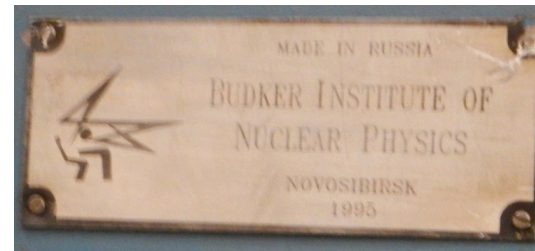


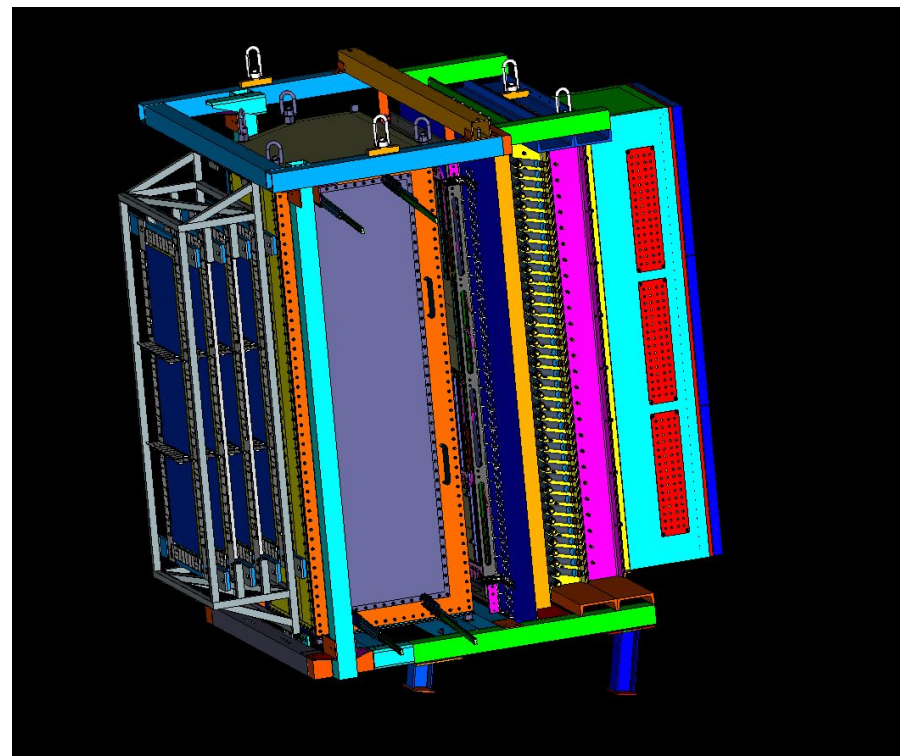
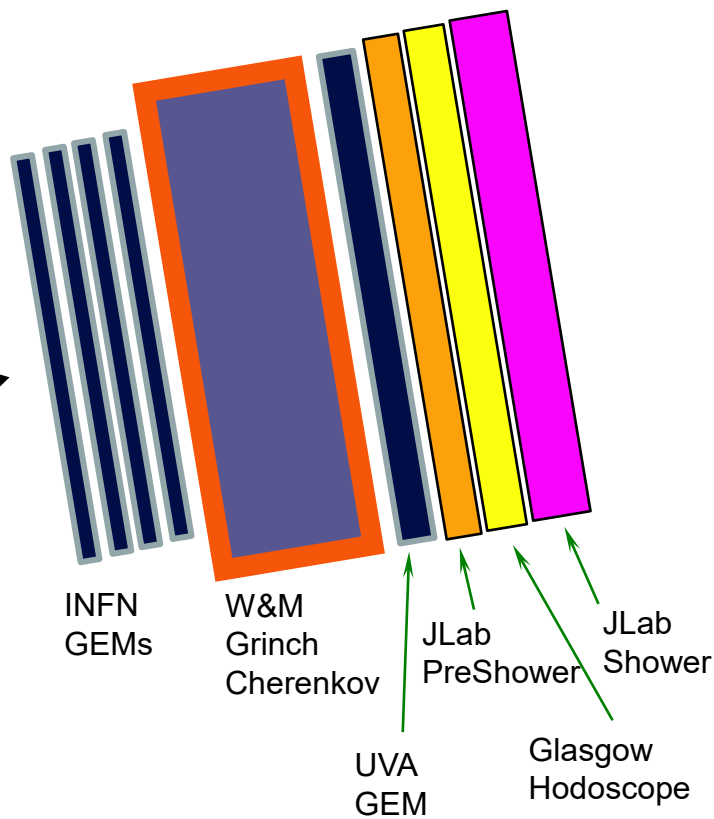
BigBite Summer Detector Integration Party

(bringing GEMs, GRINCH, Preshower, Hodoscope, and Shower together)

by Douglas W. Higinbotham (JLab)

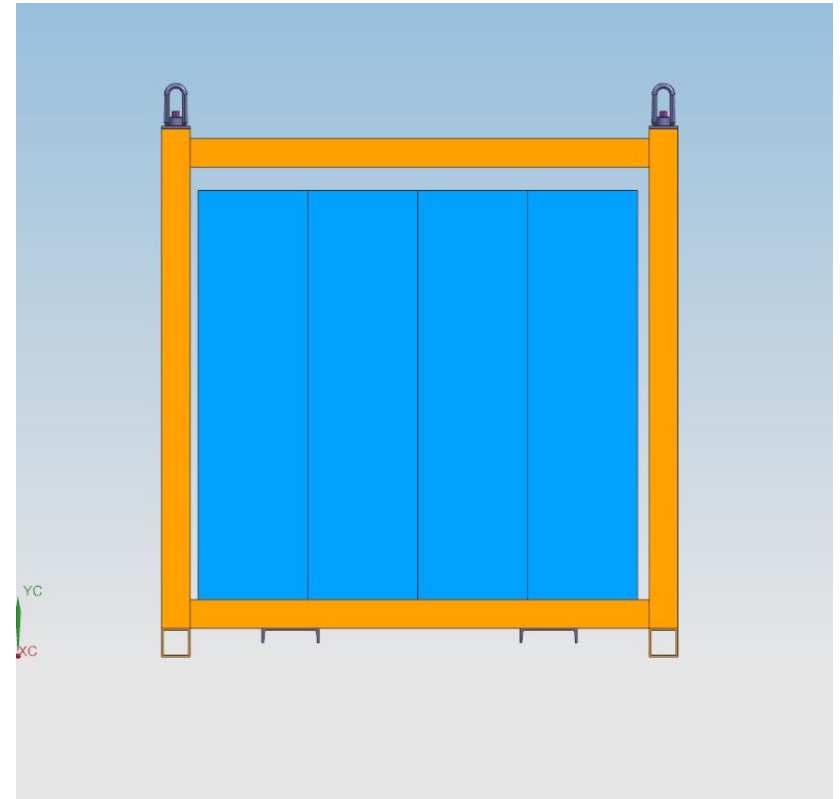
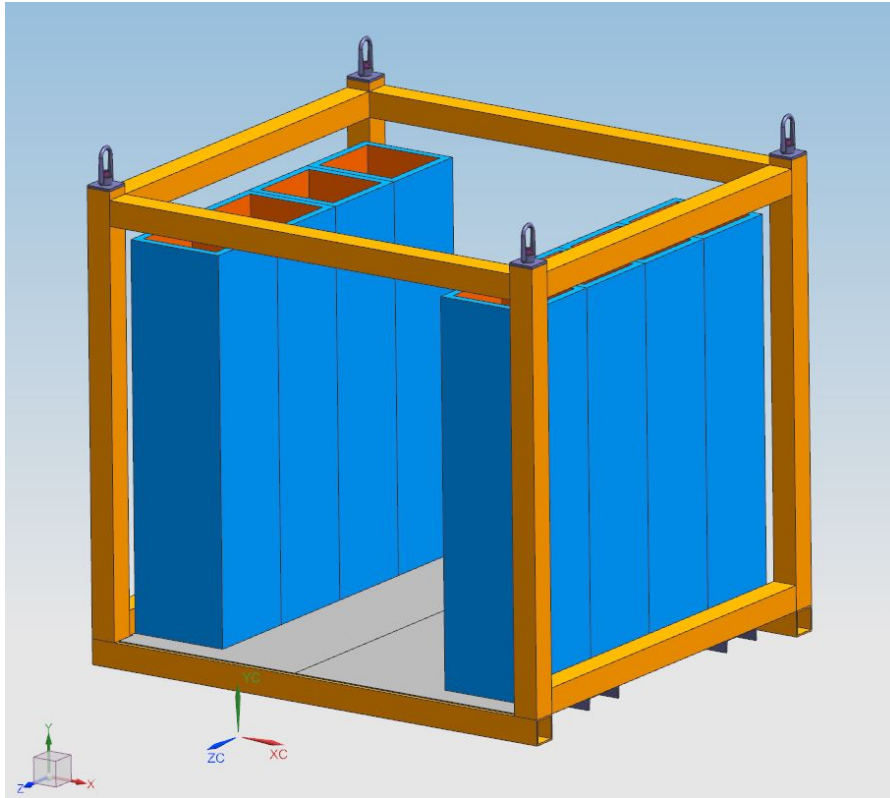


Upgraded BigBite Detector Package

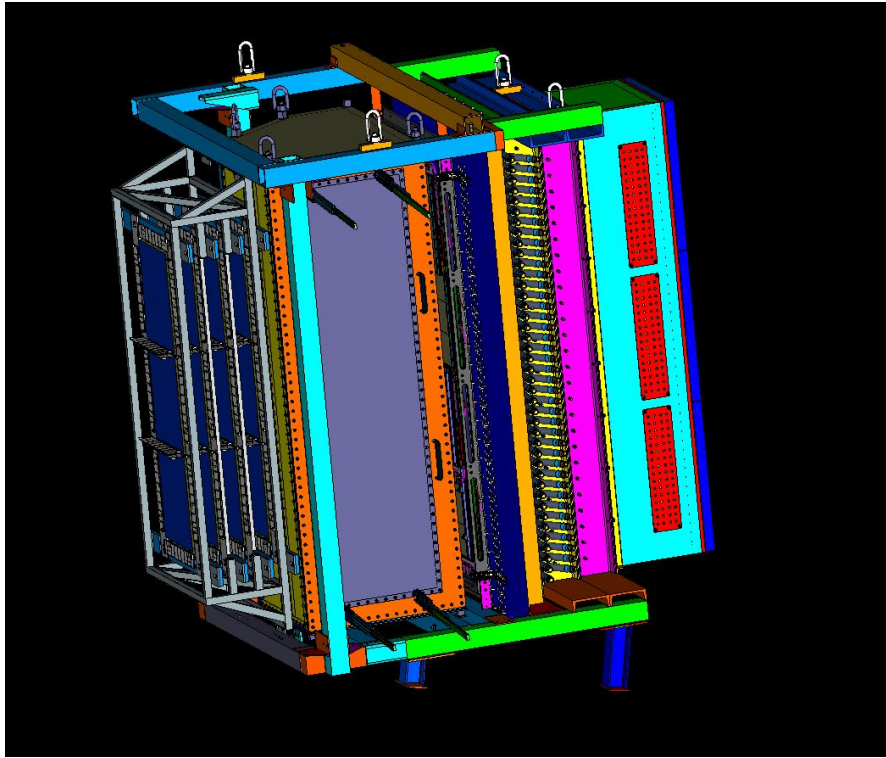


New Electronic Weldment

With input from Jessie, the new design can be lifted with a crane or forklift. Material is all on-site and Walter is trying to get it done by the end of this month! (as always upcoming experiments take priority, so could be delayed)



Current Status of BigBite Detector Package



Shown are the Grinch, Preshower, Hodoscope, and the Shower detectors in the modified BigBite frame.



BigBite Preshower & Shower Detector

- Total of 243 Lead Glass Blocks
 - Preshower 2 by 27 blocks
 - Shower 7 by 27 blocks
- Preshower blocks have been re-installed and have been individually tested.
- Shower blocks have all been individually test.
- High Voltage
 - ALL HV cables have been located & connected
 - OLD LeCroy Creates are working again!
 - Remote connection with Rasbarry Pi's
 - HV cards working.
- Front end NIM cabled and ready very for further testing.
- **Many thanks to Eric Fuchey and Kai Vylet.**

Glasgow Hodoscope

- Hodoscope bars all in place.
- Ready to start using CAEN HV crate
 - Eric just finished setting-up the LeCroy crate communication and kindly agreed to look into this too.
 - Communicates with EPICS
 - Special HV cables being made in Glasgow
- Low Voltage Supply On-site (for NINO cards)
- Finalizing NINO card location (Scott Barcus)
- Glasgow team will come in early July to help with final assembly and testing.

Grinch / Cherenkov Detector

- After much effort the Grinch is now gas tight!
 - Which gas are we going to use?
- Carlos/Todd have been doing cosmic tests.
- Once weldment is in the testlab, we will move the Grinch HV and DAQ into the main weldment which will help free-up space.

Excellent Summer Manpower!

- **Postdoc Eric Fuchey (Univ. Conn.)**
- **Postdoc Scott Barcus (JLab)**
- **Postdoc Arun Tadepalli (JLab) [starting May 16th]**
- **SULI Student Joshua McMullen (with some JLab experience!)**
- **Ashley Yoon (CNU) Masters Student [thanks to Peter Monaghan]**
- **Kai Vylet (UVA First Year) [part time]**
- **Univ. Conn. Ph.D. Students [thanks to Andrew Puckett]**
- **Glasgow Team Visit (July)**
 - Rachael Montgomery, John Annand, and a technician
- **William & Mary Grinch Team (all summer)**
- **And The Very Important Tracking Detectors !!**
 - Evaristo Cisbani/INFN (front GEMs)



Major Summer Milestones

- Shorten signal cables (NOW)
 - We have all the equipment needed
 - Kai, Scott, Eric and I have been (trained by Chuck.
- Fully Test Front End (May)
- New Electronics Frame In The Test Lab (June)
 - Install Eight Racks and get electrical service working
 - Install Crates into Frame (HV, Fastbus, VME)
 - Integrate Grinch Electronic Into Electronics Frame
- Finish Hodoscope & Run DAQ (July)
- Add GEMs (August) [a]



In Summary

- Most of the BigBite detector is together & in TED high-bay.
- Space is tight, but should be ok once I have new frame
 - Cables mostly on-site / some coming from Glasgow)
 - Shorting 300 BNC-LEMO cables to ensure a fast trigger.
 - Planning to use medium length cables for DAQ testing in TED.
 - For long cables, for the hall, still needs sorting and to decide on a length.
 - Electronics mostly on-site with some coming from Glasgow)
- Need to double check all lengths and locations.
 - Brad Sawatsky has agreed to help with this task.
- **This Summer Is Very Important!**
 - Need to have DAQ running and taking cosmic data by the end of the summer so we have time to address any issues prior to installation.
 - Thank you to the collaboration for getting students and other help this summer!!

INT Workshop Idea

Tentative Title:

Experimental and theoretical progress on the nucleon electro-magnetic form factors

- High Q^2 Nucleon Form Factors
 - New Hall A GMP Data – Eric Christy
 - Upcoming SBS Experiments – SBS collaborators!
 - Theory
- Nucleon Radii
 - proton radius & charge radius exp.: PRad/Muse
 - Theory from Jerry Miller, Christian Weiss, *et al.*
- Two Photon Effects
 - Experimental Results and upcoming ideas: Axel Schmidt, Doug Hasell
- **1-5 day stand-alone workshops with up to about 45 participants**
- **Application deadline June 30th**

Thank you to Seamus for sending me the link to the workshop idea.



Photonuclear Gordon Conference!

- The call for session ideas for the 2020 Gordon conference just went out.
- I assume we should have a form factor session.
- Would be good if someone other than me proposed it.