

PHENIX WEEKLY PLANNING



Happy Halloween!

Oct. 31, 2013
Don Lynch

Next Week

- Complete Assembly of FVTX/VTX East & West
- Survey FVTX/VTX East & West
- Continue upgrading VTX/FVTX supply/return lines to stainless
- Continue MPC-Ex installation prep & design/fabrication of assembly fixtures & components
- Continue sPHENIX support
 - HCal prototype assembly
 - EMCal prototype assembly
 - Tilting/rotating SupportStructure assembly & test
- Future IR evolution modeling



VTX/FVTX



VTX East Assembled ready for FVTX East

VTX West 3 more strip-pixel ladders to fix/test

Survey to begin on Monday with west half detector

VTX & FVTX Remaining Tasks

Receive remaining strippixel stave components	Done
Assemble & test strippixel staves	Done
Receive remaining pixel ladders	Done
Test pixel ladders	Done
Integrate staves & electronics & test	in progress
Assemble East & West VTX & test	in progress
Transport FVTX to Chemistry building.	By 10/31
Integrate FVTX Integrated into East & West VTX.	By 11/6?
Survey VTX/FVTX assembly	By 11/13
Transport VTX&FVTX assembly to PHENIX and install on rails.	11/14
Re-install coolant and N ₂ lines, LV, signal and HV cables and fibers	by 11/25
Re-survey full detector in IR	by 11/27
Re-commission VTX & FVTX	by 1/1/14



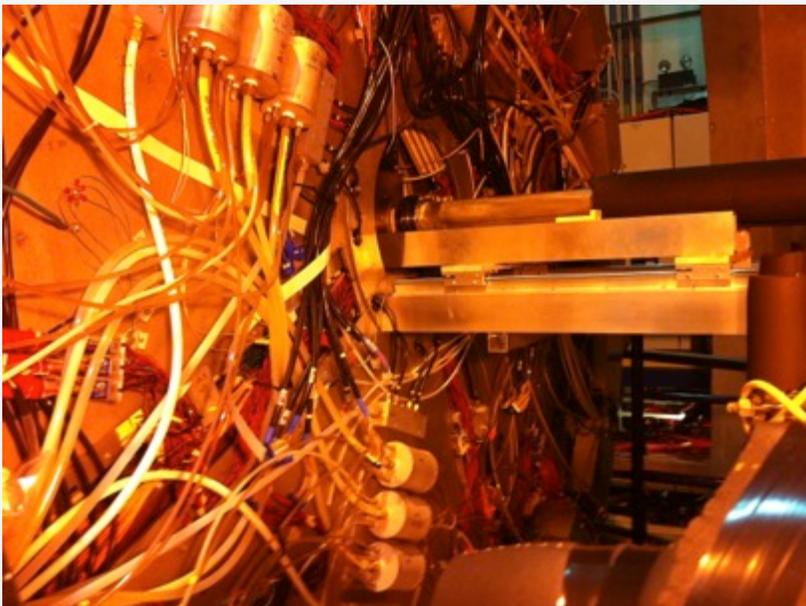
DC East & West Repairs Summary of Tasks

PHENIX
 PROTECT
 NORM

- East Carriage move to AH - Done
- Work Permit - Done
- Design & Construct tent (similar to tent constructed for DC West last year) to prevent foreign material from entering DC East cavity while window is removed. - Done
- CAD to provide 2 vertical manlifts to allow DC experts to remove and replace window - Done
- Get supplies and materials from Stony Brook for window replacement - Done
- Troubleshooting and repairs on DC West - Done
- Supply Gas, DAQ and Electric to EC East - Done
- Isolate and repair leak on DC East - Done
- Remove and replace window - Done
- Isolate and repair leak under electronics card - Done
- Leak test - Done
- Operational tests - Done
- Remove tent and manlift - Done
- DC West broken wire removal - 12/15 - 12/30

MPC-Ex Initial (Partial) Installation

PHENIX PROJECT



Preliminary assembly with single carrier board in half detector with LV distribution board tomorrow. Remaining 3 carrier boards by next week, then installable partial detector to be assembled next week.

Vacuum bellows anti-squirm in MPC S Cavity installed.

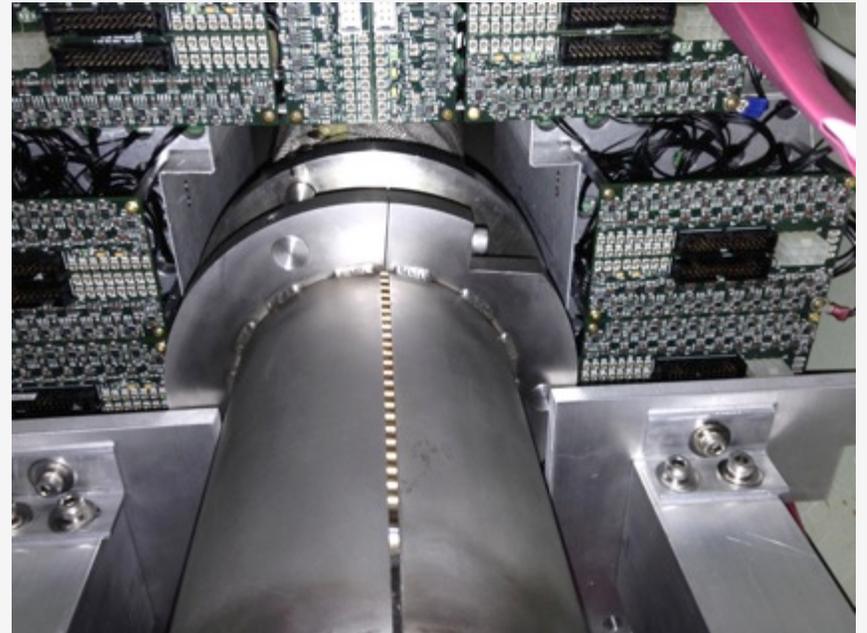
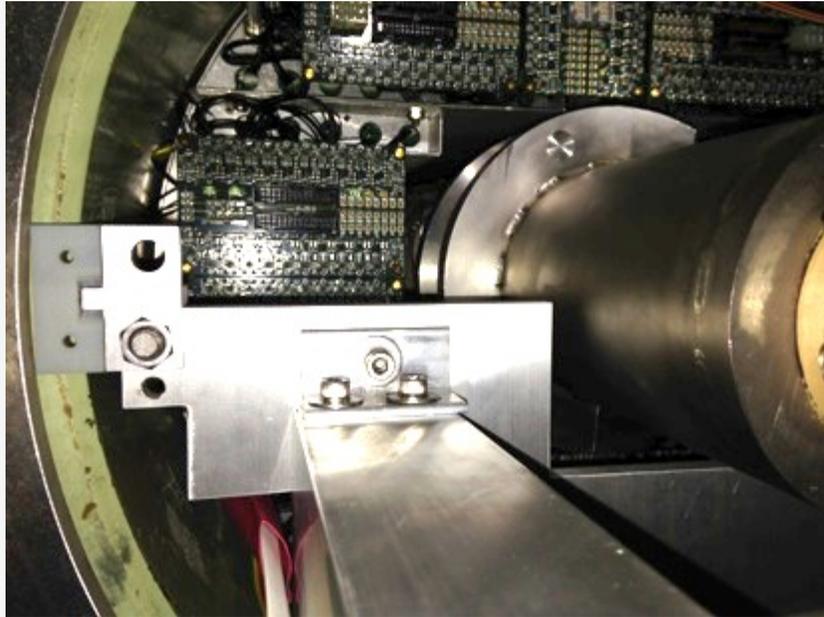
Installation tool assembled; Tool placement for installation is in progress

Test Fit of partial assembly in progress

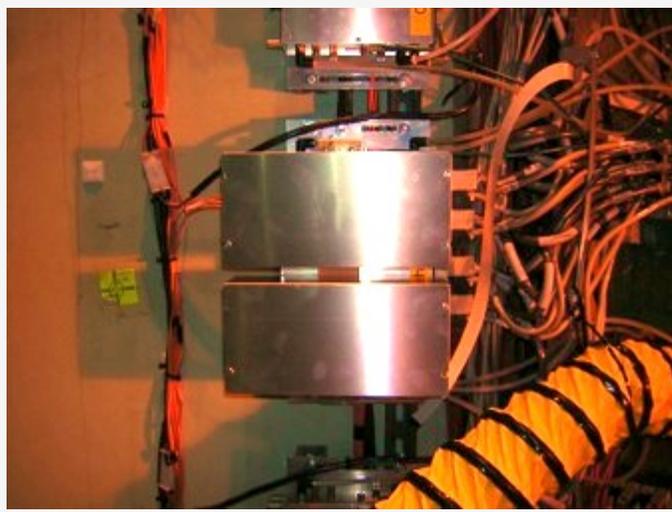
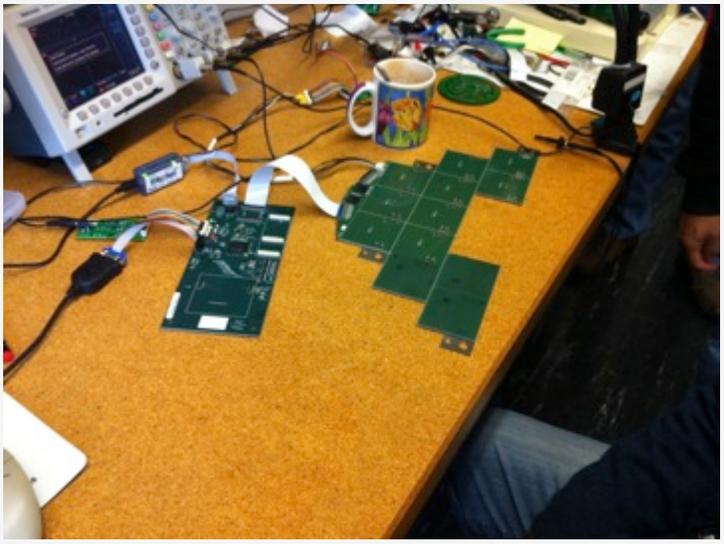
1st tungsten/carrier board lamination done



PHENIX 7 SDC BOARD - NO-3

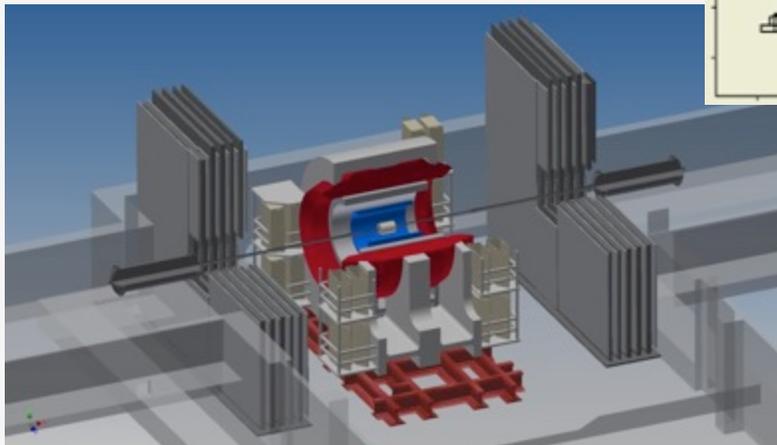
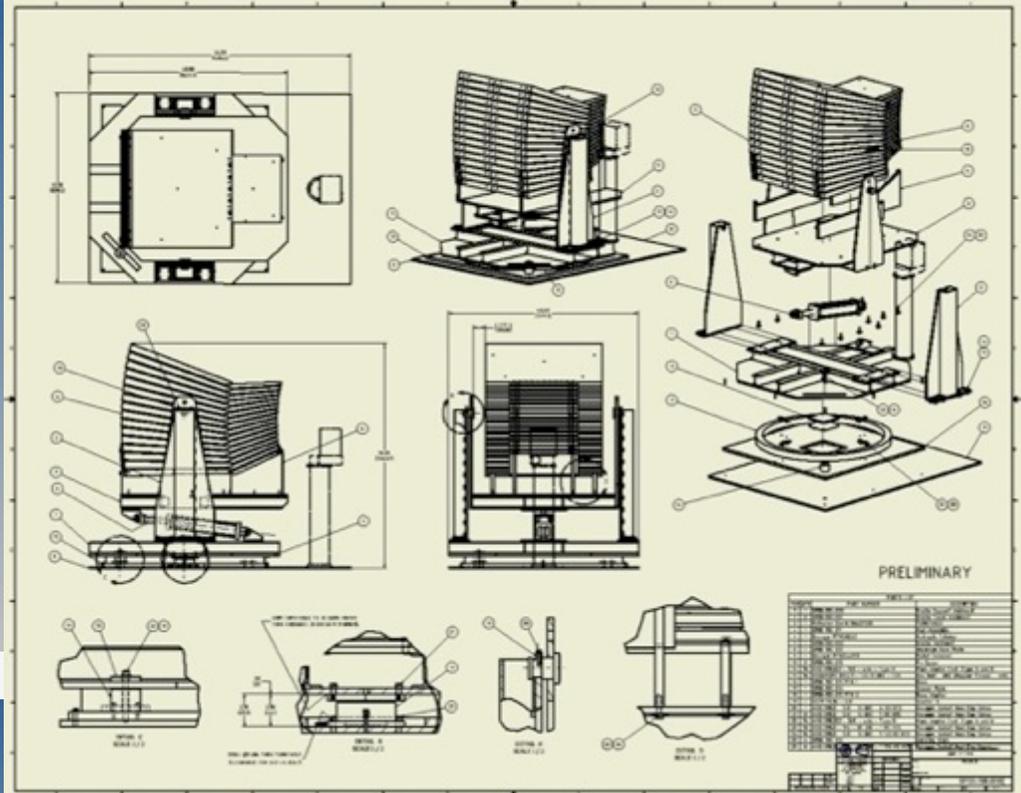
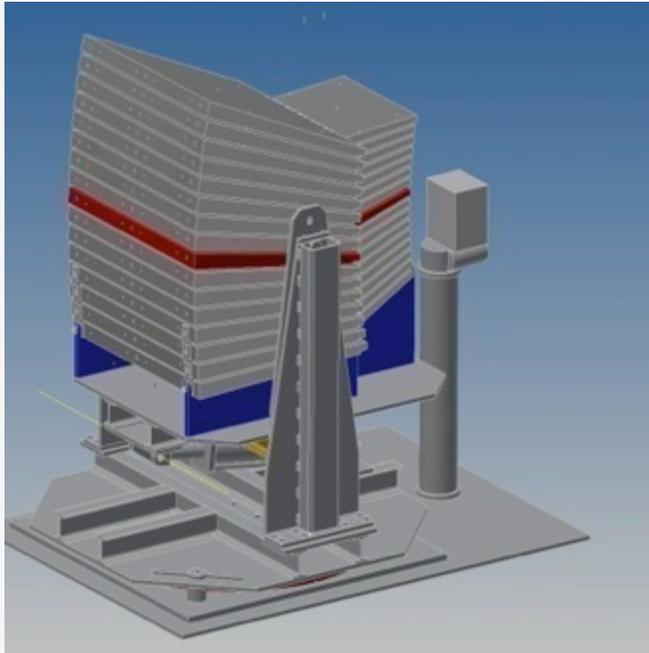


PHENIX 7 SDAOCT-NO-3



10/31/2013

PHENIX PROTOTYPING



Remaining Hcal Prototype support components expected this week



Hi-Bay
Prototype
Assembly Area

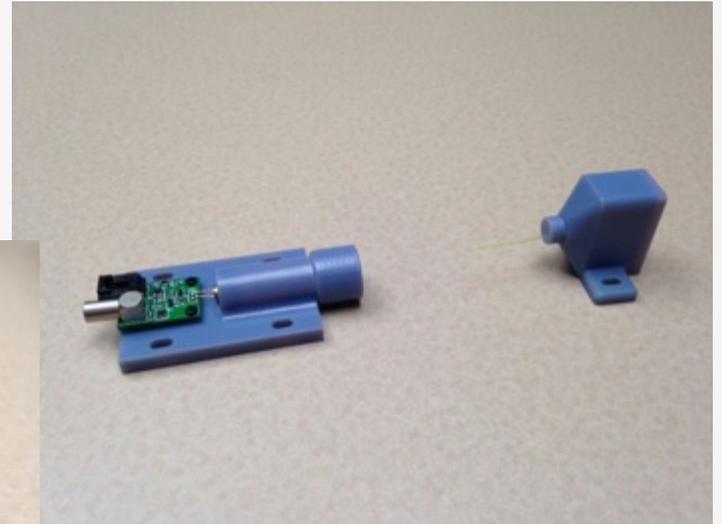
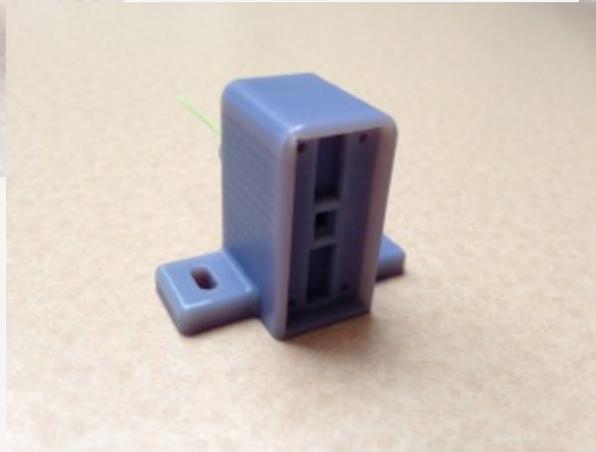
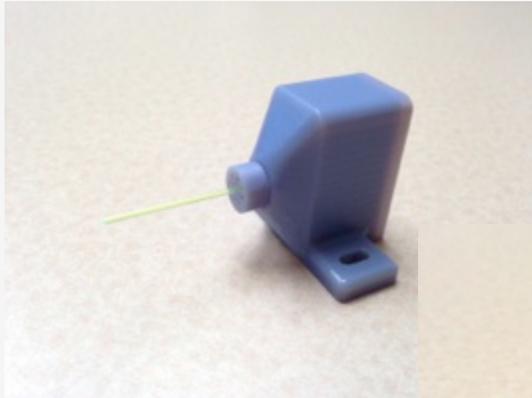
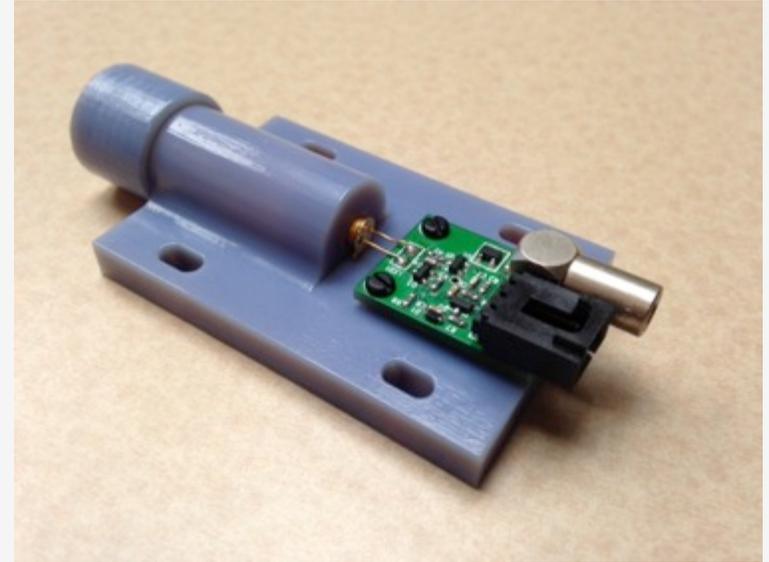
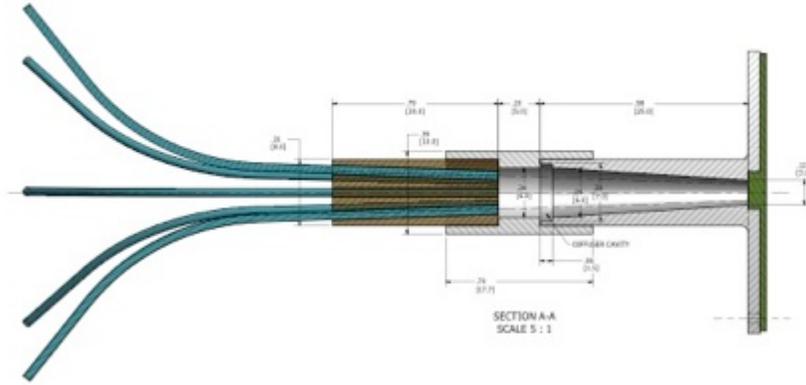


sPHENIX prototype
electronics rack



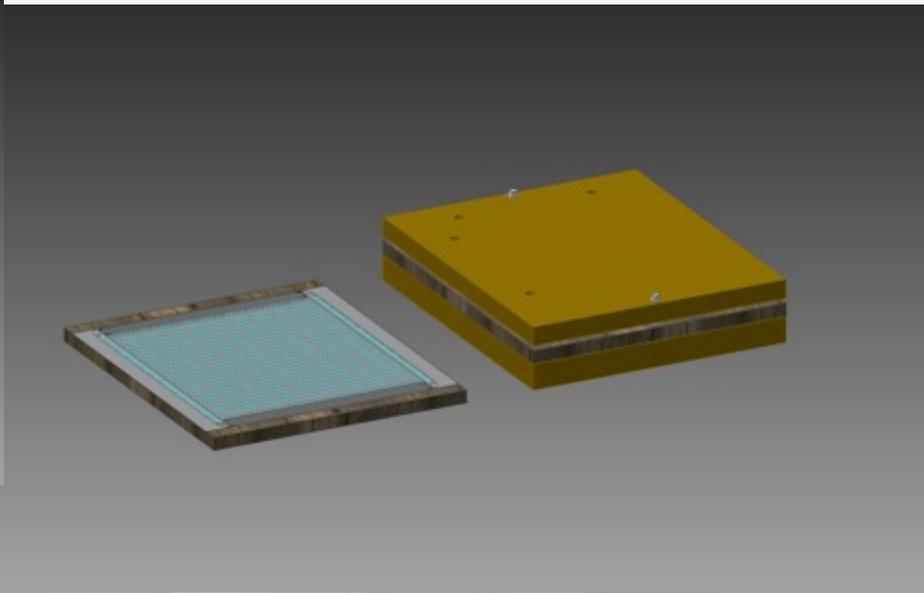
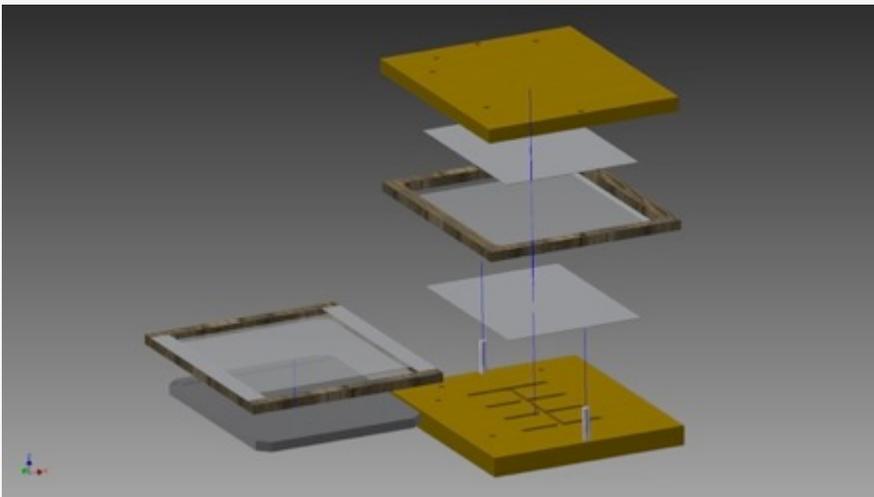
Base and cradle returned to central shops after painting due to lack of mounting hole features. Central Shops QC is non-existent

Light Collection for HCal



EMCal Prototype

PHENIX PRODUCTION



Prototype "Egg Carton" light collection



10/31/2013

sPHENIX Prototype Assembly and Test Tasks

PHENIX
PROTOTYPING

Design Hcal and EMCal Prototypes and support components and shipping crates - *in progress*

Procure materials and detail parts - *in progress*

Receive and inspect parts

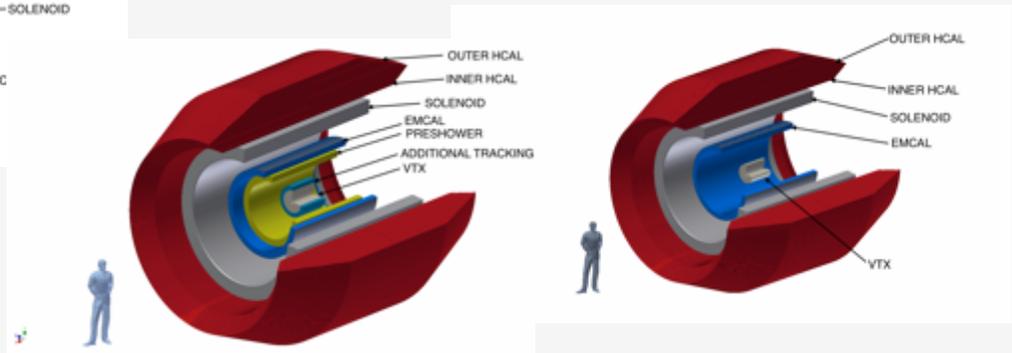
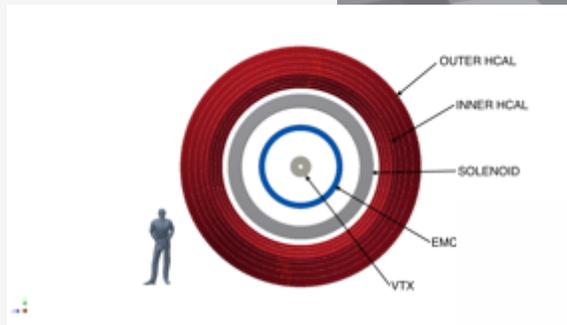
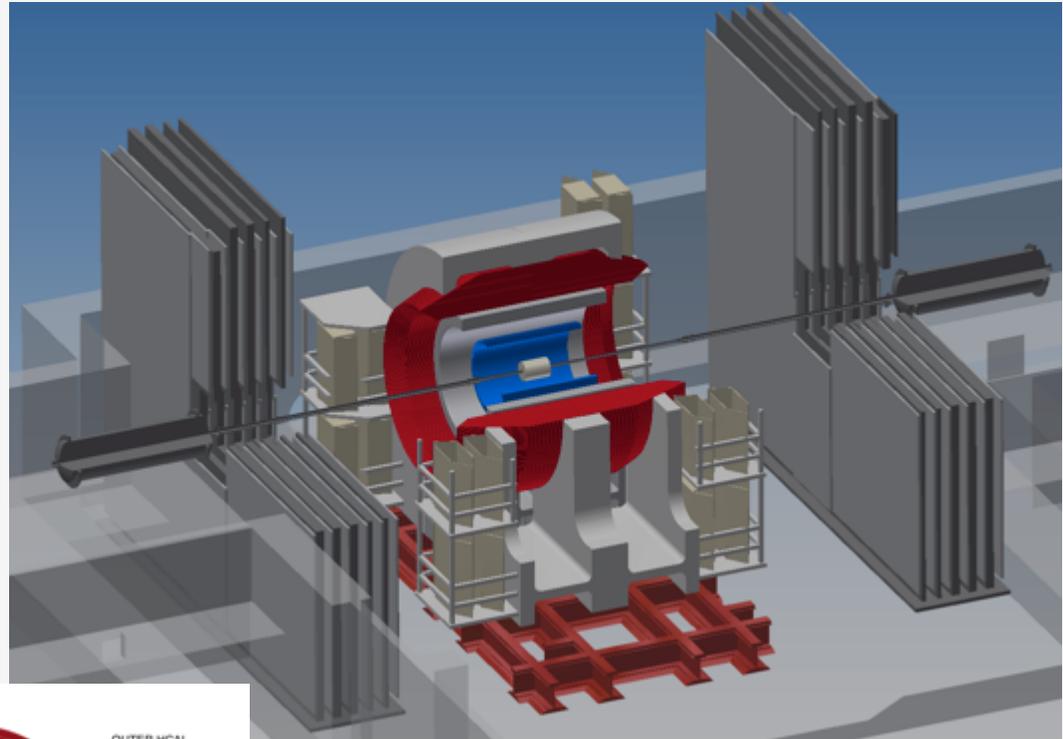
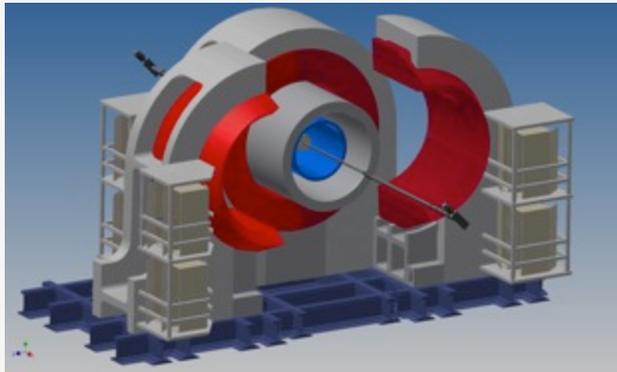
Assemble prototypes

Test assemblies for mechanical fit and function

Package and ship prototypes to FERMI Lab for performance tests

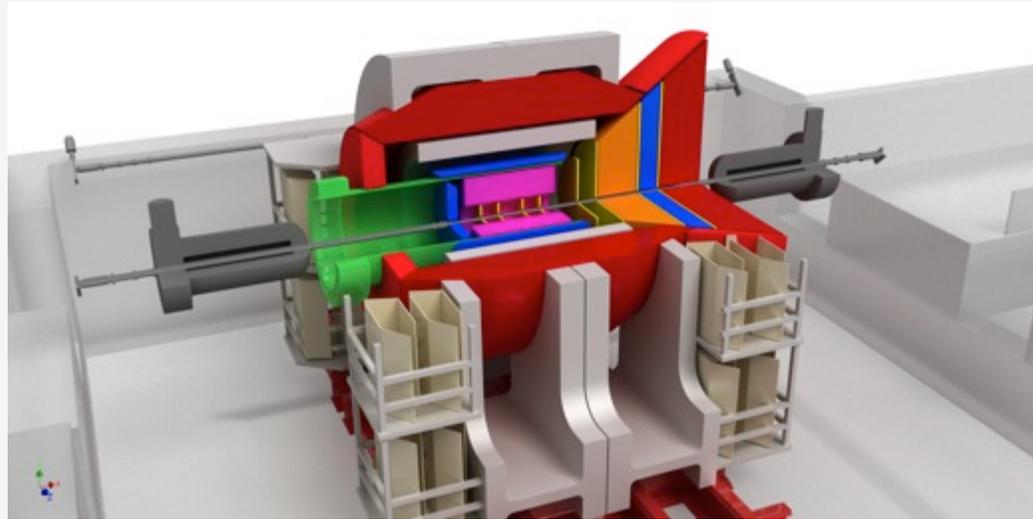
Test and Evaluate at Fermi Lab

PHENIX PROGRESS REPORT

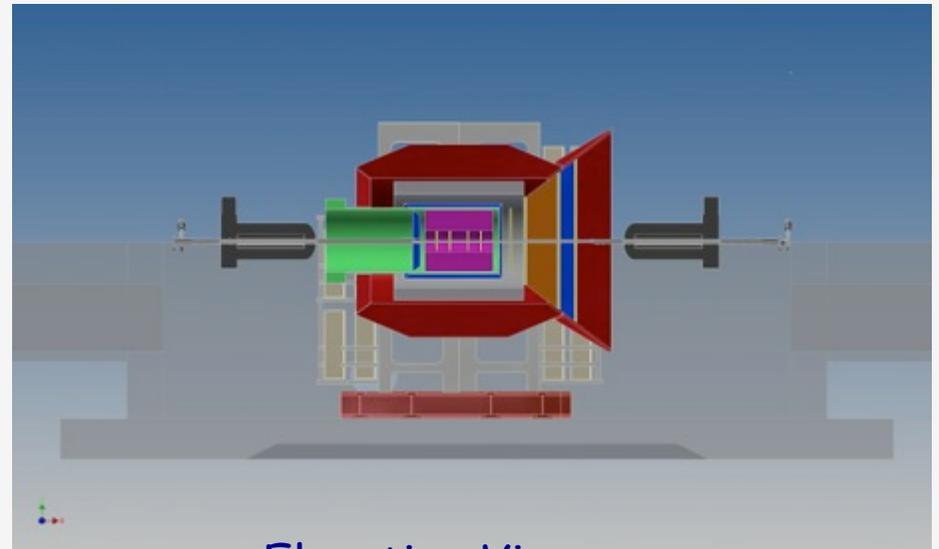
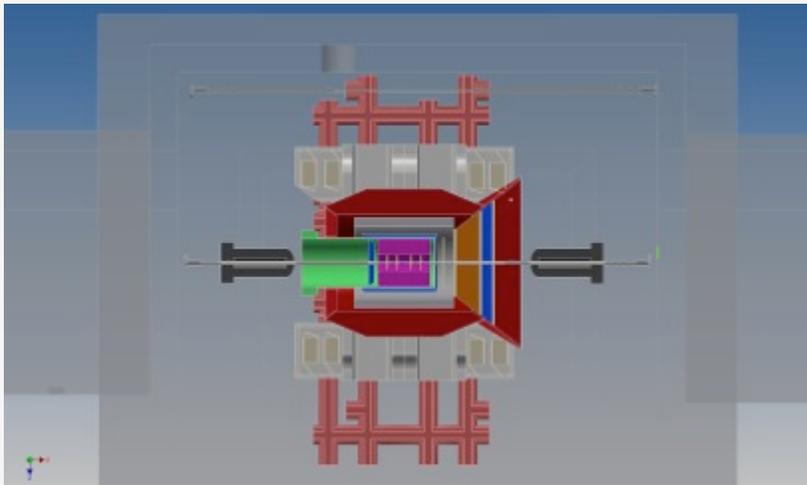


sPHENIX Modeling support for updated MIE

ePHENIX



Plan View



Elevation View

Window Washer Winch Upgrade



Window Washer Winch Upgrade Summary of Tasks

Receive and Inspect winch and components - Done

Design and Fabricate Winch & Sheave Base - Done

Install and test Winch, integrate with window washer hardware, controls and power - Done

Final Inspection and approval of window washer upgrade

(Note: remote safety pin insertion and retraction was installed and has been in operation since the start of run 13.)



Alcohol Chiller Work For Shutdown 2013



Merlin Chiller

➤Chiller supplied about ½ the flow as in the past.

- Pressure on chiller says ~70-80psi
- Install gauge on supply line and measure actual output pressure.
- Replace chiller with spare if needed.
- Send old chiller out for maintenance or replace.

New Chiller failed to be returned for warranty replacement.

Re-Insulate Glycol lines



❖Remove old polyethylene insulation and wrap and replace with foam rubber insulation.

- Temp of fluid is affected too much by temp change in the gas house.
- Lines are condensing and dripping because of gaps in insulation.



Replace VTX supply tubing with stainless steel
as much as possible - **in progress**

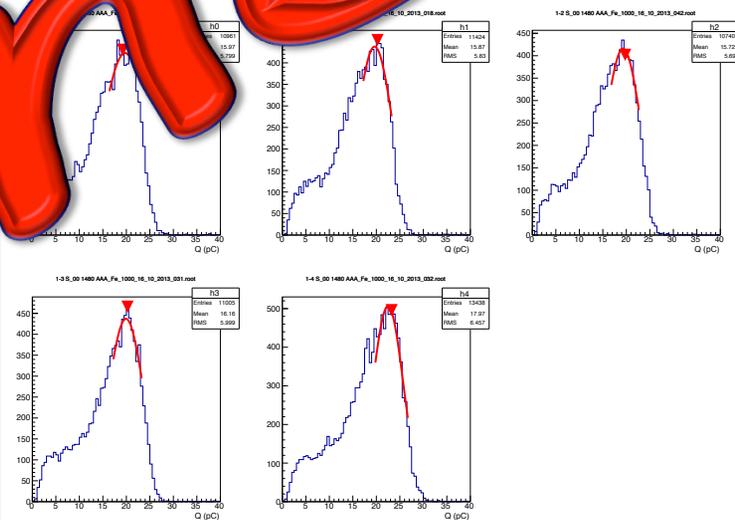
- ZDC Remove, Test, Recalibrate

Test is done ZDC's returned to south tunnel (and re-installed?)

PHENIX SOUTH TUNNEL



Done



2013 Shutdown Schedule

PHENIX
 LABORATORY
 NORTH

Prep for 2013 shutdown	Done
Design, Fabricate MPC-Ex	
Define tasks and goals	
Analysis and design of fixtures, tools and procedures	
Fabricate/procure tools and fixtures	
Tests, mockups, prototypes	
Receive, fabricate, modify, finish installables	
Review and approval of parts, tools, fixtures and procedures	
Assembly and QA tests	
VTX Strippixel redesign	Done
VTX Strippixel 1 st article stave assembly	Done
VTX Strippixel 1 st article qualification/performance tests	Done
VTX Strippixel sensor reclamation	Done
Run 12 Ends	Done
Shutdown Standard Tasks	Done
• Open wall, disassemble wall, Remove MuID Collars	
• Move EC to AH, etc.	
VTX/FVTX Post run tests	Done
Disassemble VTX/FVTX services	Done
July 4 th Holiday	Done
Remove VTX/FVTX and transport to Chemistry Lab	Done
Remove Lampshade MMS, East Vertical	Done
VTX strippixel stave production	Done
Pixel Ladder repairs	Done
VTX Strippixel ladder assembly & Test	7/15-11/5/2013
Assemble, Test and Install MPC-Ex (Partial, location TBD)	7/22-11/15/2013

PHENIX
 ACCELERATOR
 SHUTDOWN

MuTR Troubleshooting, maintenance and repairs	Done
Summer Sunday (8/4) Prep and teardown	Done
Summer Sunday (RHIC)	Done
DC West troubleshooting & Repairs	Done
DC East Window Upgrade and Related Repairs	Done
sPHENIX HCal Prototype Assembly/test	8/19-12/31/2013
Re-assemble VTX/FVTX halves	by 11/6/2013
Test, survey (at Chemistry and IR) and re-install VTX/FVTX	11/1-11/13/2013
Install & Survey VTX/FVTX in 1008 IR	11/14-11/25/2013
VTX Commissioning	11/25/2013-1/31/2014
Other detector maintenance as required	As required
Infrastructure maintenance as required	As required
Pre-run commissioning and prep for run 14	11/25/2013-1/31/2014
Veterans Day, Lab Holiday	11/11/2013
Thanksgiving Holidays	11/28-29/2013
Prep for EC roll in	11/1-12/2/2013
Roll in EC	12/2-12/6/2013
Prep IR for run	12/1-12/15/2013
DC West wire repairs	12/15-12/30/2013
Christmas Holiday	12/24-25/2013
New Year's Day Holiday	1/1/2014
Pink/Blue/White sheets	12/14-1/31/2014
Start run 14	2/3/2014

From Ray Karol:

Safety and Security



1. Results of tests on crane bolts that failed:

Fatigue Failure exceeded life
Bolts were good: met specs.
Installation proper
Corrective actions under consideration

2. Here is an article on the arc flash hazards of DC battery systems.

<http://www.battcon.com/PapersFinal2012/Bill%20Cantor%20-%20DC%20ARC%20Flash.pdf>

3. Here are the new BNL requirements for contractor LOTO training and documentation (see OPM 2.36.b) Contractor LOTO OJT Requirements:

Contractors/subcontractors who are to perform LOTO require the following Authorized LOTO training:

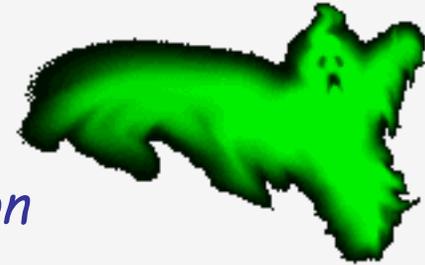
Proof of authorization from their employer in the form of a written notification to BNL/C-AD including the names of the contractor's Authorized Employees, OR

Completion of either the BNL Authorized LOTO Web Course (HPOSH-151B-W) or the classroom training for LOTO (HP- OSH-151-B) AND

For "escorted LOTO" by the contractor, completion of the BNL Lockout/Tagout On-the-Job Training Tool, OR

For "unescorted LOTO" by the contractor, completion of the BNL Lockout/Tagout Job-Performance Measure.

PHENIX
SCHOOL
WON



No Update from Safety group on last weeks injuries and events



Where To Find PHENIX Engineering Info

New Members of the PHENIX Family



Chris' new baby



Sal's new baby

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm