Outer Tracker Upgrade Group Meeting

21st May 2025
IP2I

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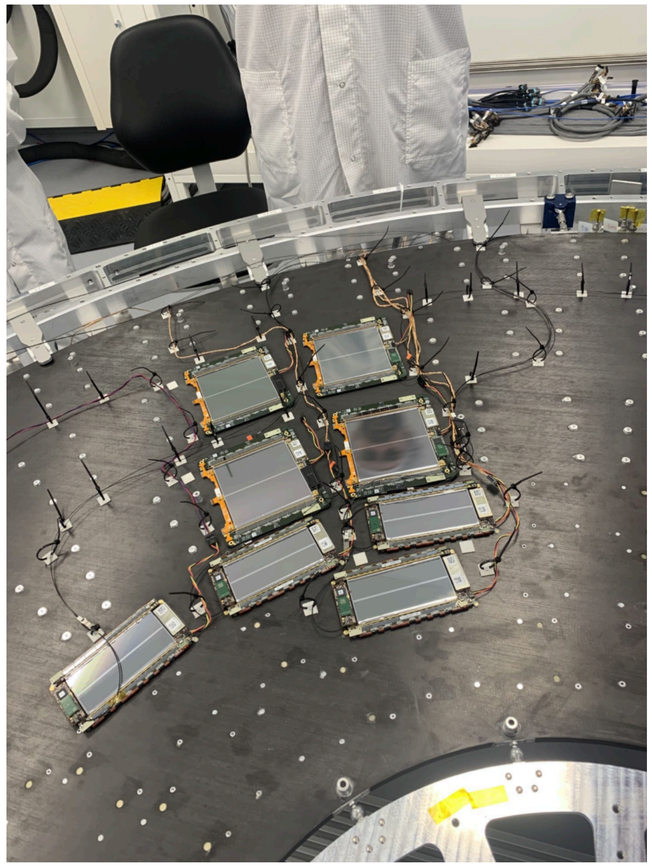
News

1. April 22nd to 25th we had TEDD integration exercise in UC Louvain.
    1. Installed 6 2S and 6 PS modules on a Odd TEDD.
2. Ph2_ACF tutorial for PS and 2S modules on 28th and 29th April.
3. Welcome to Gustave.

News

1. April 22nd to 25th we had TEDD integration exercise in UC Louvain.



Ongoing work & To do

- Installed the new HV power and it is working as expected.
- One High voltage module is returned from CAEN.
- Installed latest version of Potato. ~~Not working at the moment.~~
- **The latest version of Ph2_ACF and Gipht need to be installed.**

Ongoing work & To do

1. Prepare Nodered dashboard for CAEN control.
    1. Already running. Preparing the Dashboard according to suggestions from Massimiliano.
2. Prepare a list of items need to be bought for the second test bench. (Houmani)
    1. Next slide.
3. Validating the Nodered dashboard (Gustave)

Ongoing work & To do

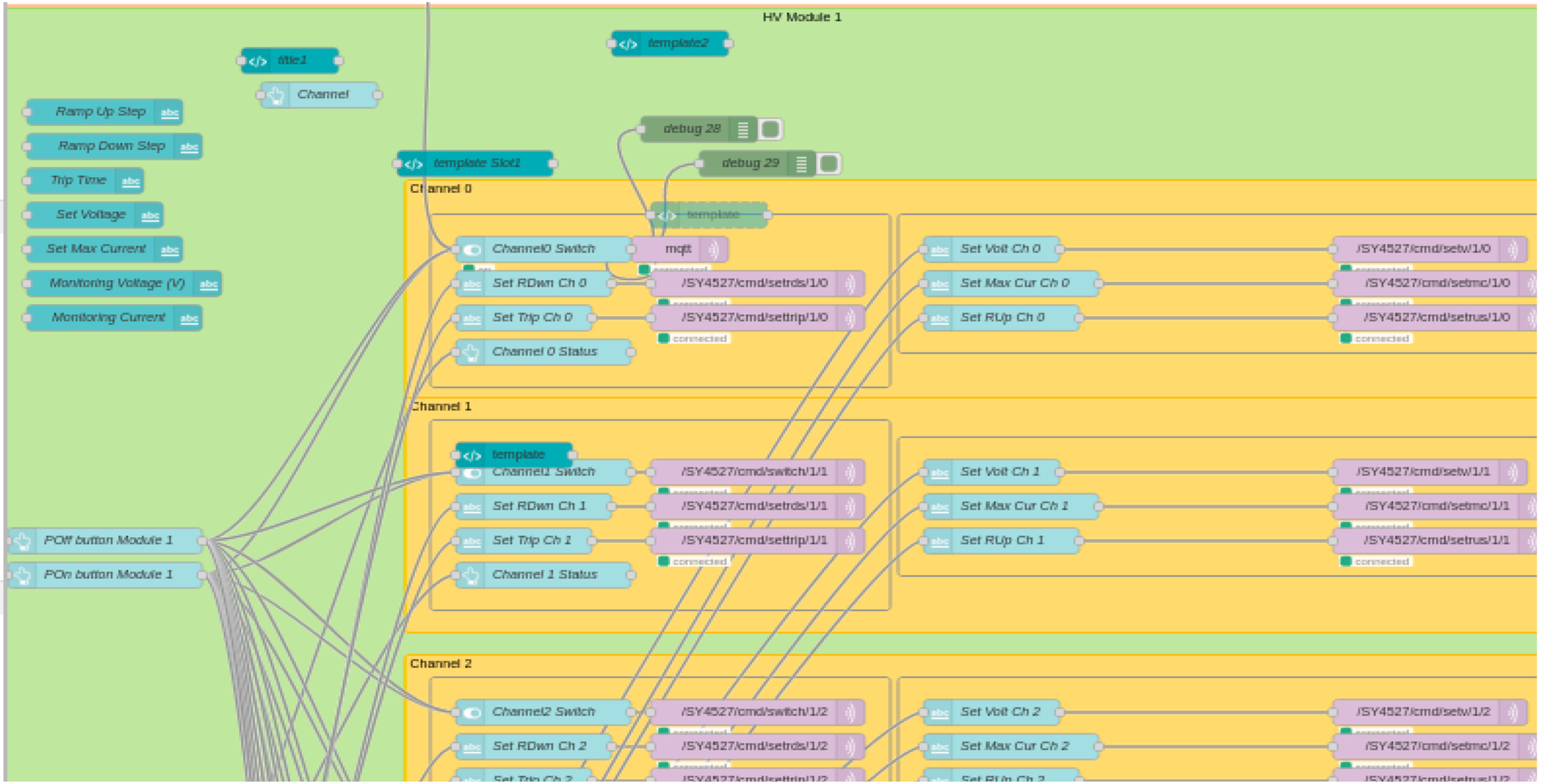
3. Prepare a list of items need to be bought for the second test bench. (Humani)
    1. Not sure if we need another PC.
    2. We have all the cables.
        1. A USB-A connection to connect to a readout PC
        2. A SHV connector (*HV*) to supply the sensor high voltage to the modules.
        3. A LEMO connector (*TRIG*) which only needs to be connected for boxes with a KIRA system. (We do not need)
        4. Two banana connectors to provide the low voltage potential and GND to the modules.
        5. Two banana connectors (red and black) for the supply voltage of 5 V of the HV line relay and eventually all chips in the KIRA system.
        6. For boxes with KIRA systems there are additionally two banana connectors to provide an additionally 5 V supply voltage for the KIRA LEDs. (We do not need)
        7. A cable connector to ground the aluminum box if needed. (Do not know.) The ESD safe mat or table is needed.
        8. A 6 mm tube connector to connect to a dried air supply.
        9. A pass-through for the optical fiber with corresponding flexible 3D printed flexible plug to surround the optical fiber and allow a light-tight pass-through.
        10. Nanocrate with a FC7. This is the third Nanocrate. We need to use one SFP+, and we have some spares.

Ongoing work & To do

1. Validating the Nodered dashboard (Gustave)

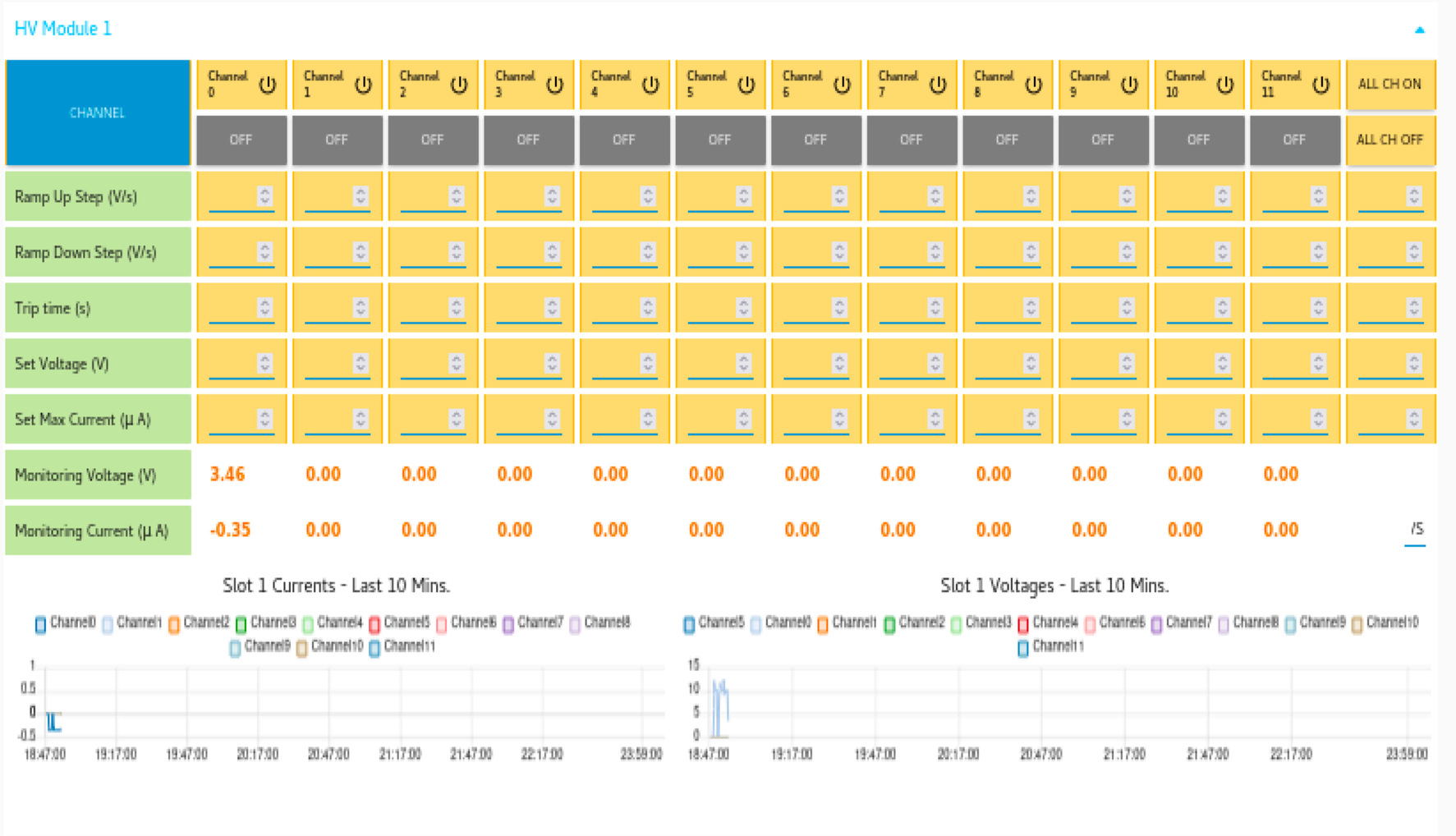
DCS developement

Current status



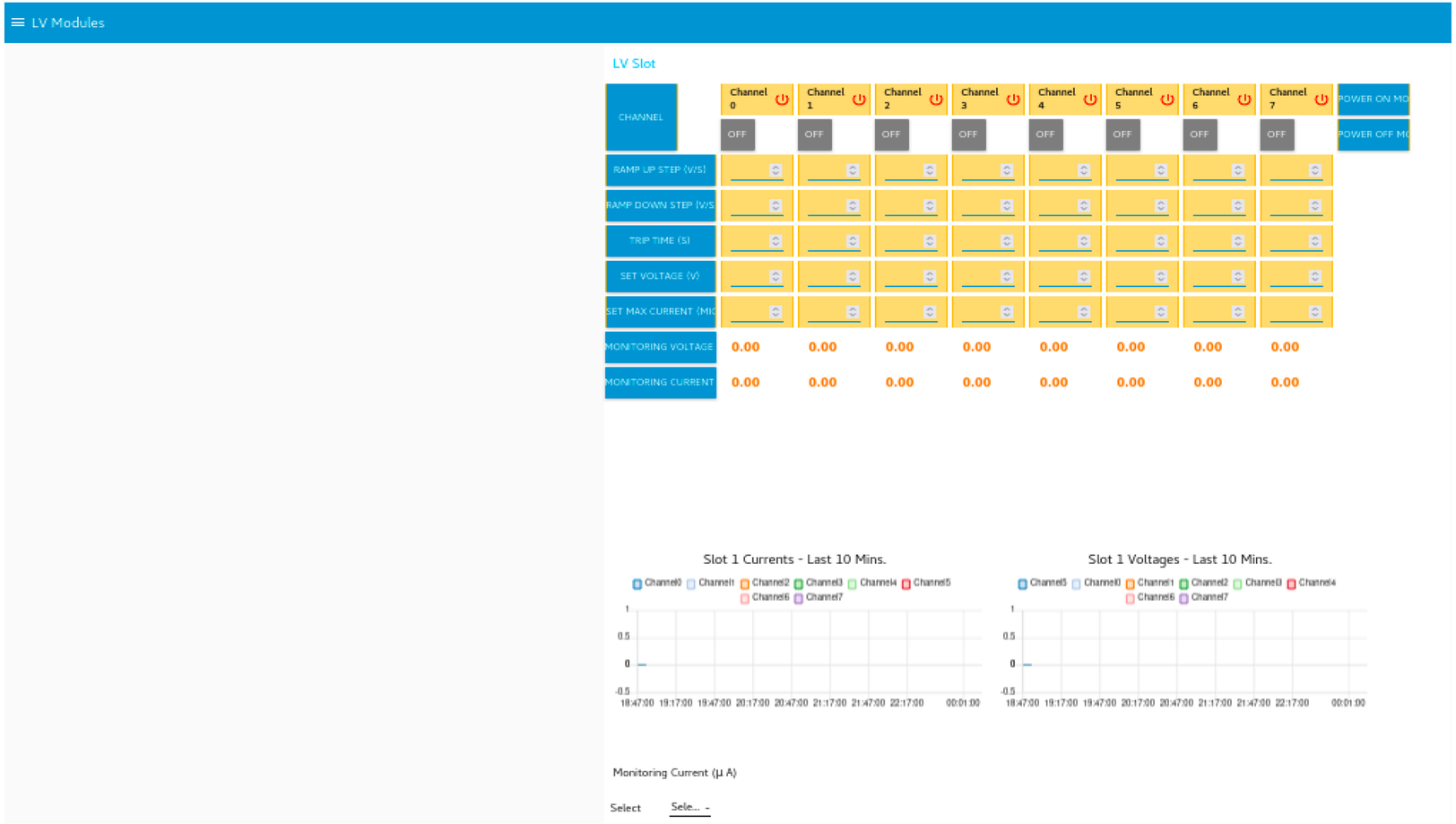
DCS developement

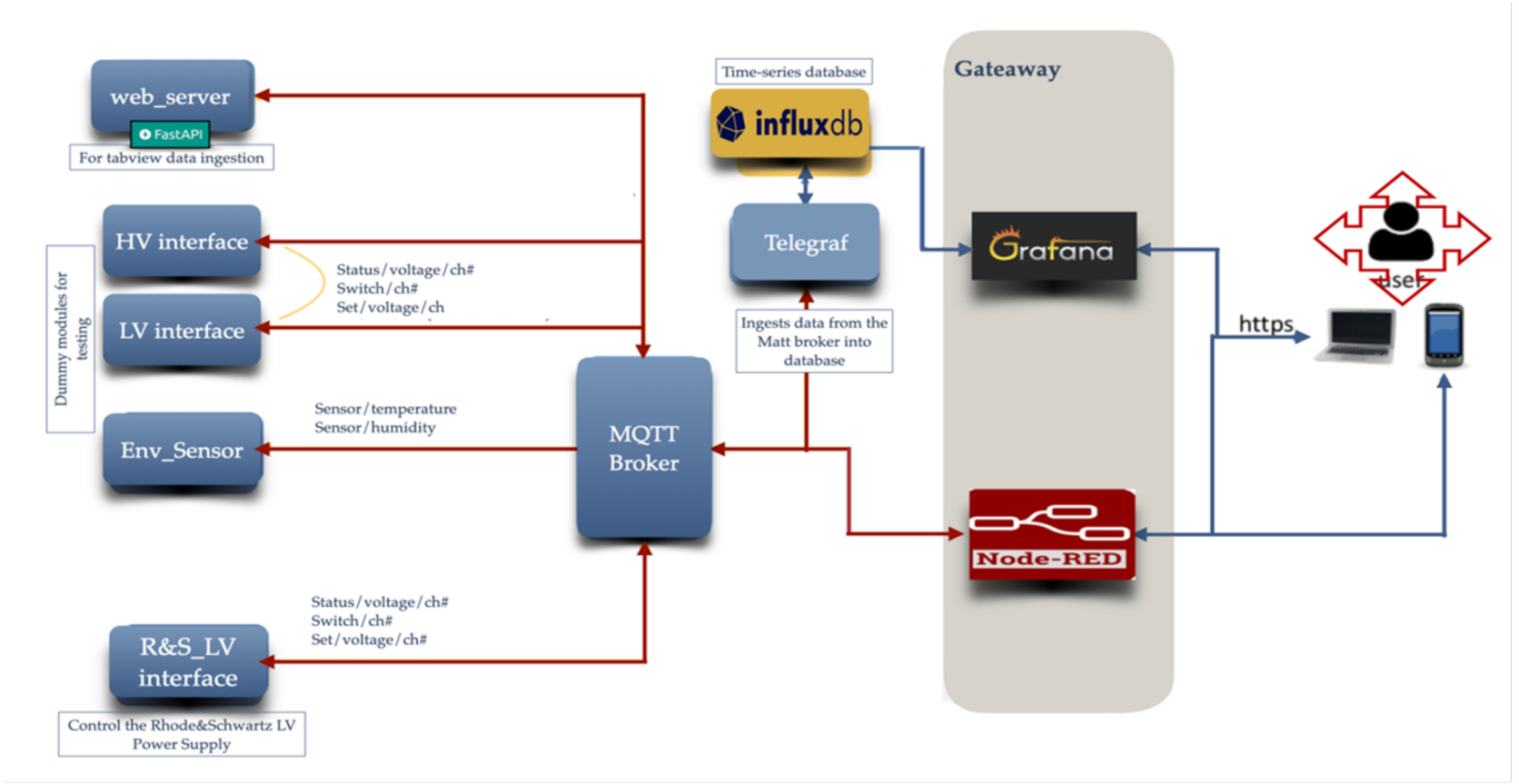
HV Modules



DCS developement

- Current status




web_server
FastAPI
For tabview data ingestion
HV interface
LV interface
Dummy modules for testing
Status/voltage/ch#
Switch/ch#
Set/voltage/ch
Env_Sensor
Sensor/temperature
Sensor/humidity
R&S_LV interface
Status/voltage/ch#
Switch/ch#
Set/voltage/ch#
Control the Rhode&Schwartz LV Power Supply
MQTT Broker
Time-series database
influxdb
Telegraf
Ingests data from the Matt broker into database
Gateaway
Grafana
Node-RED
https
User