



## Detector Support Group

### Weekly Report, 2015-12-9

#### Antonioli, Mary Ann

##### Hall B

##### DC

- Tested 10 HV cards (240 channels).
  - ★ Each channel was tested individually for voltage, current, and current-trip.
  - ★ Three cards had a problem with channel 16. Possibly an issue with the test cable or box.

##### DSG

- Trained on and researched cRIO systems.
- Changed photo on website and archived replaced photo.
- Worked on issues with Tyler's phone line and safety shoe PRs for Amanda and Tyler.

#### Arslan, Sahin

##### Hall B

##### DC

- Cut, with Anatoly, DC LV Cables for R2-S3-SL3/SL4; R2-S4-SL3/SL4; R2-S5-SL3/SL4; R2-S6-SL3/SL4. A total of 56 cables.
  - ★ All LV cables for R2 cut.
  - ★ Transferred DC LV R1 cables to ESB, with Mindy.
- Fixed HV AMPHENOL connector for test station.
- Cleaned 11 HV modules to be tested.

##### Micromegas

- Ran in EEL rm. 125 two gas lines for Isobutene/Argon.
  - ★ One line will share input gas with Forward Tagger and Micromegas; the other line is for output.
  - ★ Attached appropriate warning labels on the gas lines.



Photo shows the two gas lines attached to regulators outside EEL.

##### DSG

##### Safety

- Attended Worker Safety meeting.

#### Bonneau, Peter

No report – sick



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#### Butler, David

No report –leaving JLab

#### Eng, Brian

##### Hall B

##### Magnets

- Meeting with Josh Ballard, Rubin Fair, and Peter from DSG to discuss Magnet work.
- Current plan is to review their software progress this month prior to starting work.
  - ★ Tried installing newer version of Allen Bradley PLC software (Josh used 27, we were using 23), but to do so Hall D license server would need to be upgraded.
  - ★ Josh mentions Hall B has only one seat on the network server, **need two more for multiple people to work.**

##### SVT

- Software meeting.
  - ★ CDDDB overview from main developer.
  - ★ Calibration suite progress.
- Debugged R4 M9 HV with Amanda; tried swapping cables, still has high current.

##### Micromegas

- Worked with Saclay and JLAB personnel on integration of barrel micromegas and SVT

##### HDIce

- Copied files from latest USB drive from Craig, after quick initial browsing seems like **most data files and older code.**

#### Hoebel, Amanda

##### Hall B

##### SVT

- Assisted Brian in troubleshooting of module.
  - ★ **Region 4 Module 9** is drawing too much current (1.75[ $\mu$ A] when it should be 200[nA]). Adjusting the voltage for the correct current tripped the low-level voltage alarm (10[V] when it should be 85[V]). Replacing the cable did not solve the problem so we reconfigured the alarm to allow for the low-level voltage values.
- Turned low voltage and high voltage on for each region and module (3.25[V] and 85.0[V] respectively).
- Started CODA – data run to check modules with cosmic hits.
- Observed integration of the Micromegas with the SVT.
  - ★ Micromegas was wheeled into cleanroom, lifted with a crane, and slid over the SVT.



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#### Hall D

##### Magnet

- Monitored Hall D logbook.
  - \* Noted ground fault between voltage tap 15 and 16 were too low of a resistance to ground.

#### DSG

- Assembled PLC rack with Tyler and soldered leads for RS232 cable.
- Continued cRIO training.
  - \* Saved project files.
- Programmed probability distribution function with Root/C++, LabVIEW, and Mathematica.

#### Jacobs, George

No report – sick

#### Leffel, Mindy

##### Hall B

##### DC

- Transferred with Sahin all R1LV cables to ESB.
- Terminated R2S1SL3 LV cables. printed all labels for R2.

##### Gas System

- Worked with Sahin installing gas lines for Microgas.

#### Hall D

##### Detector

- Went with Dave to hall to adjust thermostats on BCAL chillers to 10°C.

#### Lemon, Tyler

##### Hall B

##### SVT

- Observed the integration of Micromegas and the SVT
  - \* Micromegas was lifted with a crane, bolted to support structure, aligned and slid on to the SVT, and bolted into place.

#### Hall D

- Monitored logbook.
  - \* Noted incorrect readings NMR probe on the tagger magnet
  - \* Reading was corrected by checking the probe's position and turning the probe off and back on again.



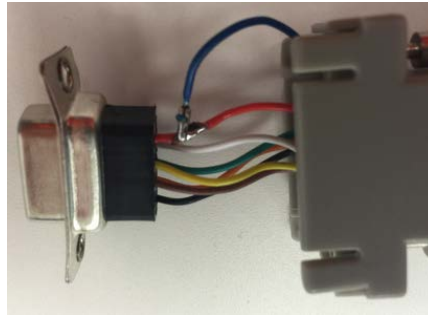
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### DSG

#### PLC Test Station

- Fabricated an RS232 cable with Amanda for communication between the PLC and computer.
  - \* Inserted pins into housing and soldered two leads together.



RS232 cable with leads soldered

- Familiarized myself with the CUE cluster remote login.
  - \* Used C++ compiler and Labview to write a program for prime factorization.

### McMullen, Marc

#### Hall B

##### Gas System

- Working on the third Gas Controls Chassis, which will be installed in the gas shed.
  - \* Wired rear panel connectors and supplies to distribution blocks.
- Attended Hall B engineering meeting.
  - \* Discussed DCGAS controls installation on SFL3 and LTCC on FCL1.

### DSG

#### PLC

- Set up L35E to read a RTD and an analog input connected to a power supply.

#### Safety

- Provided Sharabian with THA supplement for HTCC temporary gas monitor, to be add to BList.
- Contacted Hall B Engineering about completing Micromegas work control documents.

### Sitnikov, Anatoly

#### Hall B

##### DC

- Measured and cut, with Sahin, 56 low voltage cables.