Firmware modification of Prusa SL1 3D Printer

✓ Bachelor- / Studien- / Masterarbeit / HiWi

3D printing of new, highly sophisticated piezoelectric composites can be done with commercially available machines. However, for the highest performance and flexibility, additional equipment must be added to the printer together with additional functions to the printer. For this reason the firmware of the printer must be updated accordingly.

It is believed that the firmware is based on Linux, however further investigation is required. The code of the firmware is available as open-source. Fully working 3D printer is available for firmware testing. Firmware comes with all explanation and instructions.

Keywords: Linux, Gentoo, programming, firmware, 3D printing, high-tech manufacturing

Tasks:

⇒ Investigation of possibilities to modify the firmware
⇒ Understanding the capabilities and limitations of the firmware
⇒ Modification of the firmware to add additional functions

Additional information:

⇒ Multiple works on same topic possible (e.g. Studienarbeit + Masterarbeit)

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