creality cr-10 v2 3d printer

i have just recently bouth this printer. the v2 features dual z drives and silet stepper controllers among some other upgrades compared to the first generation. it has a huge (30x30x40cm) build volume and after waiting for a month to get it from china i found out, it can be purchased in switzerland for the same price! check out www.bastelgarage.ch which i sadly found too late.

the printer currently (april 2020) costs about 530 CHF including taxes. a must have addon in my opinon is auto bed leveling which can be purhcased as a kit containing an original BL-Touch sensor. the kit comes with all the cables and brackets and is easy and quick to install. the additional cable can be routhed through the existing cable hose going from the hotend back to the extruder which makes it look very original. by the way, why the heck isn't this orignal? to me a 3d printer without auto bed leveling is like a car without cruise control. I've spent another 65 CHF on that kit. so now the printer already costs roughly 600 CHF.. Compare this to an original Prusa MK3s which i have just purchased and built for the compnay I work for, i have to say that the overall print quality of the Prusa and all the nice features that make 3d pringing very close to the simple experiance of 2d printing are worth the extra mony by far in my eyes. the only downside of the prusa is the lower build volume, which was the reason why i got the creality cr 10 for me privately. however, if you don't need the build volume, go for the prusa, you won't regret it! (i actually slightly regret spending my money ont he cr10 as i droppe the project i needed the build volume for.. but i will find a new project that can not be printed on a smaller printer ;))

on this page i will list the mods i have done to my printer so far besides the bl-touch, mainly for me to document it in case i need to go over it again but also for others who what to try the same stuff themselves.

Octoprint

it's the first time I've tried octoprint and i quite like it. it's running on a rapsberry pi 3 B which i had laying around. I have installed the Firmware Update plug-in to upgrade the firmware for the BL-Touch mod. after installing the plug-in you need to configure it. you first need to login to the ssh shell and install avrdude

```
sudo apt install avrdude
```

and then select it from the drop-down in the properties of the plug-in. the path is `/usr/bin/avrdude` and the chip on my creality v 2.5.1 board is an `Atmega 2560`, the programmer-type is `wiring`

with this set, you can select your file and flash your printer remotely thrugh your web-browser.. quite awesome.

in prusa slicer, you can enter the ip address of your octoprint and once this is configured, it will automatically allow you to start printing directly out of the slicer without any further file saving or such.

for cura, there is an ocotprint plugin that needs to be installed first, after that it can be configured

using the api key and once this is done, you can print directly out of cura as well.

spool holder

the spool holder on the external power supply and controller box is just hidious.. actually the entire box is, but the spoolholder makes it worse because the box does not have rubber feet and if the filamet overlaps slightly on the spool it starts pulling the controller to the printer and create all sorts of troubles.

there is a very simple solution to that: mount the spool holder on top of the printer, prusa style. i've downloaded and printed this adapter, you will need to t-nuts and two matching screws.

controller and power supply housing

i haven't done this yet, but i really hate the external power supply / controller box. it makes it even more a hassle to move the printer around and it looks ugly. i am planing on making a new printable housing that can fit underneath the build plate onto the frame of the printer.. there is plenty of space there.. much like the tevo nereus does it. the case should also include some space for the raspberry pi for running octoprint..