

LAr R&D Progress Updates

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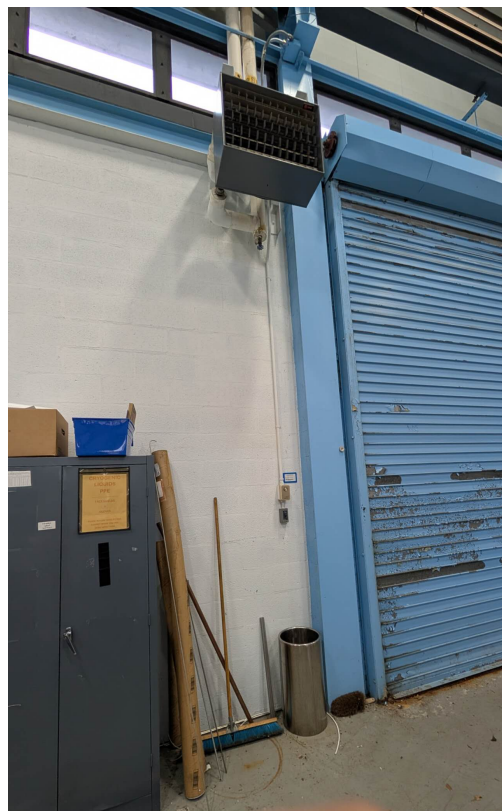
Lab Safety and Space Management

► New heater rules

- The personal heaters require approval by the building manager on the equipment, power outlets and etc.
- An approval sticker is required
- Heaters below 1000W do not require the approval

► High bay temperature

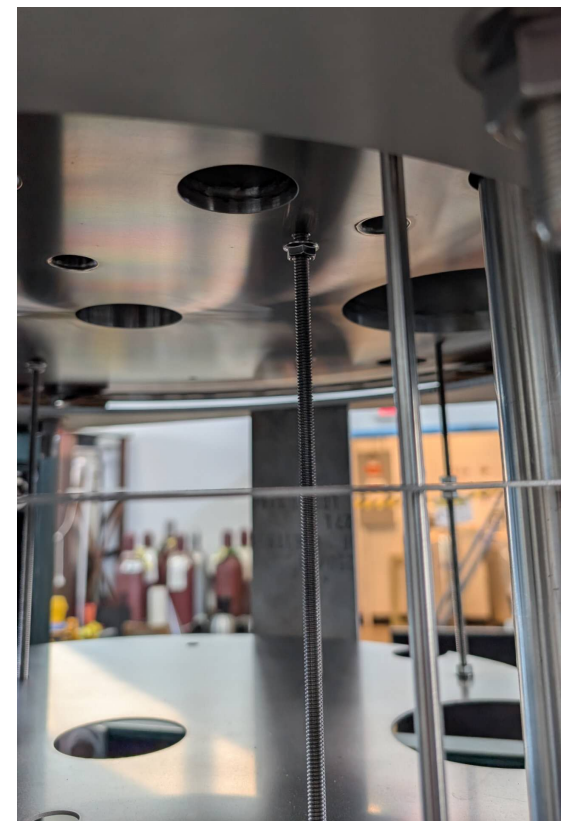
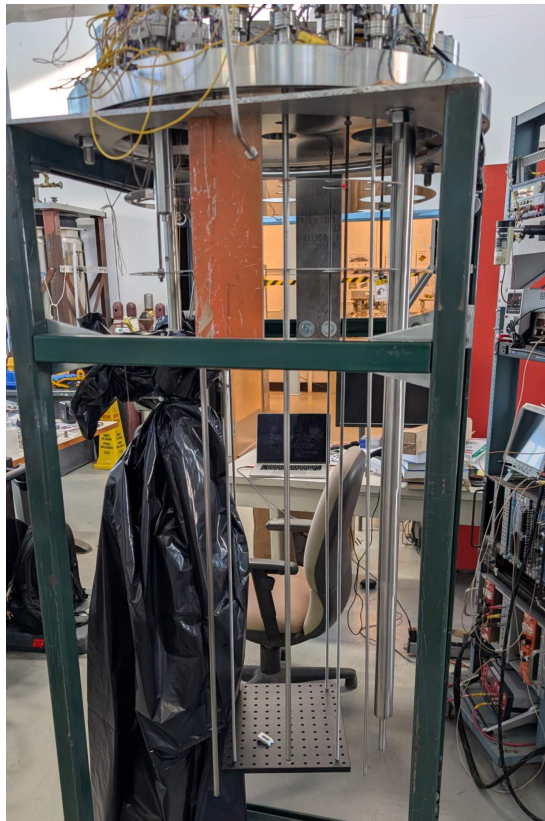
- Space heaters are fixed
- Room temperature is around 68-70F stably for a week
- Some leaks on the vent on top of our storage cabinet in the process
 - Cabinet moved out of the spot for now
 - The threaded rod caught on the dirt



260L LAr Test Stand

► Sample holding platform

- Original plan is to make the platform out of sheet metal by our technician
- The machining is time consuming
- Found a better solution with optical table breadboard from Thorlabs with 10x12" size
 - The mounting hole locations match well to the hanging rods positions
 - The perforated structure allows the liquid to go through
 - The threaded holes convenient for mounting samples
- Already conducted a mocking installation
 - Fresh nuts found with residual machining oil, cleaning in progress



Parts cleaning

► Parts cleaning needs:

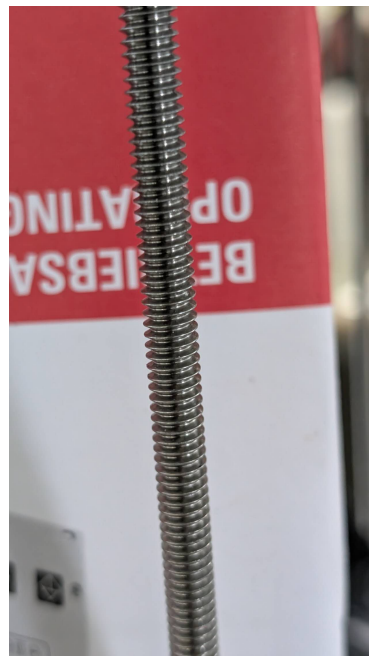
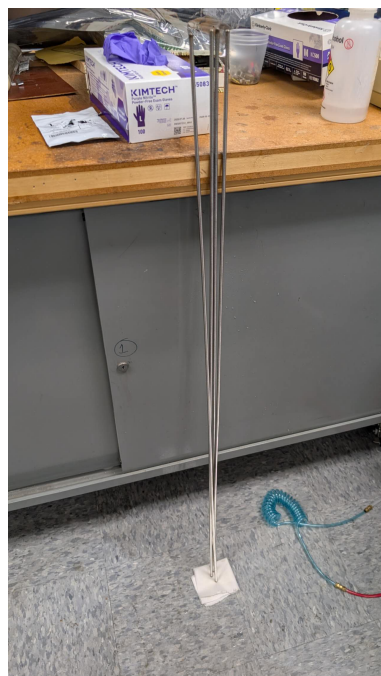
- The thread rods for the mechanical support was contaminated with the heating vent leaks
- The metal fasteners have residual oil

► Solutions:

- Got a spare ultrasonic cleaner from sPHENIX colleagues
 - Small parts and optical bread are cleaned with ultrasonic cleaner (in progress)
 - Will clean the conflat flange parts later
- Hand wash of the hanging rods(too long for the ultrasonic cleaning)
 - Use soap with metal brush with hot water and rinse for 3 rounds
 - Alcohol wipes after hand wash



Before



After

