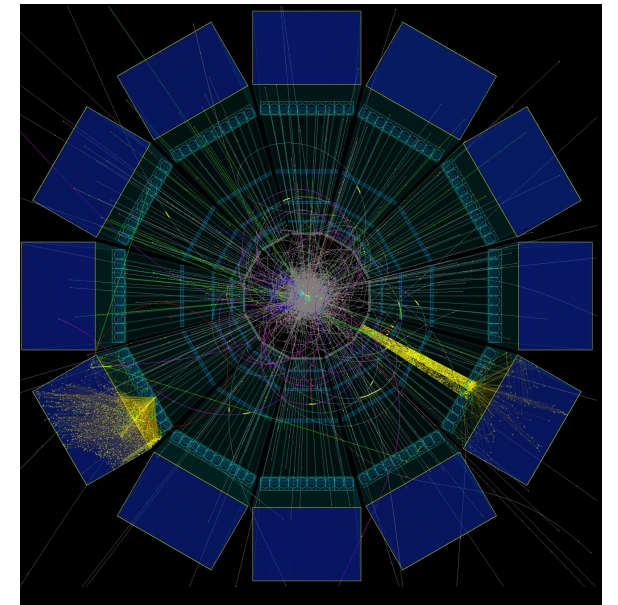
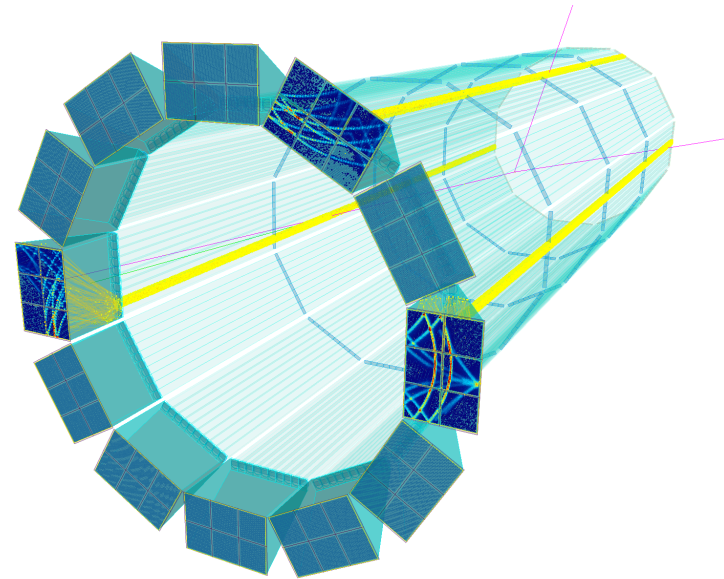
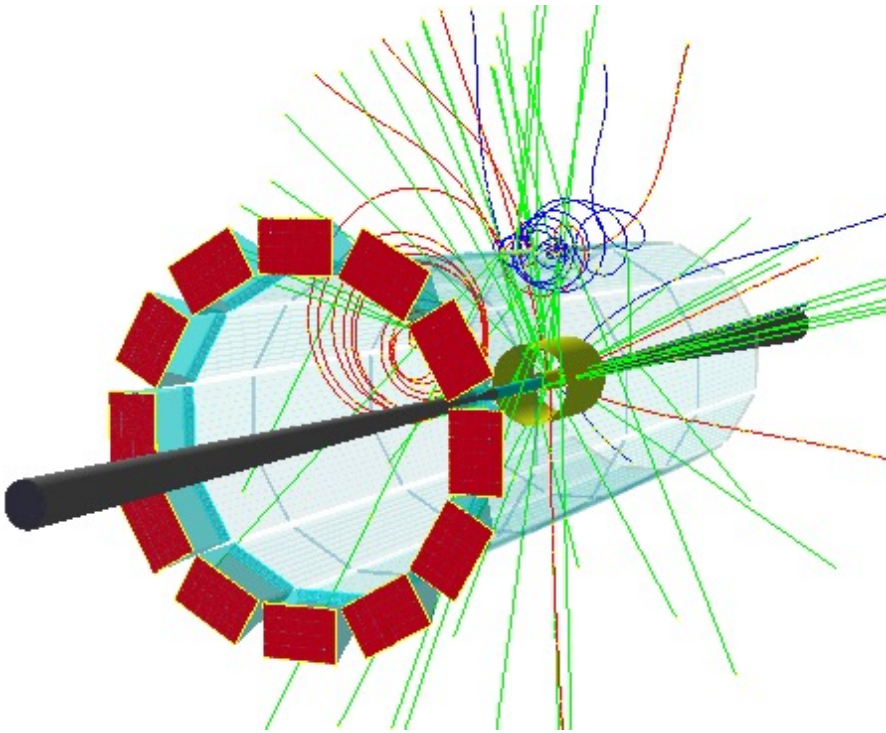


ePIC hpDIRC DSC Meeting



Greg Kalicy



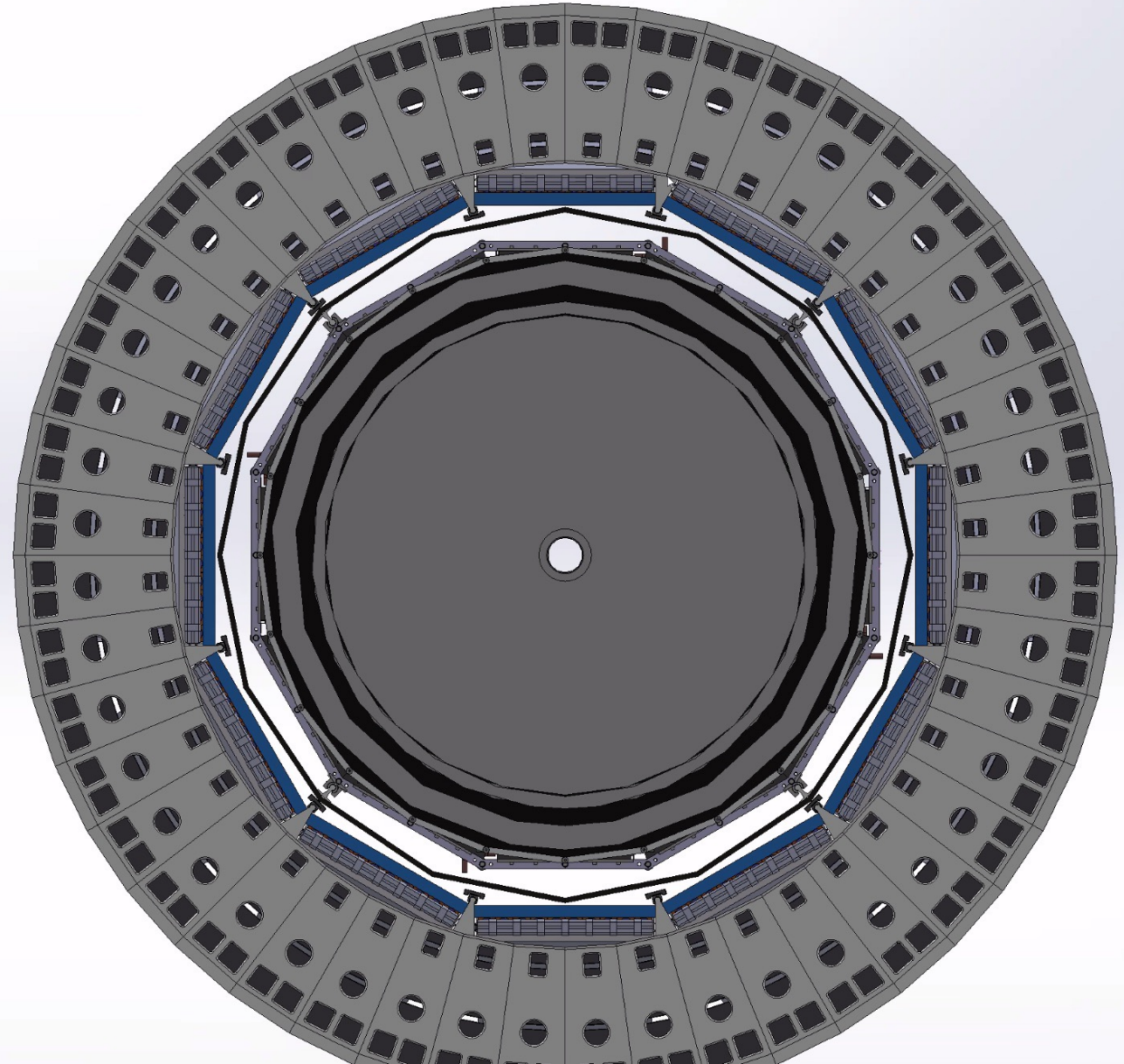
BABAR BARS

- BaBar DIRC bars – SLAC-JLab in progress, fighting for transport in November...
 - Formal agreement with SLAC is progressing!
 - Wooden crates finalization:
 - Brackets with foam to pin down the barboxes will be produced (wood or aluminum). Aluminum prototypes in 1.5 weeks to test inner basket.
 - Reinforcement of inner basket. Will add more nails.
 - Switch screws to Latches
 - QA Lab:
 - Waiting on Facilities to finish installation of air circulation to start with optics
 - Safety clearance arranged



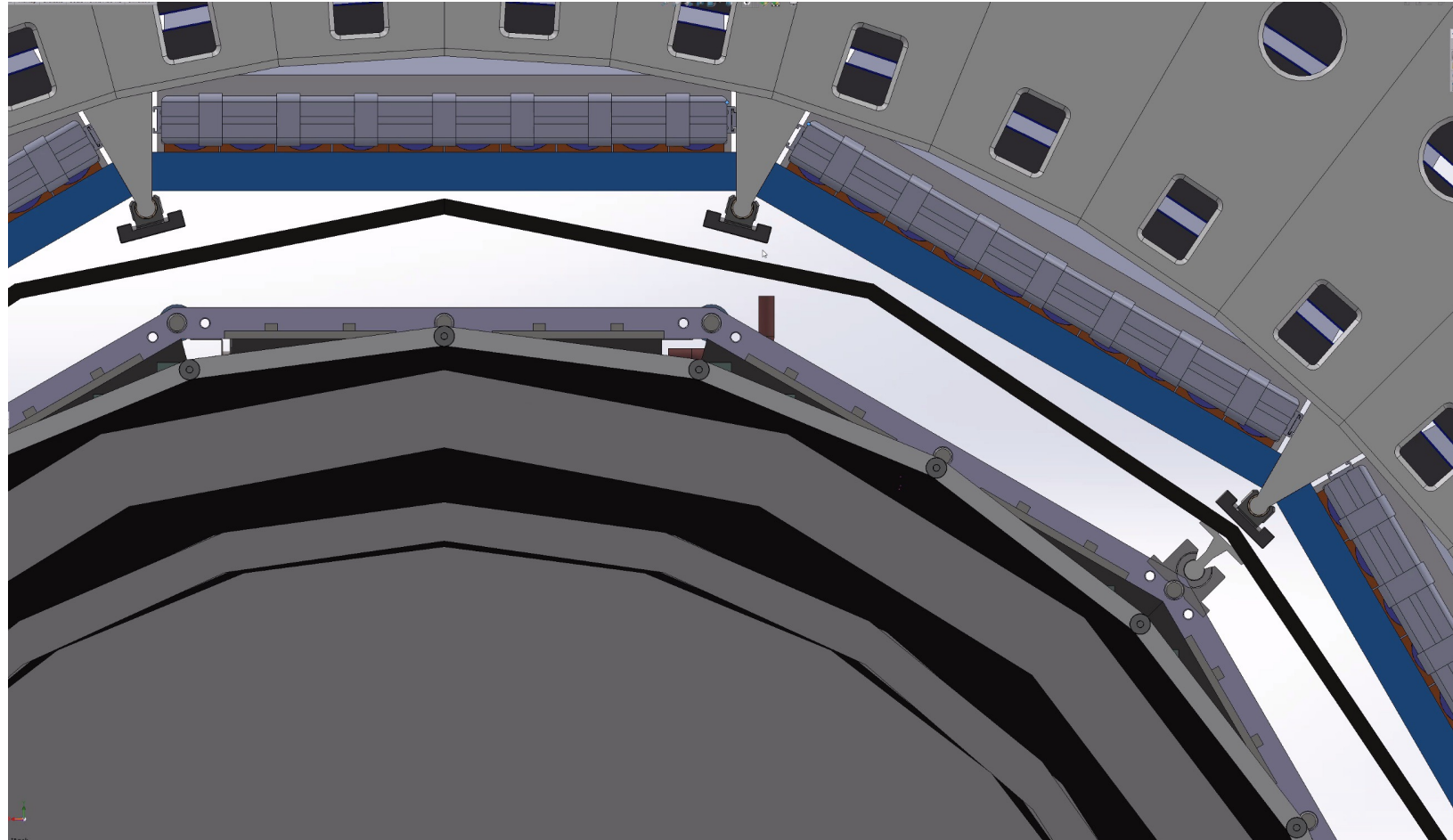
HPDIRC DSC

- Working with Avi again after break in August
- Global changes impact radial location and support frame of hpDIRC
- New geometry “still conceptual” and numbers can change
- Azimuthal acceptance ~87%
- Progressing work on dark readout and bar boxes:
 - Housing for sensors
 - Line in/out for nitrogen and cooling



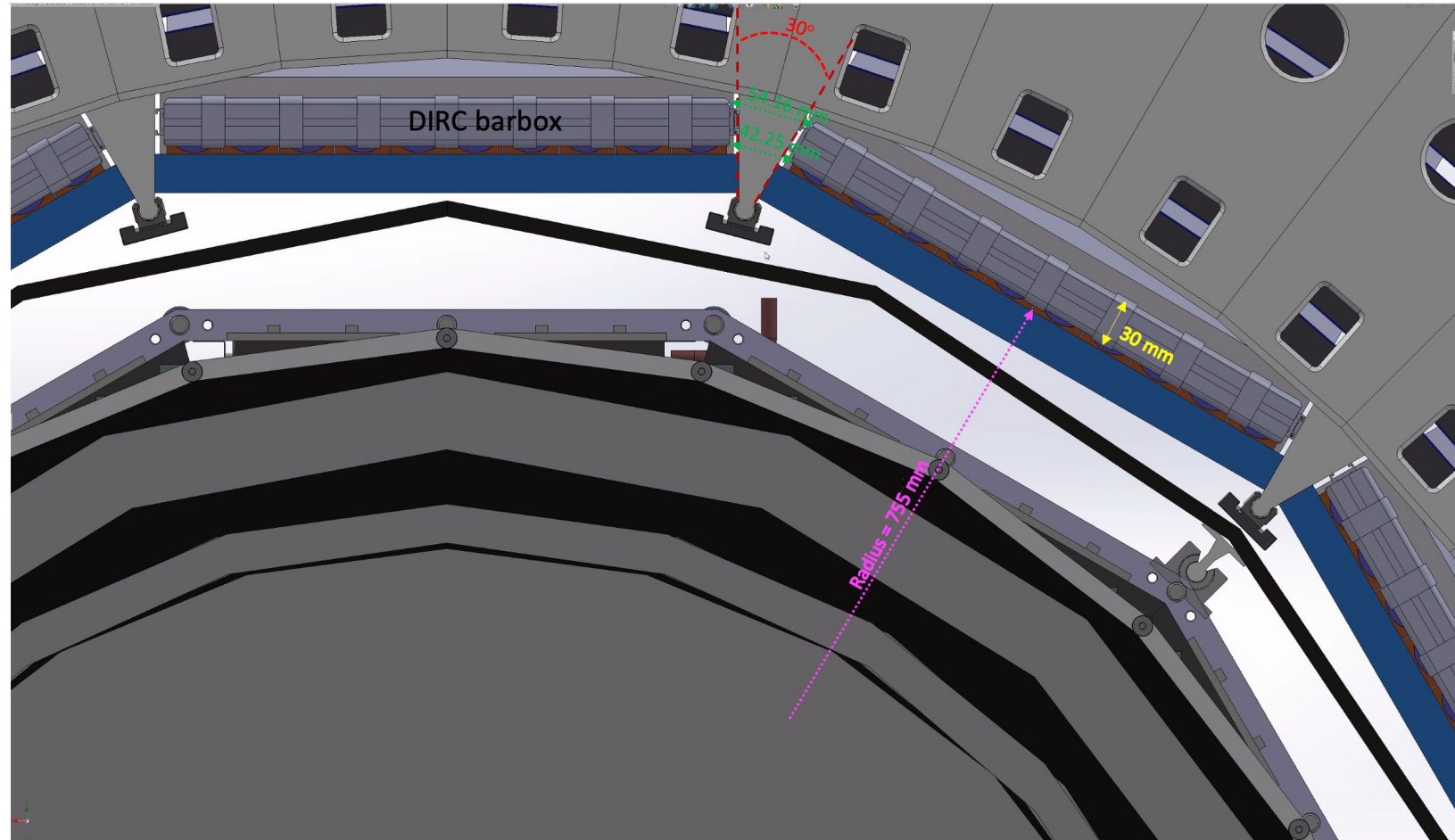
HPDIRC MECHANICAL DESIGN

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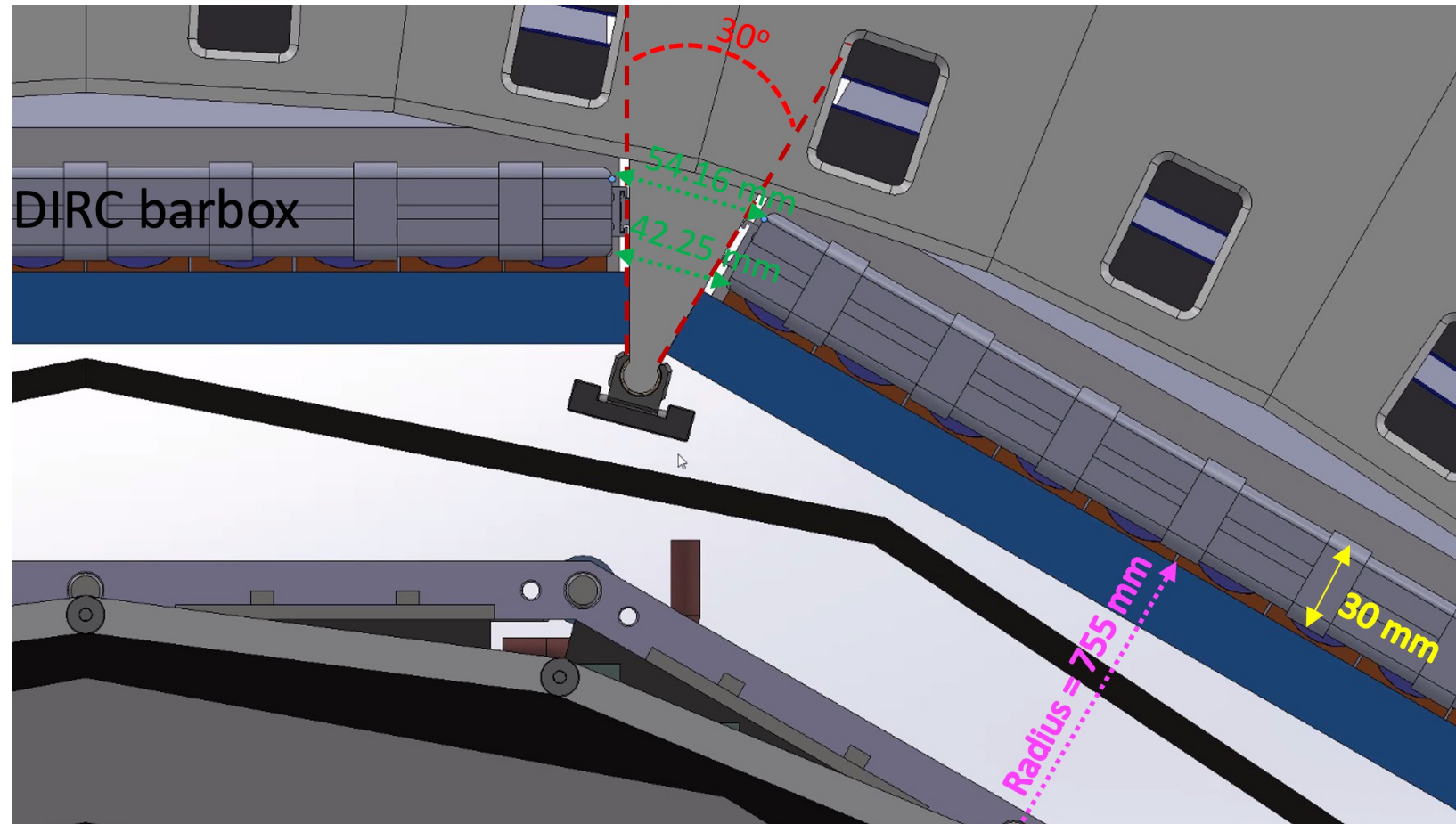
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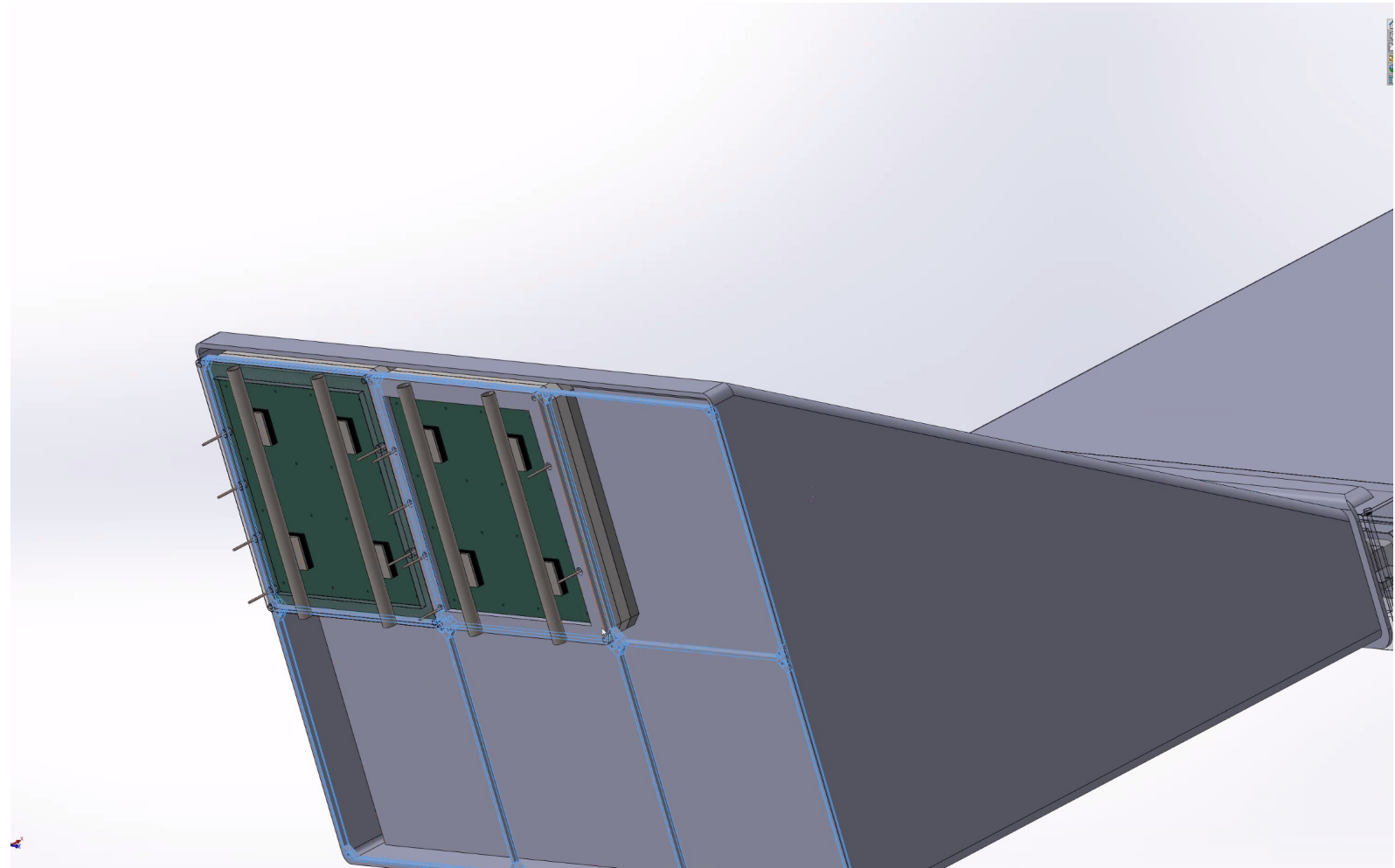
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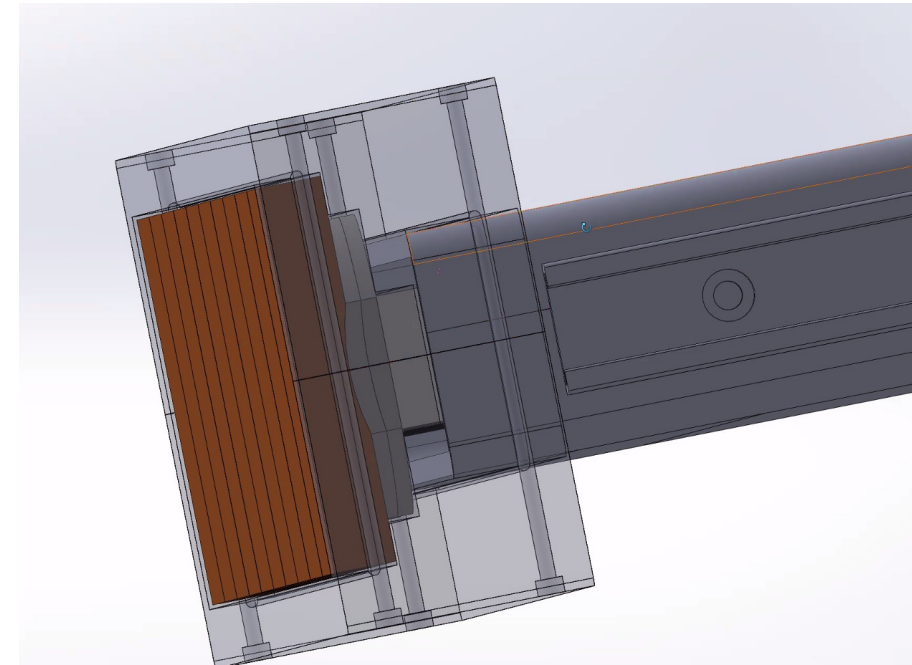
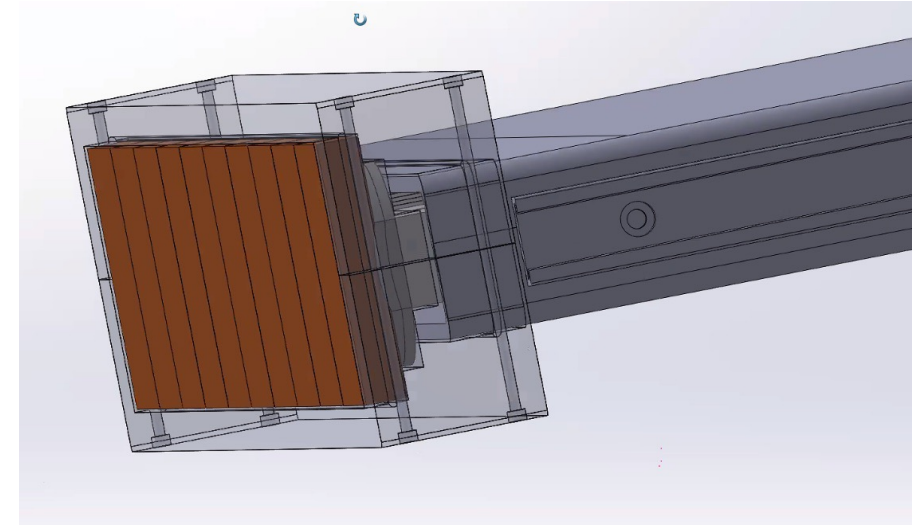
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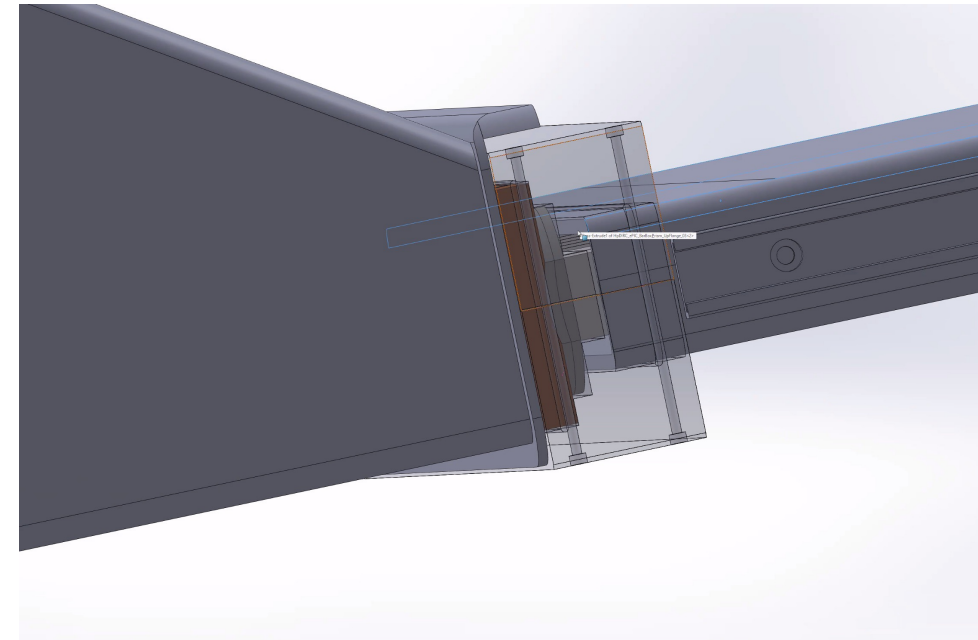
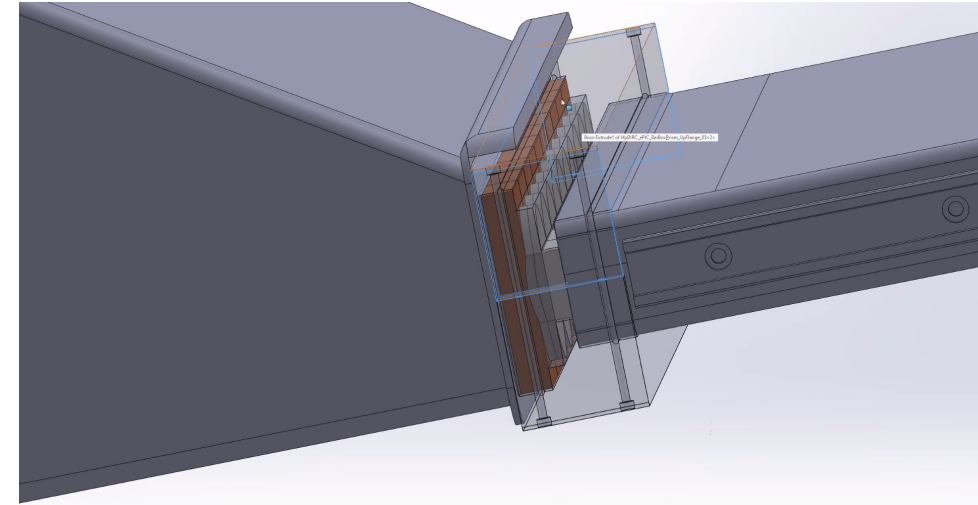
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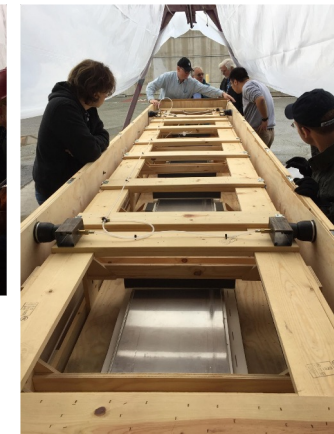
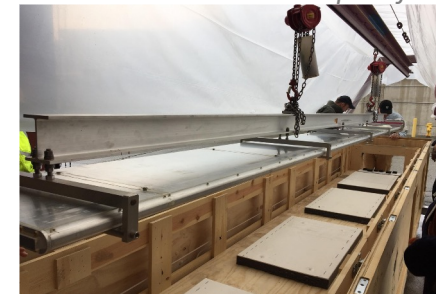
DIRC barboxes in SLAC



BaBar DIRC bars



BaBar DIRC bars transport for GlueX



QA Lab In JLab



HPDIRC PRELIMINARY BASELINE DESIGN

Radiator bars:

- Barrel radius: 720 mm, 12 sectors
- 10 long bars per sector, 4880 mm x 35 mm x 17 mm (L x W x T)
- Long bar: 4 bars, glued end-to-end,
- Short bars made from highly polished synthetic fused silica
- Flat mirror on far end

Focusing optics:

- Radiation-hard 3-layer spherical lens (sapphire or PbF₂)

Expansion volume:

- Solid fused silica prism: 24 x 36 x 30 cm³ (H x W x L)

Readout system:

- MCP-PMT Sensors (e.g. Photek/Photonis/Incom)
- ASIC-based Electronics (e.g. EICROC)

