

FLSUN S1 Ultra High Speed 3D Printing



# FLSUN S1 Ultra High Speed 3D Printing Instruction Manual

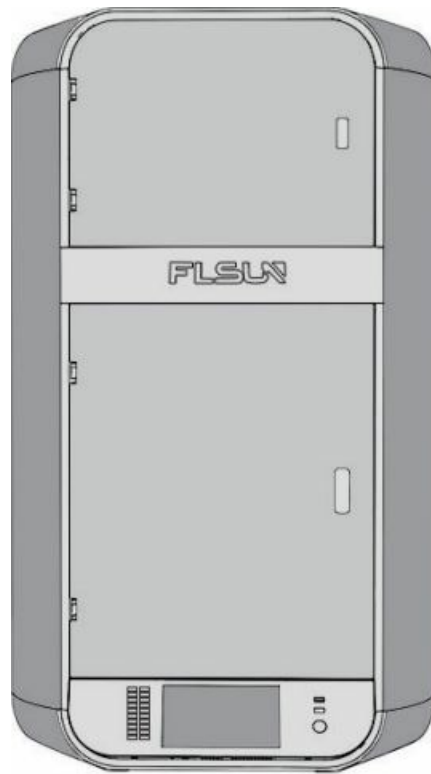
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**FLSUN S1 Ultra High Speed 3D Printing**



### **Product Specifications:**

- Model: OVXQ6
- Power: 9V
- Dimensions: Varies
- Weight: Varies

### **Product Usage Instructions**

#### **Setup**

To begin using the product, follow these steps:

1. Unpack the product from the box.
2. Check all components for any damage.
3. Connect the power source as indicated in the manual.

#### **Operation**

Once the product is set up, you can operate it by:

1. Pressing the power button to turn it on.
2. Follow the on-screen instructions for further usage.

#### **Maintenance**

To ensure the product's longevity, remember to:

- Clean the product regularly with a soft, dry cloth.
- Avoid exposing the product to extreme temperatures or moisture.

## Frequently Asked Questions

### Q: How do I change the settings on the product?

A: To modify settings, navigate to the settings menu using the provided controls and make adjustments as needed.

### Q: What should I do if the product stops working suddenly?

A: If the product malfunctions, first check the power source and connections. If the issue persists, contact customer support for assistance.

### Q: Can I use the product outdoors?

A: The product is designed for indoor use. Avoid exposing it to outdoor elements to prevent damage.

## Instruction Manual

Ultra High-Speed 3D Printing

Zhengzhou Chaokuo Electronic Technology Co., Ltd

## Advice And Guidance

1. Do not operate the machine according to methods other than those specified in the manual to avoid possible injury or property damage.
2. Do not place the printer near flammable, explosive or high heat sources, make sure that the printer is in a cool, dust free and well ventilated area.
3. Be careful touching the print bed, print nozzle, or other high temperature areas during or soon after use to avoid severe burns.
4. Do not reach inside the print area while the machine is in use to avoid injury from high speed movements.
5. Do not allow children or persons who have not read the instructions in detail to operate it alone to avoid personal injury or property damage.
6. Routine maintenance should be performed on the printer to ensure a long service life. The printer should be powered off before maintenance is performed, especially important on working parts such as the effector module and guide rails.
7. In case of an emergency during printing, press and hold the on/off button for 1.5 seconds to stop the printer, and then turn off the power.
8. If the printer is not going to be used for an extended period of time unplug the power cord.
9. Each printer is thoroughly tested before leaving the factory to ensure quality and functionality. It is normal to find evidence of prior use.
10. Visit the official FLSun Wiki for more tutorials on machine use and maintenance:

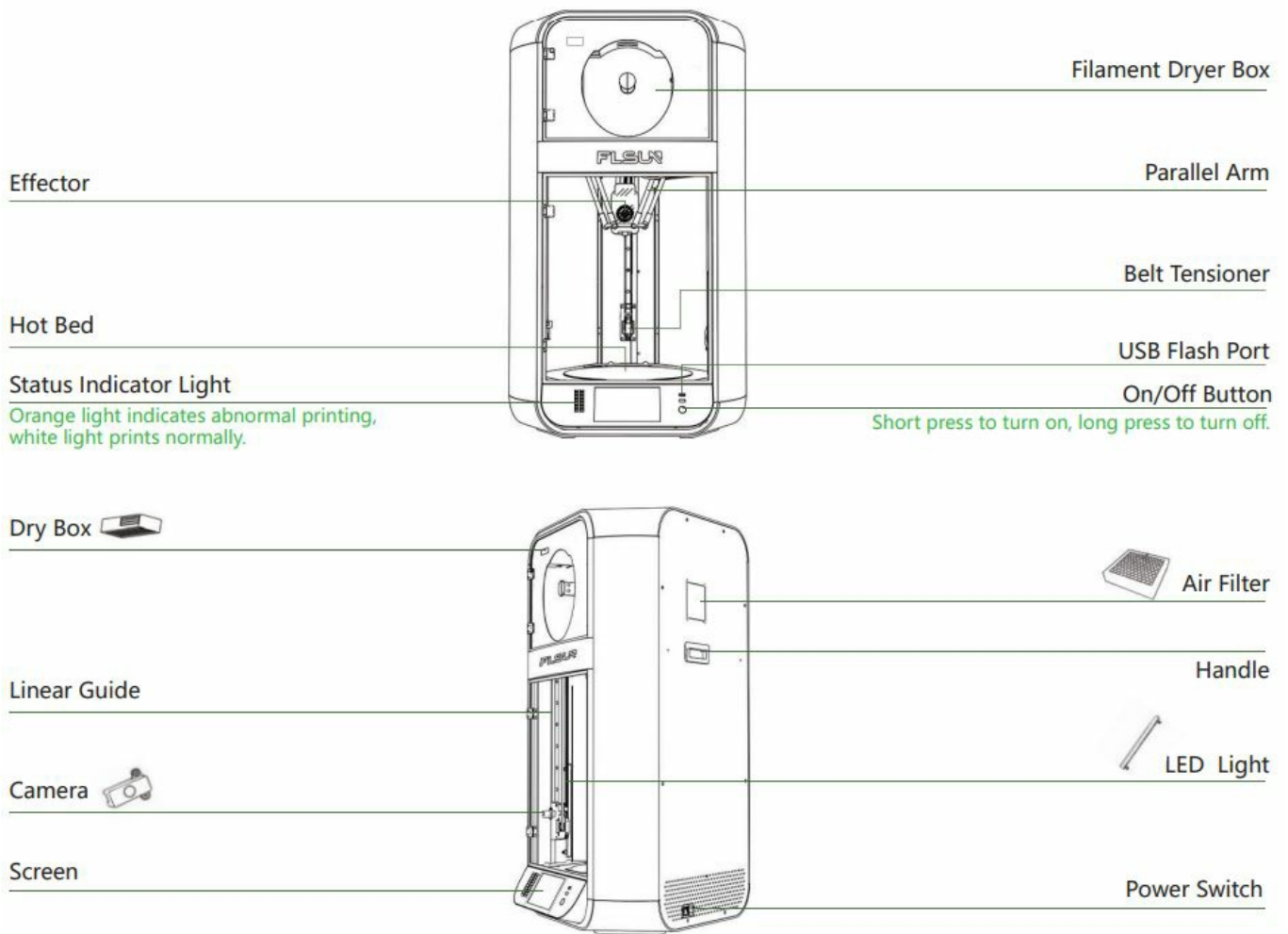
<http://wiki.flsun3d.com/en/home>.

## Parameter

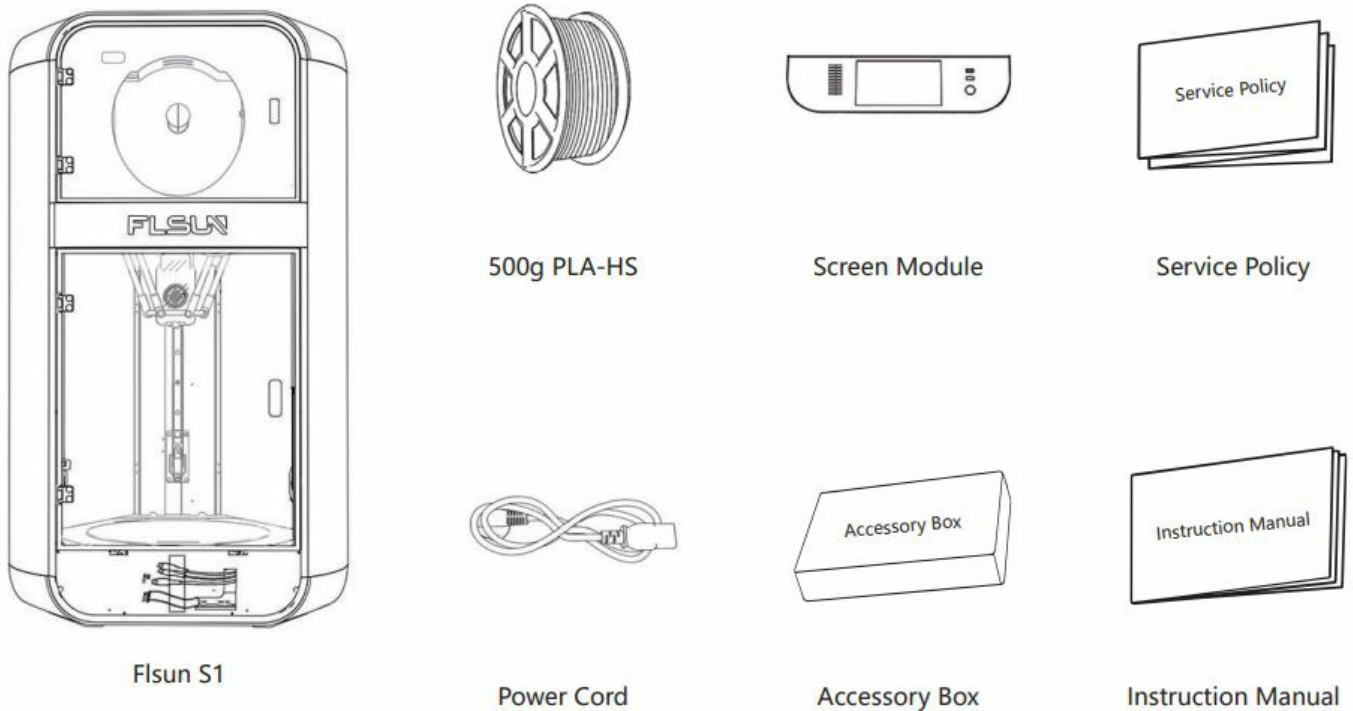
PRODUCT		FLSUN S1
Printing Technology		Fused Deposition Modeling (FDM)
Printing Accuracy		±0.1mm
Recommended Layer Height		0.1-0.35mm
Chassis	Build Volume	ø320 * 430mm
	Frame	Full Metal
Dimensions	Product Dimensions	550*595*1030mm
	Package Dimensions	640*680*1120mm
	Net Weight	41kg
	Gross Weight	52kg
Effector	Extruder	Dual-Gear Direct Drive Extruder
	Nozzle	Hardened Steel
	Nozzle MAX Temp	350C
	Nozzle Diameter	0.4mm
	Filament Diameter	1.75mm
Motor	Motor Types	36V Closed-loop motor
	Motor Calibration	Support
Bed	Build Plate	Textured PEI Print Surface
	Bed MAX Temp	120C
	Smart Zone Heating	Inner Circle ø220mm,Outer Ring220-320mm
Materials	Supported	PLA, PETG, TPU, ABS, ASA, PVA, PET, PA, PC, Carbon etc.
	Drying	Separate Heating elements,Desiccant
Cooling	Fan	CPAP turbofan 40000 rpm
Speed	MAX Speed	1200mm/s
	MAX Acceleration	40000mm/s <sup>2</sup>
	MAX Flow Rate	110mm <sup>3</sup> /s PLA
PSU	Input	110-240V,50/60HZ
	Power	1300W@220V,600W@110V

Electronics	Display	Full-Integration Touchscreen
	Storage	16GB EMMC,32GB USB Flash
	Control interface	Touchscreen, PC Interface
	CPU	Quad-Core ARM A7 1.5 GHz
	NPU	2 tops
Camera	Pixels	1920 X 1080 pixels
	Real-time Monitoring	Support
	Time-lapse Photography	Support
Sensors	Remaining Filament Weight	Dynamic Monitoring
	Filament Detection	Support
	Filament Clog Detection	Support
	Vibration Compensation	Support
	Auto-Leveling	Support
AI Lidar Detection	First Layer Detection	Support
	Accuracy Calibration	Support
	Flow Calibration	Support
AI Features	Debris Detection	Support
	Spaghetti Detection	Support
Energy Efficiency	Screen auto sleep	Support
	Printer auto power off	Support
	Smart Zone Heating	Support
	Power Off Resume Print Module	SupportCZ lift, protect model)
	Air Filter	Composite filter: HEPA + Activated Carbon
System Upgrade	Upgrade Method	OTA
Software	Slicer	Isun Slicer, Third-Party Slicers
	Supported OS	MacOS, Windows
	File Format	ST O 3

## Component Introduction



## Packing List



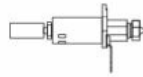
## Accessory Box Packing List



Diagonal Plier



Silver Needle



Hotend Kit



Glue Stick



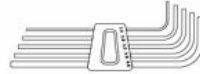
Hinges



USB Flash



Socket Wrench



Wrench Set



Grease



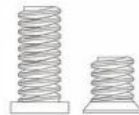
M3\*6 (×4) Screw  
For fixing hinges



Open-end Wrench



PTFE Tube



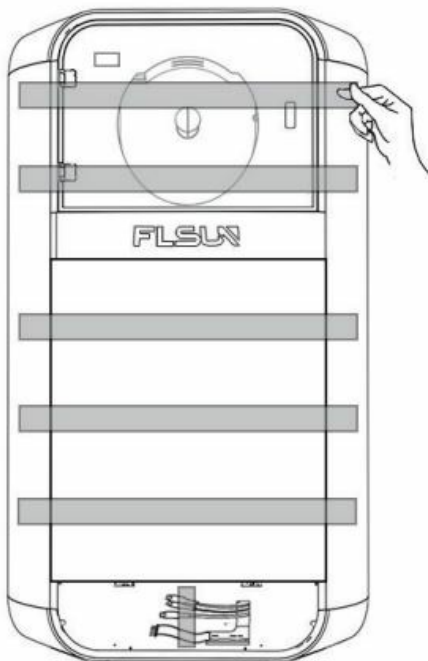
M3\*12(×2)Screws  
M3\*6(×2)Screws  
For fixing the screen



M3\*6(×4)Screws  
For fixing glass door

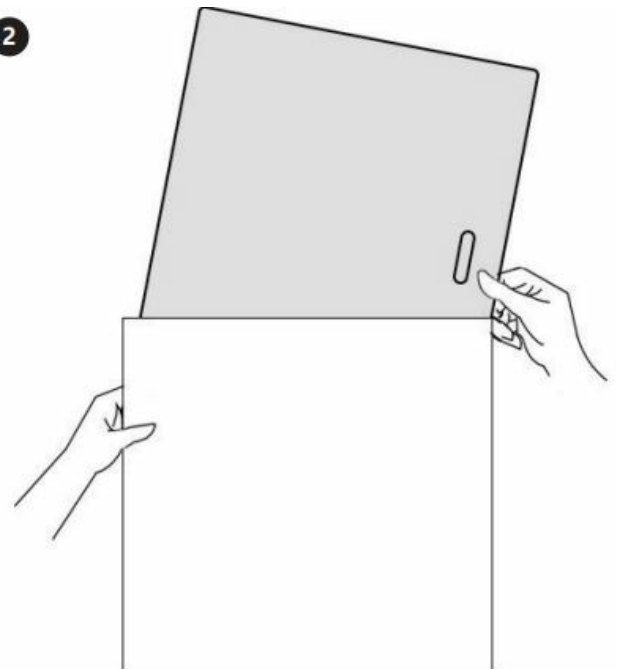
## Unboxing

1

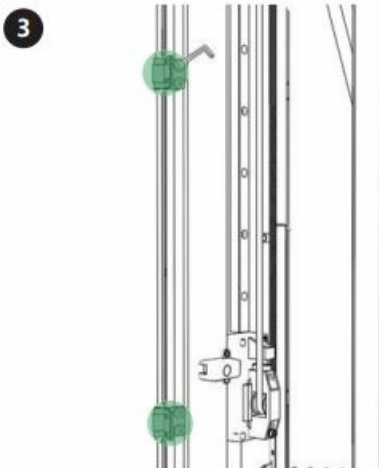


Remove the tape securing the glass door and the wiring harness. Remove glass door;

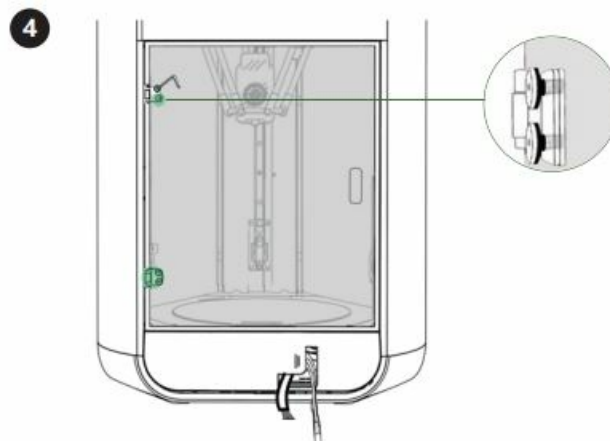
2



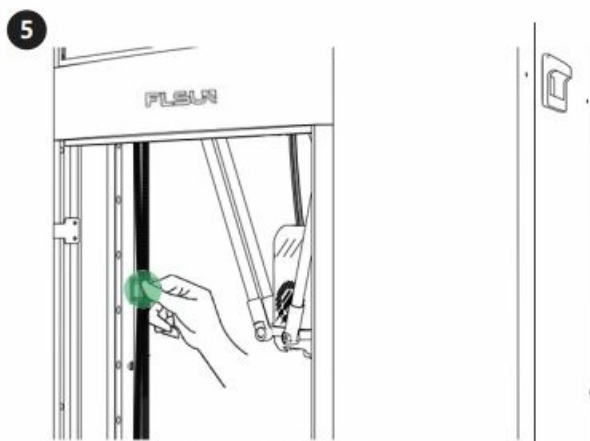
Remove the glass door from the packing bag and peel off the protective film.



Use M3X6 screws to attach the two hinges to the X axis as shown;



Fix the glass door using the screws M3\*6 (with Silicone Plugs) in the accessory box;  
\*Gently tighten the screws

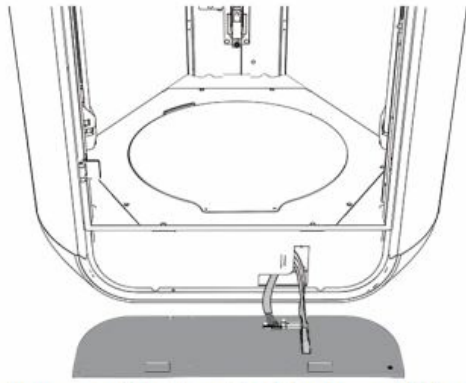


Remove the clips from the three belts to unlock the sliders.

## Screen Installation



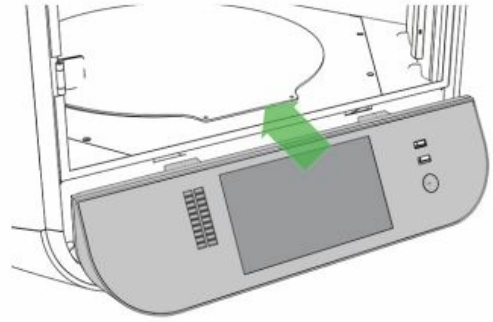
1



Remove the tape securing the wiring harness and plug the display power cable and the three data cables into the corresponding connection ports;

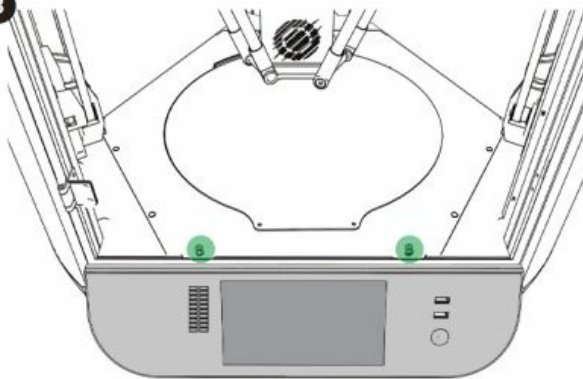
\*The three USB cables are connected by number.

2



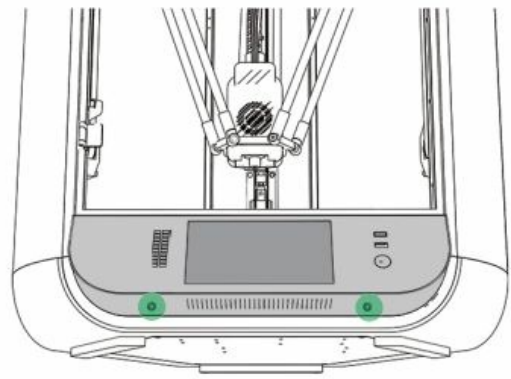
Insert the screen horizontally into the printer slot;

3



Secure the top of the screen using the M3\*6 screws included in the accessory box;

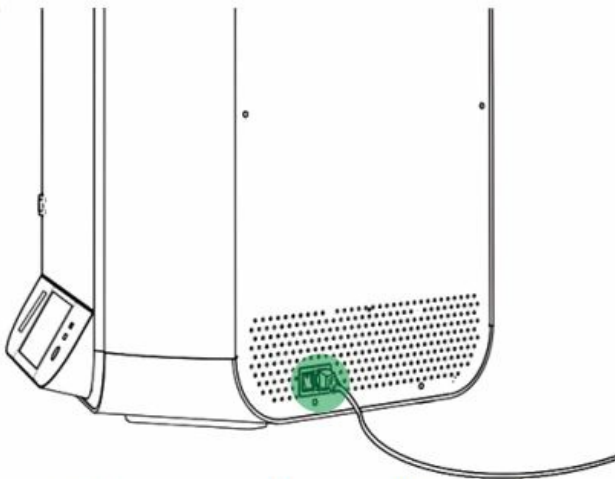
4



Secure the underside of the screen using the M3\*12 screws included in the accessory box.

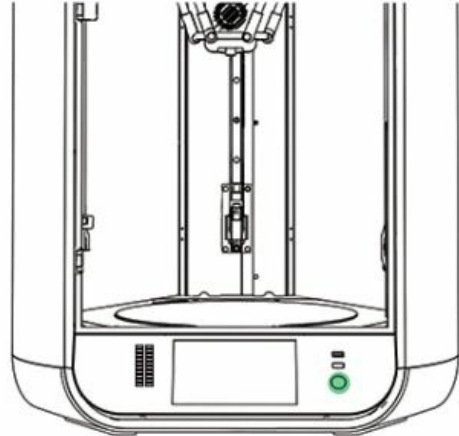
## Connect And Power On

1



Connect the power cord to the right side of the printer. Press the power switch. The switch will light indicating it is in standby mode.

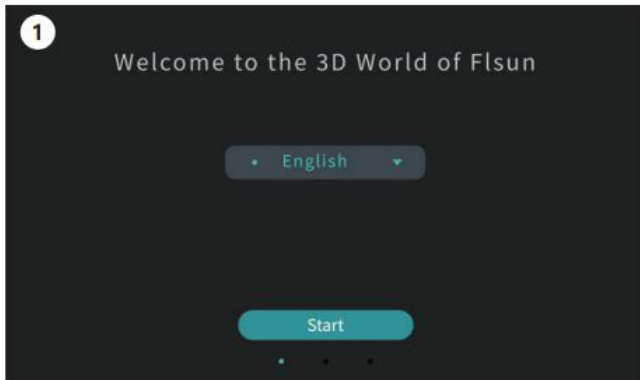
2



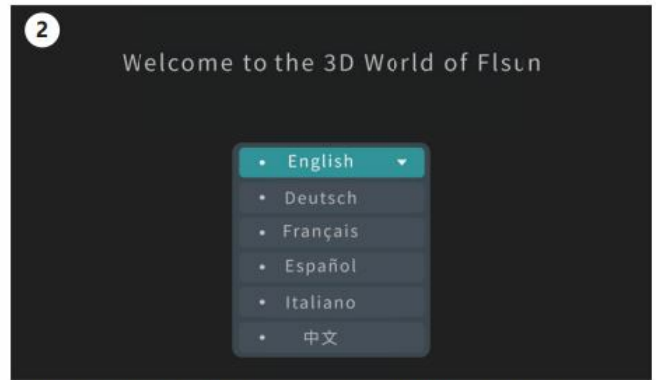
Press the power on/off button to turn on the printer.

\*In case of an emergency while the printer is operating, press and hold the on/off button for 1.5 seconds to stop the printer. If you turn off the power first, the printer will activate the UPS, delay power outage, and the printer will continue to run briefly.

## Language Settings

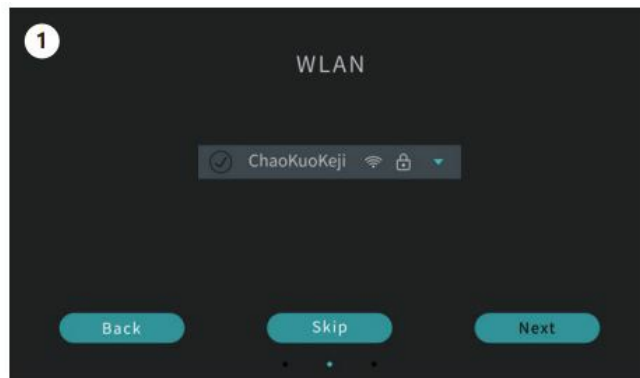


Please click "▼" ;

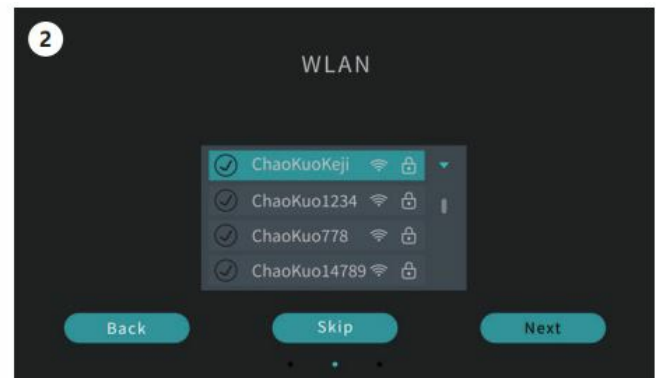


Please select the language and start using the printer.

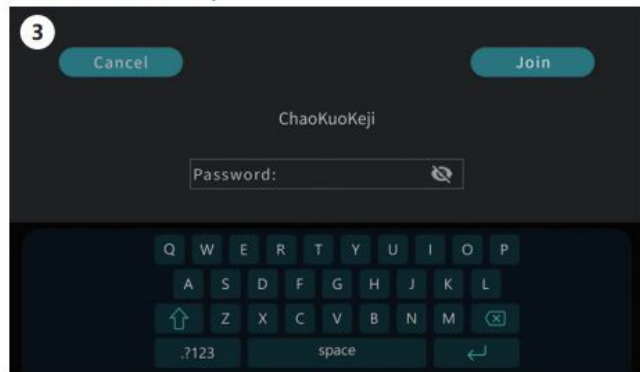
## WiFi Settings



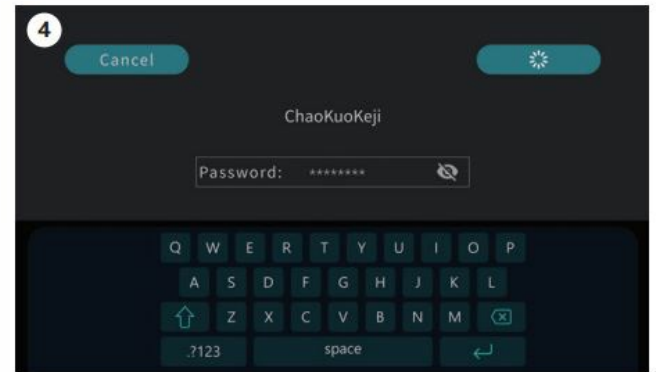
Please click "▼" to select the wireless network you want to connect to;



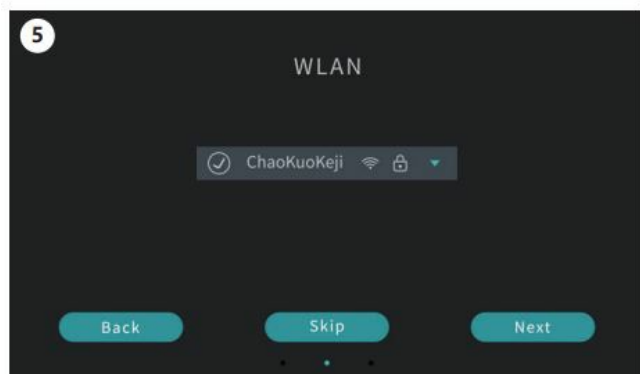
Unable to click "Next" during setup of network connection;



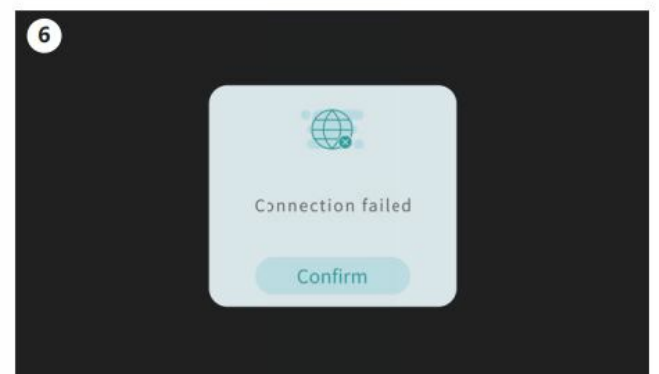
Enter WiFi password;



Click "Join" to connect to the network;

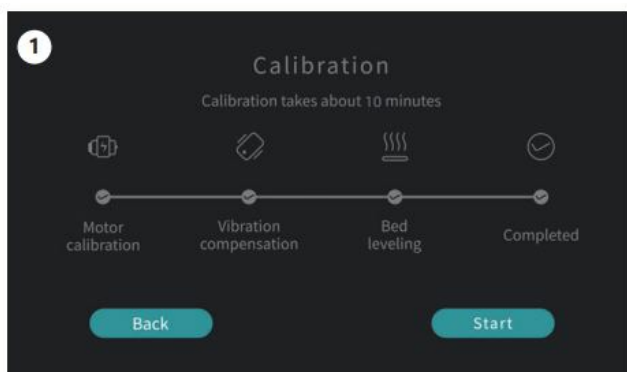


After the printer successfully connects to the network click "Next" to start the printer calibration.

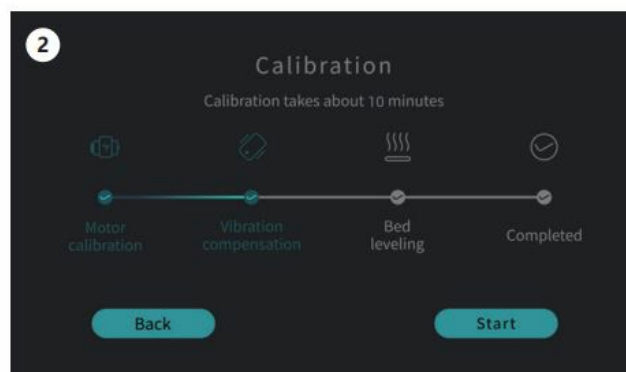


If the connection fails, click "Confirm" to reconnect attempt to a new connection.

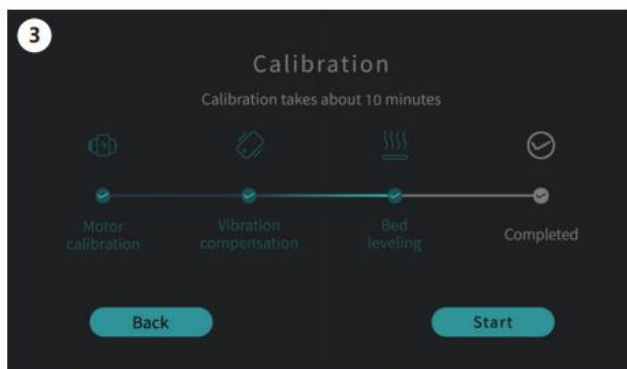
## Calibrations



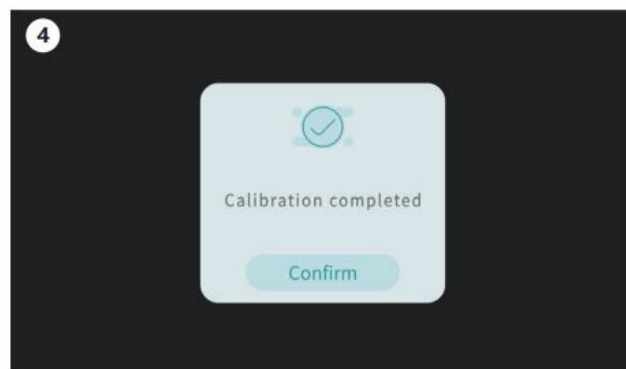
Click "Start" and the printer will complete the calibration in sequence;



During calibration, the "Back" and "Start" buttons are locked and cannot be clicked, so please be patient and wait until calibration is complete;

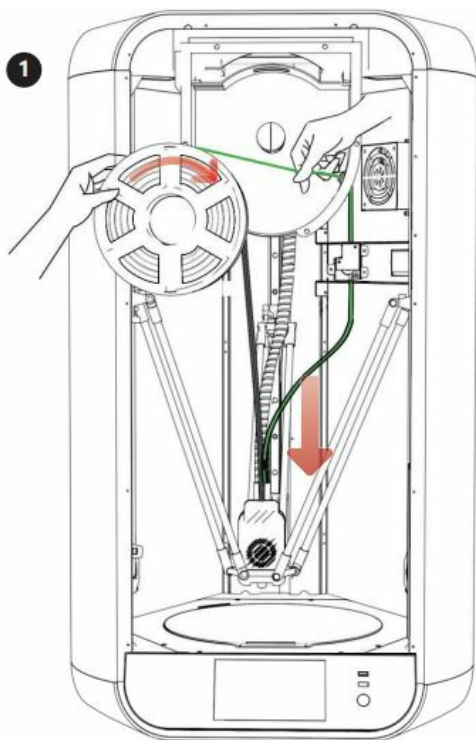


Vibration and noise are normal during calibration;



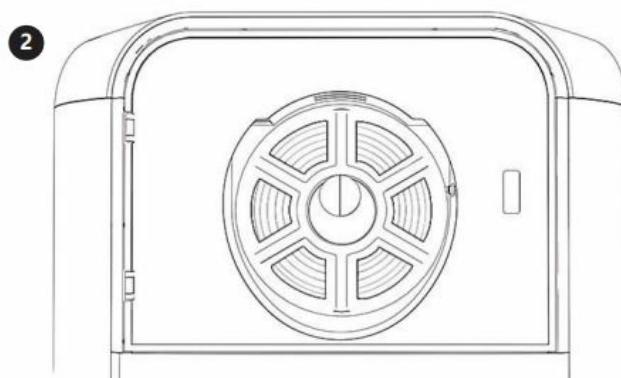
You will be prompted on screen when the calibration process is complete. Click "Confirm." That is it, you have now successfully completed the printer's first calibration!

## Loading Filament



Push one end of the filament into the feed tube on the right side of the filament dryer box, passing through the filament detector and filament clogging detector, and push the filament down into the effector until the filament cannot move forward;

\*The filament spool rotation is clockwise.

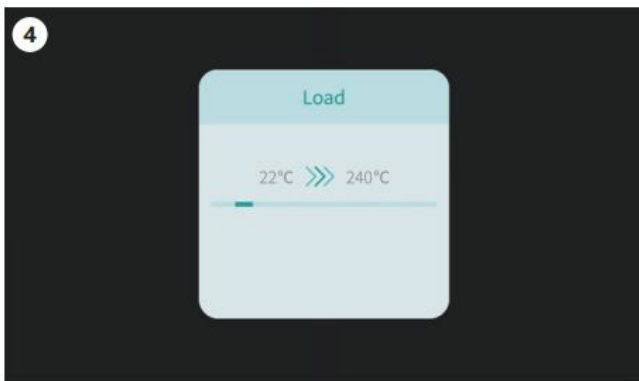


Install the filament into the filament holder;

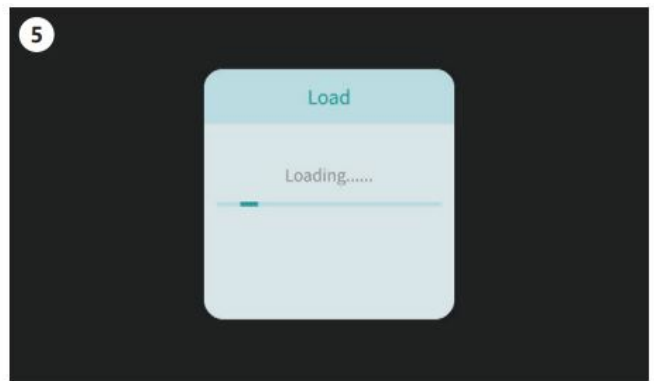


Click on "Control" - "Filament" - "Load";





Wait for the temperature to rise to 240°C;

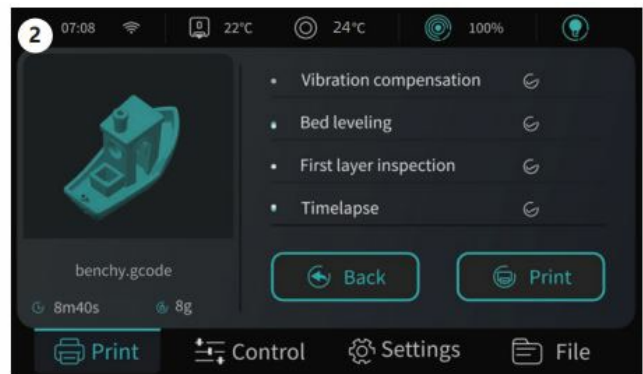


The extruder is loading the filament until the filament is extruded from the nozzle.

## First Printing



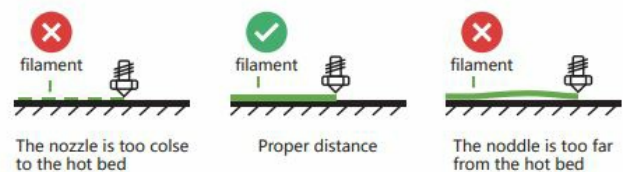
Click on "Print" and select the model you want to print;  
\*It is recommended to apply glue to the PEI plate before each printing.



Click "Print" to start printing.  
\*Functions can be manually enabled based on your printing requirements.



If the nozzle is too low or too high when printing the first layer, you can click "Z" during printing to adjust the height of the nozzle and the adjustment will be automatically saved.



Control the switch of LED lights

Remaining filament weight.

Filament drying box status: When it lights up, it means the filament drying box is heating

The temperature of the nozzle and hot bed can be manually modified during printing.

## Customer Support

- Please go to flsun official website to download Flsun Slicer : Official website: <https://flsun3d.com>

Please visit the official Flsun Wiki for more information on machine use, maintenance and FAQs:

<http://wiki.flsun3d.com/en/home>

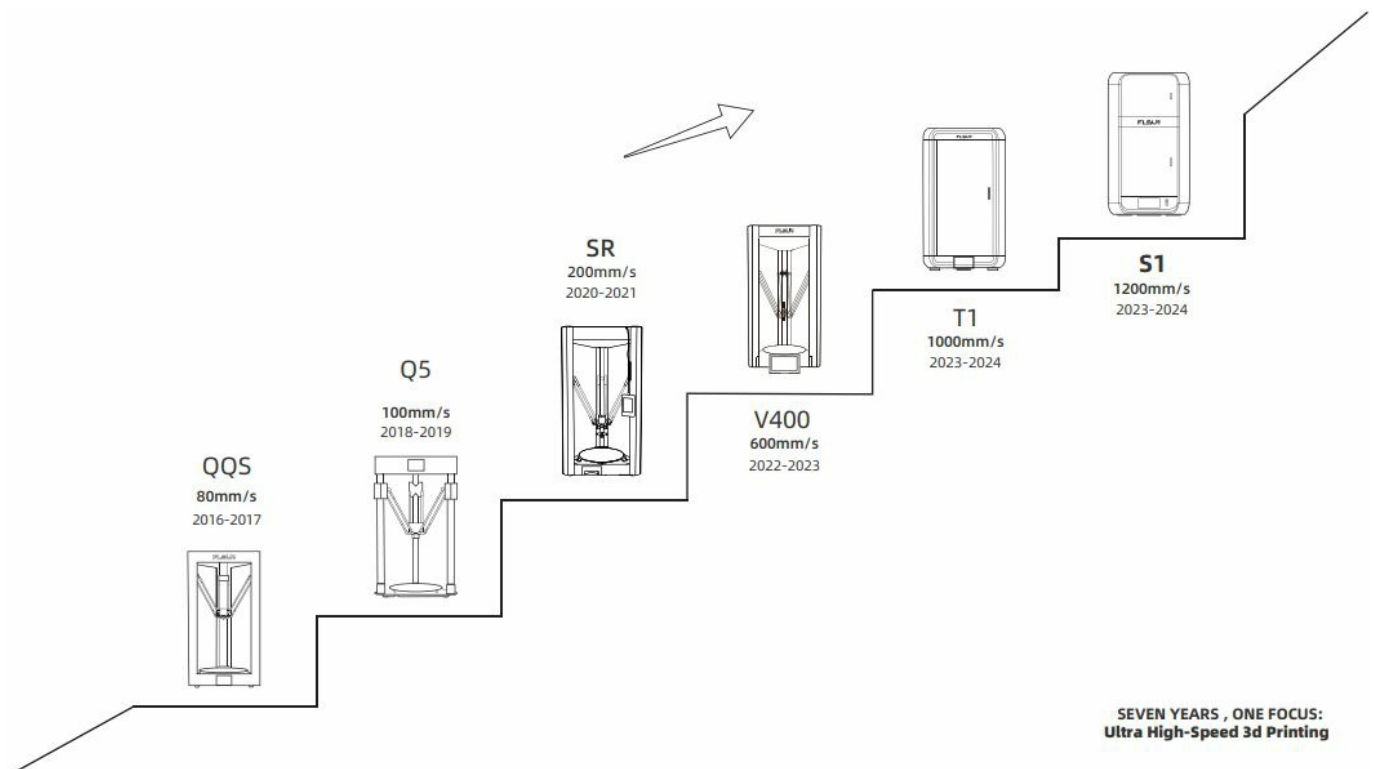
By scanning the QR code you can choose any channel to get the latest product updates and related news.



- If you need additional assistance, please feel free to contact us:

After-sales e-mail: [service@flsun3d.com](mailto:service@flsun3d.com)

**Go all the way forward and break through the limitations!**



## FCC

### FCC Warning:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However,

there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**Caution:** Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

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## Documents / Resources

	<b><a href="#">FLSUN S1 Ultra High Speed 3D Printing</a></b> [pdf] Instruction Manual S1, S1 Ultra High Speed 3D Printing, Ultra High Speed 3D Printing, High Speed 3D Printing, 3D Printing, Printing
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## References

- [User Manual](#)

### [Manuals+](#). [Privacy Policy](#)

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