



Flsun V2 Pro

Instruction Manual

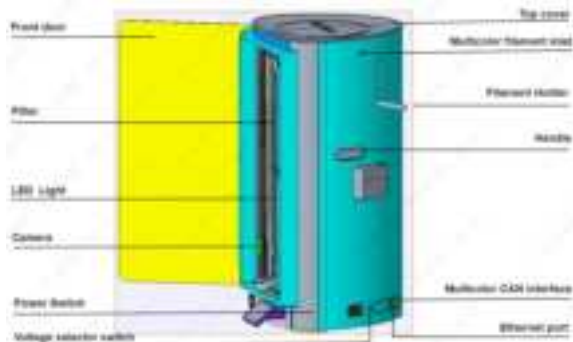
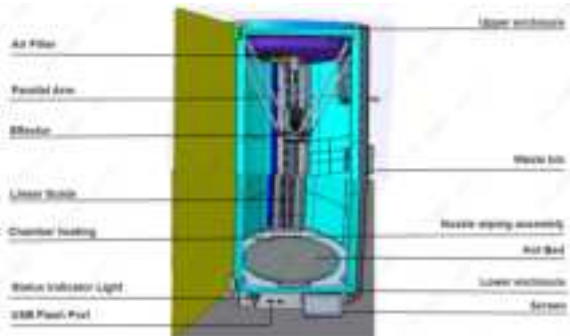
Ultra-high-speed 3D printer

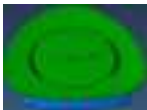
1. Do not operate the machine according to methods other than those specified in the manual to avoid possible injury or property damage.
2. Do not place the printer near flammable, explosive or high heat sources, make sure that the printer is in a cool, dust free and well-ventilated area.
3. Be careful 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. To ensure safe operation, always use a grounded power outlet.
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>.

PRODUCT		FLSUN V2 Pro
Printing Technology		Fused Deposition Modeling (FDM)
Printing Accuracy		±0.1mm
Recommended Layer Height		0.1-0.35mm
Build Volume (Monochrome)		MAX. Ø300*400mm (Maximum height of the cylinder:350mm)
Build Volume (Multicolor)		MAX. Ø300*350mm
Frame		Metal
Enclosure		Fully enclosed chassis (plastic & glass)
Product Dimensions		536*477*905mm
Package Dimensions		1060*515*355mm
Net Weight		25kg
Gross Weight		29kg
Extruder		Dual-Gear Direct Drive Extruder
Nozzle		Hardened Steel
Maximum Nozzle Temperature		350°C
Nozzle Diameter		0.4mm
Filament Diameter		1.75mm
Motor Type		36V Closed-loop motor
Build Plate		Textured PEI Print Plate
Bed MAXTemp		110°C
Chamber Max Temp		60°C
Supported Filament	Optimal	PLA,PETG,TPU
	Superior	PVA,PET,ABS,ASA,PA,PC
	Ideal	Carbon/Glass Fiber Reinforced PLA

Drying		Desiccant
Fan		CPAP turbofan
Speed	Max Speed of Tool Head	1200mm/s
	Max Acceleration of Tool Head	40000mm/s ²
	Max Instantaneous Flow	110/mm ³ (Flsun PLA-HS)
	Stable Flow Rate	90mm ³ /s
Input		110–240V, 50/60HZ
Power		220V~2100W/110V~600W
Display		5–inch full–color capacitive touch screen
Storage		8G EMMC、16GUSB Flash
Pixels		1920 × 1080pixels
Real-time Monitorin		Support
Time-lapse Photography		Support
Filament Clog Detection		Support
Vibration Compensation		Support
Auto-Leveling		Support
Screen auto sleep		Support
Printer auto power off		Support
Air Filter		HEPA+Activated Carbon
AI Detection	First-Layer Inspection	Support (Success rate: 80 %,Actual results may vary due to tolerances)
	Debris Detection	Support (Success rate: 80 %,Actual results may vary due to tolerances)
	Spaghetti Detection	Support (Success rate: 80 %,Actual results may vary due to tolerances)
Upgrade Method		OTA、OTG

Internet	Support
WiFi	2.4G+5G
Slicer and Software	Flsun Slicer, Flsun World, Third-Party Slicers
Supported OS	MacOS, Windows
File Format	STL、STEP、OBJ、AMF、3MF、OLTP、STP、SVG

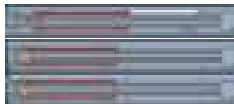




Upper enclosur



Lower enclosure



X Pillar (With LED lighting)

Y Pillar

Z Pillar



Effector



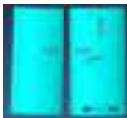
Camera



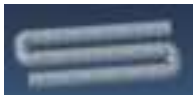
Front door and door frame



Pillar Belt Guard*3



Side panel*2



Air duct



Filament*200g



T-handle Allen wrench



Power Cord



Accessory Box



Service Policy



nstruction Manua



Wrench Set



USB Flash



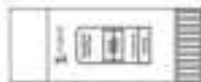
Silver Needle



Diagonal Plier



Grease



Glue Stick



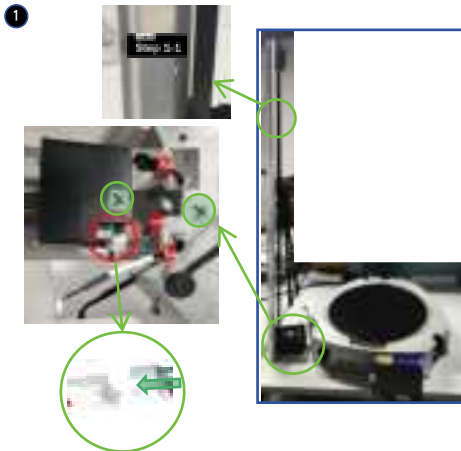
Nozzle



Open-end Wrench



slotted screwdriver



(Step 1-1)

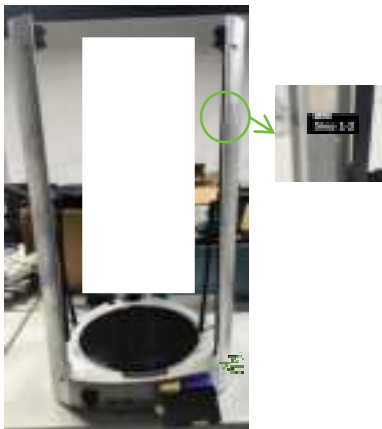
Take out the X-axis column and place the lower base shell on the table. Locate the motor ribbon cable for the X-axis on the lower base shell. With your left hand, hold the column steady; then, with your right hand, insert the motor ribbon cable into the X-axis motor connector inside the cable slot (if the cable is not exposed on the outside, you can find it within the column slot).

Note: Both the motor cover and the column slots on the lower base shell are labeled X, Y, and Z. Align each label with its counterpart and push the corresponding connectors all the way in until fully seated. On the X-axis: ① the motor cable is the motor harness, ② the lighting cable is the LED harness, ③ the camera cable is the camera harness.



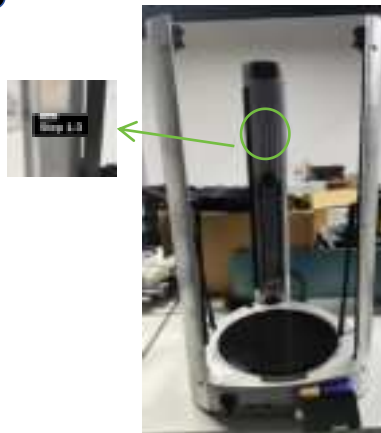
After all ribbon cables are seated, press the column inward with your left hand until it is fully inserted into the column slot of the lower base shell—verify that it bottoms out. Then secure it with three M5×16 screws, tightening the diagonally opposite ones first.

3



(Step 1-2)
Remove the Y-axis column and install it using the same procedure as for the X-axis column.

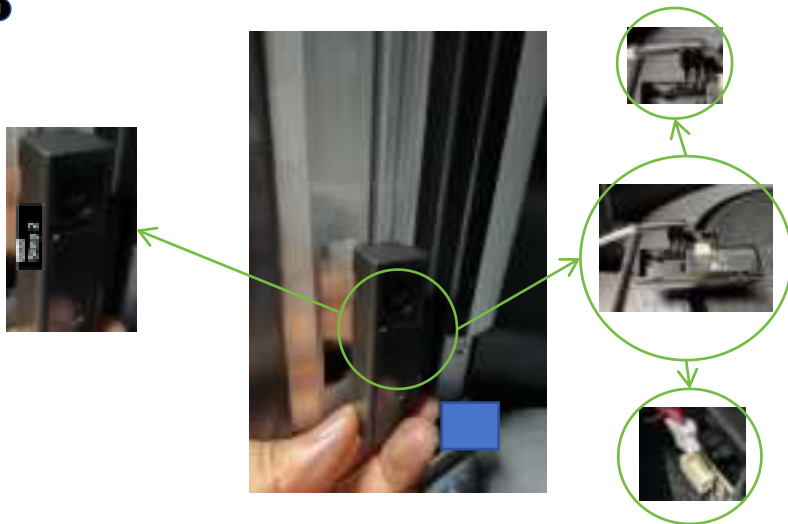
4



(Step 1-3)
Remove the Z-axis column and install it in the same manner as the X-axis column.

Note: Secure the Z-axis column with four M5×16 screws.

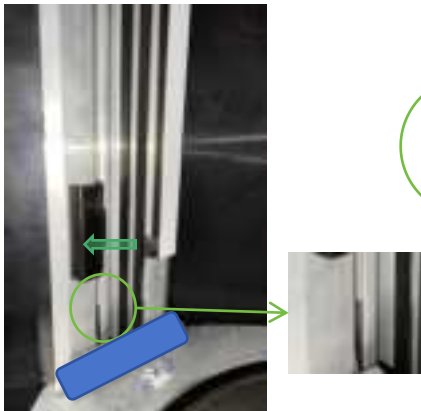
1



(Step 2)

Take out the camera. First, connect the camera to its ribbon cable and snap the cable into the cable clip on the camera bracket. Then align the camera with the camera slot on the parallel arm and press it firmly into place.

3



After mounting the camera at the designated position on the pillar, route the cable into the pillar's groove to prevent belt abrasion.

2



(Step 3)
Firmly plug in the connector of the X-axis chamber light harness, then tuck the connector into the hole in the lower base shell and feed the remaining harness into the pillar seam.

1



(Step 4)

Take the three belt guards and, as shown in the illustration above, align each guard's tabs with the corresponding slots in the lower chassis. Press straight down until they snap into place. Make sure the camera and LED cables are tucked completely inside the guards.

2



Install the remaining two belt guards in the same manner.

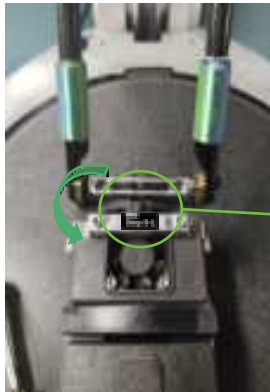
1



Place the effector and six M3×10 screws on the work surface. Lay a protective layer on the heated bed to prevent scratching the PEI sheet.

Note: The side bearing the Flsun logo is the front of the effector.

2



(Step 5-1)

Tilt the effector forward; then align the Z-axis ball-end connector with the rear suspension hole on the effector.

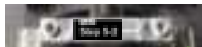
Note: Install the Z-axis parallel arm first.

3



Once the holes are aligned, secure the effector to the Z-axis parallel arm with two M3×10 screws.

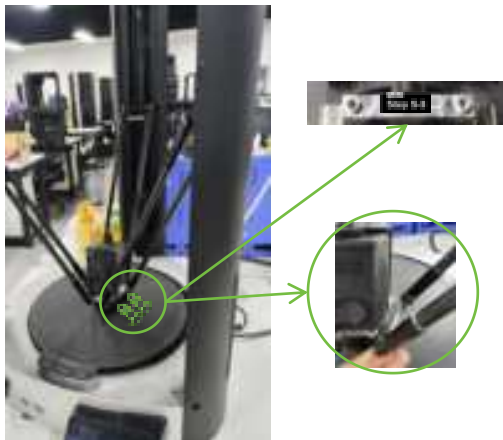
4



(Step 5-2)

Next, install the X-axis parallel arm. Tilt the ball-end connector of the arm slightly to align it with the suspension screw holes on the effector, then secure it with two M3×10 screws.

5



(Step 5-3)

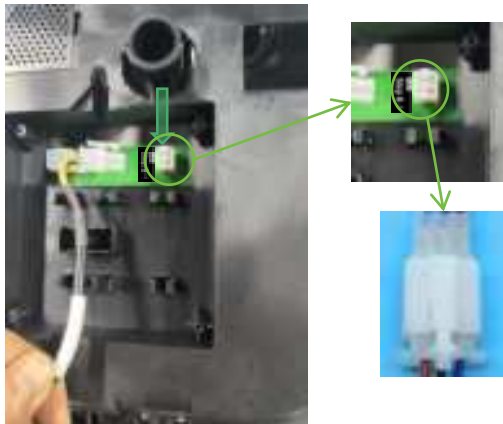
Finally, install the Y-axis parallel arm using the same procedure as for the X-axis.

1



Place the upper enclosure on the table and turn it over, then retrieve the effector wiring harness and five M3×8 self-tapping screws.

2



(Step 6-1)
Plug the end with the white connector into the corresponding socket on the upper enclosure.

3

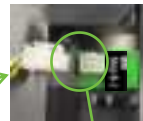


After inserting the connector, route the harness along the cable path shown in the illustration above.

4



(Step 6-2)
Insert the other end of the lower-chassis harness into the corresponding socket on the upper enclosure.



5



After inserting the connector, route the harness along the path shown in the illustration.

6



(Step 6-3)
Once the harness is routed, secure the cable-retention cover using five M3×8 screws.

1



(Step 7)

Stand the printer upright on the floor. Flip the upper enclosure—now wired—so that the front (the side with the alignment holes) faces forward. Align the enclosure's slots with the columns and press straight down until it seats fully. If a column obstructs the fit, gently pull the column outward before pressing the enclosure down again.

2



Retrieve the M5×16 screws. After the upper enclosure is in place, secure the X- and Y-axis columns with three screws each, and the Z-axis column with four M5×16 screws.

1



(Step 8-1)

Tuck the upper-to-lower chassis harness into the Z-axis cable channel. At the top, snap the harness into the retaining clip so that no slack remains; at the bottom, verify that the channel cover can close fully without interference.

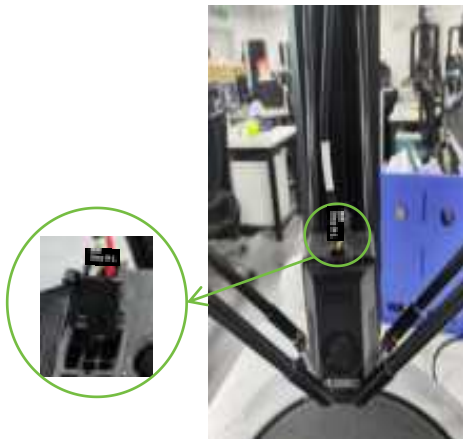
2



(Step 8-2)

Once the harness is fully seated in the channel, close it with the channel cover: align the cover top and bottom first, then tap gently until it snaps shut. Make sure no part of the harness is exposed during printing.

1



(Step 9-1)

Insert the other end of the effector harness into the effector connector exactly as shown in the illustration.

Note: Be absolutely sure the plug is oriented correctly—never force it in reversed.

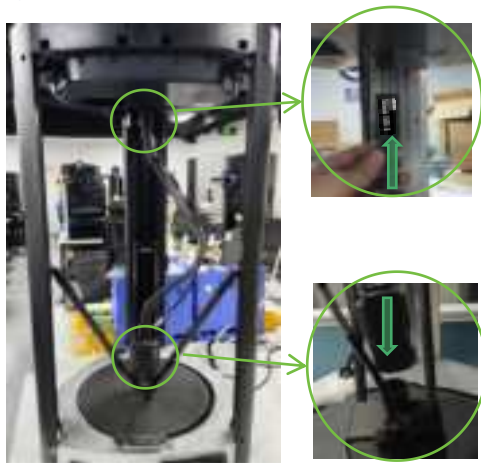
2



(Step 9-2)

After the connector is seated, secure the cable clip to the effector with two M2.6×6 self-tapping screws.

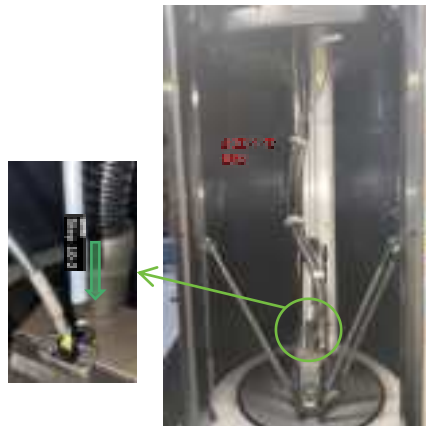
1



(Step 10-1)

Take the air duct and insert one end into the sealed port on the upper enclosure; insert the other end into the air inlet on the effector until fully seated.

2



(Step 10-2)

Insert the free end of the filament tube into the inlet on the effector. Once both the air duct and filament tube are connected, use the provided cable clips to secure the air duct, harness, and filament tube together as a bundle.

1



(Step 11-1)

Take the left side panel (the one without the filament holder) and three M3×16 self-tapping screws.

Note: Orient the panel so the upward-pointing arrow is at the top.

2



Align the panel's orange guideline with the top edge of the uprights. First seat one side of the panel, making sure it sits flush against the upright, then press the opposite side into place. After both sides are seated, check that the entire perimeter of the panel is free of gaps against the uprights (if a gap remains at the bottom, press the panel inward with your toe until the gap disappears).

3



Once the side panel is in place, press it downward so its top edge sits flush with the top surface of the uprights.

4



(Step 11-2)
Take the right-side panel (the one with the filament holder) and three M3×16 self-tapping screws, ensuring the upward-pointing arrow is at the top.

5



Install the right-hand side panel following the same procedure used for the left-hand panel.

6



After both side panels are fully seated, secure each panel with three M3×16 self-tapping screws.

1



(Step 12)

Remove the top cover of the upper enclosure. Orient it so the FLSUN logo faces forward—aligned with the chamber door—then press it into place.

2



After the top cover is seated, secure it with the provided screws, then snap the silicone caps over the screw holes.

1



(Step 13)

Retrieve the chamber door frame, the door, and six M3×15 screws. Position the door frame so the side with the locating tabs is at the top; the Flsun logo should appear in the lower-right corner.

2



Align the door-frame tabs with the recesses in the upper enclosure and push the frame inward until it seats fully. Check that the frame sits flush with the enclosure on all sides, with no visible gaps; if a gap appears at the bottom, press the side panel inward with your toe until the gap disappears.

3



After installation, press the door frame gently downward to ensure it sits flush with the printer on all sides with no visible gaps.

4



Once the frame is fully seated, secure it with six M3×15 screws.

5



After installation, the result should match the illustration shown.

1



The printer is factory-set for 230 V input. If your local mains supply is 115 V, manually switch the power-supply input to 115 V before turning the printer on for the first time.

After confirming all cables are properly connected, plug the supplied power cord into the printer and flip the rocker switch to ON to power up the machine.

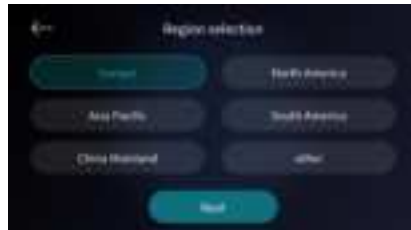
Note: Important: Before plugging in the power cord, press the rocker switch to ensure it is in the OFF position.

1



After powering on, select your language on the display and tap "Next."

2



Select your region as prompted and tap "Next."

3



Choose your Wi-Fi network, tap its name, and enter the password. To skip Wi-Fi setup, tap "Skip"; you can add or change networks later through the display.

4



After entering the password, press "Enter" to connect to the network.

5



Once the Ethernet cable is plugged in, the assigned Ethernet IP will appear; tap "Next."

6



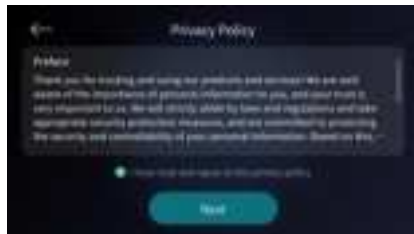
Download "FlsunWorld" from the App Store. After the printer is connected to the network, open the app and scan the on-screen QR code to bind the device, enabling full remote control.

7



Once the device is bound, tap "Next."

8



Follow the prompt, check the box to accept the privacy policy, then tap "Next."

9



The self-check consists of six sequential steps. Once started, it cannot be paused, canceled, or interrupted—other operations are disabled.

Note: Remove the camera cover before starting the self-check; otherwise, a false error may be reported.

10



When the self-check is complete, tap “Confirm” .

1



Extend the filament holder and mount the spool onto it.



2



Feed the filament through to the effector inlet until it enters the effector's filament tube.

3



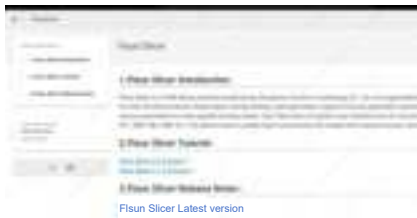
Tap  → . Once the nozzle reaches the set temperature, the printer will automatically feed the filament.

4



Wait until filament begins to extrude from the nozzle; loading is then complete.

1



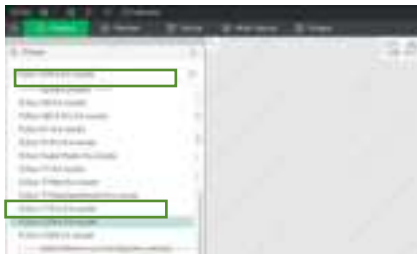
Download the latest version of Flsun Slicer directly from the official Flsun website:<https://flsun3d.com>.

2



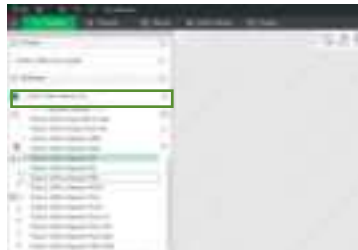
When installing the slicer, be sure to add the "Flsun V2 Pro" as the active printer profile.

3



After installing Flsun Slicer, select the "Flsun V2 Pro - 0.4 mm nozzle" device profile.

4



Select the filament type you intend to print with.

5



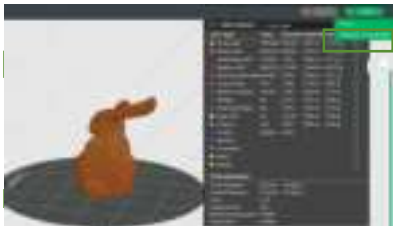
Use the slicer's "Add Model" tool to import the file you want to print.

6



Click "Slice Plate" to start slicing.

7



Once slicing is complete, you can either:

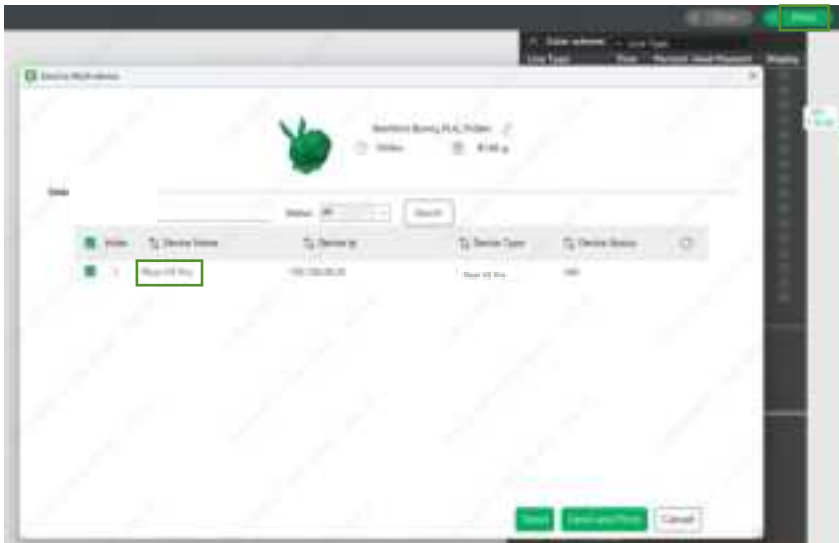
- Export the G-code to a USB drive for local printing, or
- Connect remotely via the printer's IP address for wireless printing.

8



Switch to the Device Details page, tap "Add Device," enter a name and the printer's IP address, then tap "Confirm" to add it.


9




When you click "Print," the printer(s) you have added will appear. Select the desired printer, tap "Send & Print," and printing will begin automatically once the G-code has been fully transferred.

Note: Clicking "Send" will only transfer the G-code file to the printer without starting the print.



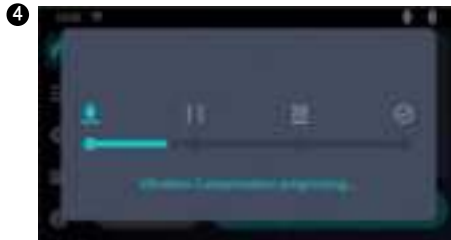
Insert the USB drive, then tap “ Printing” and select the model you wish to print.



Tap the selected model, then press “”.




Before starting the print, you can manually enable or disable Input Shaping, Bed Leveling, First-Layer Inspection, and Time-lapse Recording as needed. When ready, tap Start Print to begin.



If you selected any pre-print calibration, the printer will perform it before starting the actual print.



During printing, tap “-” or “+” to adjust the print speed. If, while printing the first layer, the nozzle appears too low or too high, tap “” and fine-tune the nozzle height in real time.



Tap “-” or “+” to adjust the nozzle height; when finished, tap “Back”.

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>

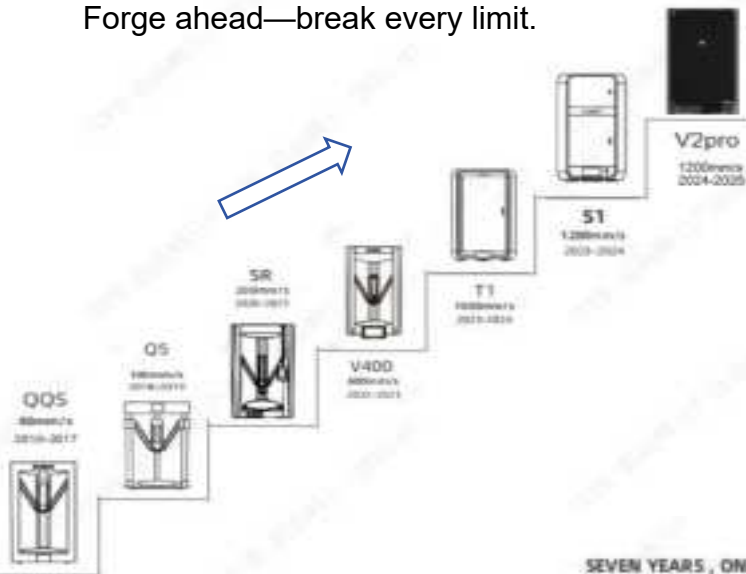
By scanning the QR code you can choose any channel to get the latest product updates and related news.



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

After-sales e-mail: service@flsun3d.com

Forge ahead—break every limit.



SEVEN YEARS, ONE FOCUS:
Ultra High-Speed 3d Printing

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.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: 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.
- 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 & your body.



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