Tasks for Prince Version 1

1. Practice manual control of power supply from the PC using SCPI commands
2. Create an algorithm for the power supply for the RIAA amplifier PCB

* Implement it first manually and then with LabVIEW
* Find the correct COM port automatically
* Verify that you are using the correct device
* Set the voltage, current limit and activate the output
* Read the actual voltage and current and deactivate the power supply output in case of a problem
* Return Success/Failure information and possible error message
* For the thesis create a flowchart of the algorithm
* Test the algorithm with resistors

1. Check whether RIAA amplifier output channels are distorted

* Connect Tektronix oscilloscope to LabVIEW
* Read a few sinewave cycles to the VI and show them in the front panel
* Use a VI to calculate the distortion of the channel output. Use THD. Distortion < 1%
* Return Success/Failure information and possible error message
* Study FFT for the thesis background information.
* You could compare the different FFT VIs in LabVIEW

1. Test all the RIAA amplifier PCBs

* Mark an identifier on the PCB with a marker PEN, RIAA1-…
* Create a table with information whether the PCB is faulty or not
  + Both channels ok, left channel ok, right channel ok
  + Try to figure out what is wrong with the faulty PCBs, Maria can give examples of the intentional faults
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