

Prusa I3 M201 Firmware 1.0.0.

The new Prusa I3 M201 3D printer launched by Geeetech uses GTM32 motherboard and modified firmware, supporting blending color and gradient color printing.

In last version of firmware, users can custom blending printing effect. However, if users want to get gradient color effect, they can only choose from the 8 kinds of fixed templates which are preset in the firmware. In order to achieve more kinds of printing effects and more gradient styles, we add a practical feature to [Firmware1.0.0](#) so that users can customize gradient template. Thus we can set different gradient color effects according to the color scheme for different models.

In addition, in the previous firmware, there are occasional long pause problems during printing. This will cause the fused plastic piled up at one place, which will affect the appearance of printed part or even ruin the whole object. Therefore, we repaired the bug in version firmware1.0.0, and the printing quality will be greatly improvement.

I . Upgrade of Firmware 1.0.0

1.1 New added feature

1. Customizable gradient templates. Users can set custom parameters of Start Gradient Percent, End Gradient Percent, Start Height, and End Height.
2. During the printing process, as long as the actual temperature reaches the point which is 5°C lower than the preset temperature, the printer will start printing. It can not only ensure the printing temperature but also reduce the waiting time of printing.

1.2 Bug Repair

1. Modification of the default value of steps per mm. More accurate printing

dimension and improved printing quality.

2. The maximum temperature of the hotbed is limited to 110°C, which is more adaptable for printing with ABS material.
3. Solving the occasional long pause problem during the printing process. Long pause during the printing process will result in the printed part melted by the hot head and forming a defective appearance. Meanwhile the raised filament may cause movement dislocation of the extruder and result in the complete failure of printing in the end.

II. How to custom gradient template

Custom template allows user to set the parameters of gradient color printing. It provides six customizable templates for user to set and they are named as Custom conf 1 to Custom conf 6. User can set under the Mixer >Custom menu. Each template includes parameters of Start Gradient Percent, End Gradient Percent, Start Height, and End Height. perform a Store Memory to Save it when the setting is done.

Next i will show you how to set and use a customized template.

2.1 Parameters Setting Instructions:

1. All the settings are set based on Filament0 by default.
2. According to the work principle of Mixer, the sum feeding rate of Filament0 and Filament1 is 100%. After Filament0 is set, the system will automatically calculate the corresponding feeding rate of Filament1.
3. Start percent and end percent can be set at will. The sum of them is not always 100%. Users can adjust it according to their requirements.

E.g., you can set the start percent of Filament0 as 30% and the end percent 60%.

	Filament0	Filament1	Total
Start percent	30%	70%	100%
End percent	60%	40%	100%

Total	90%	110%	
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4. Start height and end height are print heights above the bed not the current printing height. Start height and end height must be greater than current printing height, otherwise they will be regarded as invalid. For example, current height is 40mm above the bed, but the start height in the template setting is 20mm and the end height is 30mm. It has overlapped part with current print height, so the system will automatically ignore this template and continue printing with the current template.

5. When one templates is finished, printing will continue with the feed rate percent that is fixed, without gradient effect, until you choose a new template.

2.2 Custom Template Setting

1 Open Mixer->Custom on LCD control panel:



Let's take custom 1 as example.



Here we set custom 1 conf as follows:

Start Percent: 30%

End Percent: 60%

Start Height: 0mm

End Height: 30mm



When the setting is done, please press Store memory to save it:



Similarly you can set other custom templates, for example, custom 2:

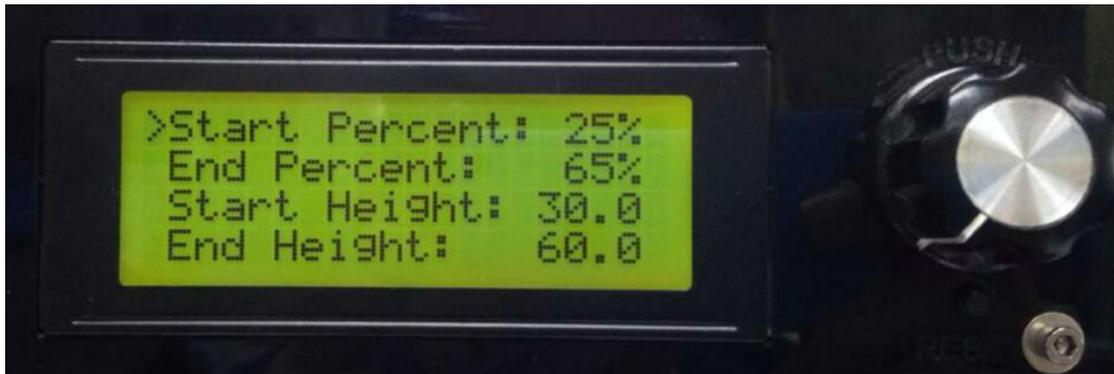
Start Percent: 60%

End Percent: 20%

Start Height: 30mm

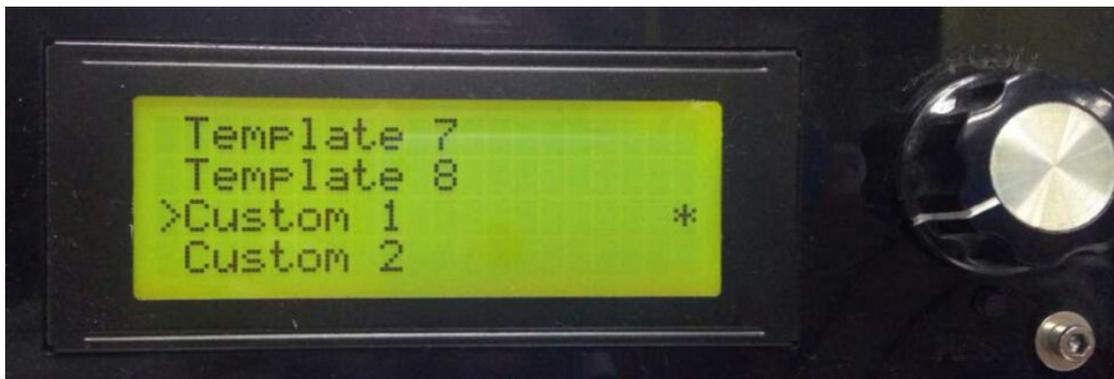
End Height: 60mm

(note, there is no overlapped height)



The templates which have been set can be found in Mixer->Templates.

You can change setting parameters at any time during the printing process. When the setting is done, you can start printing. Select the corresponding template in Mixer->Templates during the printing process.



Note: the“*” after the template means the current template you are choosing and using.

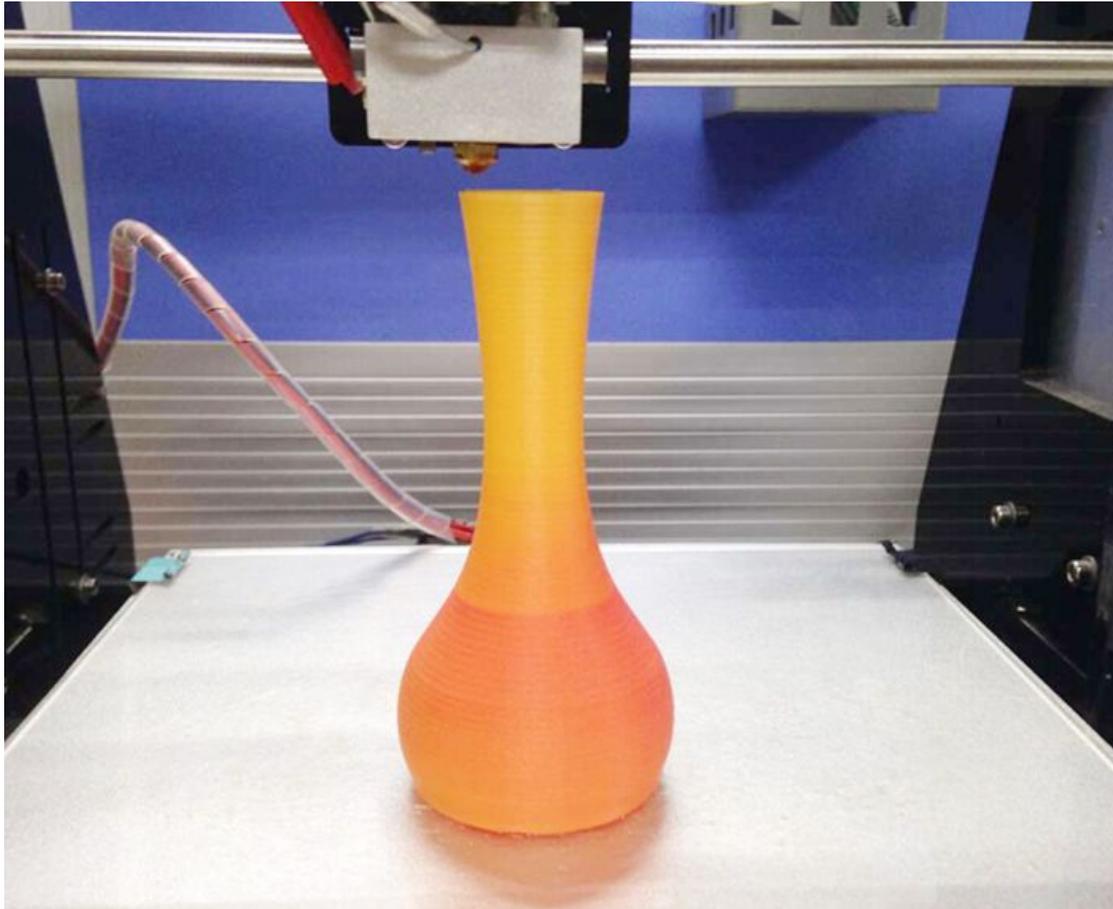
System will follow your last chosen operation by default.

III. Printing Effect Demonstration

The following picture shows the printing effect after the combination of Custom1 and Custom2.

Filament 0: red;

Filament 1: yellow



Download the Firmware [here](#)

[Here](#) is the Instructions for how to upload firmware to STM32 control board..