PMT WG Report

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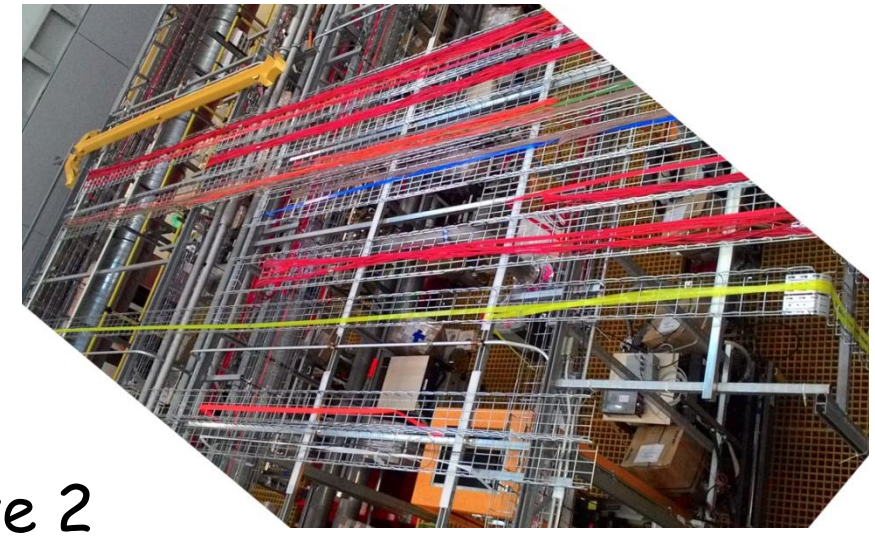
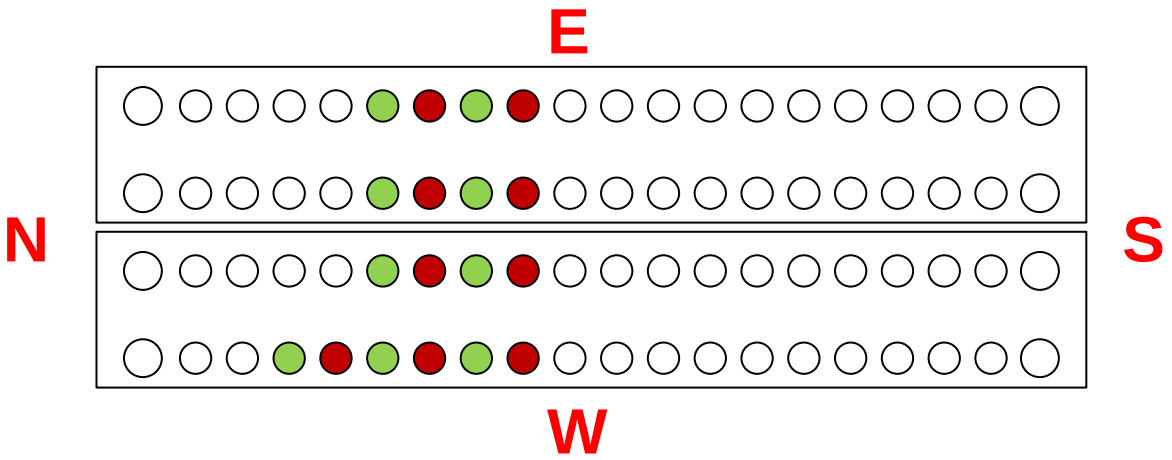
Technical WG meeting, 10-OCT-2019

Status of PMT Cable Installation

- Present hardware activity focused on cabling and assembling of electronics.
- In September we installed 90 (+9 spare) HV cables and 90 (+9 spare) signal cables.
- This covers $\frac{1}{4}$ of the work.
- Presently, for each module we have 2 facing TPC Chambers, 2 m wide, equipped with 20 PMTs.





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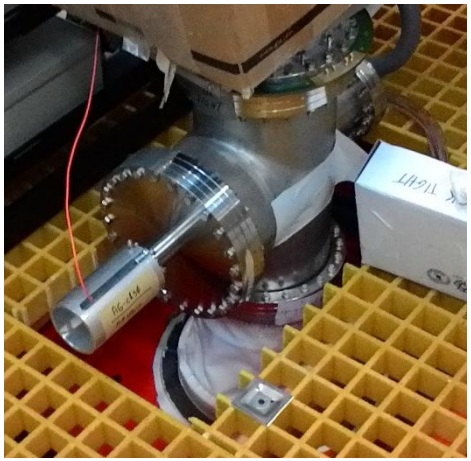
Status of Optical Fiber Installation

- The optical splitter has been installed on the TOP of the detector.
- 36 optical fibers (20 m long) connect the optical splitter outputs to the 36 optical feed-through flanges.
- Mounted 36 fiber/feed-through metal protections.
- Some corrugated protections are being installed to better protect the fiber deployment.
- Replaced one faulty optical feed-through during the vacuum breaking. Tested, it is now OK.



Other ongoing works

- Continue the PMT/Trigger crates assembling. We need to complete them for the pORC / SEDR reviews.
- Complete the rack AC (detector ground) power distribution (FNAL duty, work in progress).
- The PMT VST is now working. We are using this for:
  - Acquire PMT signals with the actual PMT DAQ chain;
  - Perform LVDS tests to set correctly their configuration (baseline, threshold, polarity, width…not all implemented);
  - Connect LVDS outputs (one board) to the NI trigger system;
  - Perform preliminary tests with FPGA (counting, multiplicity evaluation).
- Started the definition of automatic PMT calibration procedure.
- PMT analysis and calibration procedures definition.