

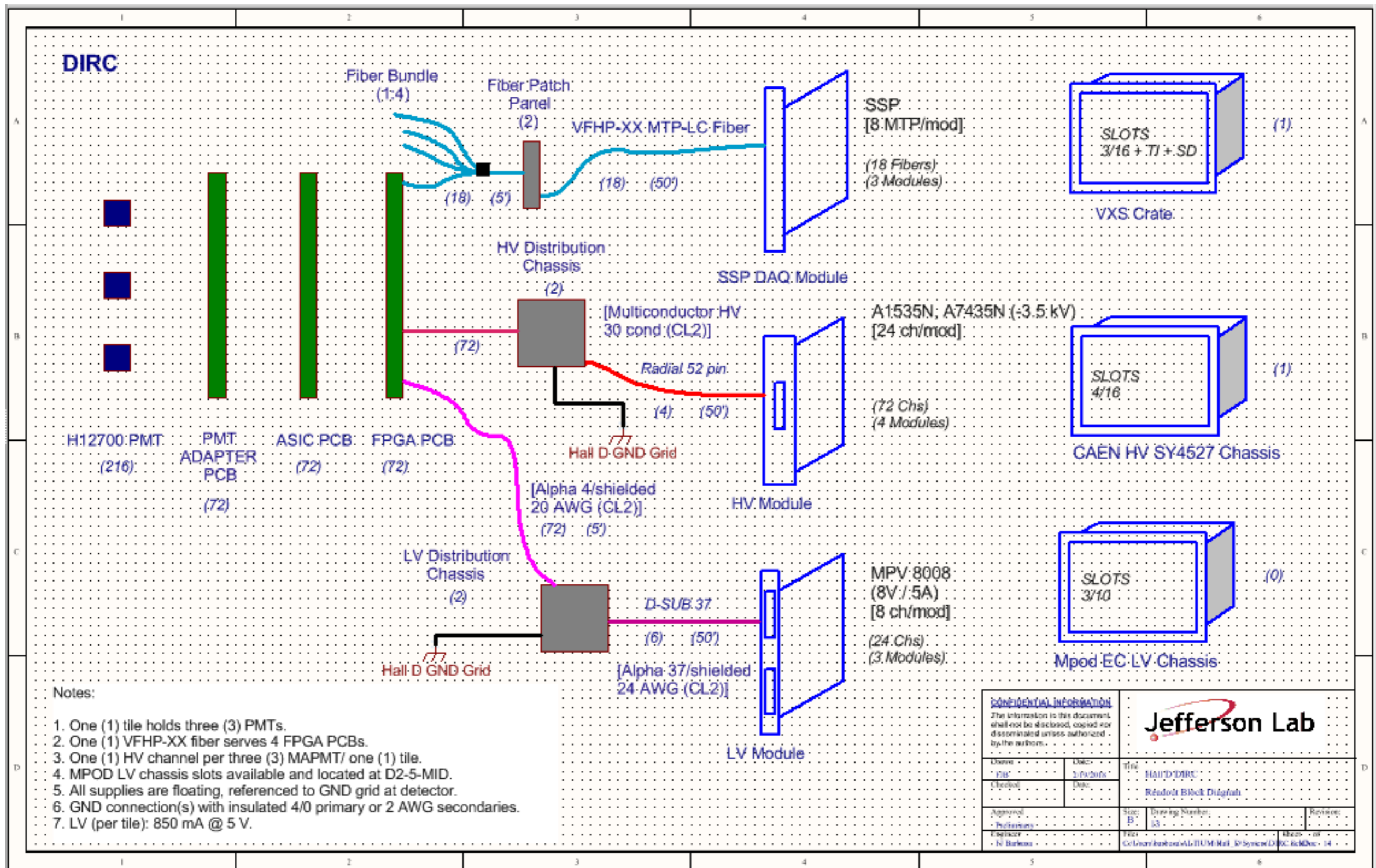
DIRC controls discussion

May 24, 2018

Controls: environment

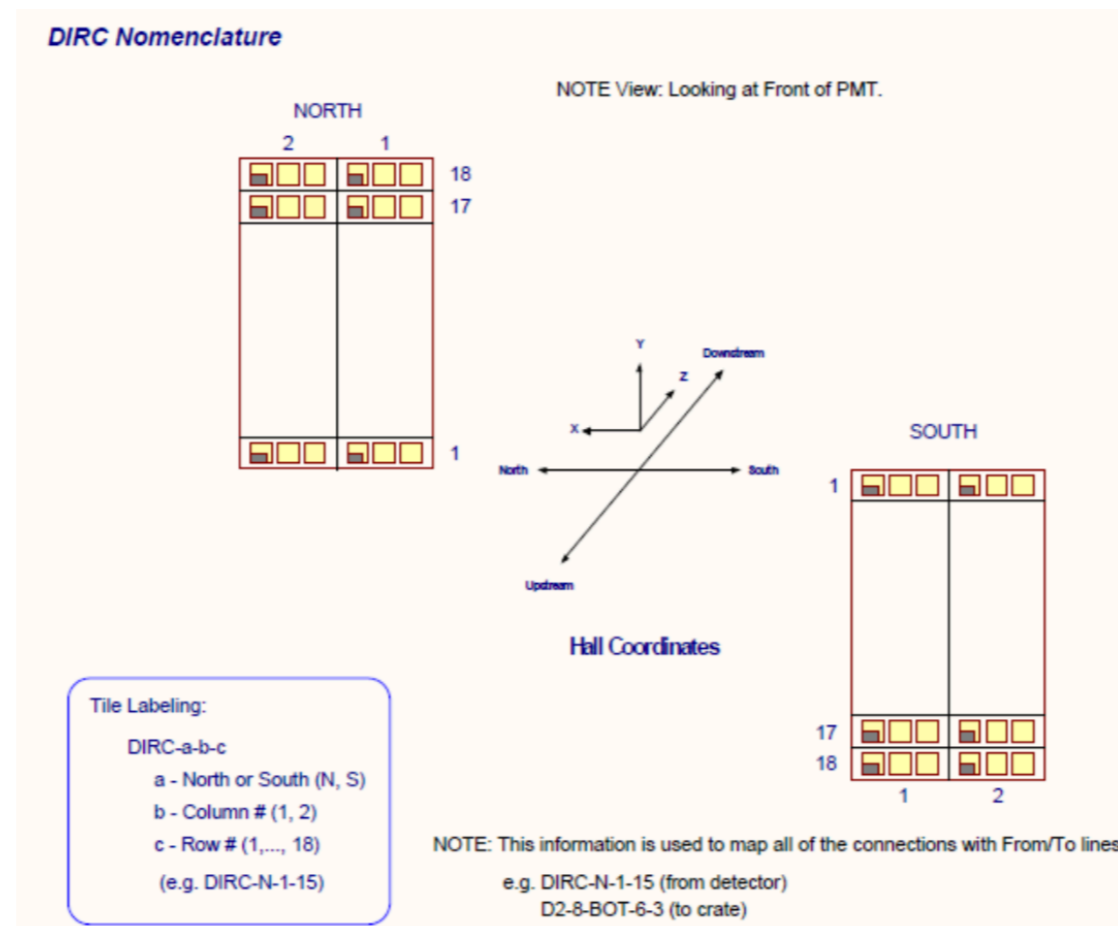
- * Water system
 - * Flow indicators on skid
 - * **Quality:** temperature, conductivity, and pH
- * Dry N₂ system
 - * Flow and pressure indicators (lines to each box)
 - * **Question:** Humidity sensors on N₂ output lines?

Controls: MAPMTs



Controls: MAPMTs

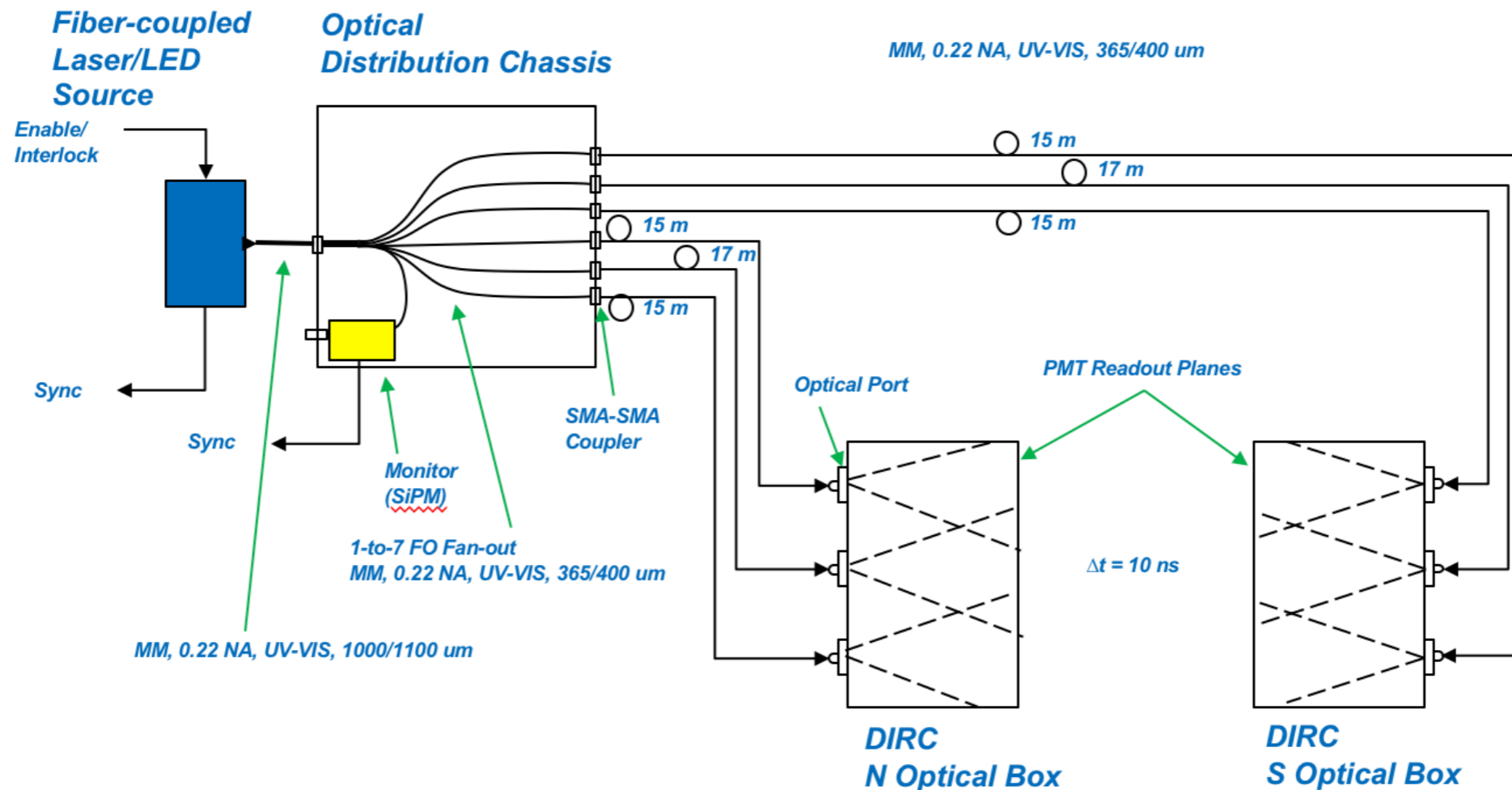
- * Weiner crates and MPOD LV
- * CAEN HV modules
- * 72 channels: supply to groups of 2 or 3 MAPMTs
- * **Interlocked** with optical box access panel



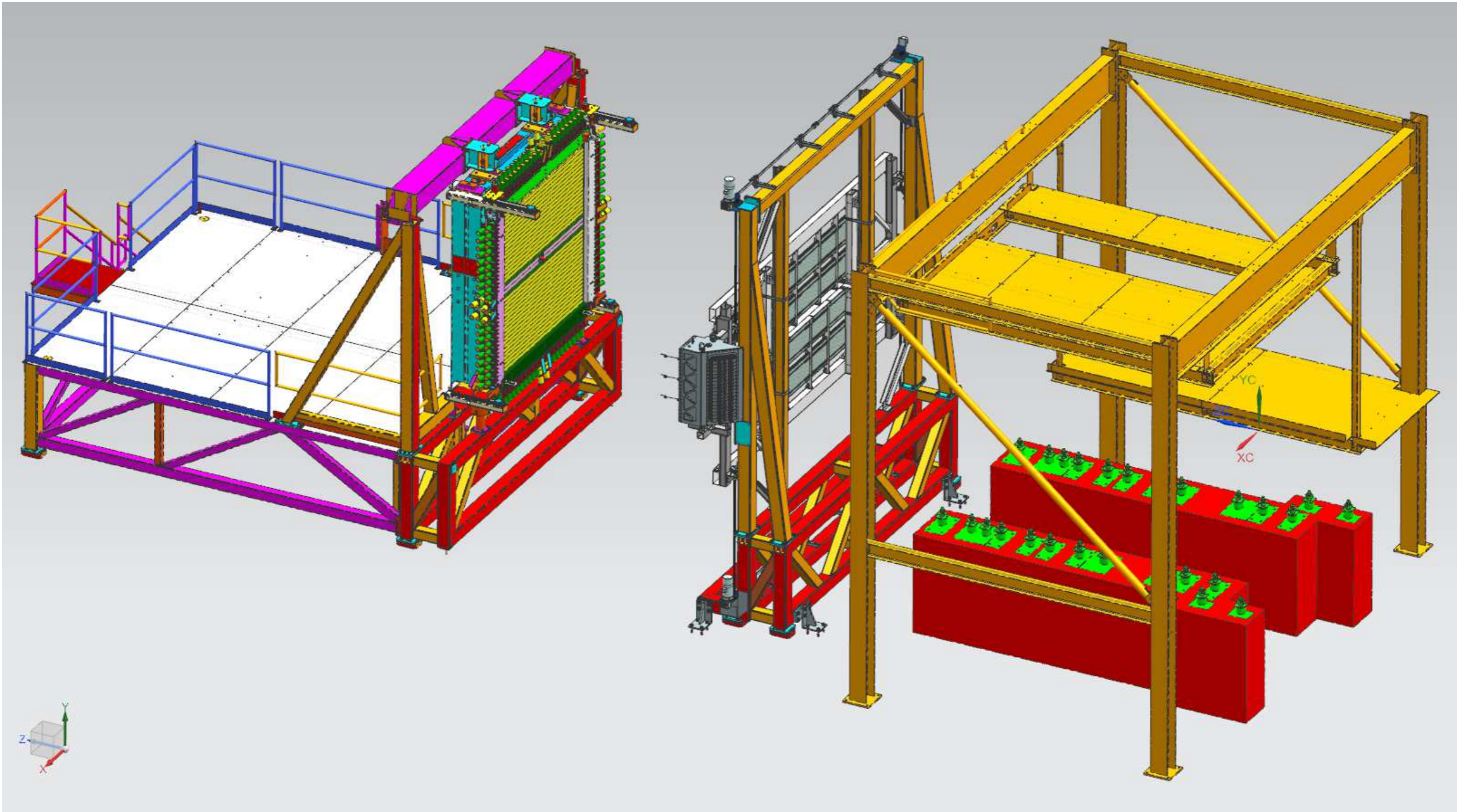
Controls: calibration system

- * Low-intensity, pulsed light source input to optical box through optical fiber ports
- * Controls for source power and pulser frequency

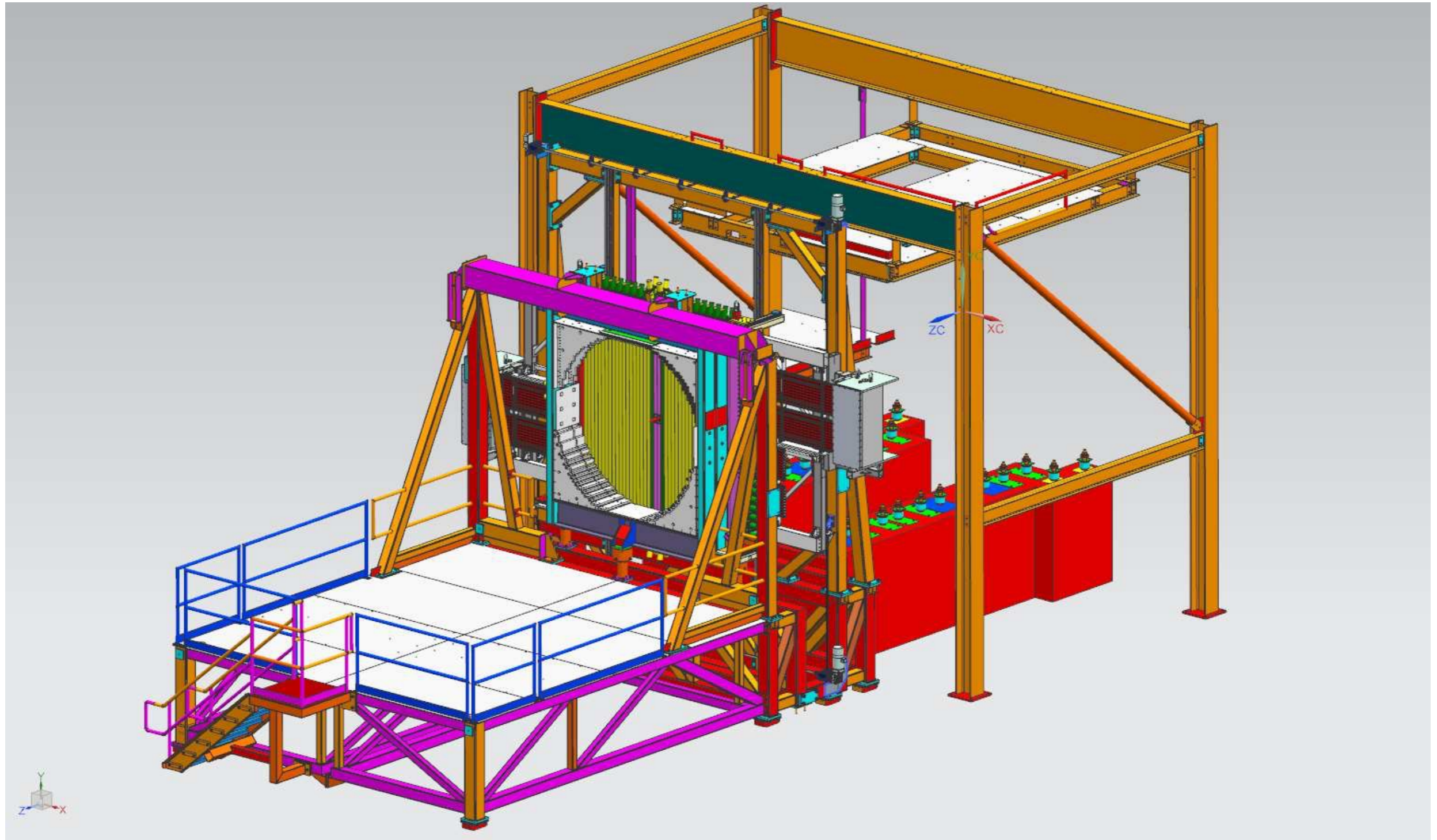
DIRC Calibration System



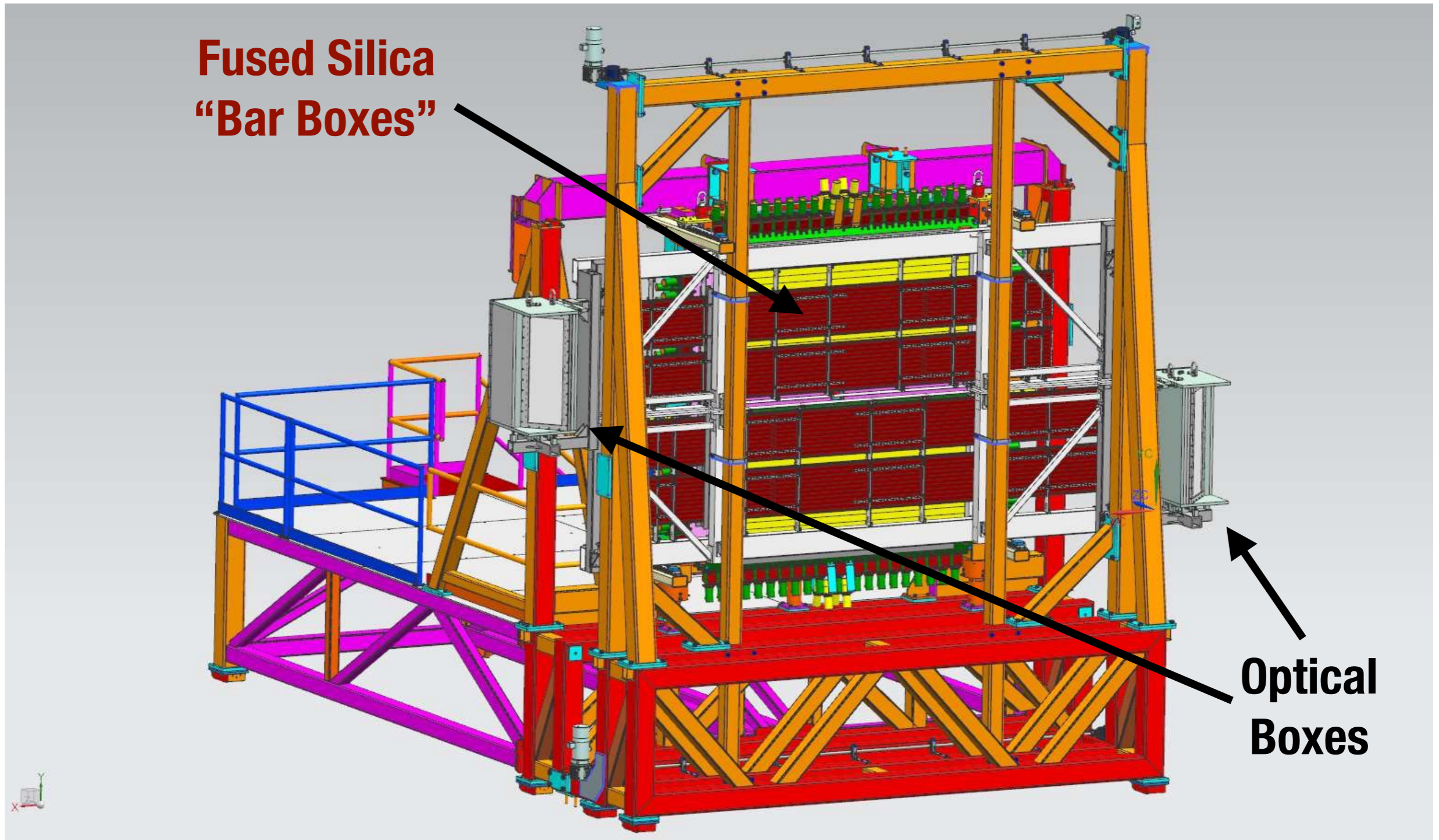
DIRC Overview



DIRC Overview



DIRC Overview



Relevant DIRC Components

* **Optical Boxes**

- * Cherenkov photons detected by 64 channel Multi-anode PMTs (MAPMTs): 180 total
- * Volume filled with distilled water under constant circulation
- * All crates, HV, etc. located on FCAL platform

* **Fused Silica “Bar Boxes”**

- * Under continuous flow of dry (boil-off) N₂

Optical box

