

## Alex Eslinger

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**From:** Eic-projdet-pfrich-l <eic-projdet-pfrich-l-bounces@lists.bnl.gov> on behalf of Wenliang (Bill) Li via Eic-projdet-pfrich-l <eic-projdet-pfrich-l@lists.bnl.gov>  
**Sent:** Tuesday, April 2, 2024 1:57 PM  
**To:** eic-projdet-pfrich-mechanical-design-l@lists.bnl.gov; Kiselev, Alexander via Eic-projdet-pfrich-l  
**Subject:** [EXTERNAL] [Eic-projdet-pfrich-l] Meeting Minutes from pFRICH Engineering meeting, Apr 1  
**Attachments:** ATT00001.txt

Dear all,

Please see the meeting minutes from pFRICH Engineering meeting, Apr 1.

Many thanks

Alex and Bill

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### Meeting Minutes - April 2, 2024

**Summary:** The meeting centered on the progress and design of the end ring, specifically addressing concerns regarding its completion and mounting system. The primary objective was to resolve issues surrounding the end ring's outer diameter, with a collaborative problem-solving approach employed to determine its inner and outer radii. Participants emphasized adherence to the design philosophy established by Alex's CAD model.

#### Key Points:

- Charles opened the meeting by outlining the discussion goal of addressing the end ring with Purdue, mentioning the recent receipt of honeycomb material and awaiting Purdue representatives' participation for inquiries.
- Preet provided insight into the mounting system design, highlighting the positioning of the ion source towards the substrate and the current focus on the ion source and full-scale mirror mounting.
- Sushrut reported findings from temperature/heat tests conducted with carbon-fiber+Lexan samples. Optical distortion was observed after exposure to 70 degrees Celsius of heat.
- Sushrut delivered updates on the end ring progress, noting the completion of quarter two, ongoing quarter three layup, and the necessity of Charles' sign-off on dimensions.
- Charles stressed the importance of resolving the issue concerning the end ring's outer diameter, identifying it as the primary objective of the meeting.
- Alex visually presented and discussed the components and measurements related to the end ring's outer and inner diameters, aiming to clarify the calculation process.
- Alex elaborated on the machining process and the need for a specific gap for proper end ring fitting, providing insights into manufacturing requirements.
- Alex led a detailed calculation process, engaging in collaborative problem-solving with other attendees to determine the end ring's inner and outer radii.
- Bill underscored the design philosophy based on Alex's CAD model, advising against altering the fundamental approach.

#### Next Steps:

- Alex will share a screen to explain the calculation for the end ring's outer diameter based on carbon fiber and honeycomb thicknesses, ensuring alignment on dimensions with Charles and Beni.
- Charles, Sushrut, and Alex will collaborate to find a solution regarding the discrepancy in the end ring's outer diameter value presented, aiming for clarification and agreement on the correct dimension.
- Charles will forward the numbers to Shashrut for verification, enabling him to proceed with CAM design for two days and machining for a week.

The meeting concluded with a commitment to address the identified issues and progress toward resolving the end ring's design concerns.