Engineers in NØYTRON
Driftsgruppe Elektronikk

Department for Neutron Materials Characterization

Engineers at Nøytron (MPT)

Driftsgruppe elektronikk

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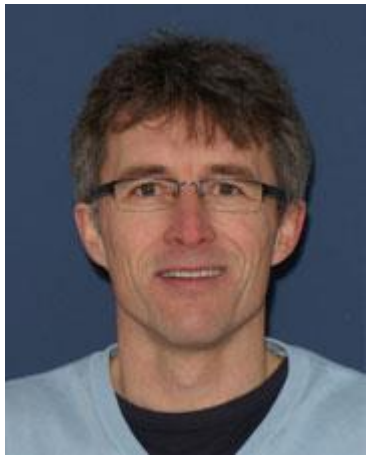

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Mechanical
SolidWorks & AutoCAD
Handyman

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Vacuum
Pressureised systems
Orbital welding
Handyman

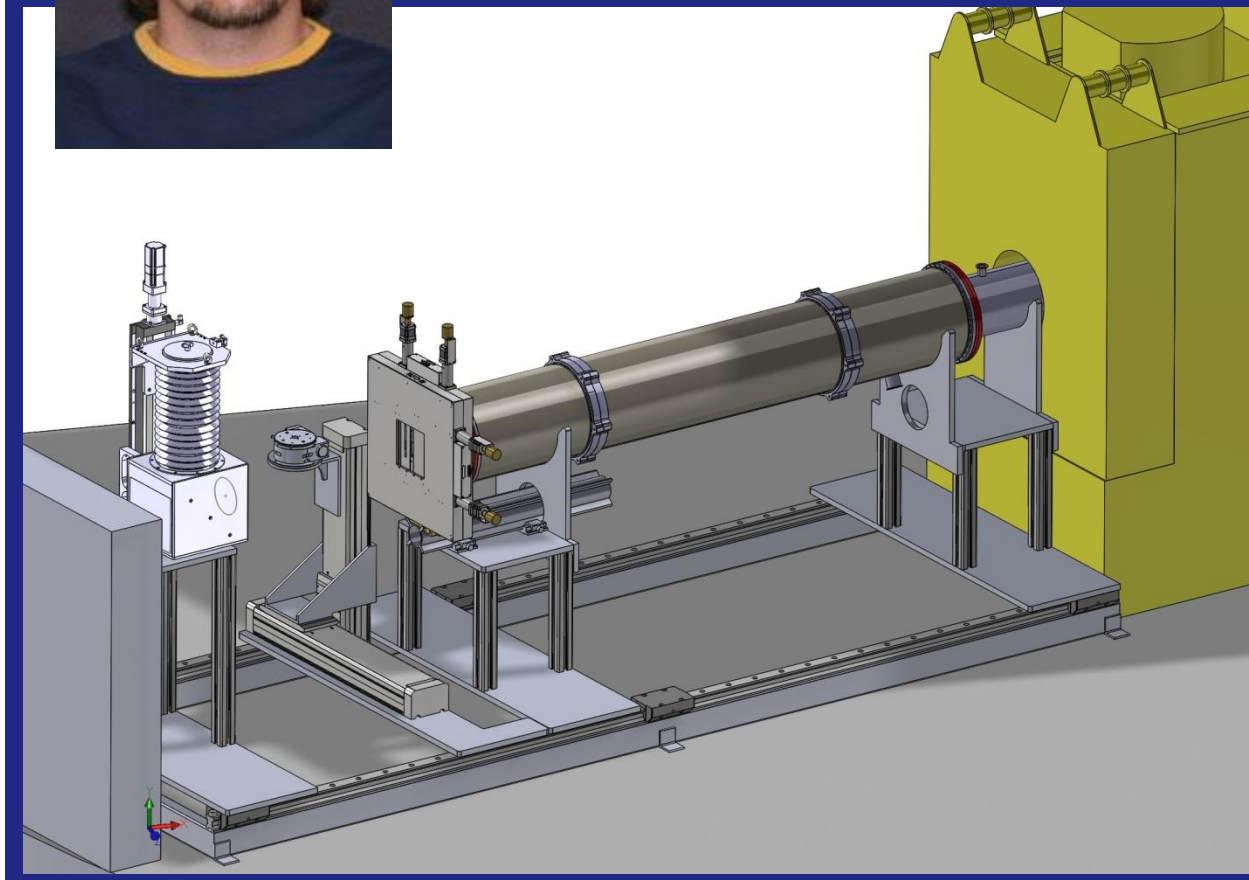
Looking forward – new opportunities - what are our assets

Our main expertise:

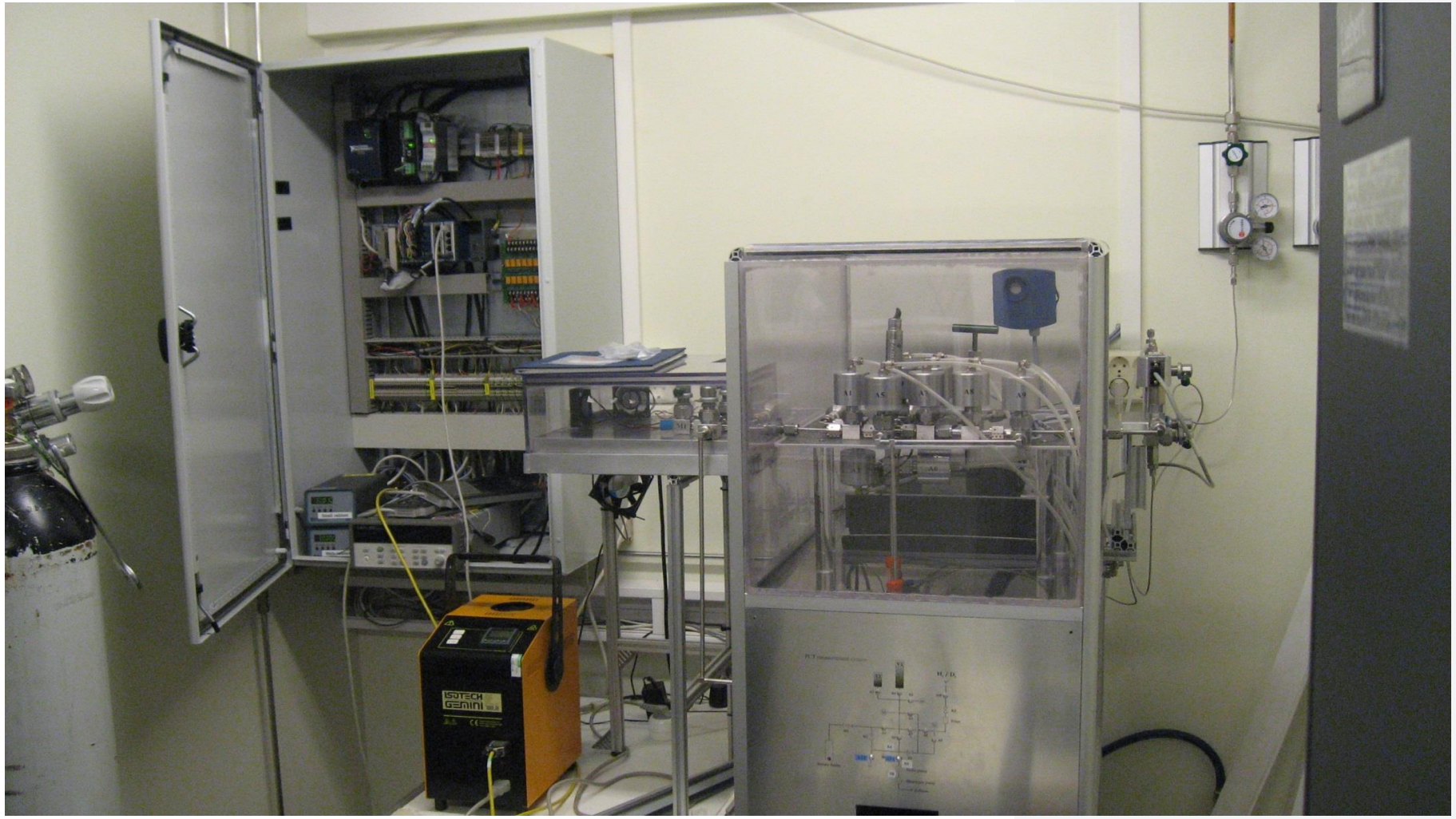
- Metrology (the scientific study of measurement)
- Nuclear instrumentation
  - Gamma spectral analysis
  - Gamma & Neutron detectors
- Electronic instruments
- Sensors
- Motors and motor controllers
- Mechanical design (SolidWorks and AutoCAD)
- Data acquisition & Automation & Control
- National Instruments Hardware
- Software (LabVIEW)
- Building instruments and laboratory installations
- Electric Installations
- System Integration

Thomas

- Finding solutions & design
- Making CAD drawings
- Supervise production
- Building the instrument



From sensor to disk



Vår spesialitet er å sy sammen komplette systemer for styring, kontroll og datalogging.

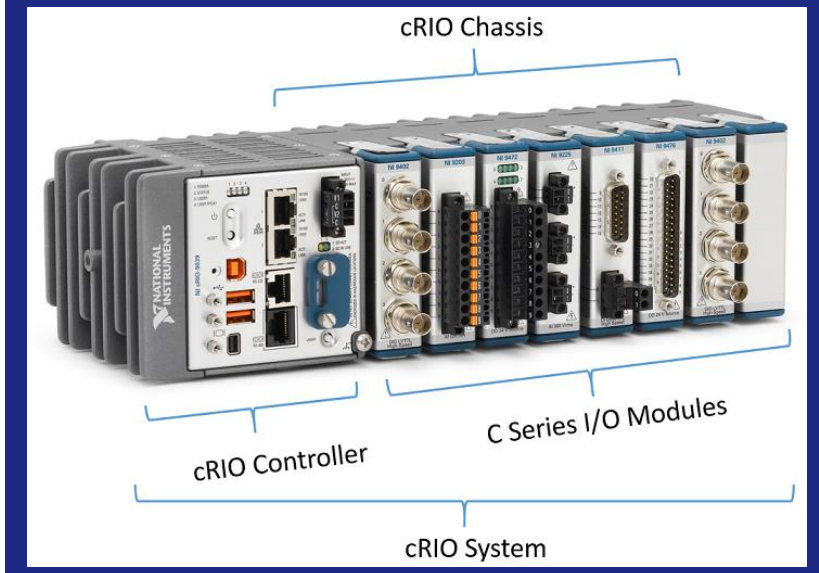
- Trykk
- Temperatur
- Flow
- Gamma
- Nøytron
- Stepmotorer
- Ventiler
- Lineærføringer
- Rotasjonsbord
- Program med brukergrensesnitt
- Datalogging

The BeSmart project

- Finding power supply
- Program for control of current, user interface and data collection.
- Interface to climat chamber
- Electric connections
- Design and production of card rack.

Data Acquisition Systems using NI Hardware

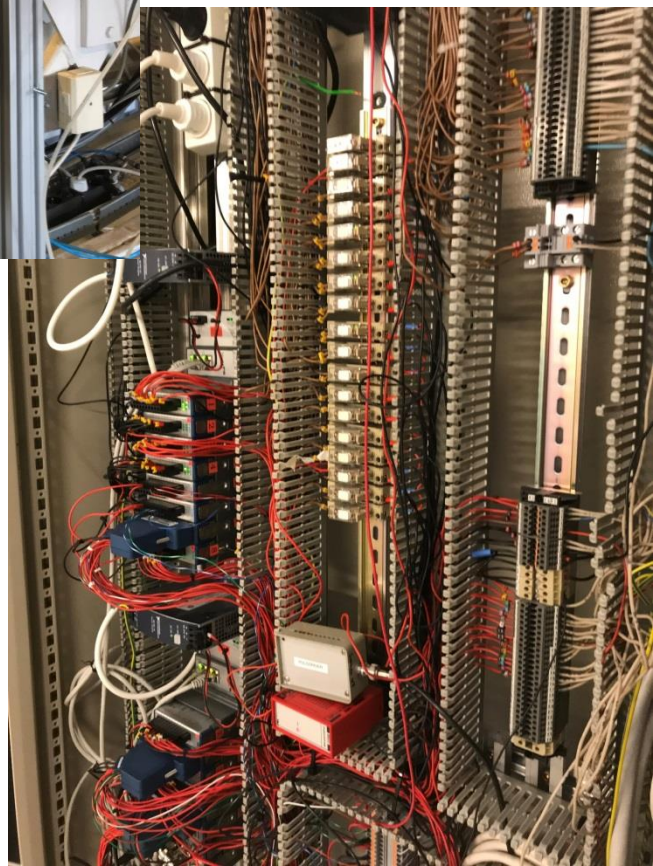
- Rugged data acquisition systems – utilizing off-the-shelf hardware
- High speed data acquisition systems – acquire multiple channels
- Stand alone data acquisition systems – acquiring data for days, weeks, or months
- Analog data acquisition systems – acquire all sorts of analog data, including vibration, pressure, temperature, current, load, force, voltage, distance, humidity, and magnetic fields.
- Digital data acquisition systems
- Data acquisition and control systems – sometimes you need to react immediately to the acquired data, such as with a rotational encoder fed to a PID control loop to control an actuator.



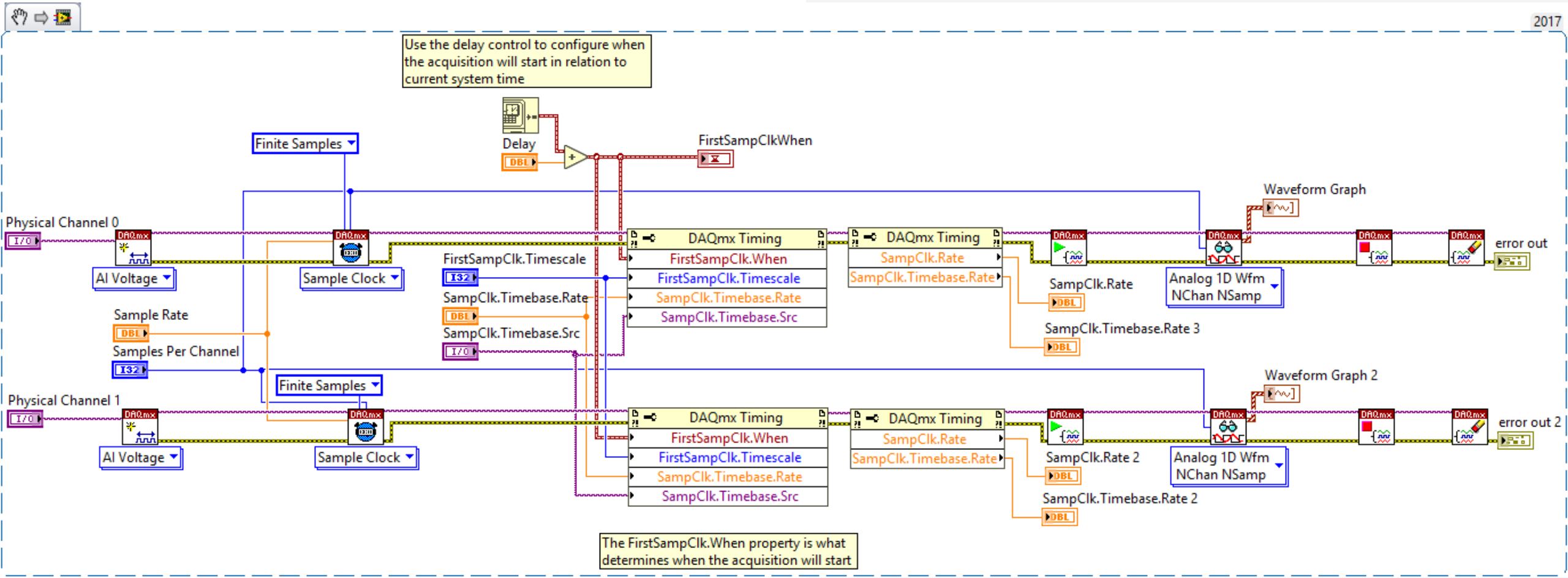
The Well Flow Loop

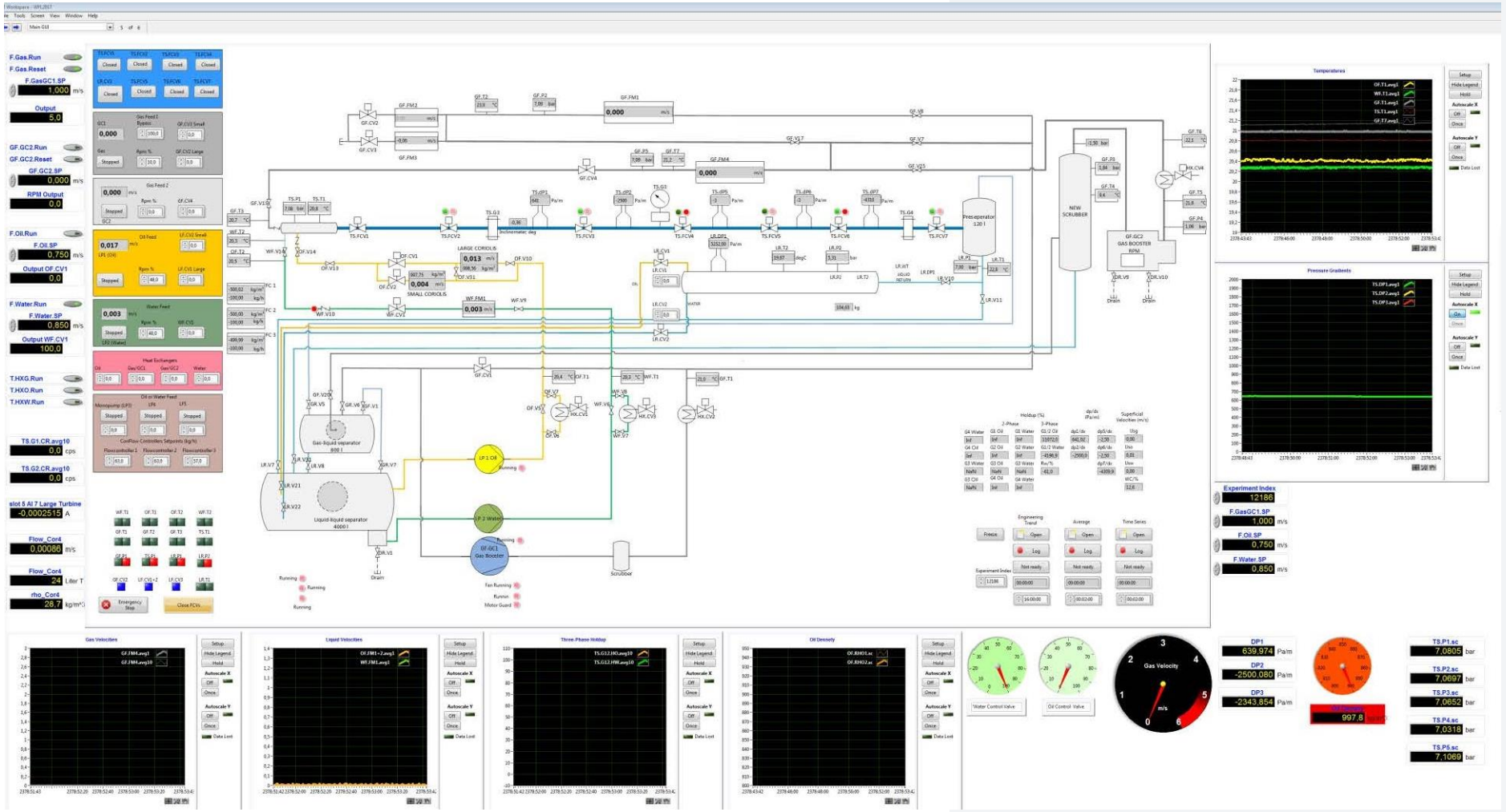
A lot of sensors:
Temperature
Pressure
Flow
Valves
Motors
Instruments

IFE gamma flowmeter



Cabel and termination rack





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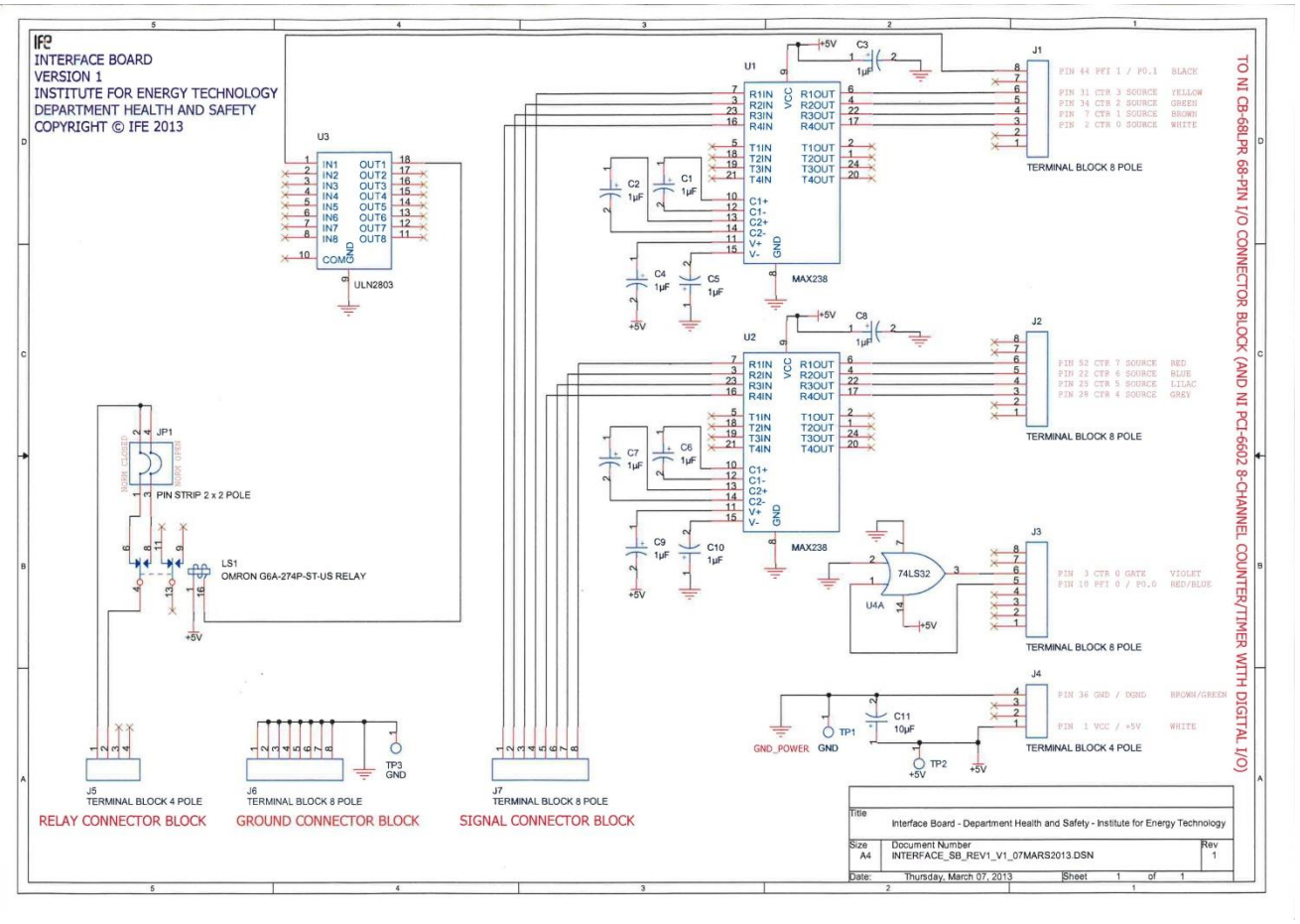
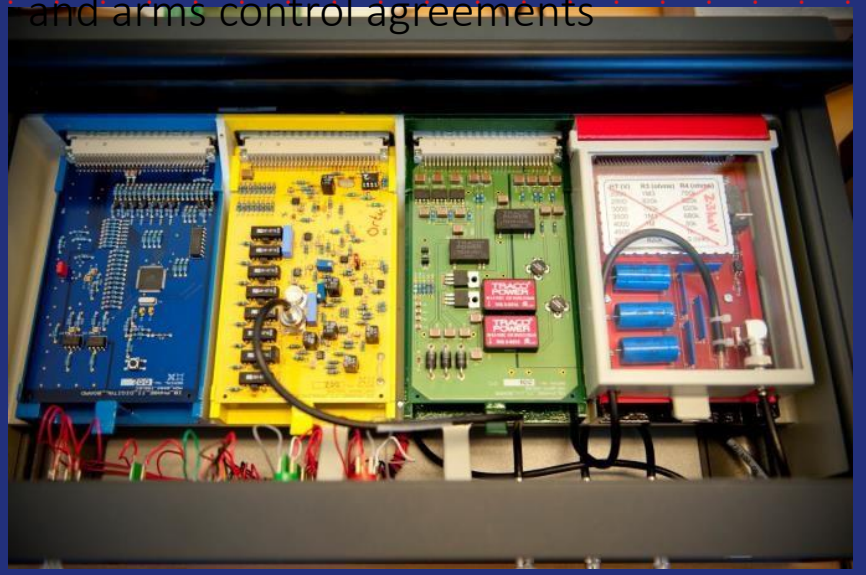
LabVIEW™

OrCAD Capture – Schematic capture software and circuit diagram maker for PCB design.



The UK-Norway Initiative (UKNI) has been investigating the technical and procedural challenges of verifying possible future nuclear disarmament and arms control agreements



With the engineers

from sensor to disk

Thank you