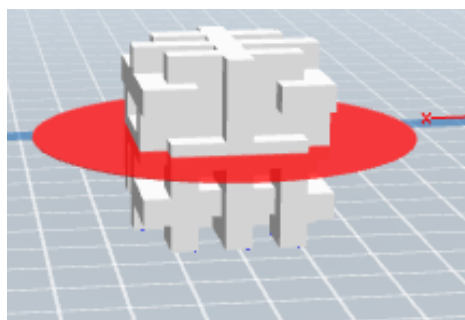
### ② X plane



### ③ Y-plane



### ④ Z-level



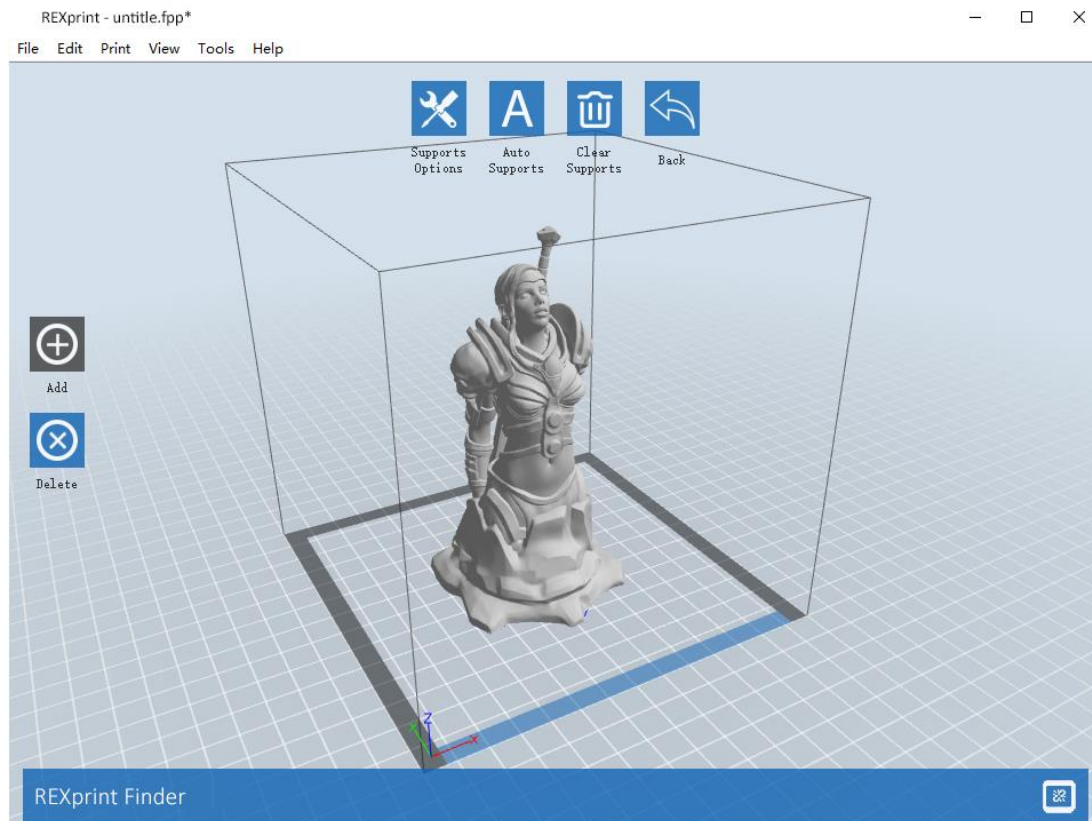


## 6.2.9 Supports

After you have loaded the model, click on **[Edit] > [ Supports]** or directly on the



**Supports** icon. You then switch to the editing mode for supports (as shown in the figure below). Click **[Back]** to exit this mode when you have finished editing.

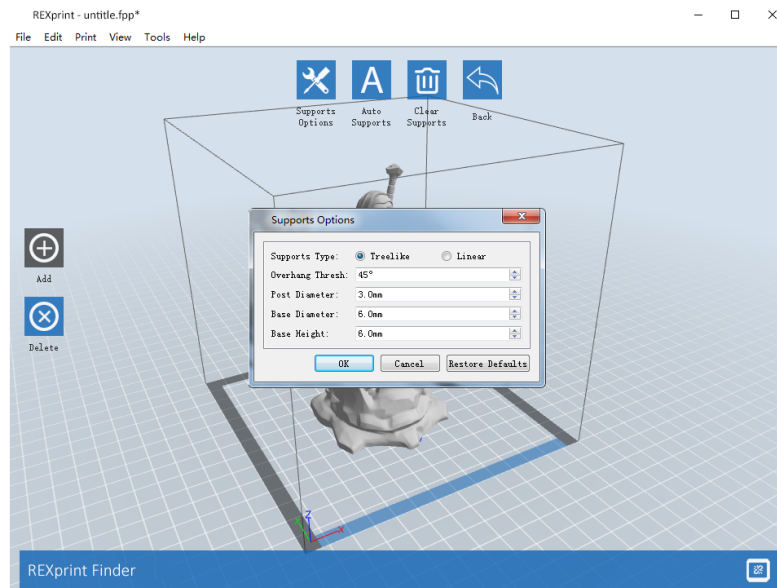


6-10

### ① Support options

When you click on "Support Options", a radio button is displayed listing the support options "Treelike" and "Linear". If you select the "Treelike" option and click **[OK]**, a tree structure is created. However, if you select "Linear" and then click **[OK]**, a linear structure is created. If the model already has supports and you select one of the support options, the software will assess whether the existing supports need to be deleted. This decision is made on the basis of the

type of support selected. You can confirm this decision in a pop-up window.



## ② Automatic supports

Click the **[Auto Supports]** button. The software evaluates the positions where supports are required and creates corresponding supports in tree format or linear format. For a model with supports, the existing supports are removed and new ones are created.

## ③ Adding supports

Supports are added when you click the **[Add]** button. Position the mouse pointer at the point where a support is required, click the left mouse button to select the starting point for the support, hold down the left mouse button and drag the mouse. The column preview opens (if no column is required for the area or if the angle of the column is too large, this is highlighted in the column view). Release the left mouse button. If the support column is not suitable for a model, the support is created at the starting and end points (the highlighted support in the preview does not create a support structure).



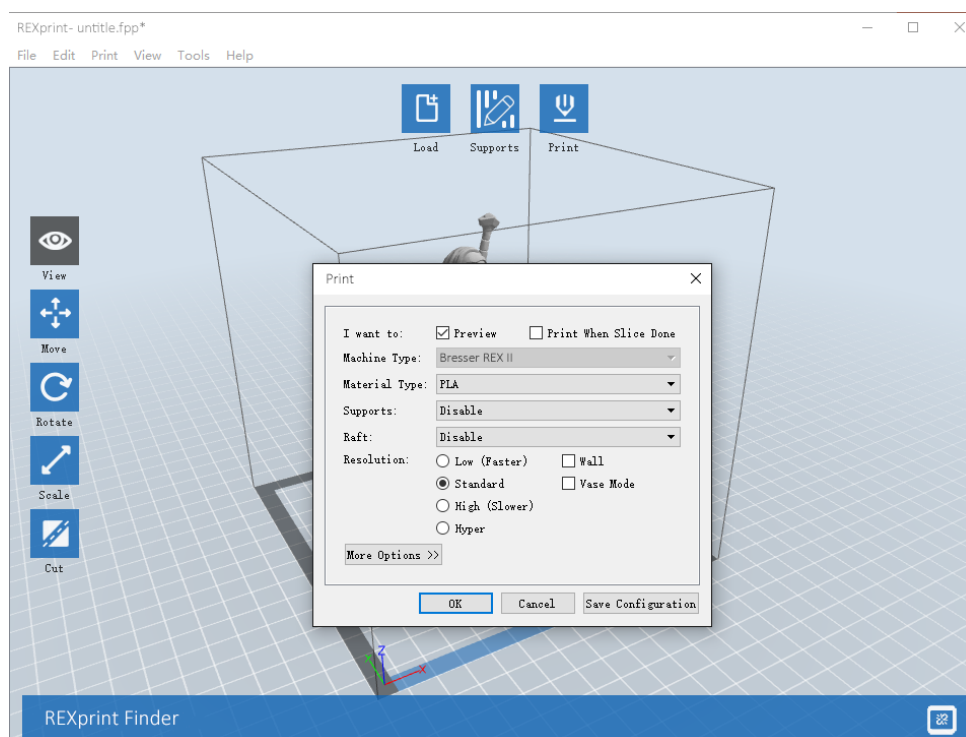
#### ④ Removing supports

Click on **[Clear Supports]**. All supports are then deleted. You can cancel this deletion process by clicking on **[Undo]** or by pressing the key combination **Ctrl+Z**.

#### ⑤ Deleting supports

Supports are deleted when you click the **[Delete]** button. Position the mouse pointer on the column to be deleted. The current column and its subnodes are highlighted. Press the left mouse button to delete the highlighted support.

## 6.2.10 Printing



① **Preview:** You can open the preview menu.

② **Print When Slice Done:** Recommendation: Select the check box when

printing via USB cable; do not select the check box when printing from USB memory stick.

- ③ **Material Type:** Select the type of material supported by the printer.
- ④ **Supports:** Print objects with "floating" elements require supports. Click **[Supports]** to create a support for the pressure.
- ⑤ **Raft:** Print platform function for good adhesion of the model on the platform. Recommendation: Activate for smaller objects.
- ⑥ **Wall:** Useful function when printing with two colours to stop the filament coming out of another extruder.
- ⑦ **Vase Mode:** Select Vase Mode to print an open-top model.
- ⑧ **Resolution:** Selectable print resolutions: "High" - high print quality, low print speed; "Standard" - medium quality level, which is reasonable for most prints; "Low" - low print quality, high print speed; "Hyper" - especially for PLA filament.
- ⑨ **More Options:** Click on **[More Options]** to make further settings for layer, wrap, fill, speed and temperature. Different default values apply for different resolutions. Click **[Restore Defaults]** to restore the default setting.

#### • Layers

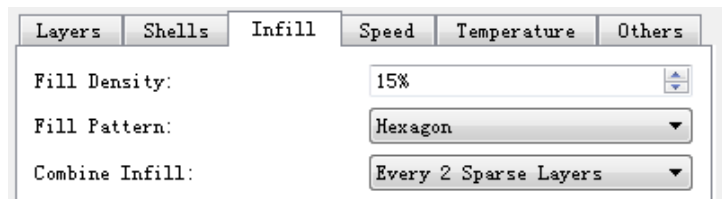
- a. **Layer:** The thickness of a layer for the print object. If you set a low value for the thickness, you will get a model with a smoother surface.
- b. **First Layer Height:** The height of the first pressure layer is also decisive for how well the model adheres to the platform. The maximum value is 0.4 mm, and the standard setting is usually quite sufficient.
- c. **Shell:** Includes the value for the outer shell and the value for the top layer (for the vase pattern "Vase", no setting can be made for the top layer).

#### • Shells

- a. **Top solid layer:** The maximum value for the top solid layer is 10 and the minimum value is 1.
- b. **Bottom Solid Layer:** The maximum value for the lowest solid layer is 10 and the minimum value is 1.

## • Infill

- a. **Fill Density** refers to the fill rate.
- b. **Fill Pattern** refers to the fill pattern that affects the duration of the printing process.
- c. **Combine infill**: Select layers to be combined with each other according to the layer thickness. The combined thickness should not exceed 0.4 mm. The option "Every N layers" is available for all fillings, the option "Every N inner layers" is only available for the inner filling, which generally shortens the printing process.



6-13

## • Speed

- a. **Print Speed** refers to the printing speed, i.e. the speed at which the extruder moves. Usually, print quality is related to speed, which means it is slow for a high-quality print. A value of 80 ( 80 was ?? ) is recommended for PLA printing.
- b. **Support Print Speed** is required if you use the Slic3r application to split the model into several layers, because this option allows you to control the printing speed of the extruder when printing the supports.
- c. **Travel Speed** is used to control the speed at which the extruder moves when no printing is in progress. A value of 100 ( 100 was ?? ) is recommended for PLA printing.

**Note:** For a better printing result, adjust the parameters, as different models require different parameters.

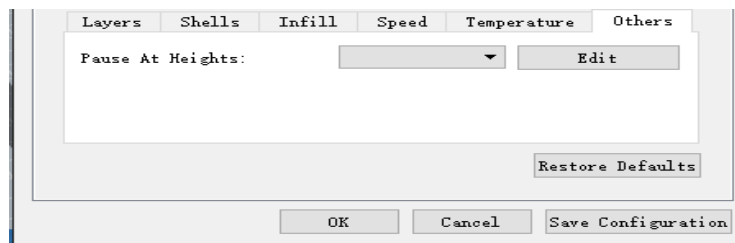
- **Temperature**

**Extruder temperature:** A temperature of 220°C is recommended for the extruder.

**Note:** If a different temperature is set, this will have a slight effect on the pressure. Adjust the temperature to the conditions to achieve a good printing result.

- **Others**

**Break At Heights:** Setting for the height at which the pressure is automatically interrupted. This function is useful when the filament is to be changed at a certain point.



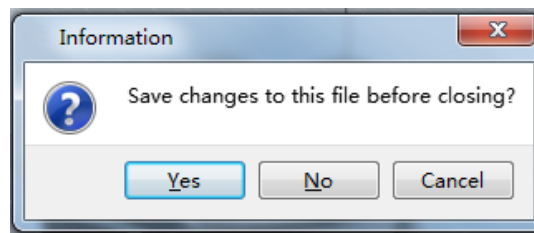
6-14

(6-14) Click **[Edit]** to insert or remove a height.

## 6.2.11 File menus

### ① New Project

Click at **[File] > [NewProject]** to create an empty project. If a change has not yet been confirmed for a previous project, you will be asked whether or not to save the change. Click **[Yes]** to save the change or **[No]** to discard it. If you click **[Cancel]** or close the tooltip, the new project is not created.



6-15

### ② Save

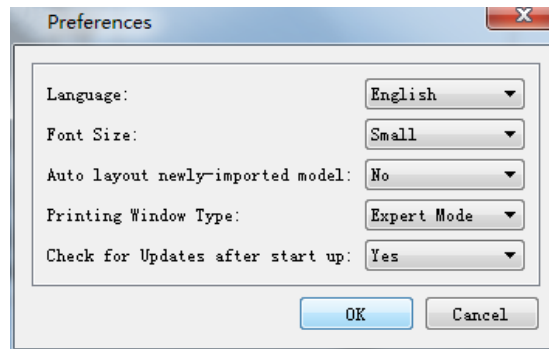
After the model has been edited and adjusted, there are two ways to save all the models displayed.

**Method 1:** Click on **[File]--[Save Project]** to save the file as project file with the file name extension FPP. All models shown (including supports) remain independent of each other. When the file is re-loaded, the configuration information for the extruder and model positioning will be the same as the configuration when the file is saved.

**Method 2:** Click **[File] > [Save as...]** to save the model as a project file in FPP, STL or OBJ format. With the STL and OBJ file formats, the models are integrated into a single model (including the supports). When re-loading these file formats, only the position of the model is saved, but not the print parameters.

### ③ Preferences

Click on **[File] > [ Preferences]**. Here you can select the language and define the search for existing updates at device startup.



6-16

- **Language:** The software supports the following six languages: Chinese (simplified and traditional), English, French, Korean, Japanese and Russian.
- **Printing Window Type:** Includes basic mode and expert mode
- **Check for Update After Start Up:** This setting allows you to specify whether automatic online updating should be activated. If you select "Yes", the software can check online each time it is started to see if a new software version is available and, if so, prompt the user to download and install the new software version.

## 6.2.12 Editing menus

### ① Undo

The following two options are available to cancel the last changes made:

**Method 1:** Click at **[Edit] > [Undo]**.

**Method 2:** Press the key combination **Ctrl+Z**.

## ② Redo

The following two options are available to restore the last undone change to the model file.

**Method 1:** Click to **[Edit] > [Redo]**.

**Method 2:** Press the key combination **Ctrl+Y**.

## ③ Empty Undo Stack

You can use this function to delete the stored processing steps to free up memory space.

## ④ Select All

The following two methods can be used to select all models in the editing environment. (If models are so small that you cannot see them, or are outside the viewport, click the **[Center]** and **[Scale]** buttons to adjust the model)

**Method 1:** Click at **[Edit] > [Select All]**.

**Method 2:** Press the key combination **Ctrl+A**.

## ⑤ Duplicate

Duplicate the object using one of the following two methods:

**Method 1:** Click on **[Edit] > [Duplicate]**.

**Method 2:** Press the key combination **Ctrl+D**.

## ⑥ Delete

Delete object using one of the following two methods:

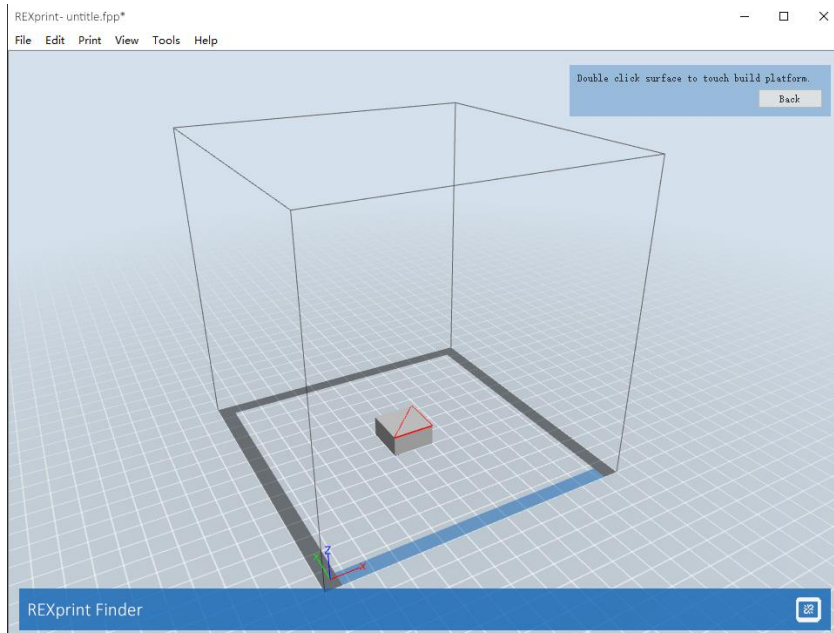
**Method 1:** Click on **[Edit] > [Delete]**.

**Method 2:** Press the **Del** key.

## ⑦ Surface to Platform

After you have selected the model, you can use the following procedure to place the model surface on the platform.

Click **[Edit] > [Surface to Platform]** to switch to Surface to Platform mode (as shown in the following figure).



6-17

## ⑧ Auto Layout All

Click **[Edit] > [Auto Layout All]** after you have loaded one or more models. All models are then positioned using the automatic placement rule.

## 6.2.13 Print menus

### ① Connect Machine

You can connect the 3D Printer to a computer with a USB cable or via wireless LAN.

**Note:** The device icon in the lower right corner indicates the connection status:





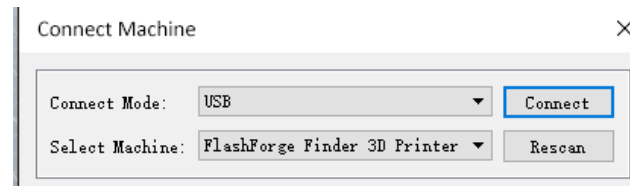
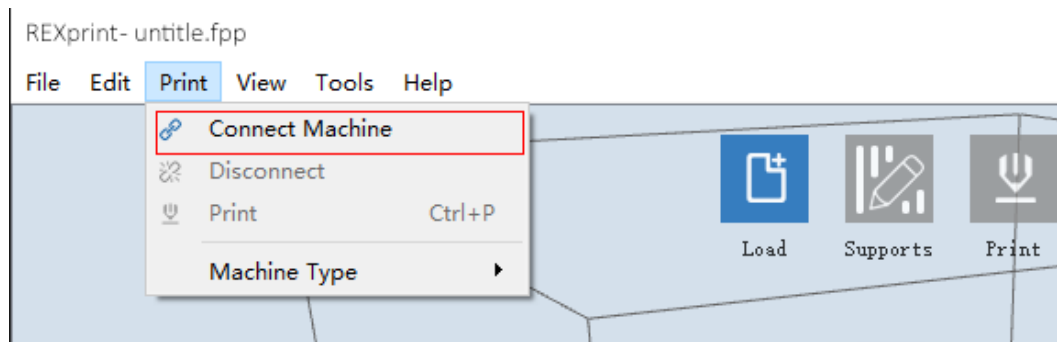


## Method 1: Connecting with a USB cable

A Connect the 3D Printer to a computer with a USB cable.

b. Turn on the 3D printer and start REXprint.

c. Click **[Print] > [Connect Machine]**, select USB mode in **[Connection Mode]**, and select the device you want to connect to **[Select Machine]**. If you cannot find the desired device, click the **[Rescan]** button to search for the device. Then select the appropriate device. Finally, click the **[Connect]** button to connect to the printer. If you cannot find the desired device even after a new search, this means that the corresponding driver is not installed in the software.

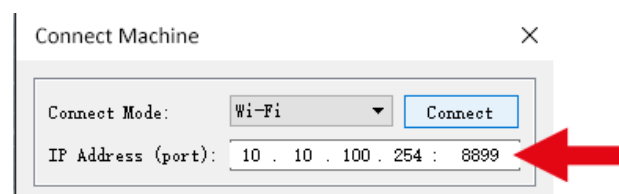


6-18

## Method 2: Connect via W-LAN

### ① Connecting the 3D Printer to a computer in AP mode

- a. Turn on the 3D printer.
- b. Press **[Tools] > [Setting] > [WIFI] > [WIFI ON]**.
- c. Click on the device icon at the bottom right to activate the W-LAN connection. Select the W-LAN signal "SAURUS" and click [Connect] to complete the network connection.
- d. In REXprint, click **[Print] > [Connect Machine]**. This opens the following dialogue box. "WiFi" must be selected for the connection mode. Enter the IP address displayed in the dialogue box and click **[Connect]**.



6-19

When the connection is established, the device icon is displayed in the lower right corner as shown below.



### ① Connecting the 3D Printer to a computer in STA mode

A Activate the W-LAN of the 3D printer and connect the GuiderII to a computer via W-LAN. Press **[Tools]**, **[Setting]**, **[WIFI]** and **[WIFI ON]**.

b. The continuous signal for "SAURUS" is displayed as available in the network list.

c. After the connection between the computer and the 3D Printer is established, open the Internet browser and enter "**10.10.100.254**" and default **user name (Administrator)** and **password (Administrator)**.



6-20

The following user interface for the W-LAN settings opens:

6-21

d. Set the STA mode to W-LAN mode and make the appropriate settings. You can change the SSID (name of the wireless LAN) and password, select **[Enable]** to retrieve the IP address under DHCP, and then click **[Save]**. The following dialogue box appears.

6-22

e Click the **[Restart]** button. A restart of the SAURUS W-LAN is required. After

restarting, the 3D printer connects to the computer via the set up W-LAN.

## ② Disconnecting the 3D Printer

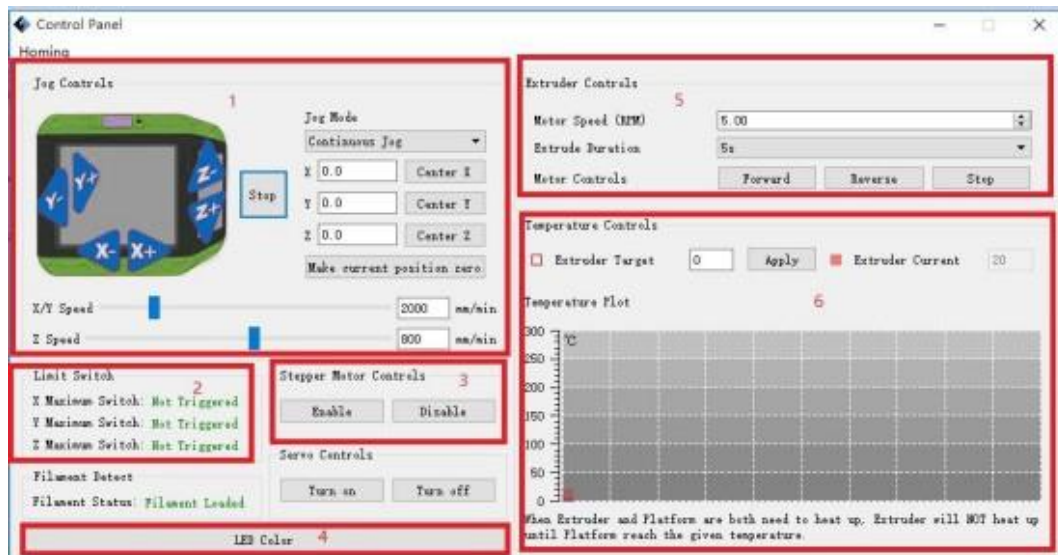
Click **[Print]** > **[Disconnect]** to disconnect the computer from the 3D Printer.

## 6.2.14 Tool menus

### ① Control Panel

After you have established a connection between your computer and the 3D Printer, click **[Tools]** > **[Control Panel]** to open the Control Panel.

- Jog Controls



6-23

**A Jog mode:** Select the distance for a single extruder/pressure plate movement (i.e. the distance by which the extruder/pressure plate moves after a single click)

**b. Six blue directional arrows:** Use these buttons to control the movements along the X/Y/Z axes. The X/Y-axis buttons control the movements of the extruder and the Z-axis buttons control the movement of the pressure plate. If you click on "X-", the extruder moves to the left by a fixed distance. If, on the other hand, you click on "X+", the extruder moves to the right by a fixed distance. Clicking "Y-" moves the extruder

forward by a specified distance, and clicking "Y+" moves the extruder backward by a specified distance. When you click the "Z-" button, the pressure plate moves up a fixed distance, and when you click the "Z+" button, the pressure plate moves down a fixed distance. (The specified distance is set under "Jog Mode")

c. Stop: Click the **[Stop]** button to cancel the current shift.

d. **XYZ coordinate frame on the right side:** Shows the current position of extruder/pressure plate.

e. **Button "Make Current Position Zero":** For the current position of Extruder/pressure plate the zero value (0, 0, 0). (**NOTE:** The fields "X", "Y" and "Z" are for display only. If you change the values in these fields, this has no consequence whatsoever)

f. **Buttons "Center X/Y/Z":** Extruder and pressure platform take the last defined zero values (0, 0, 0).

g. **Settings "X/Y Speed" and "Z Speed":** Use the slider to set the speed for the extruder and the pressure platform.

- **Limit switch:** To protect the 3D Printer, there are three maximum position limit switches that act as limit switches for the X/Y/Z axis. There are two statuses for the switches:

- a. **Not Triggered:** If the extruder and platen do not move to the maximum possible point, the X/Y/Z-axis limit switches are not activated and the status "Not Triggered" is displayed.

- b. **Triggered:** When the extruder and printing plate move to the maximum possible point, the X/Y/Z-axis limit switches are activated and the status "Triggered" is displayed.

- **Stepper Motor Controls:** These elements can be used to control the stepper motor. Click **[Enable]** and lock the motor to prevent it from moving. Click **[Disable]** and release the motor lock to control the motor manually.

- **LED Color:** Use this button to change the LED colours of the 3D printer.

- **Extruder Controls:** The extruder controls allow you to set the value for "Motor Speed (RPM)", i.e. the rotational speed of the filament spool. The

rotation time of the motor can be defined by the value for "**Extruder Duration**". A value of 60 seconds is recommended. The filament must be loaded in the extruder before the engine is started.

**NOTE:**

**Do not start operation before the extruder temperature has reached the filament pressure temperature.**

When using PLA filament, the extruder temperature should be 200 ° C °C. When the extruder temperature is reached, click the **[Forward]/[Reverse]** buttons to control the insertion/removal of filament. If you want to stop inserting or removing filament, you can click the **[Stop]** button.

- **Temperature Controls:** Enter the desired temperature in the left field and click on **[Apply]**. The printer automatically heats up the corresponding part. On the right side the current temperature of the respective part is displayed. After the heating process has started, the shape of the temperature curve shown below changes and the different colours represent the temperatures of the respective parts.

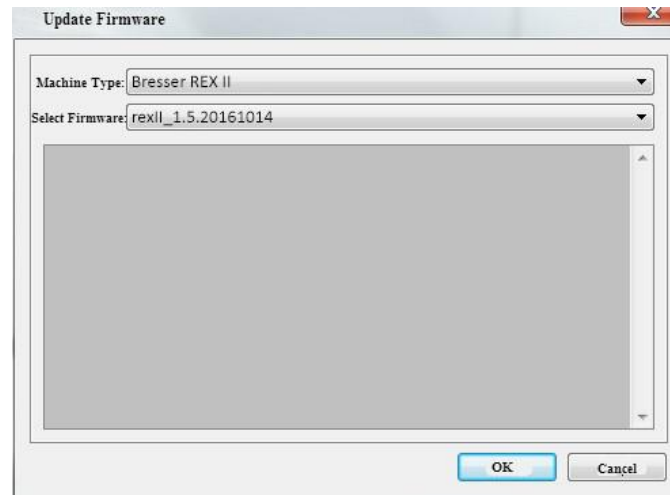
## **② Update firmware**

Each time REXprint is started, it automatically checks for a newer version of the firmware and then downloads it. If an update is available, a pop-up window informs the user about the available update.

**Step 1:** Click at **[Tools] > [Update firmware]**. Before updating the firmware, all existing connections must be terminated. If the software and the printer are already connected, you will be reminded that the connection must be terminated. Select **[Yes]** and proceed to the next step.

**Step 2:** Select the appropriate printer type and firmware version, and then click **[OK]** in the Firmware Update box. When you have confirmed that the printer is not in use, the current firmware version is automatically updated.

**Step 3:** Restart the 3D Printer and wait 4-5 seconds. Then the progress bar of the



6-23

update is displayed. After the update is completed, the main menu is automatically displayed again.

**Step 4:** Touch **[Tools]**--**[About]** to check that the correct version number of the updated software is displayed.

### ③ On Board Preferences

When the computer and printer are connected, you can check the printer name by clicking **[Tools]** > **[On Board Preferences]**.

### ④ Machine Information

When the computer and printer are connected, you can check the device type, device name, firmware, etc. by clicking **[Tools]** > **[Machine information]**.



## 6.2.15 Help menus

- ① Help Contents: Click **[Help]** > **[Help Contents]** to read the contents of help.
- ② Check for updates: Click **[Help]** > **[Check for Update]** to check online for available updates.
- ③ About REXprint: Click **[Help]** > **[About REXprint]**. This opens the field with information about the software. This field displays the current software version and copyright information.



# Chapter 7: Basic printing functions

This chapter explains step by step how to print a 3D model. It is recommended that you read the information in the previous chapters on filament loading/unloading, platform levelling, and REXprint functions before starting a print job.

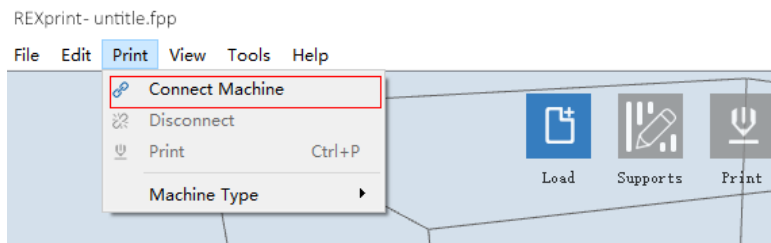
## 7.1 Creating a Gcode file

(7-1) Double-click the REXprint icon to launch the software.



7-1%

(7-2) Click **[Print]** > **[Machine Type]** to select Bresser SAURUS.



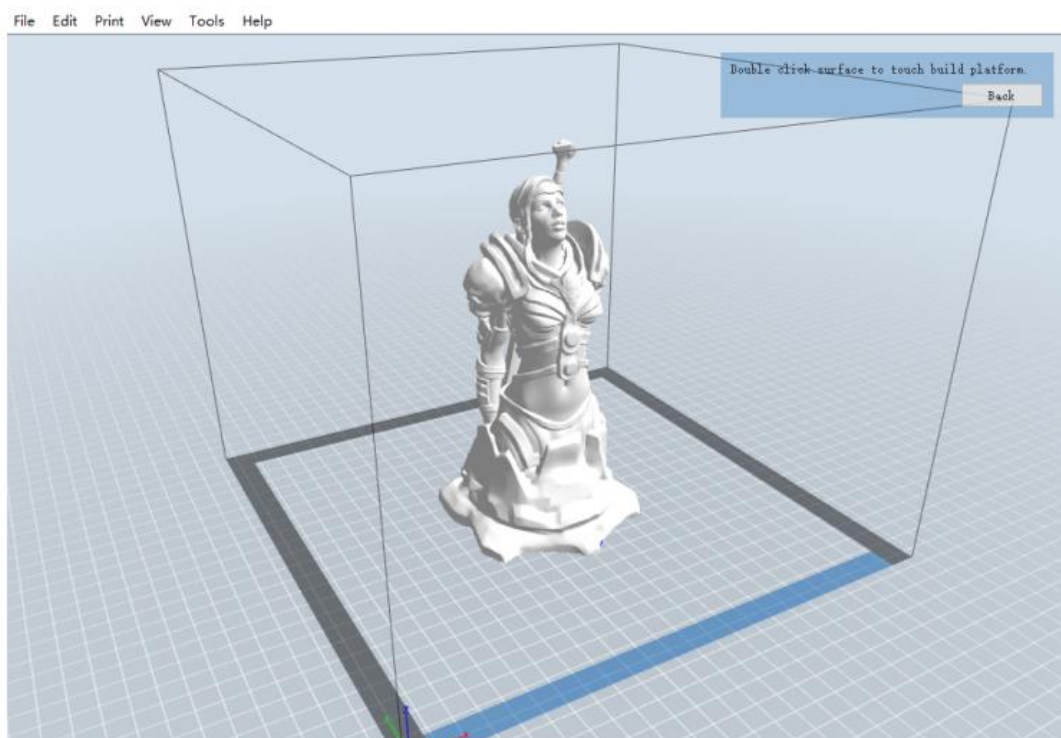
7-2

(7-3) Click the **[Load]** icon to load an STL model file. The object is displayed in the print area.



7-3

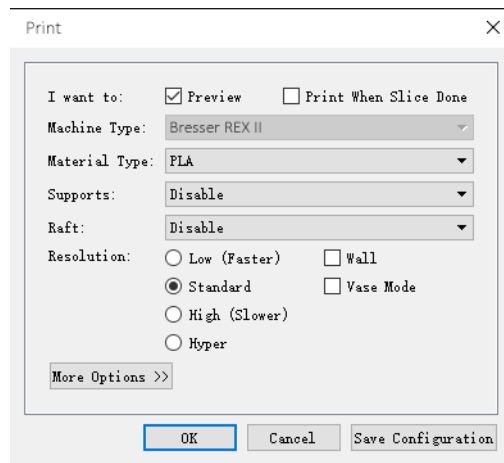
(7-4) Click **[Edit] > [ Surface to Platform]** to optimally position your model in the print area. Click **[Back]**, then double-click the Move icon, and then click **[On the Platform]** and **[Center]** to make sure that the model is on the platform.



7-4

**Note:** If you have placed the model in the correct position, you can skip the step described above.

(7-5) Click the **[Print]** icon at the top. You can make the necessary settings for your print job.



## 7-5

**Preview:** If you check the **[Preview]** box, you can preview your model after it has been sliced.

**Print when Slice Done:** If you are printing via a USB cable, you can check this box to print the model as soon as it is sliced. When printing via USB, selecting this option is not recommended.

**Machine type:** Bresser SAURUS

**Supports:** When printing a model with supports, you should click the downward triangle and select **[Enable]**.

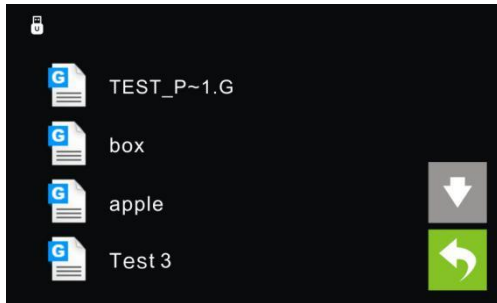
**Raft:** It is recommended to activate this option for a base plate via **[Enable]**.

**Resolution:** It is recommended that you select **[Standard]** for the resolution.

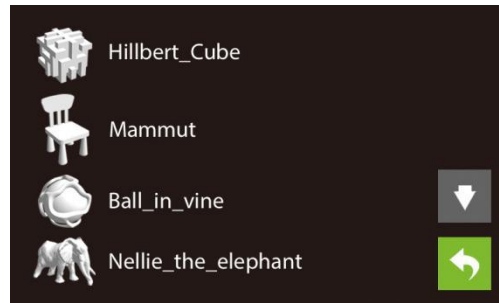
**More Options:** Among the other options, it is recommended to keep the default settings.

Click **[OK]** to select the path to save the Gcode file. You can name the file any way you like and specify it for the file format G or GX. Click **[Save]** to create a Gcode file.

**NOTE:** A preview can be displayed for GX files, but not for G files. The files are displayed as follows:



G-Dateien



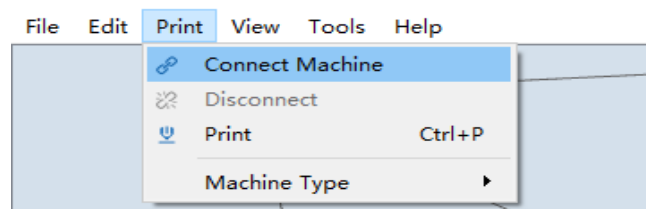
GX- Dateien

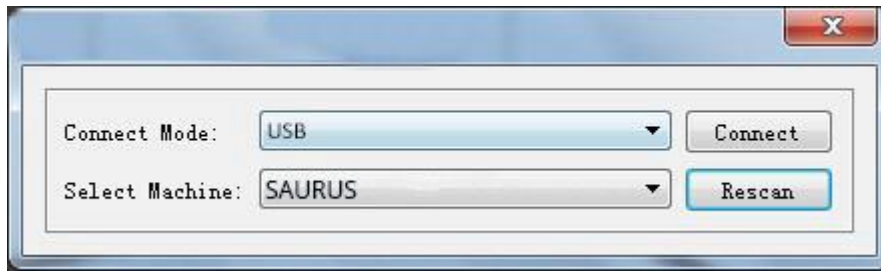
## 7.2 printing methods

Once you have created the Gcode file, you can transfer it to the 3D printer. You can use a USB cable or USB stick to transfer the file.

### 7.2.1 Printing from a computer (USB connection)

- ① Connect the 3D Printer to the computer with a USB cable.
- ② Turn on the 3D printer, adjust the height of the printing plate and insert the filament.
- ③ Click **[Print]** and send the Gcode file to the 3D printer. After the transfer is completed, the printer will warm up automatically. When the warm-up is completed, the printer starts to create the model.





7-8

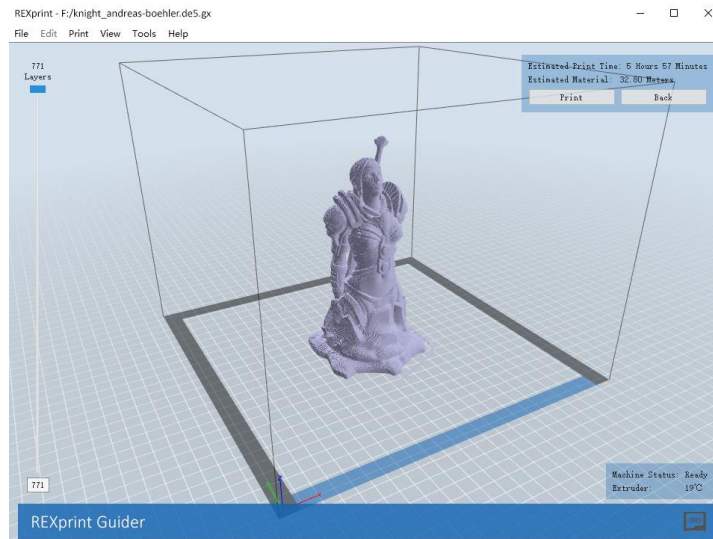
④ If your computer is connected to REXprint, you can see the nozzle temperature in real time in the status field in the lower right corner. After the warm-up process is completed, the printer immediately starts the print job.

## 7.2.2 Printing from a computer (W-LAN connection)

- ① Connect the 3D Printer to the computer via wireless LAN. (Cf. Section 6.1.13)
- ② Turn on the 3D printer, adjust the height of the printing plate and insert the filament.
- ③ Click **[Print]** and send the Gcode file to the 3D printer. After the transfer is completed, the printer will warm up automatically. When the warm-up is completed, the printer starts to create the model.

To print a Gcode file from a local folder, simply load the file into REXprint via a USB or W-LAN connection and then click the [Print] button in the upper right corner.

- Download the desired Gcode file into REXprint



7-9

- Click the **[Print]** button. The computer transfers the Gcode file to the printer.
- After the transmission is completed, the printer warms up automatically. When the warm-up is completed, the printer starts to create the model.

### 7.2.3 Printing from USB flash drive

- ① Insert the USB flash drive containing the desired G or GX file into the 3D Printer.
- ② Turn on the 3D printer. Make sure that the height of the pressure plate is adjusted accordingly and filament is inserted.
- ③ Touch **[Print]**, and then touch the **SD Card** icon in the centre. The file(s) are displayed on the touch screen. Select the desired file and press **[Print]**. The file is transferred to the printer.
- ⑥ The printer automatically starts the nozzle warm-up process and printing starts when the nozzle reaches the specified temperature.

**Abort:** To stop the warm-up process and printing. When you press [Abort], the operation is canceled permanently.

**Pause:** To stop the print job, tap again to resume. This function is useful when you want to change the filament during the print job.

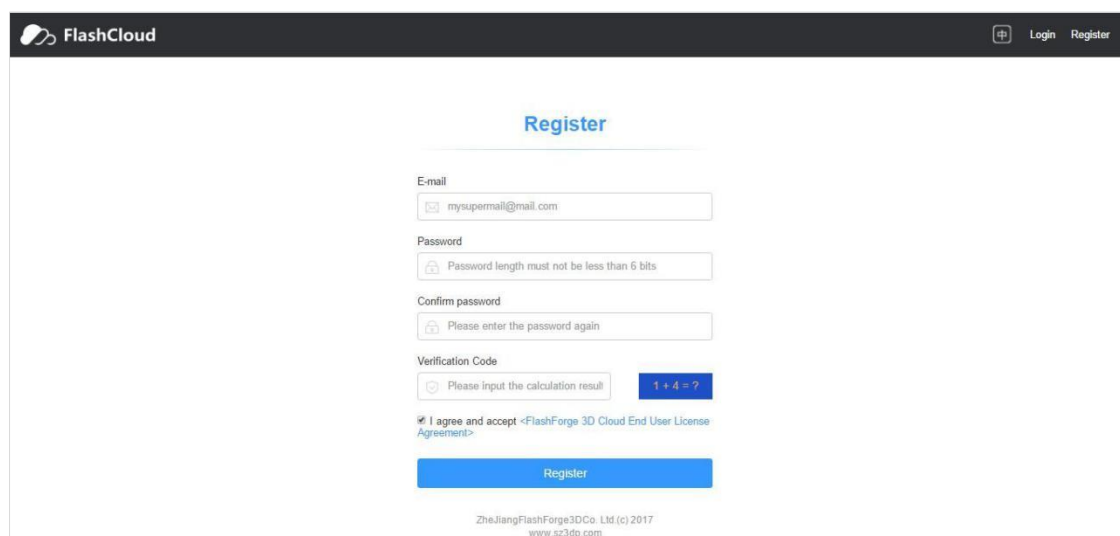
## 7.2.4 Printing via the Flash Forge Cloud Connection

① Activate the W-LAN connection in the printer settings and connect the printer to the Internet via WLAN. (The printer must be connected to the internet to use the Bresser GmbH Cloud Service).

Activate the **[Flash Forge Cloud]** connection in the printer settings.

② Register for a Flash Forge cloud account at the following address:

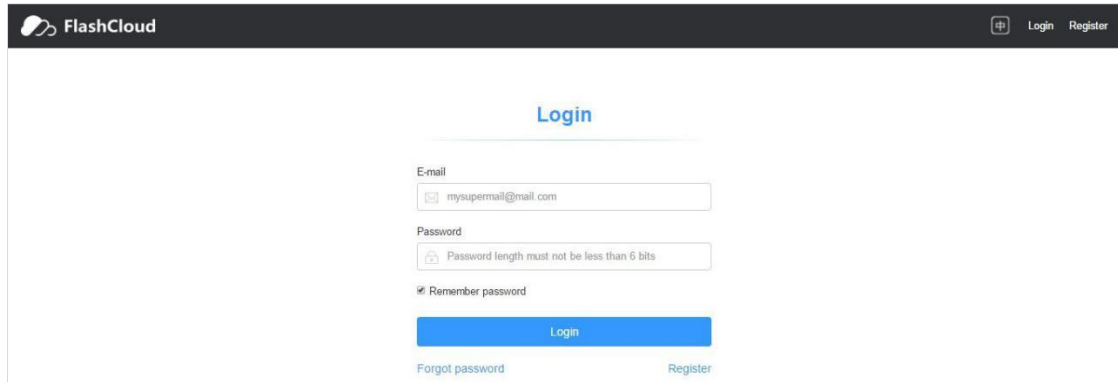
<https://cloud.sz3dp.com/>

The image shows a web browser window displaying the FlashCloud registration page. The page has a dark header with the 'FlashCloud' logo on the left and 'Login Register' links on the right. The main content area is white and features a 'Register' heading. Below the heading are several input fields: 'E-mail' with the placeholder 'mysupermail@mail.com', 'Password' with a note 'Password length must not be less than 6 bits', 'Confirm password' with a note 'Please enter the password again', and 'Verification Code' with a note 'Please input the calculation result' and a blue button showing '1 + 4 = ?'. There is a checkbox for 'I agree and accept <FlashForge 3D Cloud End User License Agreement>'. At the bottom of the form is a blue 'Register' button. The footer of the page contains the text 'ZhejiangFlashForge3D Co., Ltd (c) 2017' and 'www.sz3dp.com'.

7-10

③ You will receive an email with an activation link for your Flash Forge cloud account. After successful activation, log in with your access data to the Flash Forge Cloud.





FlashCloud

Login Register

### Login

E-mail

Password

☒ Remember password

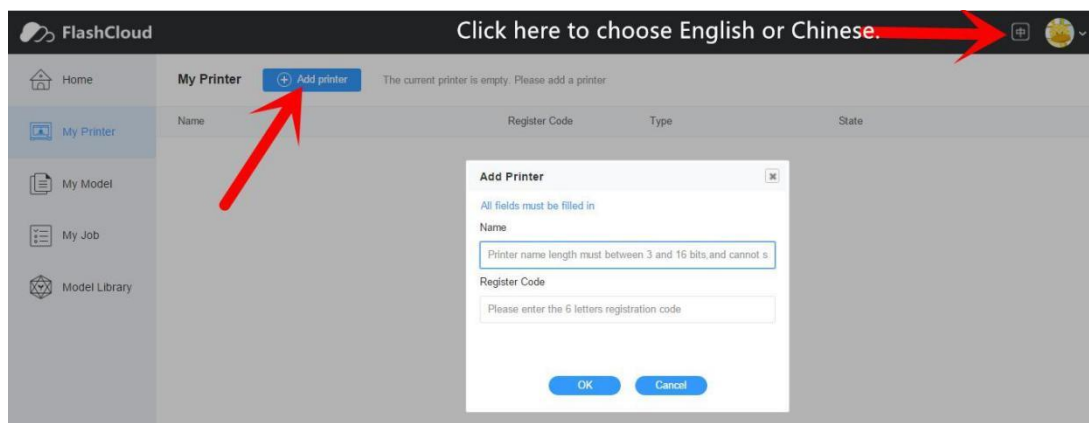
Login

[Forgot password](#) [Register](#)

7-11

- ④ After you have logged into your account with your access data, click on **[My Printer] > [Add printer]**

Enter a name for your printer in the **Name** form field. Enter the registration number of your printer in the form field **Register Code**. You can find this number in the printer menu via the **[About]** button.



FlashCloud

Click here to choose English or Chinese.

Home My Printer **+ Add printer** The current printer is empty. Please add a printer.

Name	Register Code	Type	State
<div> <p><b>Add Printer</b></p> <p>All fields must be filled in</p> <p><b>Name</b></p> <p><input type="text" value="Printer name length must between 3 and 16 bits, and cannot s"/></p> <p><b>Register Code</b></p> <p><input type="text" value="Please enter the 6 letters registration code"/></p> <p>OK Cancel</p> </div>			

7-12



7-13

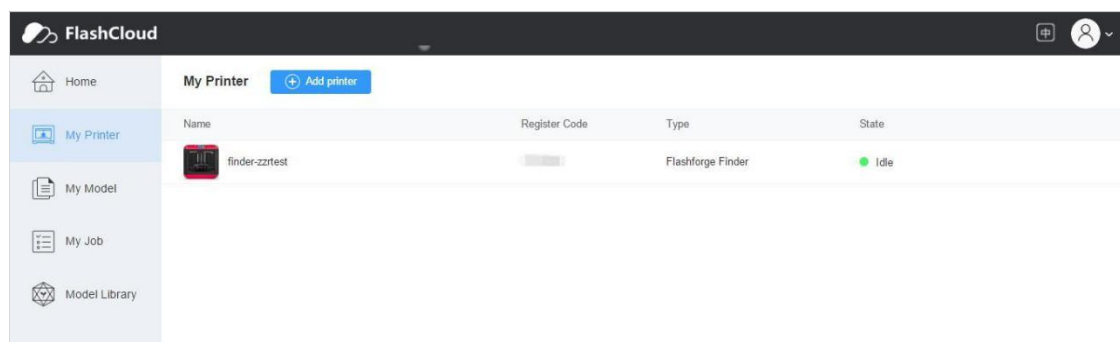
⑤ After you add your printer, your printer is listed in the **[My Printer]** tab.

You can add multiple printers to your Flash Forge Cloud account.

The following printers are supported by the Flash Forge cloud:

Art. No.: 2010100, 2010200, 2010300, 2010500

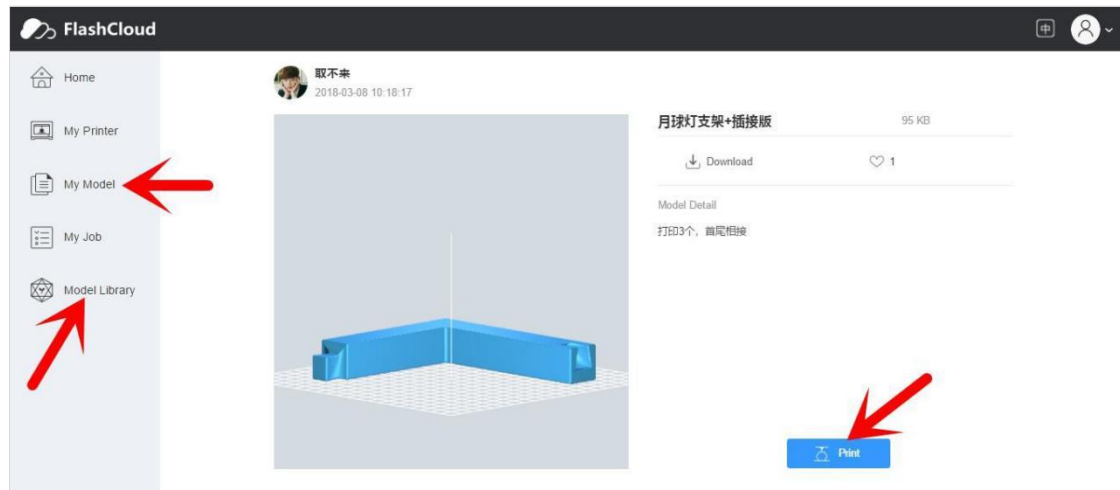
With the help of the Flash Forge Cloud printers and print jobs can be managed in "batches".



7-14

⑥ Select a model from the cloud library or upload your own model (.stl file).

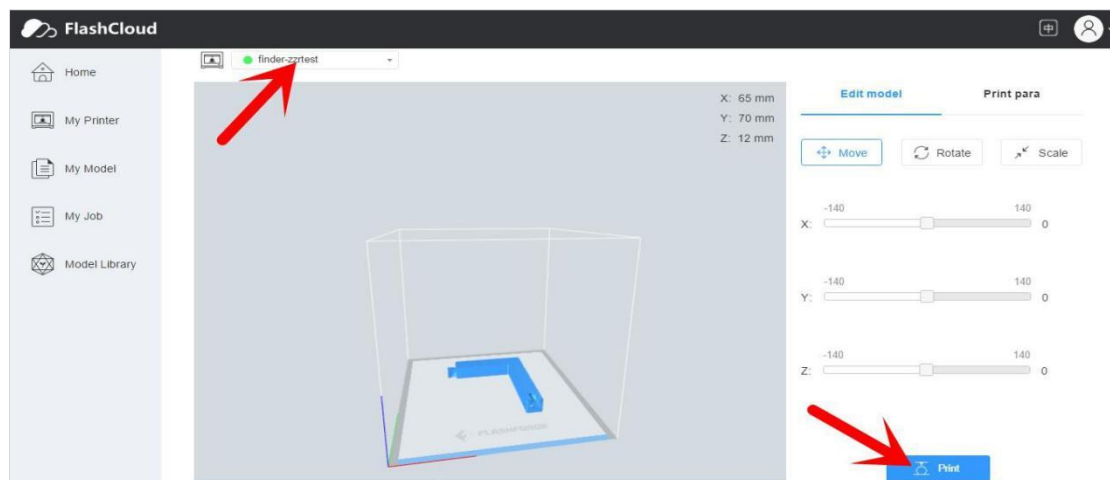
Click **[Print]** and open the model interface to edit the model.



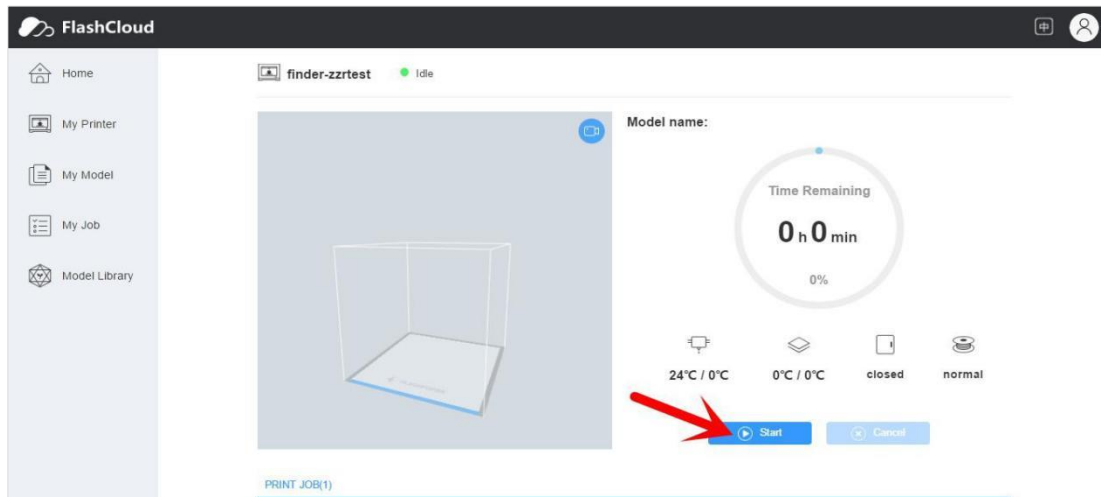
7-15

⑦ Select the printer for this print job from the drop-down menu in the upper left, and click **[Print]** to start printing. The selected printer starts printing immediately.

This website displays the remaining printing time for the job, the actual temperature of the extruder/design platform and other printing details. Here you can also pause or cancel the printing process at any time.



7-16



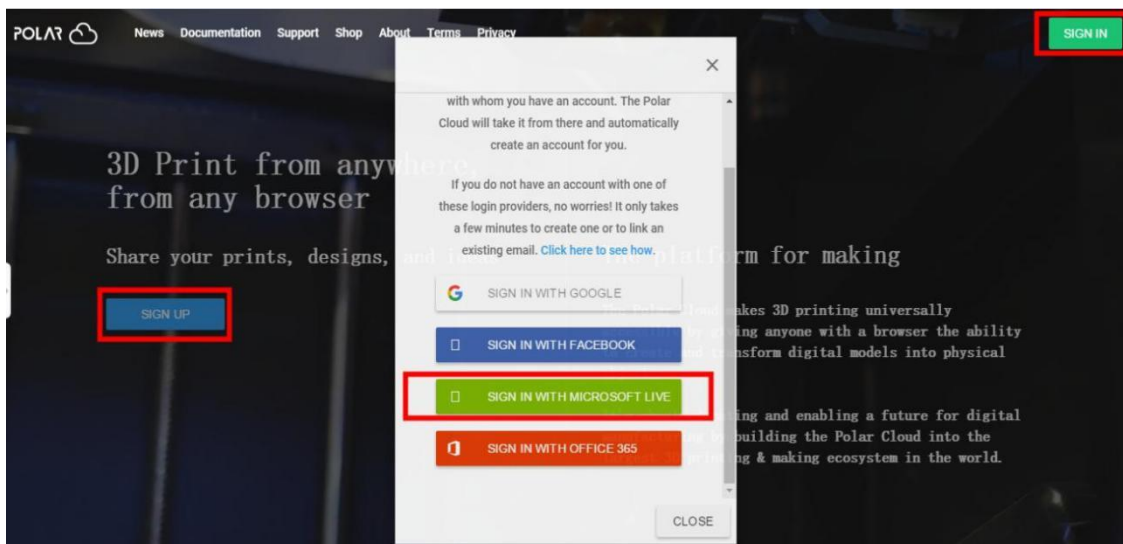
7-17

## 7.2.5 Printing via the PolarCloud connection

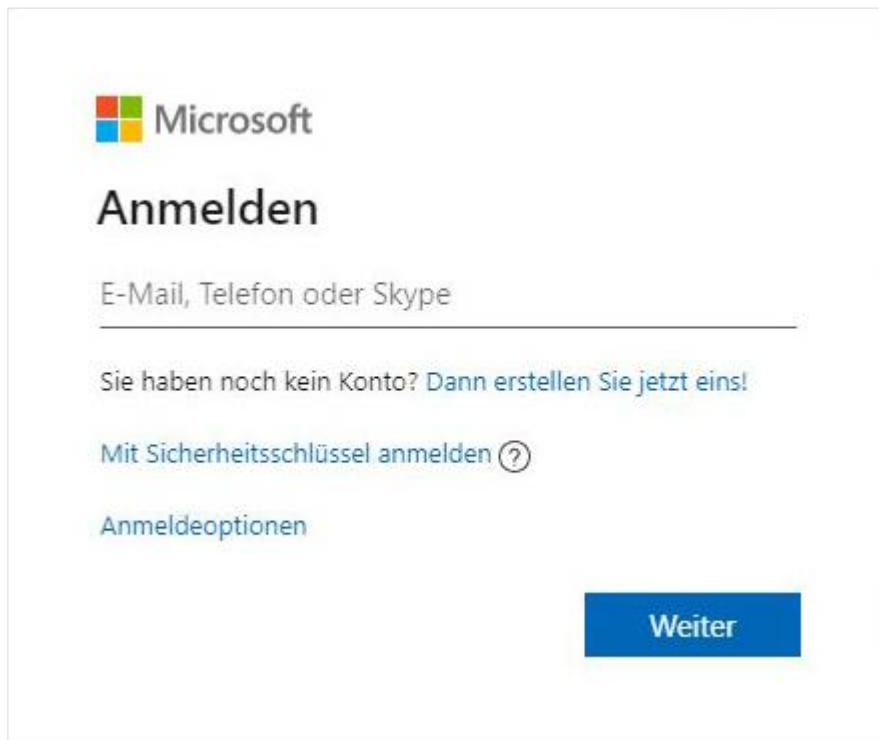
① Register for a PolarCloud account at the following address

<https://polar3d.com/>

Register your account using four different options, such as Microsoft Live, to create your new PolarCloud account



7-18



7-19

② After you create your PolarCloud account, visit the PolarCloud homepage. Click on the symbol marked in red in Fig. 7-20. Click on **[Settings]** here you will find your access data e-mail address = ID, and the PIN for the PolarCloud connection device in your printer.



7-20

POLAR Cloud

Explore Connect Design Make Help Shop

Position  
Other

Location

Biography

Website URL  
http://www.example.com/profile

Email  
[Redacted]

+ ADD EMAIL

PIN Code  
[Redacted]

7-21

② Make sure that your printer is connected to the Internet via a W-Lan connection.

Navigate on the printer touchscreen via **[Tools] > [Settings] > [PolarCloud Connection]** and enter your e-mail address in the "ID:" form field and your PIN in the "PIN:" form field. Press the **[Save]** button to save your entries in the printer.

Cloud Connection

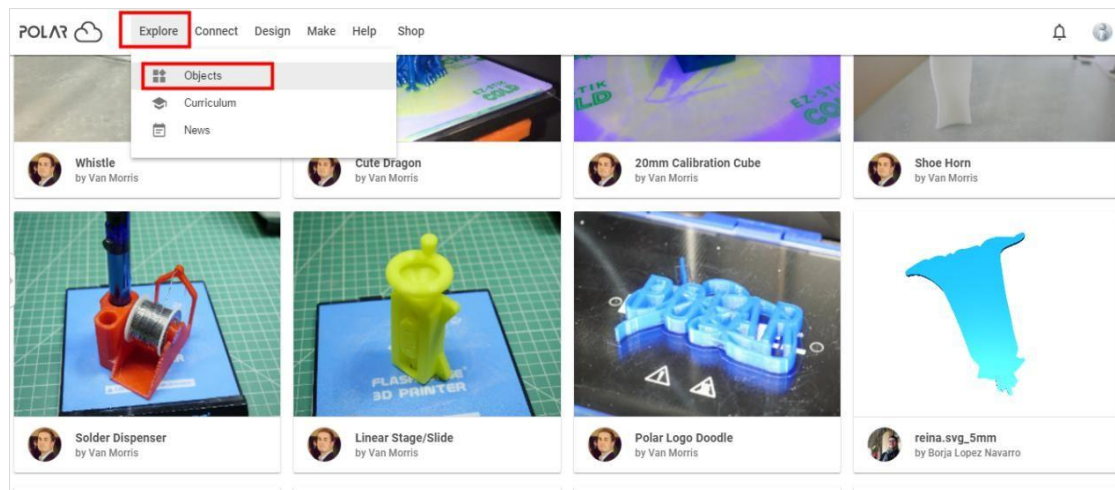
ID:

PIN:

Save

7-22

③ Visit the PolarCloud homepage again, click **[Explore]** and then **[Objects]**



7-23

On this page you will find a large selection of models that you can choose to print.

By clicking on a model of your choice you will be shown an overview page of the model. Now click the **[3D PRINT]** button.



7-24

Click the **[Print]** button. The printer downloads the print file automatically. After the download is complete, you can control the printer interactively through the PolarCloud web page, including filament change, pause, stop, and so on.

④ You can add multiple printers to your PolarCloud account. The following printers are supported by PolarCloud:

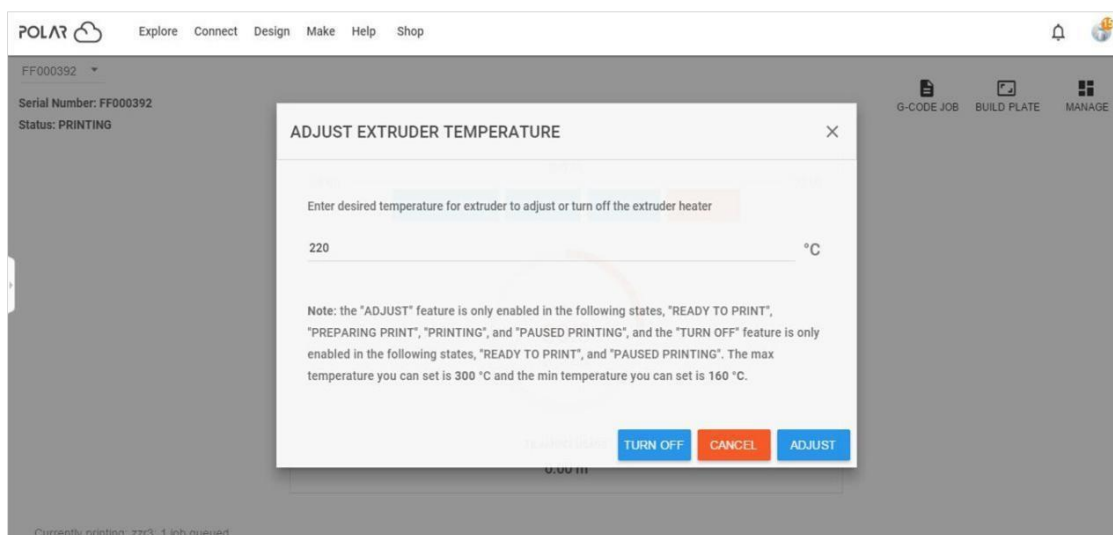
Art. No.: 2010100, 2010200, 2010300, 2010500%

⑤ Using the Polard3D cloud platform, you can generate the G-CODE print job by uploading your own sliced print files. The print files can be transferred to the appropriate printer. Then the printing starts automatically.

You can also adjust the extruder temperature or use other cloud functions.



7-25



7-26

⑥ If other users want to use the same printer for another PolarCloud account, you must first delete the printer from your PolarCloud account, otherwise the printer will not be available to third parties.

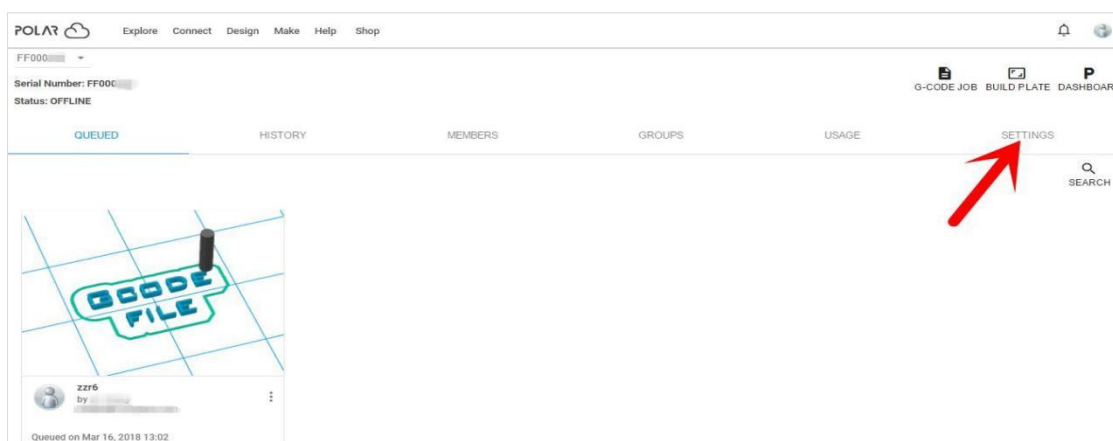




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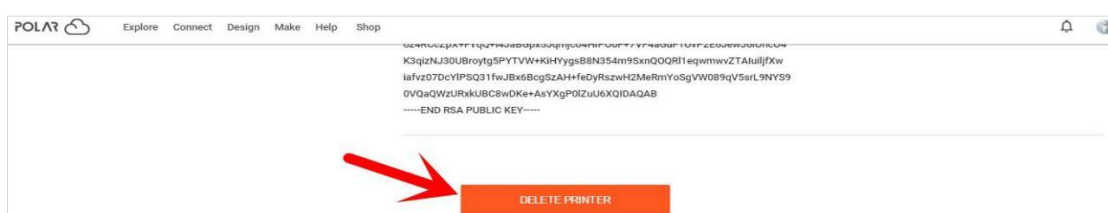
Click on the printer you want to delete.

Click the **[MANAGE]** button at the top right of the printer detail page.



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On the next page, click the **[SETTINGS]** button.



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Scroll to the bottom of the page and click the **[DELETE PRINTER]** button.

After the deletion process is complete, other users can use this printer with their own PolarCloud account.

# Chapter 9: Warranty and service

## Warranty

The regular guarantee period is 5 years and begins on the day of purchase.

Please keep the proof of purchase (receipt/invoice) carefully as proof of purchase.

During the warranty period, defective devices will be accepted by the local dealer or, if necessary, sent in directly by you. In any case, the postage costs must be at your expense. In case of a warranty claim, the postage costs will be refunded. You will then receive a new or repaired device back free of charge. The decision whether to repair or replace the device is up to us.

Excluded from this warranty are accessories/components such as mounting plates and foils, acrylic glass/plastic elements, USB/removable storage media, filaments and coils, adhesives, resins/greases, vessels and containers, tools etc.

The guarantee expires if defects in the object of purchase are due to the following circumstances:

- improper usage
- negligent or intentional damage through own fault and/or unauthorized third parties
- Repairs or alterations carried out by third parties without our order
- Changes or damage due to force majeure (thunderstorms, hail, fire, power failure, lightning strike,

Flooding, snow damage, frost and other effects of animals, etc.)

The warranty is also void if a damaged and/or illegible or incomplete proof of purchase is presented.

The rights from the guarantee exist independently of the legal warranty claims.

The guarantor is BRESSER GmbH, Gutenbergstr. 2, 46414 Rhede, Germany.

After the warranty period has expired, you also have the possibility to send a defective device for repair. Repairs after the warranty period are subject to a charge. You will receive a cost estimate from us before the repair is carried out.

***In case of a return, please note the following:***

Make sure that the article is sent carefully packed. If possible, use the original packaging. Fill out the Service Form and enclose it with the proof of purchase.

## Service

You can contact the BRESSER service team if you have problems with the 3D printer. If questions or problems are not covered in this manual, you can search for solutions on our official website or contact us by phone.

Our Knowledge Base provides solutions and instructions for frequently occurring problems. It is advisable to look for a solution there first, as the most frequent questions are answered there.

<http://www.bresser.de>

Email: [service.3d-printer@bresser.de](mailto:service.3d-printer@bresser.de)

You can reach the BRESSER service team by phone or e-mail from Monday to Saturday, 8:30-15:30 (CET = GMT + 1 ). If you contact us outside these business hours, we will answer your request on the following working day.

**Note:** Due to different filaments the extruder can be blocked. This problem is not a quality problem and is outside the range of 400 hours of operation. If this problem occurs, please contact customer service and carry out cleaning according to the instructions provided there.

## DE AT CH BE

Bei Fragen zum Produkt und eventuellen Reklamationen nehmen Sie bitte zunächst mit dem Service-Center Kontakt auf, vorzugsweise per E-Mail.

E-Mail: [service@bresser.de](mailto:service@bresser.de)  
Telefon\*: +49 28 72 80 74 210

### BRESSER GmbH

Kundenservice  
Gutenbergstr. 2  
46414 Rhede  
Deutschland

\*Lokale Rufnummer in Deutschland (Die Höhe der Gebühren je Telefonat ist abhängig vom Tarif Ihres Telefonanbieters); Anrufe aus dem Ausland sind mit höheren Kosten verbunden.

## GB IE

Please contact the service centre first for any questions regarding the product or claims, preferably by e-mail.

E-Mail: [service@bresseruk.com](mailto:service@bresseruk.com)  
Telephone\*: +44 1342 837 098

### BRESSER UK Ltd.

Suite 3G, Eden House  
Enterprise Way  
Edenbridge, Kent TN8 6HF  
United Kingdom

\*Number charged at local rates in the UK (the amount you will be charged per phone call will depend on the tariff of your phone provider); calls from abroad will involve higher costs.

# Contact

## Bresser GmbH

Gutenbergstraße 2  
46414 Rhede · Germany  
[www.bresser.de](http://www.bresser.de)

     @BresserEurope

## FR BE

Si vous avez des questions concernant ce produit ou en cas de réclamations, veuillez prendre contact avec notre centre de services (de préférence via e-mail).

E-Mail: [sav@bresser.fr](mailto:sav@bresser.fr)  
Téléphone\*: 00 800 6343 7000

### BRESSER France SARL

Pôle d'Activités de Nicopolis  
314 Avenue des Chênes Verts  
83170 Brignoles  
France

\*Prix d'un appel local depuis la France ou Belgique

## NL BE

Als u met betrekking tot het product vragen of eventuele klachten heeft kunt u contact opnemen met het service centrum (bij voorkeur per e-mail).

E-Mail: [info@bresserbenelux.nl](mailto:info@bresserbenelux.nl)  
Telefoon\*: +31 528 23 24 76

### BRESSER Benelux

Smirnoffstraat 8  
7903 AX Hoogeveen  
The Netherlands

\*Het telefoonnummer wordt in het Nederland tegen lokaal tarief in rekening gebracht. Het bedrag dat u per gesprek in rekening gebracht zal worden, is afhankelijk van het tarief van uw telefoon provider; gesprekken vanuit het buitenland zullen hogere kosten met zich meebrengen.

## ES IT PT

Si desea formular alguna pregunta sobre el producto o alguna eventual reclamación, le rogamos que se ponga en contacto con el centro de servicio técnico (de preferencia por e-mail).

E-Mail: [servicio.iberia@bresser-iberia.es](mailto:servicio.iberia@bresser-iberia.es)  
Teléfono\*: +34 91 67972 69

### BRESSER Iberia SLU

c/Valdemorillo, 1 Nave B  
P.I. Ventorro del Cano  
28925 Alcorcón Madrid  
España

\*Número local de España (el importe de cada llamada telefónica dependen de las tarifas de los distribuidores); Las llamadas des del extranjero están ligadas a costes suplementarios..