DSG-RICH R&D Meeting

Date: April 11, 2022
Time: 11:00 AM – 12:00 PM

Attendees: Peter Bonneau, Aaron Brown, Pablo Campero, Brian Eng, George Jacobs,
 Mindy Leffel, Tyler Lemon, and Marc McMullen

1. **DSG's RICH-II assembly tasks for upcoming weeks**
    1. Trim nitrogen volume hardware interlock system cabling to length
        - Tyler Lemon will mark lengths on cables and Mindy will trim and re-terminate cables
    2. Repair nitrogen volume feedthroughs for hardware interlock system sensors
        - During installation, two RJ45 ports had their covers damaged
            – Covers are spring loaded and help latch RJ45 connector into place
        - Feedthrough manufacturer has shipped replacement parts
    3. Prepare materials for dry tent for aerogel assembly
        - To keep aerogel in a low humidity environment during installation on to panels, a tented area needs to be big enough for detector front panels and workers, but less than 65 square-feet and made of non-flammable materials per JLab ES&H manual, fire protection supplement, Chapter 2, Appendix 1
            – Anything larger requires additional fire suppression considerations
    4. Fabricate various parts with 3D printer
        - Nitrogen distribution line brackets
        - Camera supports
        - Fiber supports
        - Air-cooling exhaust pipe adapter
        - Tyler Lemon will submit PR for more black resin for 3D printer
    5. Prepare for spherical mirror tests
        - Set up d0 test station in DSG small cleanroom
        - Set up new reflectivity test station in DSG small cleanroom

2. **Hardware interlock system EPICS**
    1. Process variable (PV) prefixes to be renamed from "B_DET_RICH_S2…" to "B_DET_RICH2..."
        - Change to be made to reflect that detector may not go in sector 2 area on forward carriage
    2. Discussions with Nathan Baltzell in progress on whether sbRIO's EPICS interface will be either a client or server
        - Nathan is looking at the system now running as an EPICS server to verify it has the proper alarm fields and can be used in Hall B's CSS-BEAST alarm handler