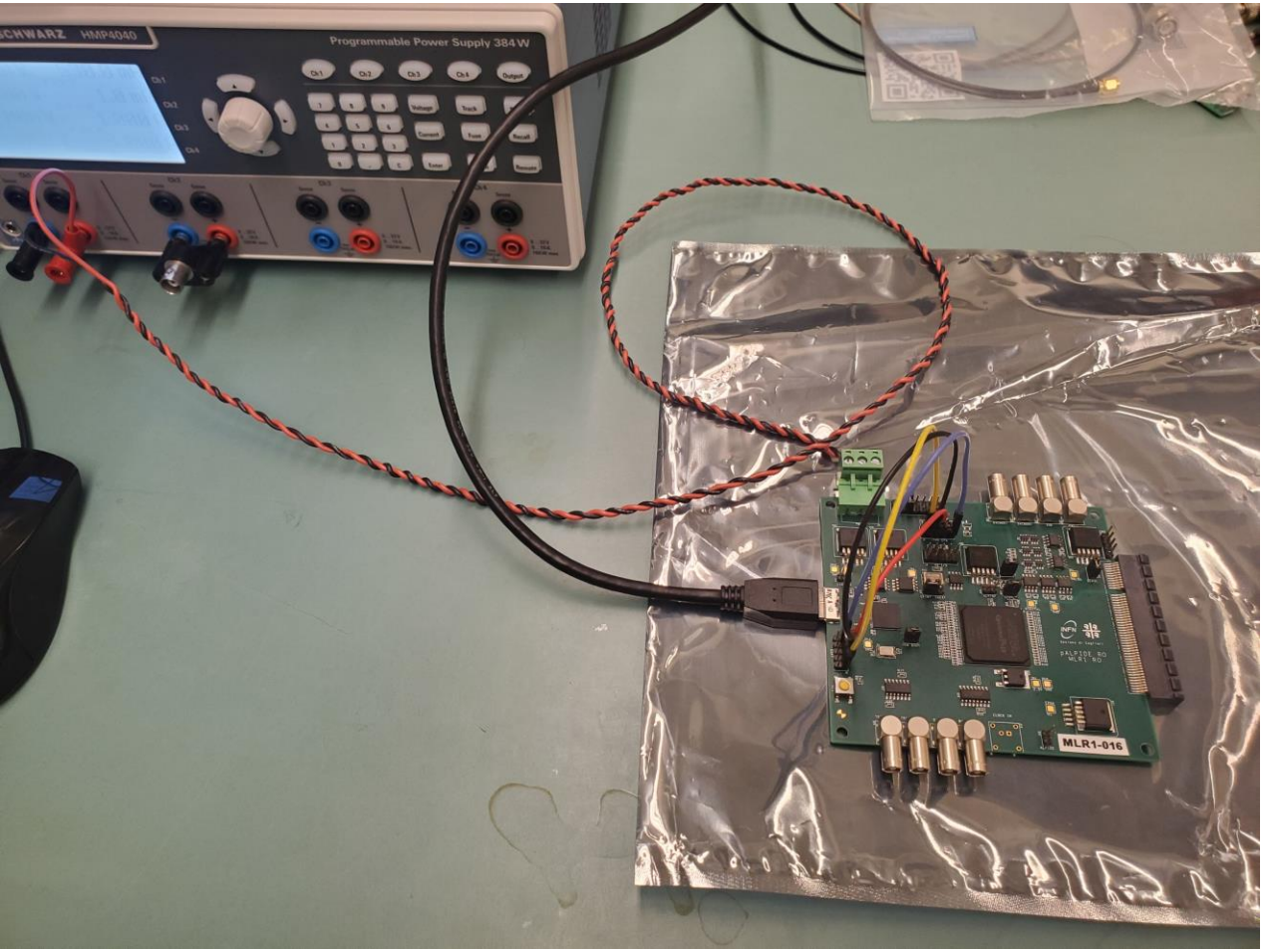
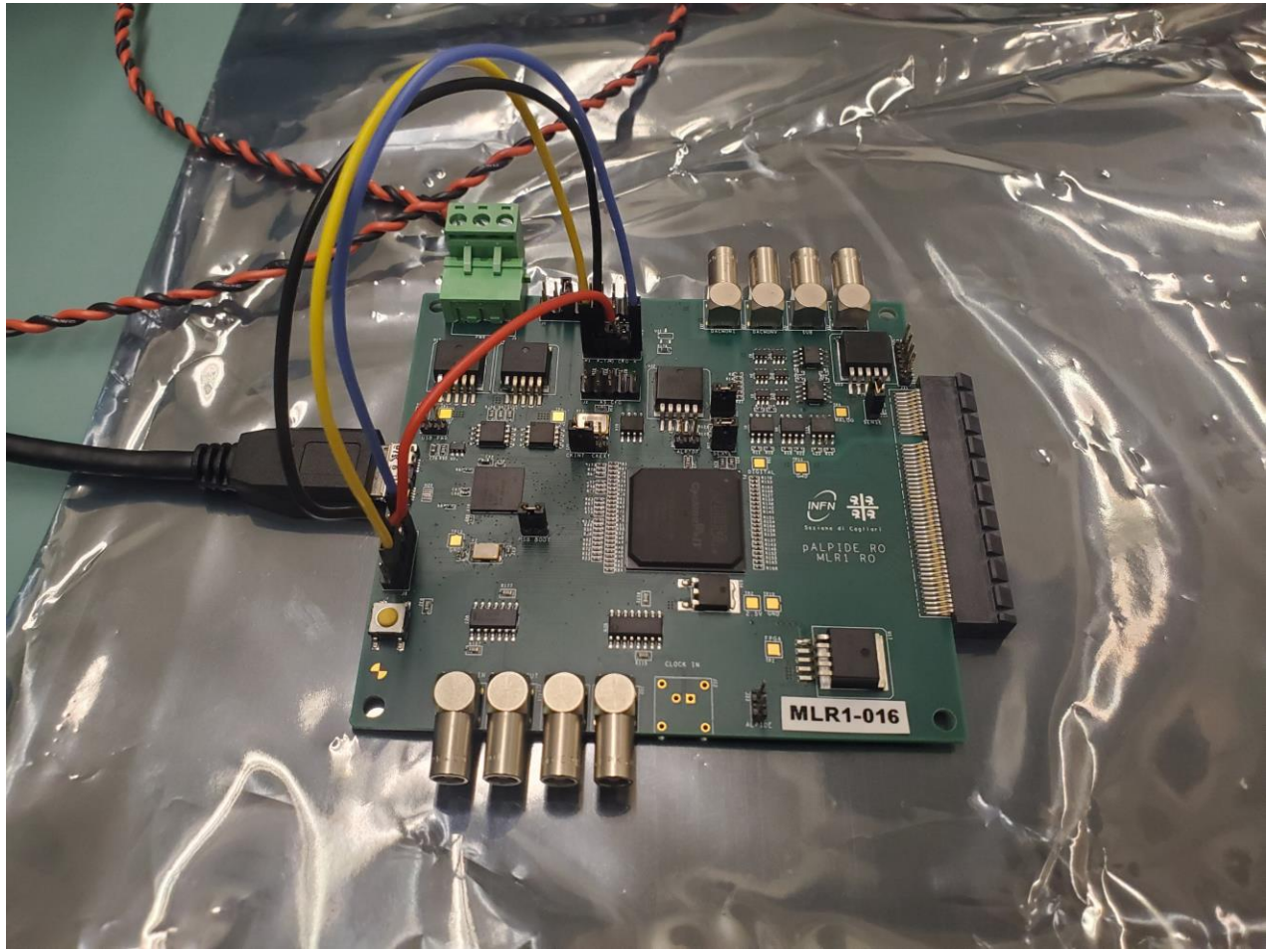
MLR1 + DPTS update

Barak Schmookler

Connecting the MLR1 board

Set power supply to 5V and 530mA max current.
Readback current is about 400mA when board was powered up and programmed. (No DPTS card connected.)





Programming the MLR1 board

```
lbl268a@lbl268a-K30AD-M31AD-M51AD:~$ mlr1-daq-program --list
1 device(s) with unprogrammed FX3 firmware found:
- DAQ-000901010542272A (bus: 3, address 13)
lbl268a@lbl268a-K30AD-M31AD-M51AD:~$ mlr1-daq-program --fx3=/home/lbl268a/Documents/mlr1/firmware/fx3.img --fpga=/home/lbl268a/Doc
uments/mlr1/firmware/0x107E6513.bit
Programming FX3(s): ['DAQ-000901010542272A'] ...DONE
Waiting for re-enumeration...
  DAQ-000901010542272A: DONEALL DONE
Programming FPGA(s)...
DAQ-000901010542272A: 100%|                                                                                | 1191814/1191814 [00:12<00:00, 92517.13it/s]
FPGA programming DONE
lbl268a@lbl268a-K30AD-M31AD-M51AD:~$ python3
Python 3.10.6 (main, Mar 10 2023, 10:55:28) [GCC 11.3.0] on linux
Type "help", "copyright", "credits" or "license" for more information.
>>> import mlr1daqboard
>>> daq = mlr1daqboard.MLR1DAQBoard()
>>> print(daq.read_fw_version())
0x107E6513
>>> exit()
lbl268a@lbl268a-K30AD-M31AD-M51AD:~$ mlr1-daq-program --list
1 device(s) with programmed FX3 firmware found:
- DAQ-000901010542272A (bus: 3, address 14)
```

Next steps

- We plan to connect the DPTS carrier card and proximity card this week. We have all the connectors needed to do this.
- We will then test the shift register and perform the threshold and fake hit rate scan.
- Then we can try to tackle one of the items on the DPTS task list?
- Peng and I can also test the other DAQ boards using the procedure on the last slide.