

SoliFuse Channel Letter 3D Printing Solution

/ Channel Letter 3D Printers

/ 3D Letter Design Software

/ Signage 3D Printing Materials



Speed X Series

Channel letter 3D Printers



FormLetter

Channel Letter Design and 3D
Printing Software



PEA, PES

Dedicated 3D Printing Materials
for Channel Letters

Speed X Series

High Speed Channel Letter 3D Printers



31mm³ Extrusion Speed

With an extrusion speed of 31mm³/s, SoliFuse Speed X Series 3D printers boast an extrusion speed exceeding 160g/hour, unparalleled in the market as the fastest printing speed available.

Dual-Color Printing Capability

Innovatively designed with a two-in-one-out print head, Speed X Series enables you to print dual filaments (colors) seamlessly within a single channel letter or print task, offering unprecedented versatility.

Accurate Leveling

Prior to each print task, the printer automatically levels the build plate, guaranteeing a solid and smooth initial layer—a crucial prerequisite for achieving successful prints.

Filament Detection System

If the filament depletes during printing, the printer promptly pauses the printing process and awaits a manual loading of new filament, eliminating the waste of low surplus filament spools.

Sturdy Mechanical Framework

Constructed with heavy-duty linear guides and precision CNC-machined components, Speed X Series exhibits robust mechanical strength, ideal for serving as a production machine.

GENERAL		Speed X1	Speed X2	Speed X3
	Build Volume	600 × 600 × 120 mm 23.6 × 23.6 × 4.7 inches	900 × 900 × 120 mm 35.4 × 35.4 × 4.7 inches	1350 × 900 × 120 mm 53.15 × 35.4 × 4.7 inches
	Technology	FFF (Fused Filament Fabrication)		
	Feeding Method	Two filaments in, one nozzle out		
	Print Head	HES Technology (High extruding speed print head)		
	Nozzle Temperature	260° C / 500° F		
	Build Platform Temperature	80° C / 176° F		
	Layer Height	0.2, 0.3 mm		
	Leveling Method	Auto calibration		
	Build Platform	Removable glass platform		
HARDWARE				
	Data Transmission	SD card		
	Motion Controller	STM32		
	Motion System	57mm step motors motion system		
	Screen	12864 mono LCD screen		
	Filament Sensor	Yes (Automatically pause printing when the filament run out)		
POWER SUPPLY				
	Power Supply Input	110~130/200~230V AC, 50/60 Hz	200~230V AC, 50/60 Hz	200~230V AC, 50/60 Hz
	Power	1200W	1800W	2400W
FILAMENT				
	Filament Diameter	1.75mm		
	Filament Type	PLA, PETG filament		
	Third-party Filament	Available		
SOFTWARE				
	Software	FormLetter		
	Input Format	SVG		
	Output Format	GCODE, DXF		
	Operating System	Win 10		
PACKAGING				
	What's in the box	1. Speed X1 3D Printer ×1 2. Spool Holder Kit ×1 3. Removable Build Plate ×1 4. Starter Kit ×1		
	Printer Size	1080×950×850 mm 42.5 × 37.4 × 33.5 inches	1385×1250×850 mm 54.5 × 49.2 × 33.5 inches	1835×1250×850mm 72.4 × 49.2 × 33.5 inches
	Printer Weight	102kg / 225lbs	132kg / 291lbs	153kg / 337lbs
	Package Size	1140×1100×690 mm 45 × 43.3 × 27.2 inches	1440×1400×690 mm 56.7 × 55.2 × 27.2 inches	1890×1400×690mm 77.4 × 55.2 × 27.2 inches
	Package Weight	125kg / 275 lbs	166kg / 366 lbs	195kg / 430 lbs

The above information may change due to product upgrade iterations without prior notice.
The relevant interpretation right belongs to SoliFuse.

FormLetter

Design a 3D printing letter is as easy as building blocks. No 3D modeling skills needed.

Here is a general introduction about how to use our FormLetter software.

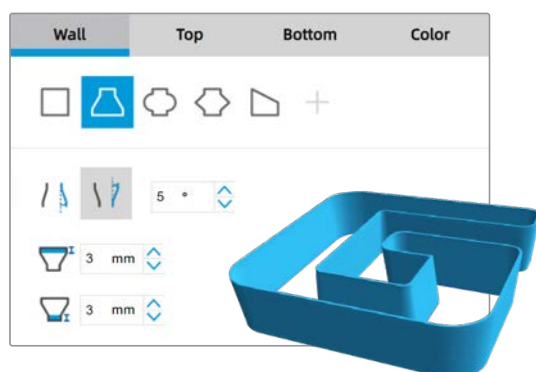


Step 01:

Import a SVG file or type in the software

FormLetter support SVG files exported from Illustrator, CorelDraw and Inkscape.

In FormLetter we also provide direct typing function which provides over 30 fonts for your choice.



Step 02:

Choose the wall style

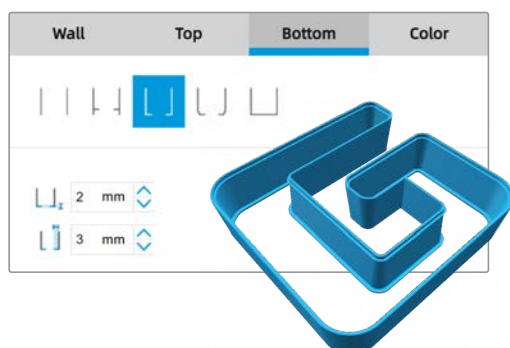
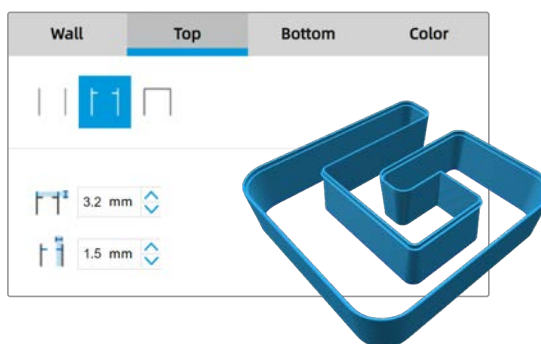
There are five built-in wall styles and total fifteen adjust options. You can also load your customized wall style SVG file to generate unique wall shape just for you.

There are endless possibilities for wall setting in formletter.

Step 03:

Set the top edge style

You can choose to generate a rib or not. The rib is for holding the acrylic panel.



Step 04:

Set the bottom edge style

We offer five built-in bottom edge styles for the bottom edge design, total nine adjust options.

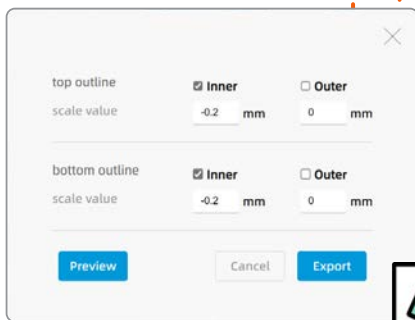
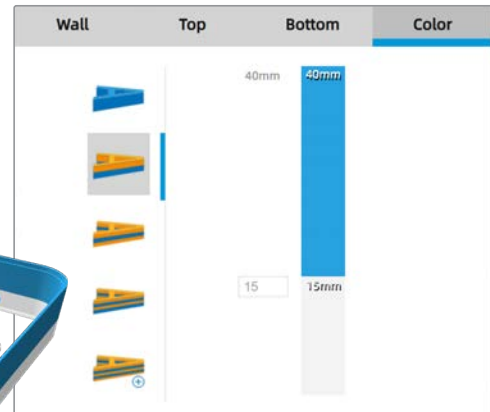
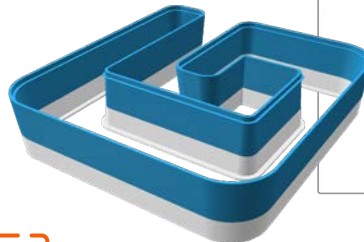
Step 05:

Color settings

SoliFuse 3D printer can print with dual colors in one letter or in one print task.

In FormLetter, you can choose to print the two colors in different height with different filament.

The light transmission properties of the 3D printing filament will help you to control the translucent area of the letter.



Step 06:

Export DXF format cutting paths

To cut the acrylic/foamed PVC panel to fit the letter, in FormLetter software we offered cutting path export features.

Four paths available

You can choose to export the top or bottom outlines of a letter, both inner and outer lines are available.

Set the fit clearance

Don't worry about the fit clearance, in FormLetter, you can set the scale value for each path. Both positive and negative values are available.



Process in Slicer

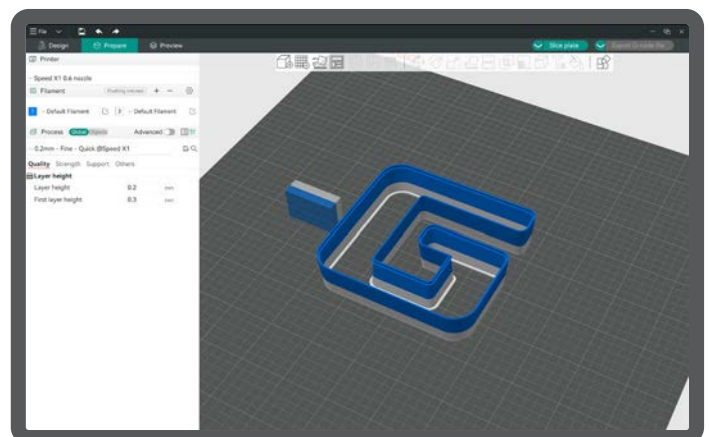
Hit the button to process the channel letter models in 3D printing slicer module.

Step 07:

Slice and Export the G-Code file

After choose the 3D printer model, set the filament type and 3D printing process presets, just click to slice and export the G-Code file for your 3D printer.

Now you are ready to 3D print the channel letter!

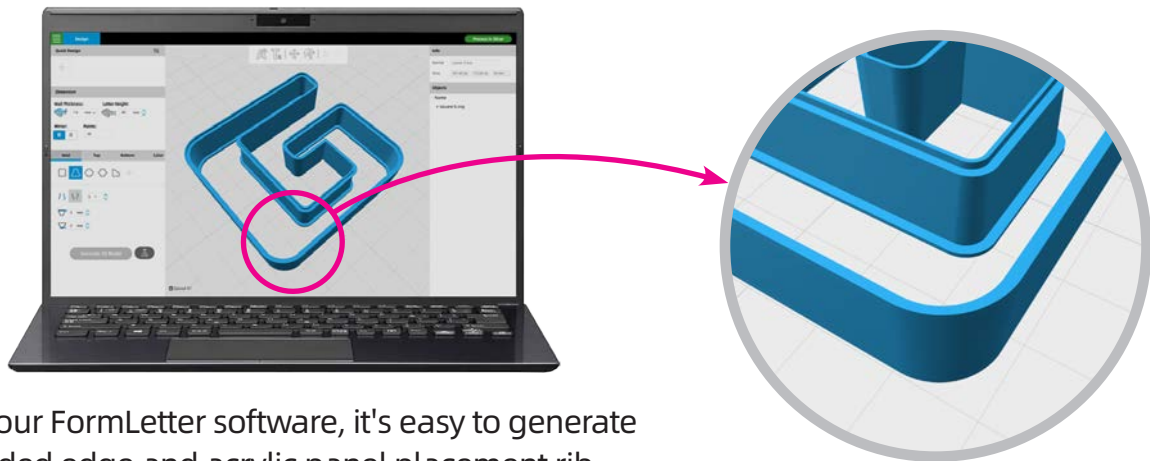


3D Printing Channel + Acrylic Panels

3D print the channels, assemble them with laser cutted or CNC milled acrylic panels.

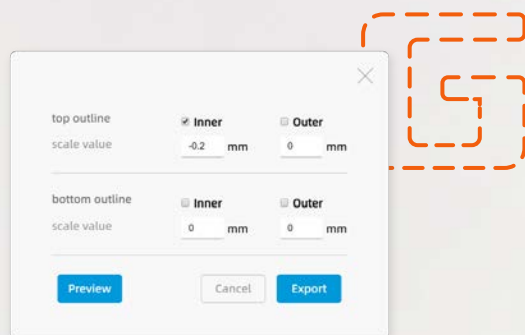


Generate ribs



In our FormLetter software, it's easy to generate folded edge and acrylic panel placement rib.

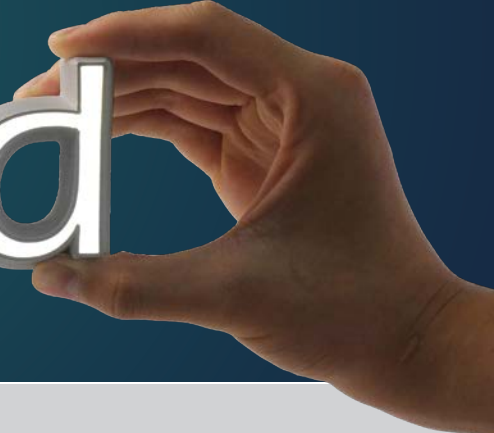
Export DXF format cutting path



In FormLetter software, you can export DXF cutting paths with accurate scale ratios, enabling precise cutting of both the face and the backing.

3D Printing Channel + Liquid Acrylic Face

Making thin typeface or intricate pattern signages will become your forte in business.



Speed



Mirror the letters, Generate a rib

Mirror the channels and 3D print them face down. Save your time for placing the channels on the glass.

Small letters, Thin typefaces, Complex patterns

Just pour the liquid acrylic into the 3D printed channels, leave all the issues related to complexity to our 3D printer.

Curing on the build plate

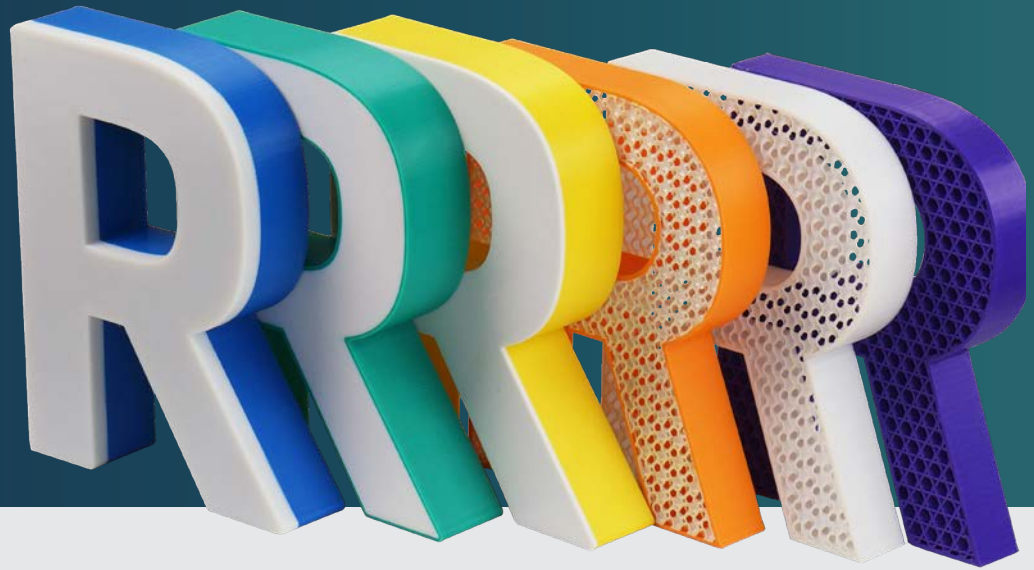
Put the build plate into a curing machine without removing the 3D printed channels on it.

Seamless workflow, simple and efficient.



3D Print the Channels and Face/Backing in One Piece

Not just 3D print the channel, you can also print the face or backing together with the channel, with various style combinations.



Face and Channel in one piece



Dual Colors Printing
Full Face Letters



Dual Colors and Single Color Printing
Diamond-Shining Face Letters

Backing and Channel in one piece

Get a ready-to-use backing and channel right out of the printer.



PEA Filament

PEA is a kind of PLA based alloy which is dedicated to indoor signage 3D printing. A lot of colors and textures available.

Indoor Only

PEA Series

PEA is a PLA-based 3D printing material specifically designed for channel letter 3D printing. It's easy to work with and ideal for fabricating indoor signage.

Translucent Series

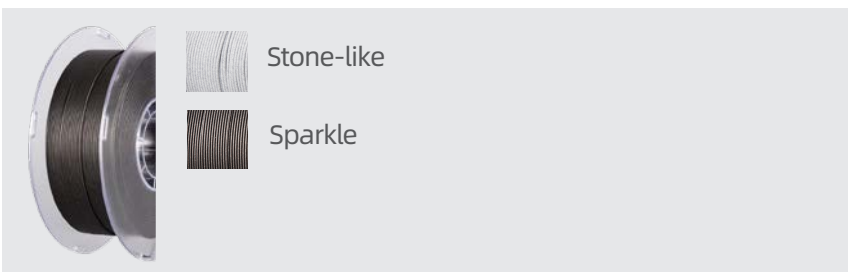
Glossy Series



Matte Series



Textured Series



Lighttight Series

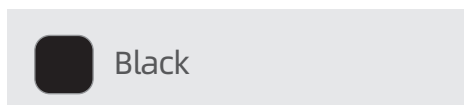
Glossy Series



Metal Series



Matte Series



PES Filament

PES is a kind of PETG based alloy for all-weather signage 3D printing.

75° C/167 °F heat deformation temperature, over five years of outdoor life span.

**Indoor
& Outdoor**

PES Series

PES is a PETG based plastic alloy dedicated to 3D printing channel letters in all weather environment.

Translucent Series

	White		Green		Dark Green
	Red		Blue		Lake Blue
	Orange		Yellow		Dark Yellow
	Cyan		Purple		Brown



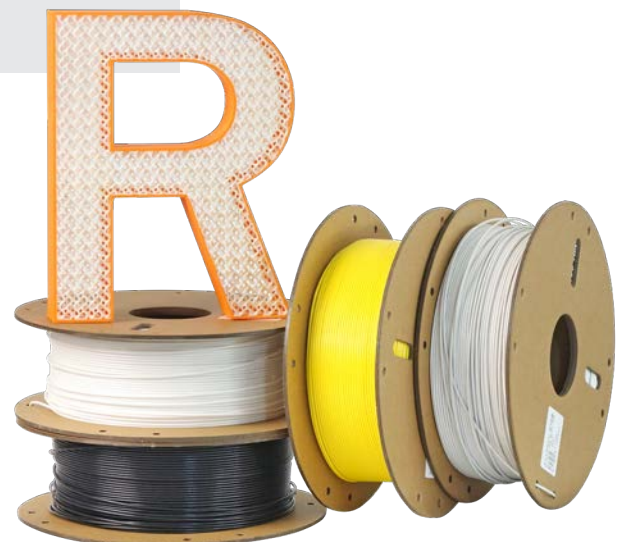
Weather Fastness



Heat-Resistant

Lighttight Series

	White
	Black



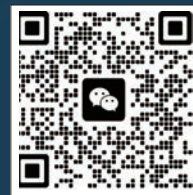
**From Manual
to Digital:
Redefining Channel Letter
with 3D Printing!**



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