# ESS weekly meeting (W24)

A. Miyazaki et al.

| week | date | | | CM under test<br>**CM03** | next CM<br>**CM01** | next next CM<br>**CM04** |
|---|---|---|---|---|---|---|
| 23 | THU | 10-jun | m<br>a | warming up | | preparation at Orsay |
| | FRI | 11-jun | m<br>a | | | |
| | SAT | 12-jun | | | | |
| | SUN | 13-jun | | | | |
| 24 | MON | 14-jun | m<br>a | Remove concrete blocks to open the bunker | | prepration at Orsay |
| | TUE | 15-jun | m<br>a | remove pumping station | | |
| | WED | 16-jun | m<br>a | dismount cryogenic lines | | |
| | THU | 17-jun | m<br>a | | | |
| | FRI | 18-jun | m<br>a | | | |
| | SAT | 19-jun | | | | |
| | SUN | 20-jun | | | | |
| 25 | MON | 21-jun | m<br>a | dismount cryogenic lines | | preparation at Orsay |
| | TUE | 22-jun | m<br>a | swap modules | | |
| | WED | 23-jun | m<br>a | | doorknob & 2 turbo pump connection | |
| | THU | 24-jun | m<br>a | out-going test | | |
| | FRI | 25-jun | m<br>a | mid summer all day off | | departure from Orsay |
| | SAT | 26-jun | | | | over the sea |
| | SUN | 27-jun | | | | |
| 26 | MON | 28-jun | m<br>a | out-going test<br>close the box | | over the sea |
| | TUE | 29-jun | m<br>a | **departure** | | **arrival** |
| | WED | 30-jun | m<br>a | | Coupler warm conditioning | thermalization |
| | THU | 01-jul | m<br>a | | | |
| | FRI | 02-jul | m<br>a | | | |
| | SAT | 03-jul | | | | |
| | SUN | 04-jul | | | | |

We are here

No need of cryogenic for coupler conditioning but two TPs are essential

Aiming at finishing all connections

Goal before vacation

Coupler conditioning during SRF2021 conference

>Guillaume
Please send me shock sensors for CM03 before June 24th
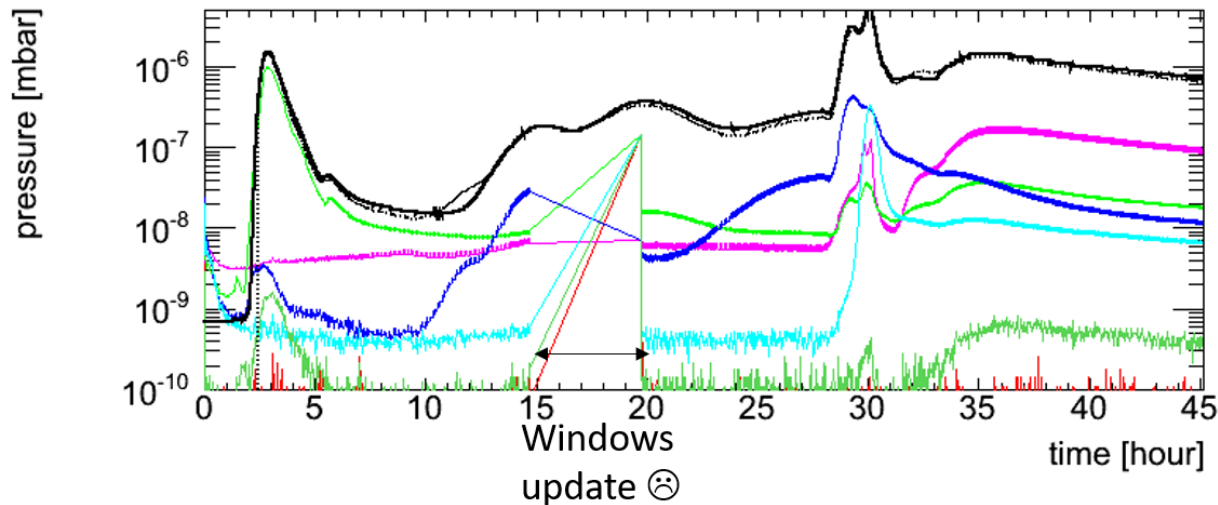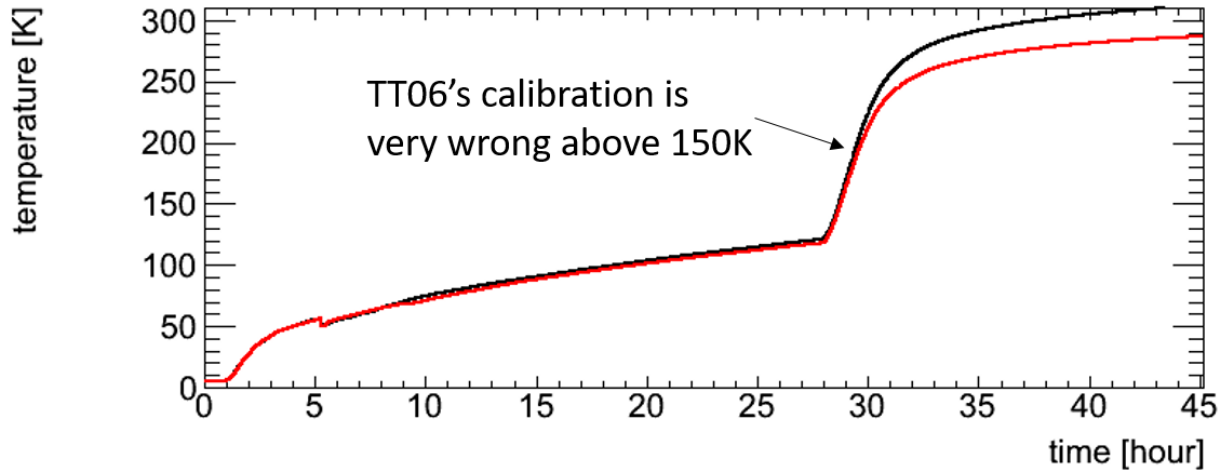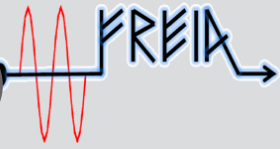→ Felix lend us the shock sensors

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|---|---|---|---|---|---|---|
| | | | | **CM03** | **CM01** | **CM04** |
| 23 | THU | 10-jun | m | warming up | | preparation at Orsay |
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| | | | a | | | |
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| | WED | 16-jun | m | dismount cryogenic lines | | |
| | | | a | | | |
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| | | | a | | | |
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| | | | a | | | |
| | SAT | 26-jun | | | | over the sea |
| | SUN | 27-jun | | | | |
| 26 | MON | 28-jun | m | out-going test | Coupler warm conditioning | over the sea |
| | | | a | close the box | | |
| | TUE | 29-jun | m | **departure** | | **arrival** |
| | | | a | | | |
| | WED | 30-jun | m | | | thermalization |
| | | | a | | | |
| | THU | 01-jul | m | | | |
| | | | a | | | |
| | FRI | 02-jul | m | | | |
| | | | a | | | |
| | SAT | 03-jul | | | | |
| | SUN | 04-jul | | | | |

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TT06's calibration is very wrong above 150K

TT06
TT07

28 amu is not only $N_2$ and CO but contains $C_2H_4$ that makes Nb work function from 4.3eV to 3.6eV, which leads to field emission

PT10
PT20
4 amu (He)
2 amu ($H_2$)
28 amu ($N_2$, CO, $C_2H_4$)
18 amu ($H_2O$)
32 amu ($O_2$)
44 amu ($CO_2$)

Windows update ☹

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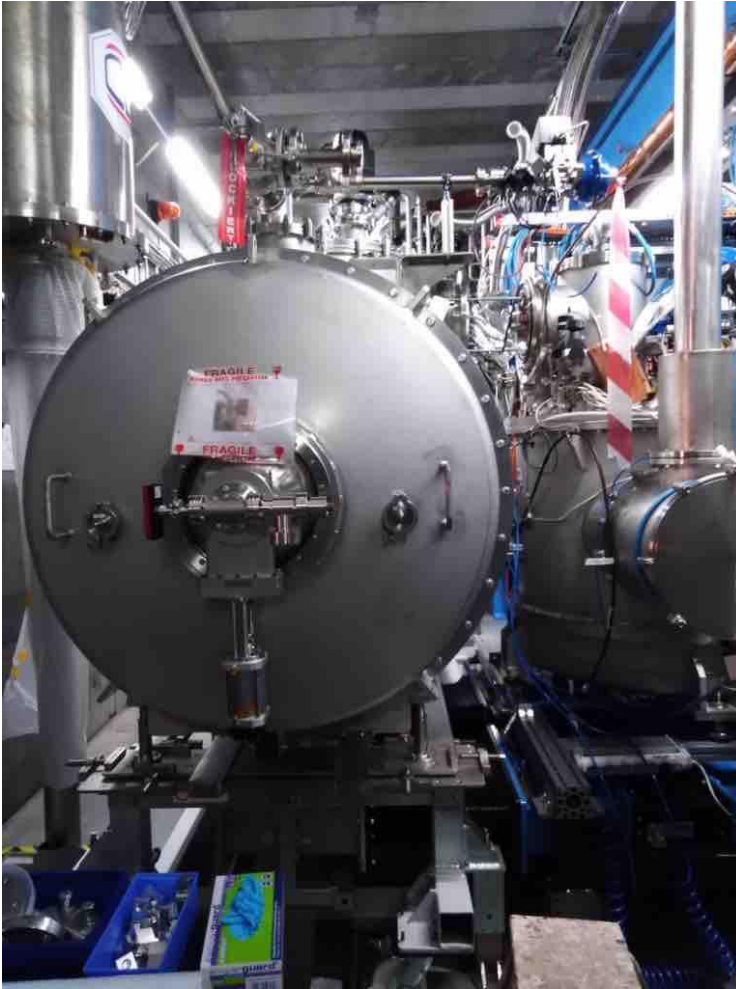
On going

# Reminder: doubt in the motor driver
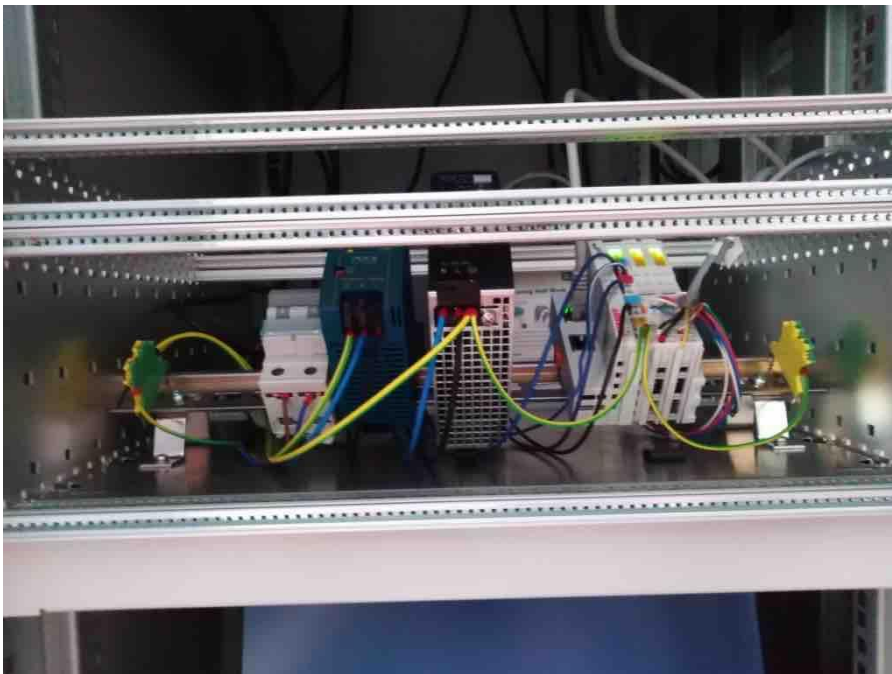


- The driver from Orsay heats up the stepper motor by factor 3-4 higher than the one at UU
- Doubt in motor driver's configuration in general

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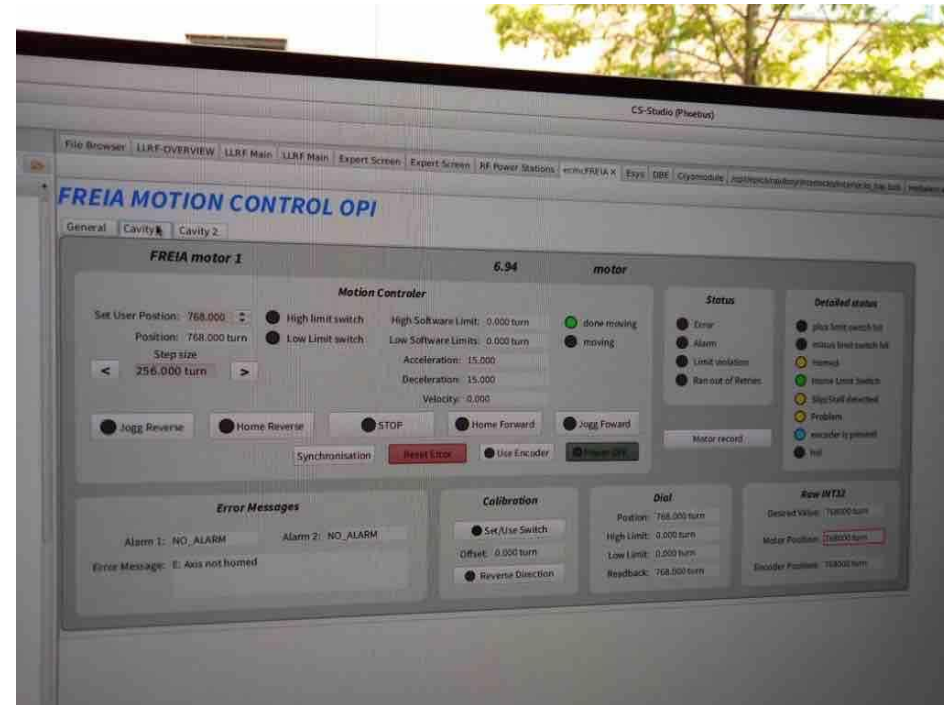
- Sending the beckhoff driver and power supply is easy
- **Controlling front-end computer cannot be sent**
  - The same computer controls timing system (crucial)
  - The software is localized to UU
  - If the test at Orsay needs the identical software in EPICS, installation of hardware/software needs to be planned at Orsay
- The driver at Orsay seemed OK
  - ~~Why not copy this driver and use it at UU in coming tests?~~
  - → We need to use the ESS driver

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# Our motor driver 2
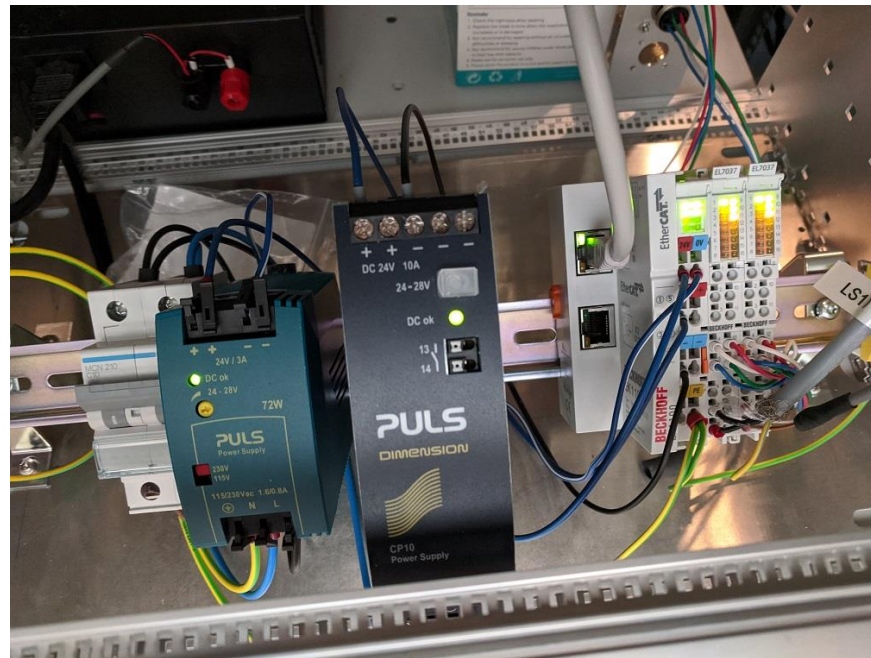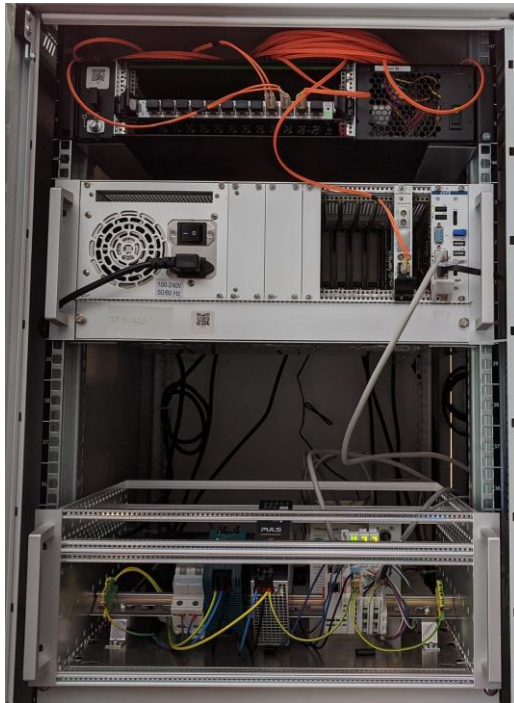




**Motion Crate** could be sent. Compatibility with ESS software? Config file? Cables?
- Beckhoff EtherCat 1100
- 2 EL7037 Beckhoff driver modules
- 24 V power supply

**Control crate** should not be sent
- Cpci crate controller
- Crate also contains the LLRF timing generator system