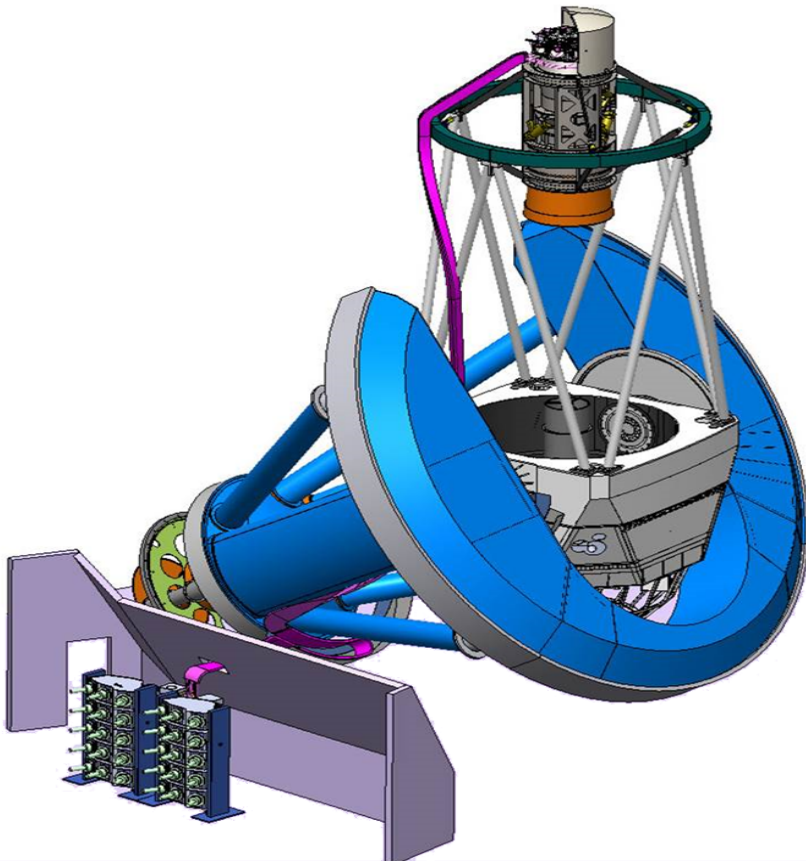


DESI *in-situ* Calibration System status

Sonia Karkar (IN2P3/LPNHE)

Laurent Le Guillou (Sorbonne Univ./LPNHE)

*Spectrograph Telecon
Jun 5th, 2018*

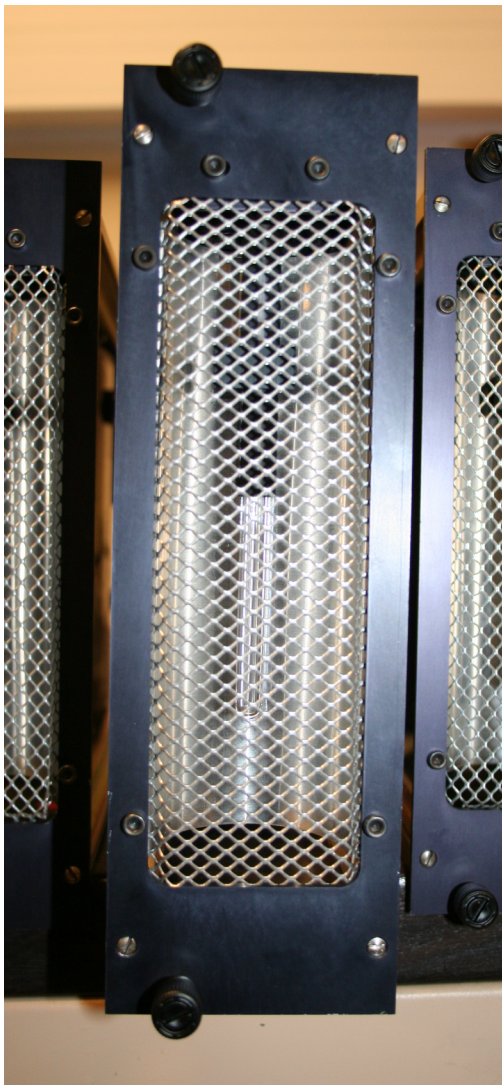


Talk outline

- **Assemble**
- **Ship**
- **Unpack**
- **Fisrt check**
- **Interface with ICS**
- **Interface with the ring**
- **Ongoing at LPNHE**
- **Cooming up Next**



Assembly in LPNHE



Prepare shipping at LPNHE



Dark Energy Spectroscopic Instrument



Prepare shipping at LPNHE



Dark Energy Spectroscopic Instrument

Trust DHL

- Send to NOAO
- NOAO will take it to Kitt Peak



Received at the Mayall (via NOAO)



Dark Energy Spectroscopic Instrument

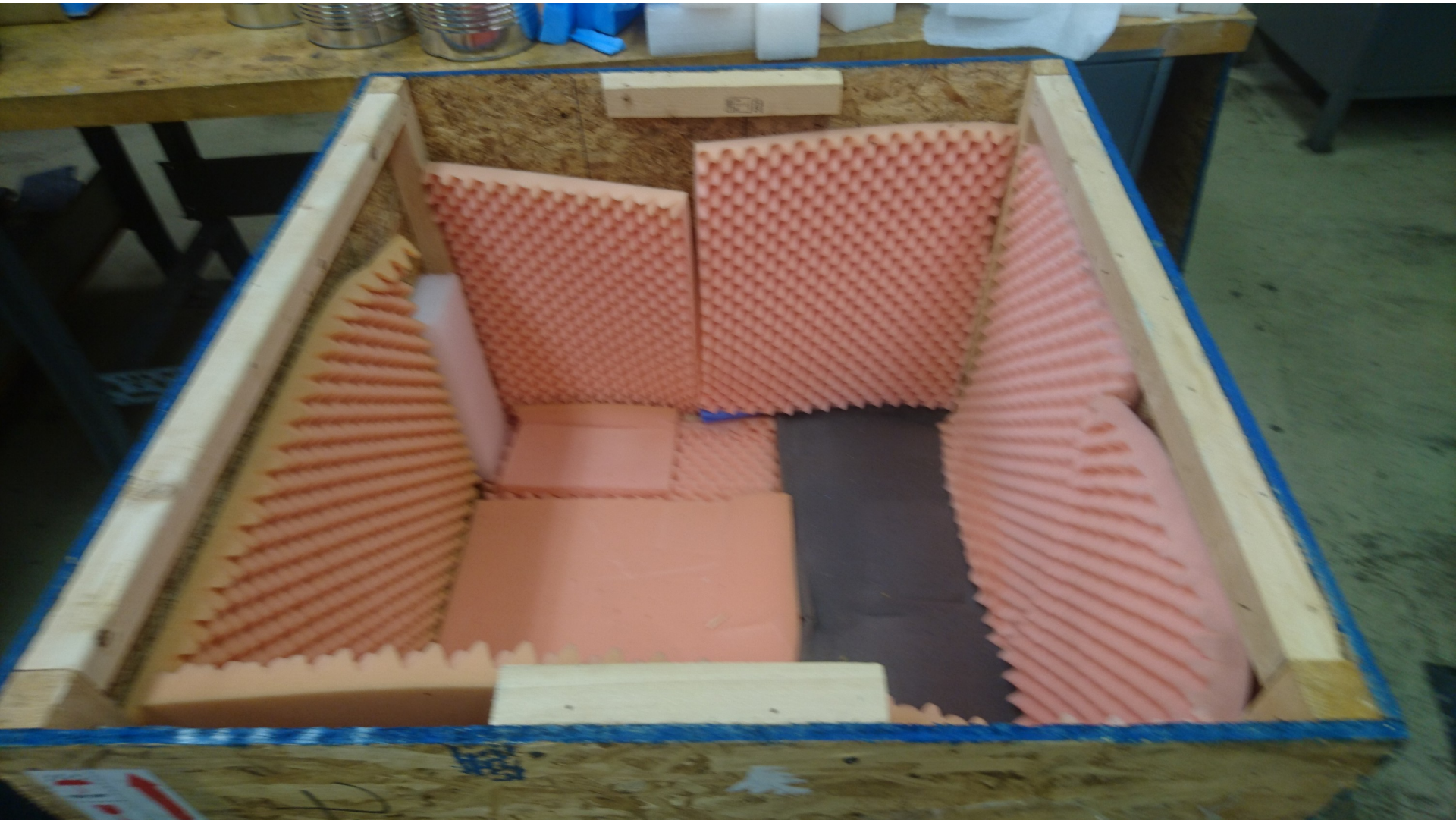
Unpack



Unpack



Unpack



Unpack



First check

Lamps are still working !



First check

Video showing the 4 lamps turning ON one after the other



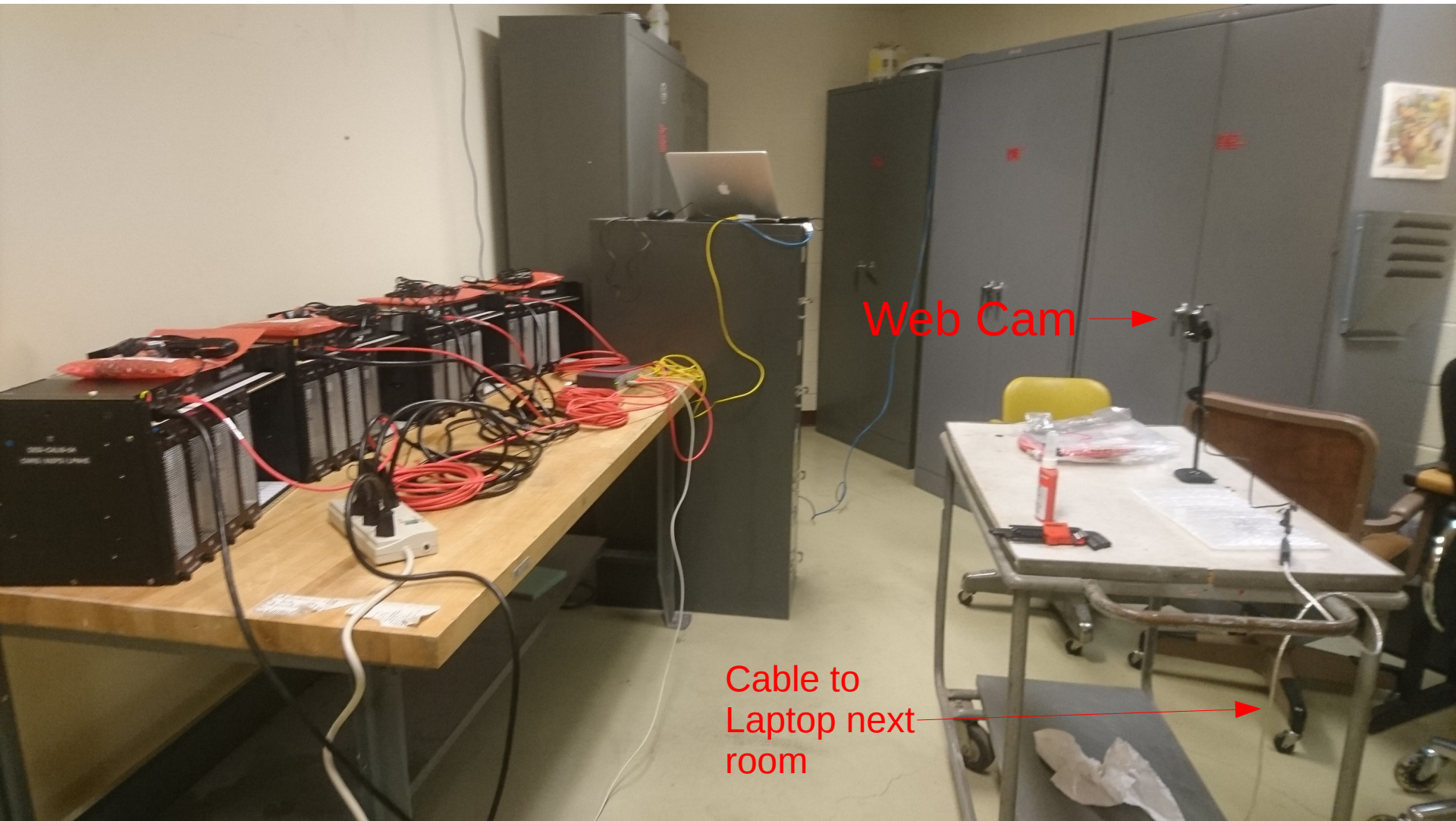
Interface with ICS



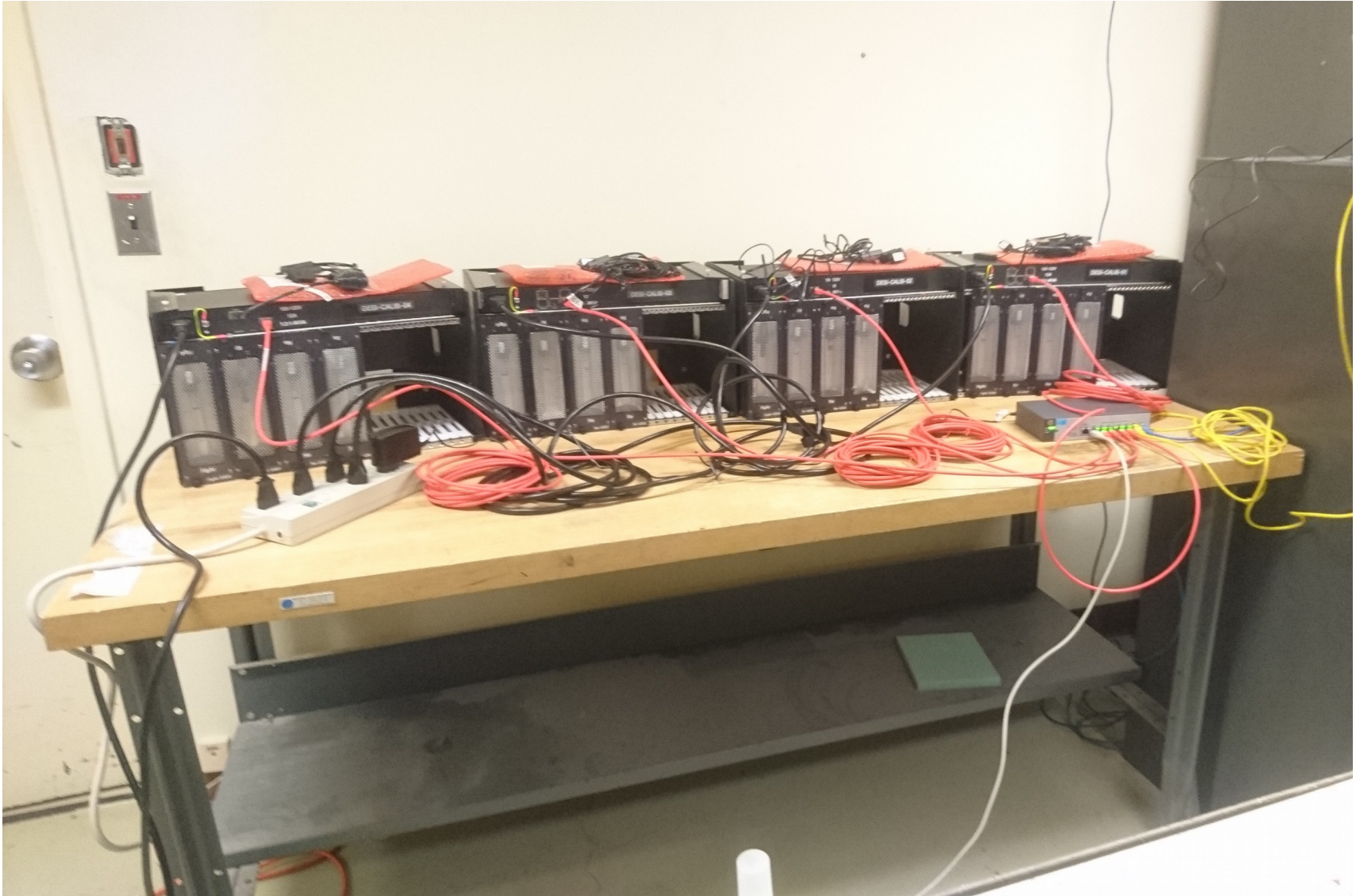
- Klaus and Ann were at the Mayall to install the ICS and Co on the newly received computers
- This gave us the opportunity to try to control the calibration boxes with the ICS



Interface with ICS : setup



Interface with ICS



Interface with ICS: HGAr ON



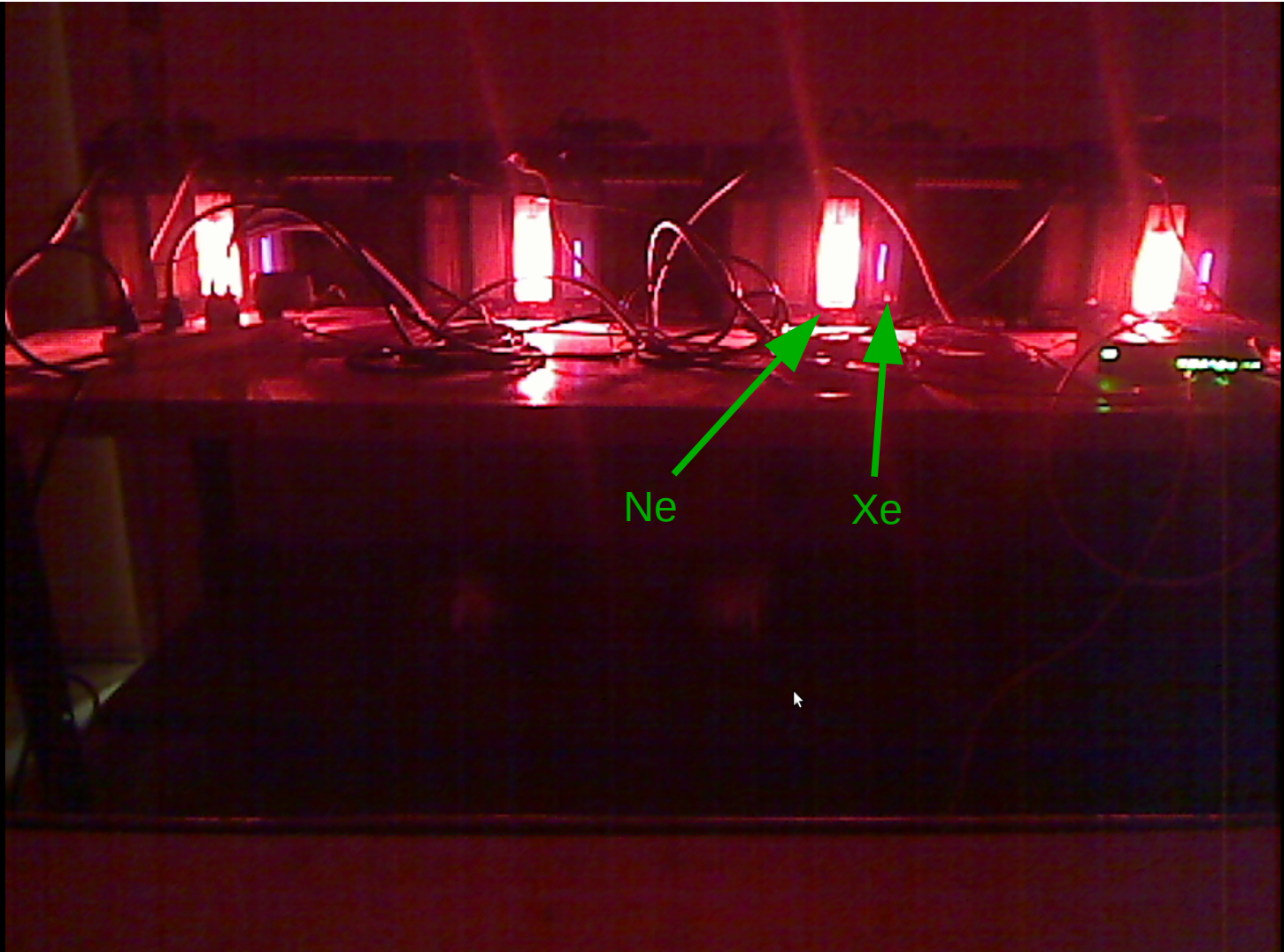
Network switch to DESI Network
(will NOT be on the ring !)



Interface with ICS : Kr ON



Interface with ICS : Ne and Xe



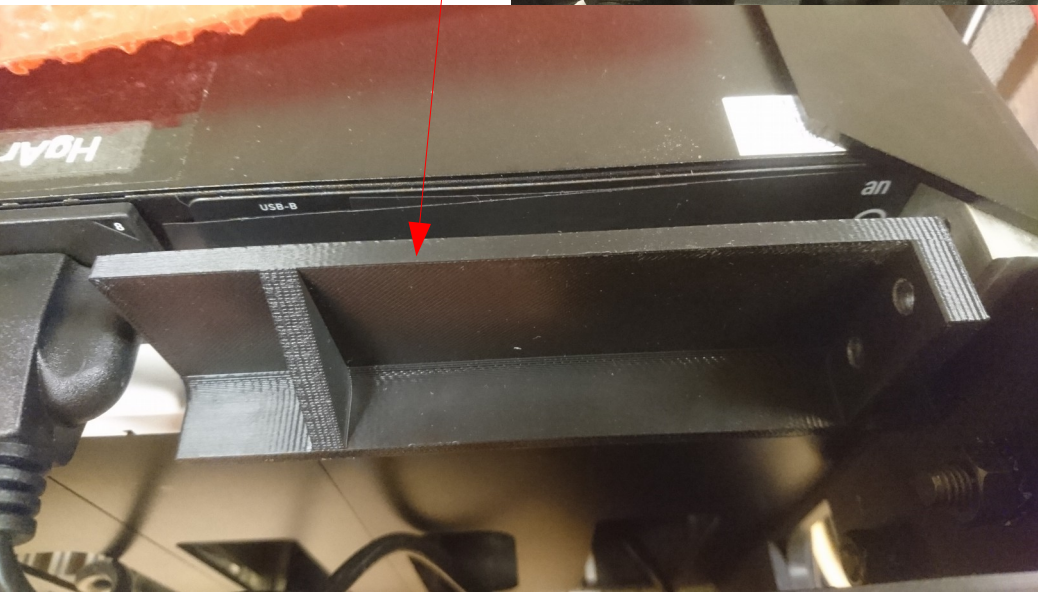
Interface with ICS

- Give their DESI ip adress to each PDU
 - Learn what to do if PDU network goes wrong : use consol serial link
- After some ajustement of ICS Control ON/OFF works
- Read back lamps state to display in the GUI works
- Read sensors works too

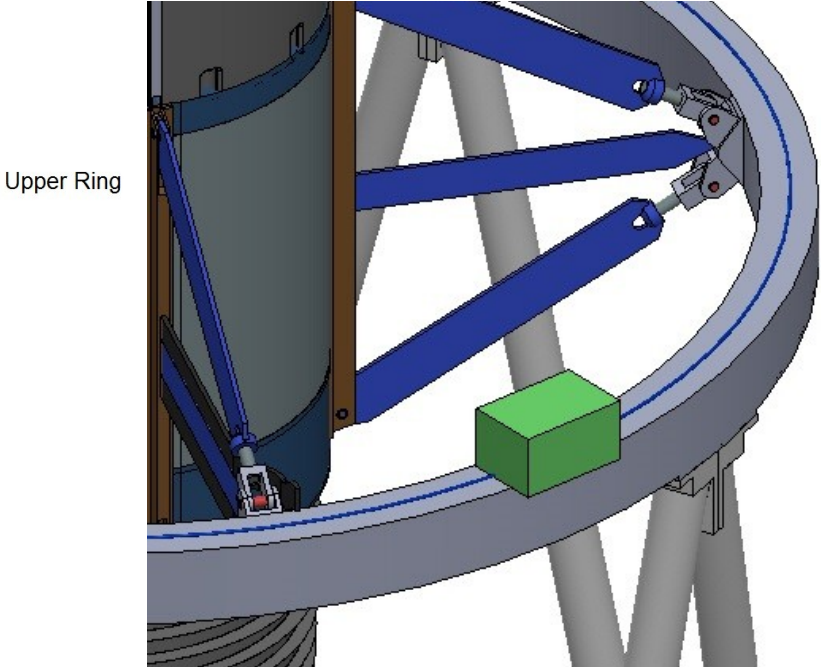
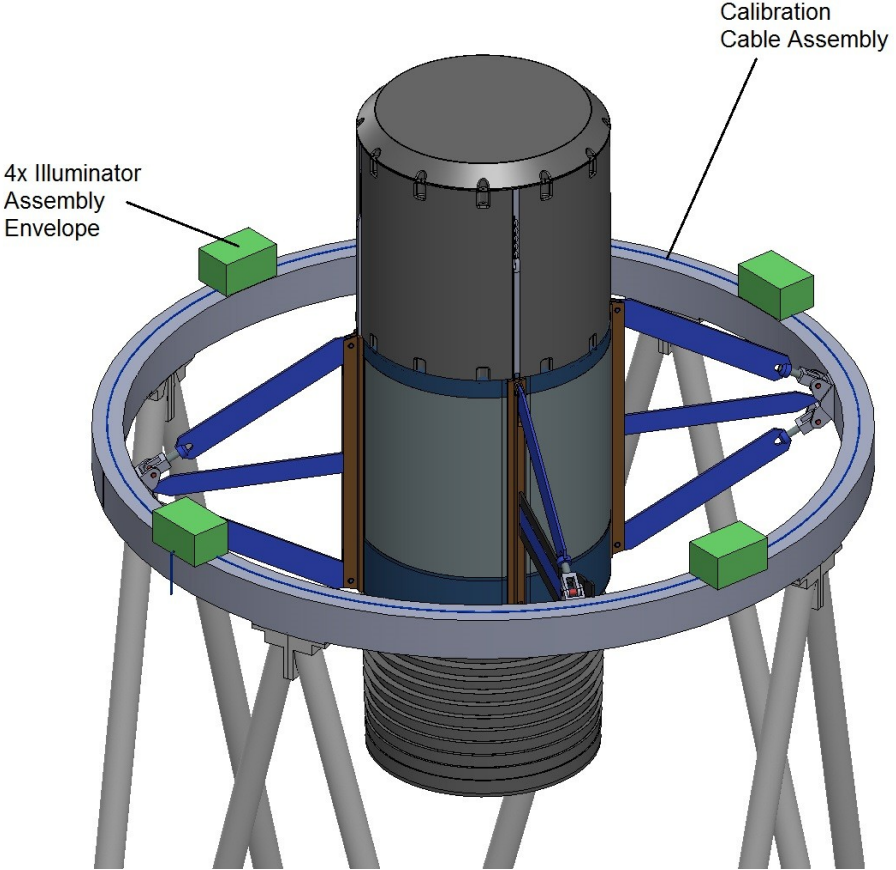


Interface with ICS

Homework at LPNHE :
3D print new black plastic covers with a hole for the serial console link



Interface with the ring



Interface with the ring



Interface with the ring

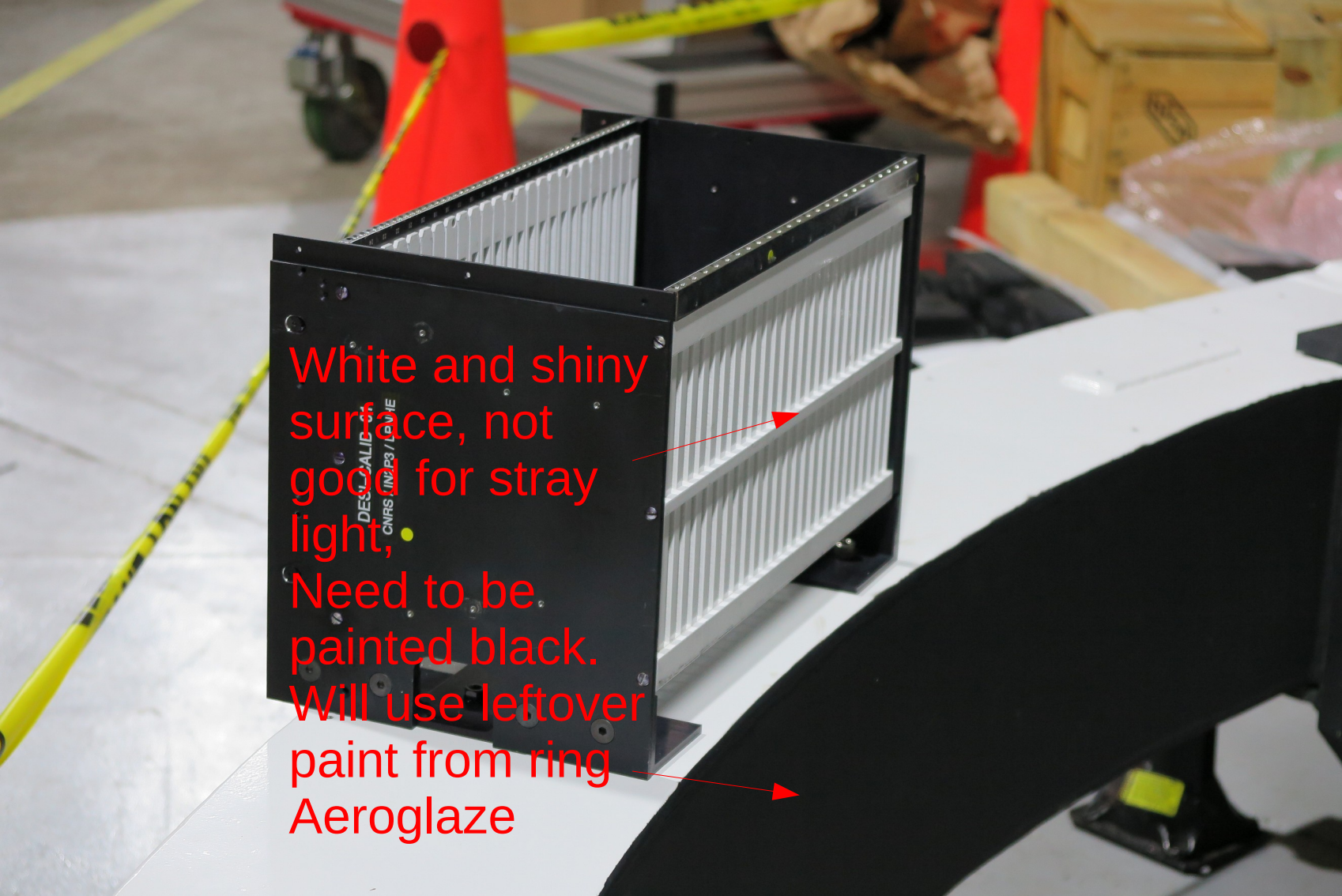


Interface with the ring



Dark Energy Spectroscopic Instrument

Interface with the ring



White and shiny surface, not good for stray light, Need to be painted black. Will use leftover paint from ring Aeroglaze



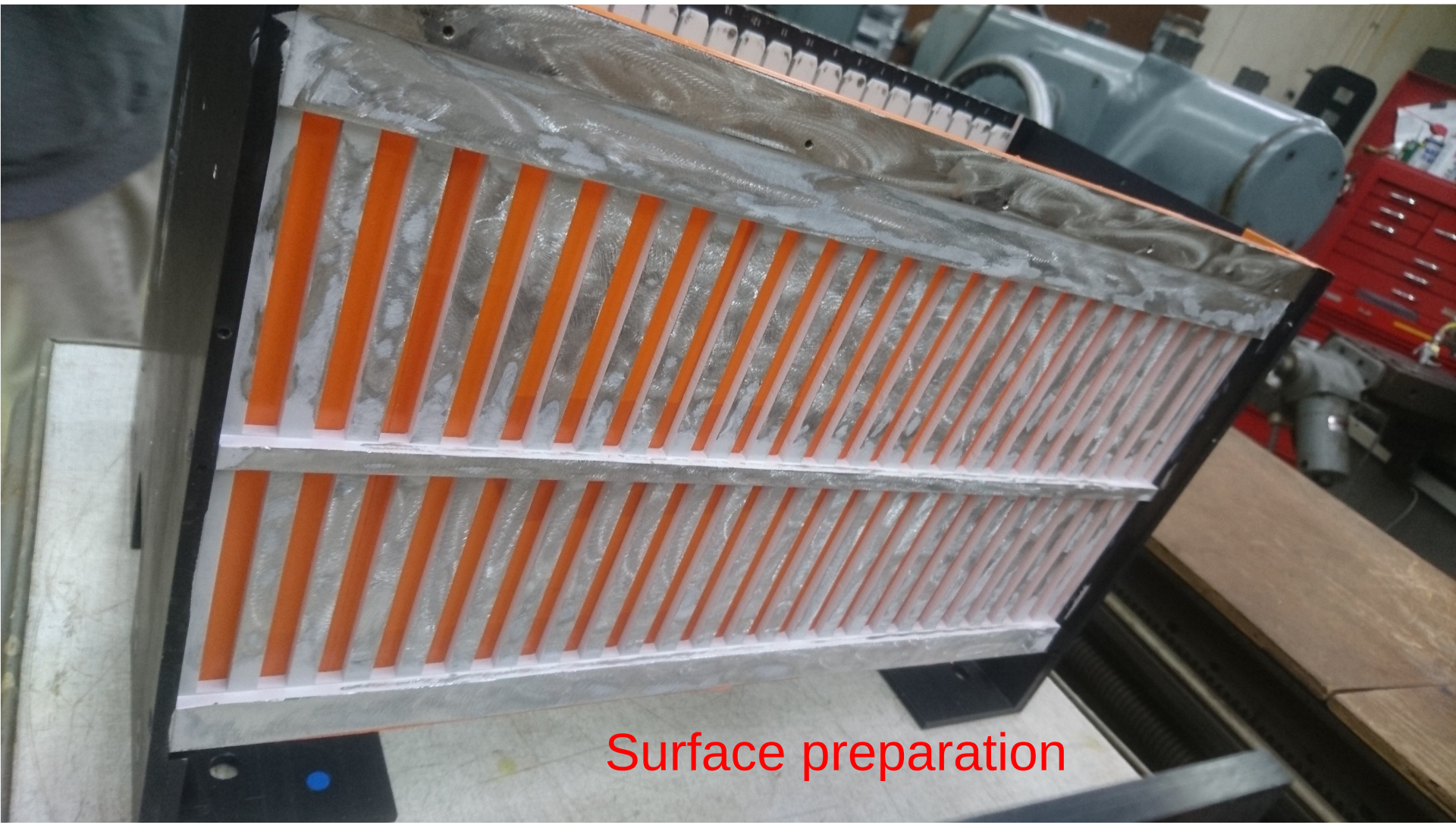
Interface with the ring



Back to the mechanical workshop



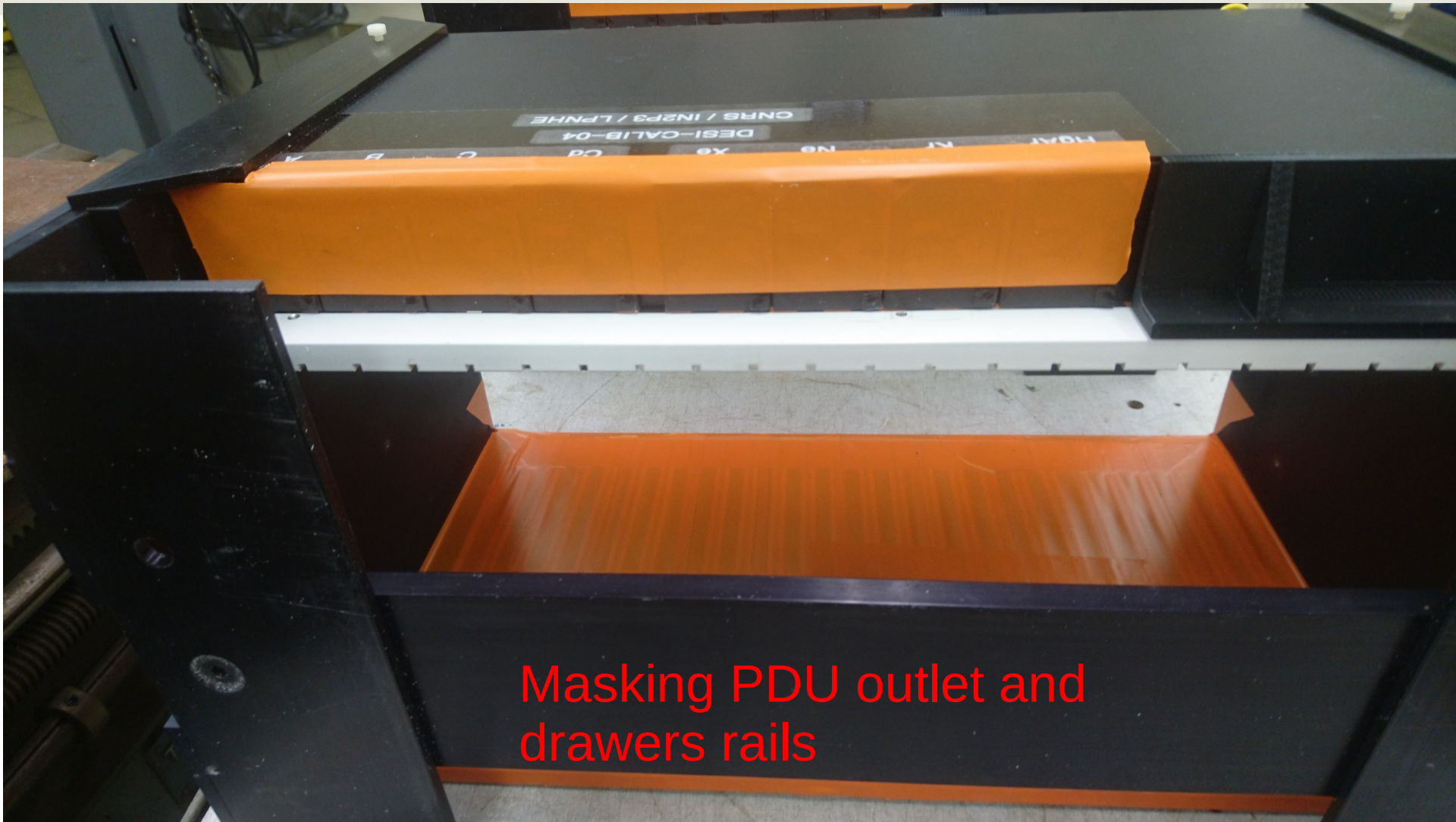
Interface with the ring



Surface preparation



Interface with the ring



Masking PDU outlet and
drawers rails



Interface with the ring

Ready for painting.
Will be done by NOAO staff



4 DESI CALIBRATION
BOXES
Contact: David Sprayberg
or Sonia KARAR karar@iu2p3.fr



Interface with the ring

Homework at LPNHE :
Produce black anodized side
panels for the drawers
Because they show trough
the (soon not) white grid

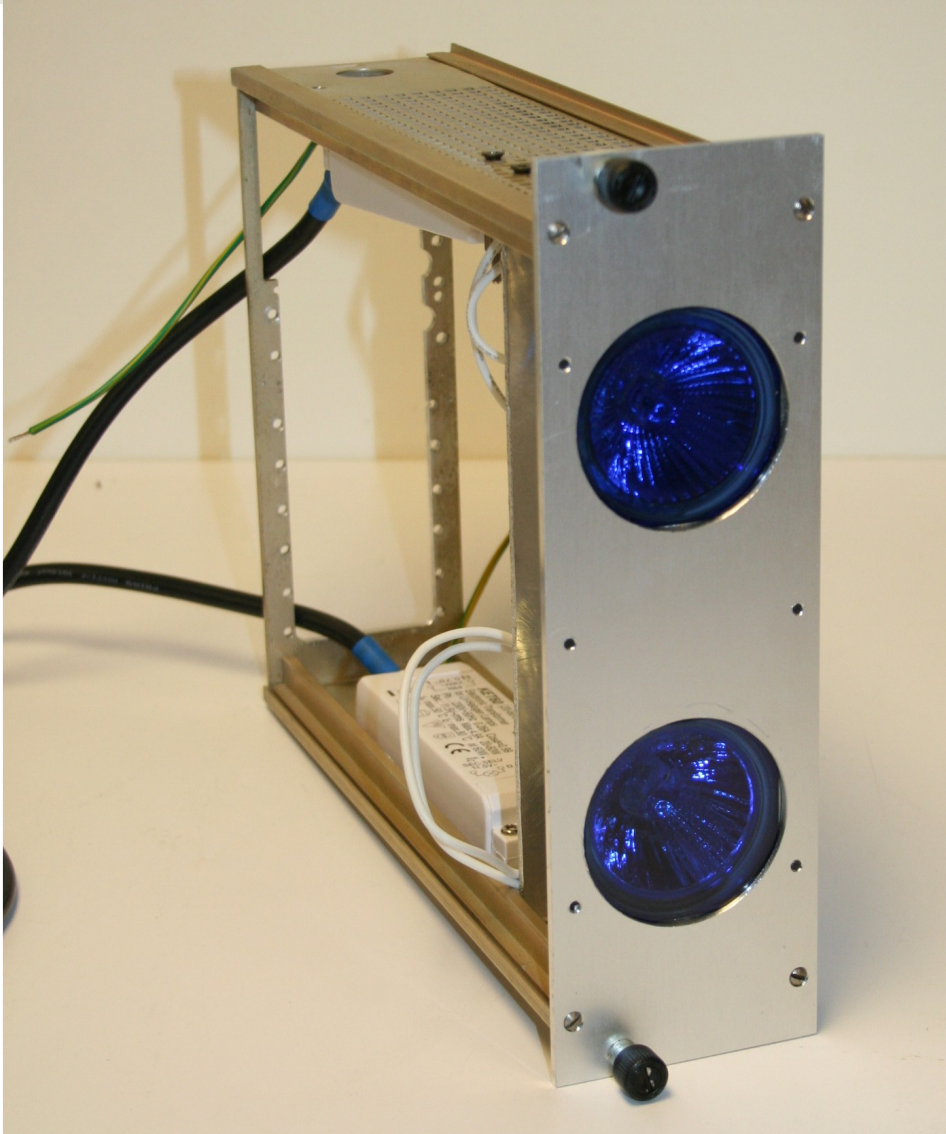


Ongoing and Coming up next :

- Cd spectral drawer : prototype done, 4 drawers to be assembled
- Continuum drawers :
 - Baseline : one drawer with **halogen lamps** and a **blue filter** to reduce the red part of the spectrum
 - Spectra taken on our spectro-photometric testbench, data analysis ongoing (uncertainties with the throughput of our monochromator).
 - **Not much flux below 400 nm** → add UV & blue LEDs to complete (tests on-going)



Continuum lamps: halogens + blue filter



- Baseline : one drawer with **halogen lamps** and a **blue filter** to reduce the red part of the spectrum
- Spectra taken on our spectrophotometric testbench, data analysis ongoing (uncertainties with the throughput of our monochromator).
- **Not much flux below 400 nm ;** add UV & blue LEDs to complete (tests on-going)



Synthetic continuum with LEDs

