

Preparing for the 2021 run:

Sub-system: ECal/hodoscope

Responsibilities of the coordinator:

- **Ultimate responsibility is to make sure both ECal and Hodo will be ready on time for the beam.**
- Coordinate with detector/software experts to compile the list of tasks, that needs to be completed prior to the run. Tasks will include
 - Fix issues occurred during the 2019 run
 - Improvements, if any
 - cosmic/calibration runs before the run
- Have a commissioning plan for detectors with the beam.
- Prepare the milestones/schedule and report the status to the EC monthly? (and perhaps more frequently when time comes closer).

Hodoscope

Setup a test bench in EEL Room 225.

- ROC, 3 FADCs, HV source. Dec 1-4, 2020
- We need three x16 cable bundles. One is ready, another one is available, just cables need to be soldered to the PCB board, and we need to obtain one x16 bundle. Armen can help with this. by Nov 30, 2020
- Assess the overall state of the hodoscope with cosmic runs by Dec 18, 2020
 - If all channels are operational
 - Is there any damage on on scintillators, fibers
- In case, if any fiber bundle/scintillator needs to be replaced, we will have a few months to replace it.
 - 3 spare units of PMT housing components
 - We have few spare scintillators polished and several unpolished.
 - No shortage of fibers.
 - Need more careful examination of glueing fibers into the PMT adapter, as we had a vacuum issue initially through that part.
 - Optical cement and Optical grease, together \$210 (from JLab purchase history)
 - Polishing machine probably is not crucial

Fibers light tight

- 4 days, Sometimes Early spring, March 1 - 4, 2021
- Morgan's help and some supply materials

PMTs

- We need at least two spare PMTs. Currently assessing the state of PMTs at the end of the run, I need to analyze runs at the beginning and the end of a run period, to see if we have efficiency loose. October 21, 2020

- The price is \$1711/each. Lead time is 6-8 weeks

Hodoscope is ready to be moved to the hall

- All tests/cosmic runs are concluded in EEL

Apr-05-2021

Some possible other spare units

- Epoxy glass supporting arms

Commissioning plan

- We need the commissioning plan before the run

Jun-01-2021

- E.g. few hours to choose the right HV for the given Lumi
- ...

Ecal

- Few channels failed, and need to be looked at, maybe replace preamps?
 - Time?
- One HV group was misbehaving, needs to be looked at.
 - Time?
- Fixing loose signal connections.
 - Time?
- Check if ECal tests can be done with ECal position as it is (located to the left side of the beamline)
 - Time?

Commissioning plan

Have the commissioning plane ready before the run

Jun-01-2021

