

3D PRINTING AND DESIGN REFERENCE DOCUMENT

Document Title:	K1/K1C/K1 MAX extruder current reduction
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REVISION HISTORY

Revision	Details of Modification(s)	Reason for modification	Date	By
0	Draft release	How to reduce extruder motor current on K1 printers	2024/06/17 09:42	jattie

K1 Motor Current reduction

The Creality K1 printers¹⁾ are overheating the extruder motors because the motor current are by default too high causing excessive motor heat during long print jobs.

In order to access the extruder motor current parameters you need to have a rooted setup. The most comprehensive easy to use method to get this set up can be found here: [enable root access](#)

Last update: 2024/10/15 05_creativity_k1:01_reduce_extruder_current http://www.3dfaqa.net/05_creativity_k1/01_reduce_extruder_current 12:17

The screenshot shows a web-based file manager interface for a K1 MAX printer. The top bar includes a 'Sign in' button, a 'New tab' button, and several tabs. Below the top bar is a navigation bar with icons for back, forward, and search, followed by the URL 'creality.local/#/configure'. The main area is titled 'K1 MAX' and contains a sidebar with various icons. The central part is a table titled 'Configuration Files' with columns for Name, Modified, and Size. The 'printer.cfg' file is highlighted in yellow, indicating it is selected.

	Name	Modified	Size
	Helper-Script	2024-05-21 15:16	4.0 kB
	printer.cfg	2024-06-12 22:10	9.3 kB
	printer-20240612_221004.cfg	2024-06-12 21:42	9.3 kB
	printer-20240612_214228.cfg	2024-06-10 15:34	9.3 kB
	.moonraker.conf.bkp	2024-06-02 14:57	1.1 kB
	moonraker.conf	2024-06-02 14:57	2.8 kB
	printer-20240610_153448.cfg	2024-05-26 16:03	9.3 kB
	gcode_macro.cfg	2024-05-21 16:58	25.5 kB
	printer-20240521_204503.cfg	2024-05-21 16:55	9.3 kB
	custom_macro.cfg	2024-05-21 15:51	0.2 kB
	printer-20240521_165502.cfg	2024-05-21 15:45	9.3 kB
	sensorless.cfg	2024-05-09 12:11	5.8 kB
	printer_params.cfg	2024-05-09 12:11	0.5 kB

In the Klipper environment select the config menu {} on the left and select the printer.cfg file.

```
X print... DEVICES CO
179 [extruder]
200
201     View 'tmc2209' documentation
202     [tmc2209 extruder]
203     uart_pin: nozzle_mcu:PB11
204     tx_pin: nozzle_mcu:PB10
205     uart_address: 3
206     #run_current: 0.55
207     run_current: 0.4
208     sense_resistor: 0.150
209     stealthchop_threshold: 0
210     # driver_IHOLDDELAY: 8
211     # driver_TPOWERDOWN: 20
212     # driver_TBL: 2
213     # driver_TOFF: 3
214     # driver_HEND: 0
215     # driver_HSTRT: 5
216
```

Edit line 205 to look like line 206. Select save and restart.

The extruder motor current is now reduced and the motor should run substantially cooler.

¹⁾

<https://3dprintbeginner.com/creality-k1-review-corexy-for-tinkerers/>

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