

DSG-RICH R&D Meeting

Date: January 31, 2022

Time: 11:00 AM – 12:00 PM

Attendees: Mary Ann Antonioli, Aaron Brown, Pablo Campero, Brian Eng, George Jacobs, Mindy Leffel, Tyler Lemon, Marc McMullen, and Amrit Yegneswaran

1. Spherical mirrors

1. Collaborators liked test print of mirror mount using DSG's SLA 3D printer
 - Once mirror details are finalized, if new mounts are needed, they would like the SLA-printed version
2. INFN collaborators meeting with CMA to discuss mirrors in upcoming week

2. Chassis to house hardware interlock system

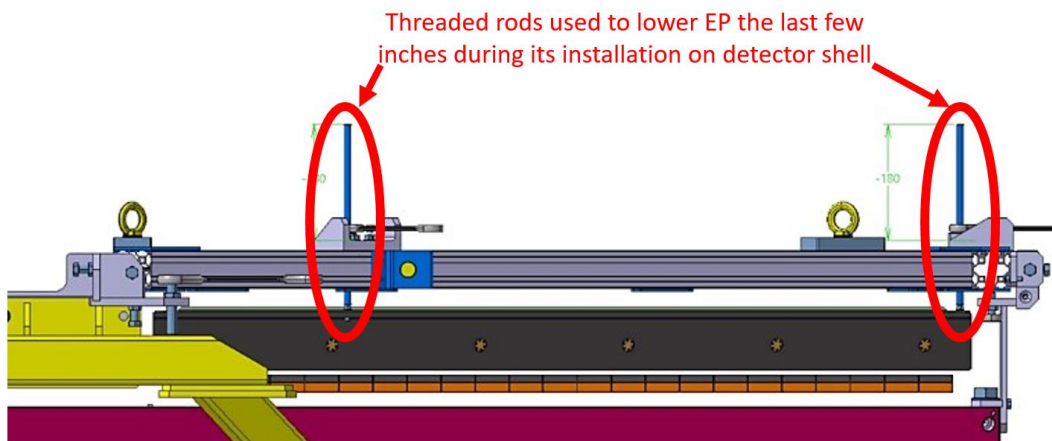
Mindy Leffel, Tyler Lemon, and Marc McMullen

1. Mindy Leffel is assembling chassis
2. Tyler Lemon is creating a wiring diagram for chassis

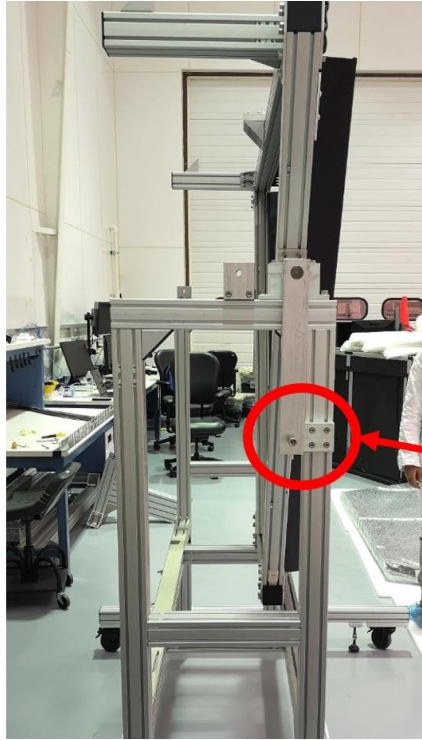
3. RICH assembly

George Jacobs, Tyler Lemon, and Marc McMullen

1. Assembly tasks complete for immediate future
2. Some tasks for rest of assembly that are not critical for immediate completion:
 - Procure eye bolts or fixtures to allow tethers to be more easily attached to electronic panel (EP) frame during installation lift
 - Tethers used to prevent unwanted movement of EP when it is lifted by gantry and also to pull EP into place over detector shell
 - Create some sort of handle or knob for EP lowering system used to install EP
 - Three threaded rods (two seen in model below as third is behind left one) must be synchronously turned by hand
 - Having some sort of handle or knob on top of threaded rods would make it easier to synchronize lowering EP
 - Suggest either finding a pre-made wheel with matching threads, or 3D printing a custom part



- Mitigate pinch point risk on EP assembly support by adding cover



Area of pinch
point risk that
needs a handle
or cover

EP assembly frame. EP in photo is vertical for electronics assembly tests. When it is to be installed into detector shell, it is rotated to horizontal on frame. Area circled in red is the point when rotation mechanism is bolted into vertical position (there is an identical set up on opposite side of EP).