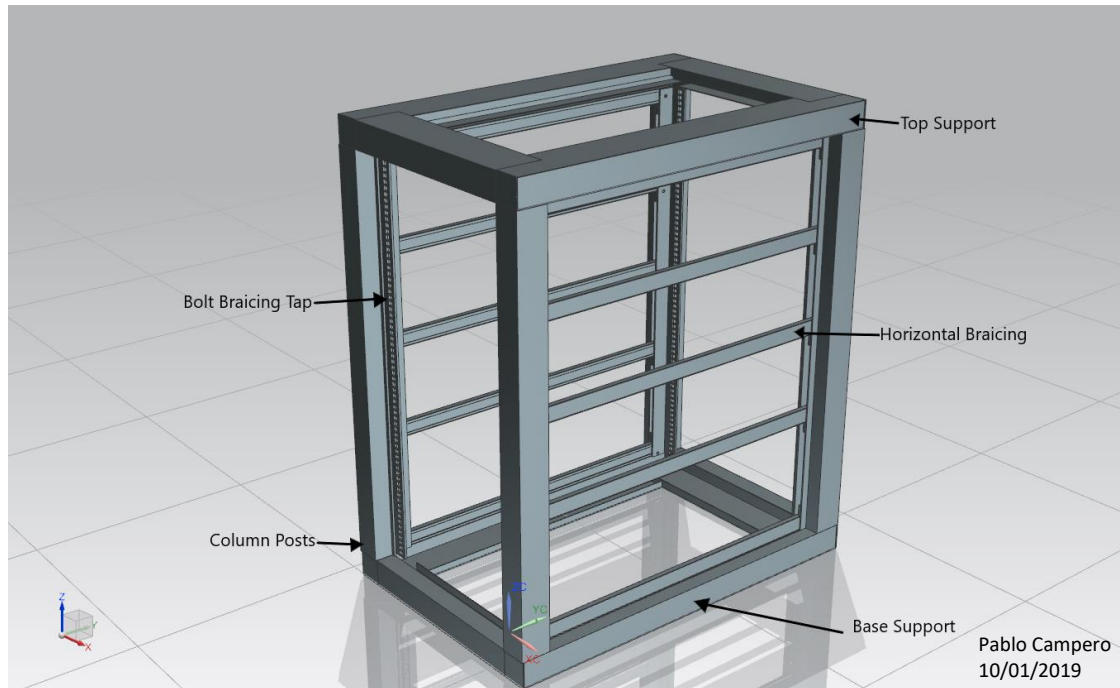


Summary

Hall A – GEM Gas System

- Developing of NX12 3D model for Gas Distribution system
 - ★ Completed assembly of Gem Gas Panel Rack: 32in. x 19in. x 36in.



Hall A Super BigBite HCAL

- 85% completed

Hall B RICH

- Replacement pressure transducer installed on air-cooling system's buffer tank.
- For spot size (d_0), radius of curvature, and surface quality test
 - ★ Developed LabVIEW subVIs for linear stage movement for d_0 .
 - ★ Developing overall project in LabVIEW which will use previously developed analysis, CCD, and the developed stage movement subVIs

Hall B – Magnets – LV Chassis

- Investigating why DE0-Nano-SoC's FPGA does not work with chassis' DAC.
 - ★ Changing output strength or slew rate on pins has no effect.
 - ★ Scope captures with Cyclone 4 vs Cyclone 5 appear to be the same when not connected to DAC board (cannot probe board test points when connected).

Hall B – MVT

- Switched gas supply back to Ar-C₄H₁₀ from Ar purge



Detector Support Group

Weekly Report, 2019-10-02

Hall B – HPS

- Updated PLC to include additional Convectron vacuum gauge
 - * Convectron gauge is better than the currently installed cold-cathode gauge.

Hall C Hardware HV Test Station

- Developed HV test chassis to control 48 channels
- Assembled Radiall 52 pin connector to SHV adapter box

Hall C EPICS HV Test Station

- Continued analysis of GECO-2020 data log files from CAEN-A7030TN board tests (board ser. #: 304 and 297)
 - * Compiled time difference between $P_w = 1$ (channels turned on) and actual ramping of channels that presented the ramp up latency
 - * Report with detailed results of each test sent to CAEN technical support
 - CAEN concluded that issues could be caused by the A7030TN board firmware
- Tested A7030TN module (board ser. #: 297)
 - * For the test, set the parameters indicated in the table and logged data using GECO-2020

Parameter	Set Value	Parameter	Set Value
Pw	0	RUp	25 V/s
V0Set	1500 V	RDWn	25 V/s
SVMMax	1800 V	Trip	3 s
I0Set	1000 uA		

- * Data recorded for only 6 of planned 24 hours of testing (test was interrupted by windows configuration/loss of network connection between CAEN crate and host computer running GECO-2020)
 - From recorded data, saw no changes in parameter set values

Hall C – EPICS

- Continued conversion of Hall C magnets’ HMI screens to CSS-BOY screens
 - * Created rules for action buttons and text/numeric update fields

DSG R&D – RICH

- Updated sbRIO firmware and software, and LabVIEW program to LabVIEW 2019
- Added moving averages for relative humidity and temperature sensors
 - * Moving average is based on 100-samples for each sensor

DSG R&D – PLC Test Station

- Developed EPICS IOC, CSS-BOY screens, and FactoryTalk View HMI screens for RTD module test.