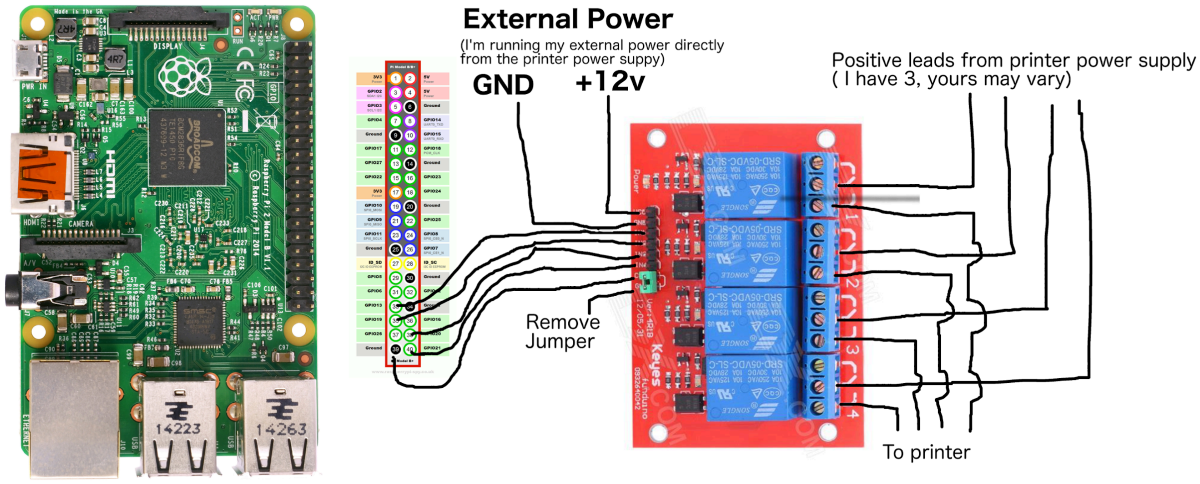
Wire the positive leads from the printer through the relays and connect the relay board to the raspberry pi.



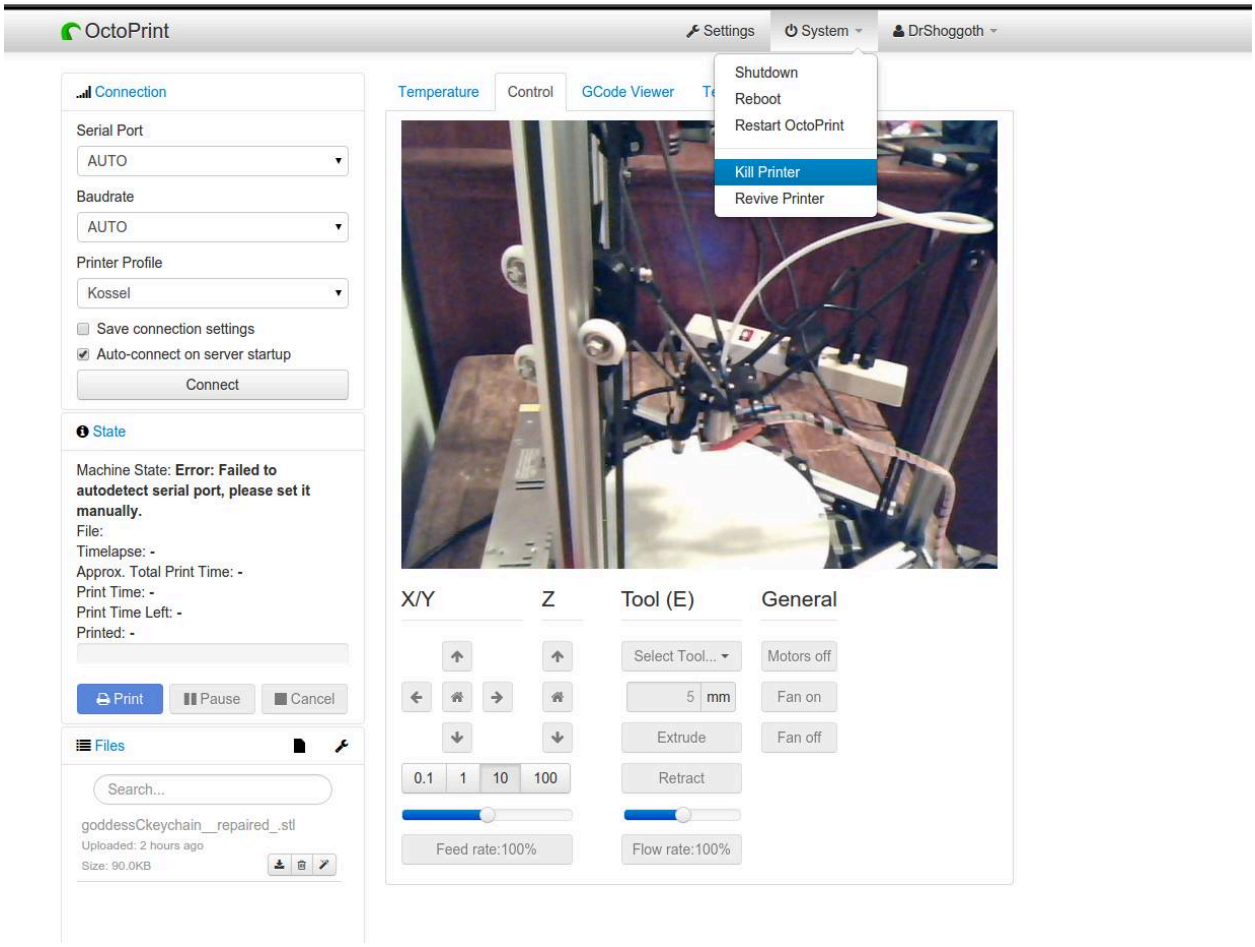
If you use different gpio pins edit the printer_power script and change them there.

Put a copy of the printer_power script and the compiled hub-ctrl into /usr/sbin and chmod +x them. Then in /etc/rc.local add the line 'printer_power init'. That will initialize the gpio pins and set the power to the default state which is currently on.
If you want to initialize the printer powered off edit printer_power and change the default_power_state to 0.

Usage is simple:
$ sudo printer_power init #only needs to be run once at startup
$ sudo printer_power on # turns on all relays and usb
$ sudo printer_power off # turns off all relays and usb

Right now the script only powers off one usb port, the one at the bottom right of the four if you are looking straight into them. Change the usb_port variable in the script to use a different port.

For octoprint I used the "System Command Editor" plugin to add menu items to power the printer on and off.
http://plugins.octoprint.org/plugins/systemcommandeditor/
The commands are simply the ones listed above.



Hub ctrl:
https://github.com/codazoda/hub-ctrl.c

This is the board I used:
http://www.dx.com/p/arduino-compatible-4-channel-relay-shield-module-144762#.Vk4LY66rTdQ

printer_power shell script:

https://gist.github.com/jeremy-brenner/b9dc692ea3a283e92958