

ORC and Start of Assembly

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ArgonCube 2 by 2 Meeting

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ORC



- An ORC is a major milestone in getting an experiment going
- The full ORC requires that we have the racks completely built & the detector cabled into the rack in the MINOS Hall. All documentation for power in place. Racks are plugged in, but not powered up.
 - But that is probably not the most convenient way to do it
 - The plan is to do a partial ORC on the 2 racks in NDOS.
 - So the racks will have to be completely assembled with all the documentation for the racks and their components.
 - We can easily make hardware modifications if required by the PORC.
 - We start by putting complete documentation in Docdb.
 - We haven't decided how it would be submitted for the PORC.
 - After the PORC we put the racks in MINOS Hall, plug in power, and plug the detector cables.
 - Now is ready for ORC, but almost all the work has been done.
 - Now we can power up the MINERvA electronics
- Linda and I estimate ~ 3 weeks to get PORC for the 2 racks in NDOS



RPS for MINERvA Racks



- The RPSs are connected to the smoke alarms.
- For these 2 crates do we need BIRA RPS or ND RPS
- The ND RPS is not connected to the network, therefore it will not tell us the smoke detector went off.
- For MINERvA, we had 1 BIRA RPS which looked at all 3 MINERvA racks.
- There is a sprinkler system in the MINOS Hall
 - At the start of the ME run, we put a roof over MINERvA to prevent the water from falling on the detector.
 - Hence, The sprinkler system would not work for the MINERvA detector.
- For the ME run, we connected the MINERvA RPS to the FIRUS system.
- Do we need a BIRA RMS or connect the RPS to FIRUS.
- If the RPS trips a rack, we will know that because the DAQ will stop or there would be no light in a LI run. We would then have to go down and investigate the problem.



Tables and Cabinets



- Upstairs
 - 5 different kinds of cables to install and they will be prepared upstairs.
 - LI, Optical PMT cables, 2 power, CAT6.
 - Need at least 3 more tables upstairs and a cabinet to put our stuff in.
 - We will need something to clean the tables, especially the table we use to prepare optical cables. Alcohol, ethanol or isopropanol?
- In MINOS Hall
 - HCAL MS requires 11 PMTs and Tracker MS requires 19 PMTs
 - We will cable up the detector like it was before as much as we can.
 - This means we need access to all the PMTs to cable up a MS. Some boxes have more than 1 MS we may need more tables.
 - Since 2x2 HCAL is MS 9,10,11 we will have to unpack boxes for 19 PMTs
 - We will have to repack the PMTs we do not use
 - We cleaned some of the PMTs before boxing up, but maybe not all, hence we might clean some of the PMTs.
 - In addition, we will need at least 1 table for the cables
 - 6 PMTs on a table, implies at least 5 tables for the assembly the Hall.



MINOS Hall after MS 11 steel, before racks



- Get all power receptacles ready
- Bring in PMTs & FEBs in MINOS Hall & mount PMTs & FEBs on MS 11
 - Need tables & preparations for installations
- Install FESBs and cable from FESBs to FEBs
 - Note we will not want them plugged when we 1st power the system, we want to check the voltages. Although the voltage will probably be fine.
- The LI cables and power cable FB->FESB, CAT6 cable might have to wait for the racks, however we can try installing some of cables to see what we need to do, probably not the LI cables.
- Not clear about cabling up optical cables, could interfere with cabling up LI cables.
- In this way, we can prepare MINOS Hall for the racks and get the system going quickly once the racks come down.
- I'm guessing that the racks should come down shortly after we finish the above.