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AGATA Week 2010 Legnaro Overview of the Mechanics for GSI

21/01/2010

J Strachan



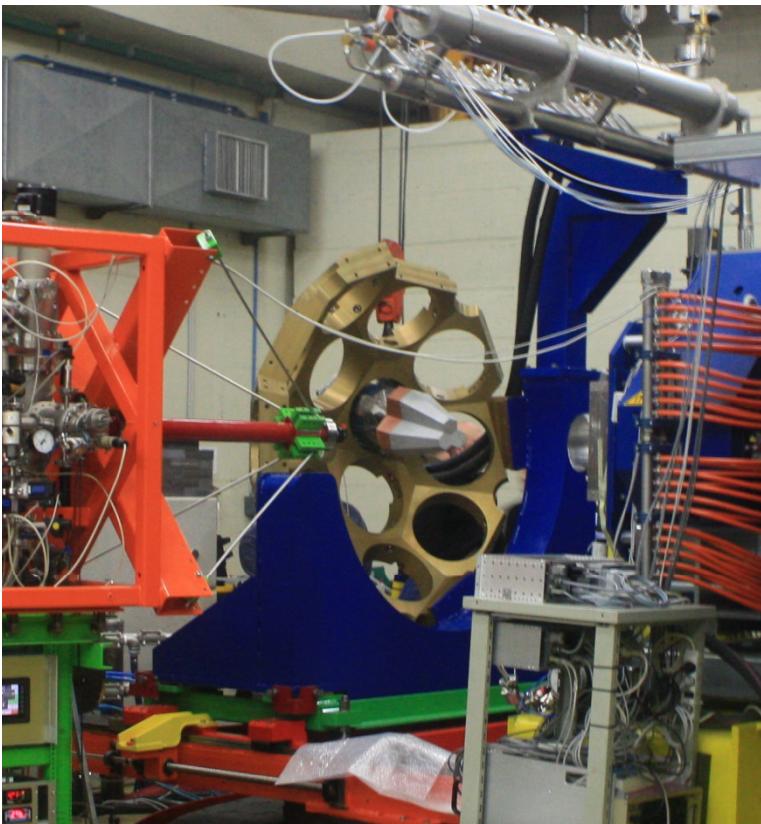
Contents

- GSI location
- Simulations from Mechanics perspective
- Beam Dimensions
- Double crystal detectors
- Mechanics Support Structures
- Timescales

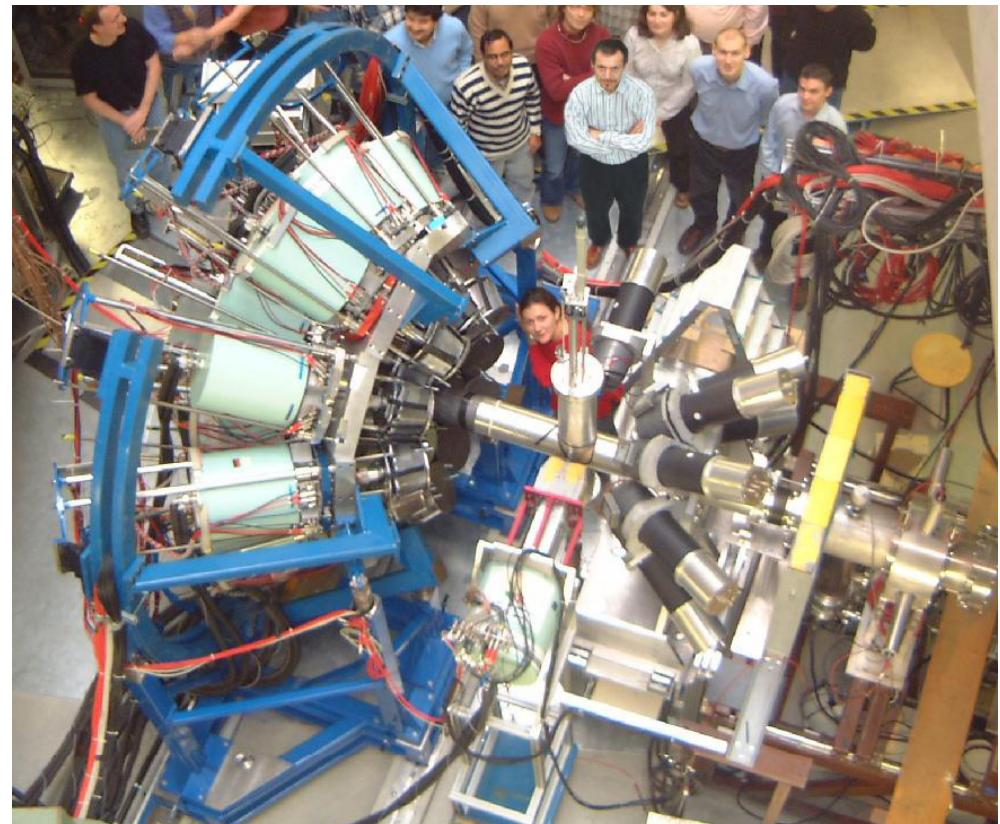


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Overall Layout



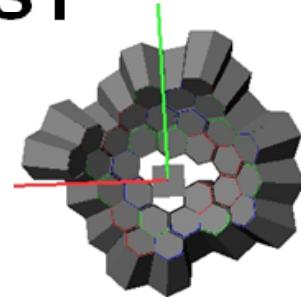
Legnaro



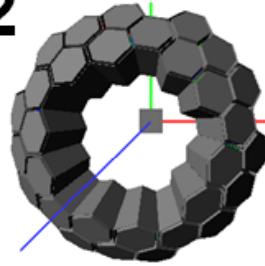
GSI

Simulations

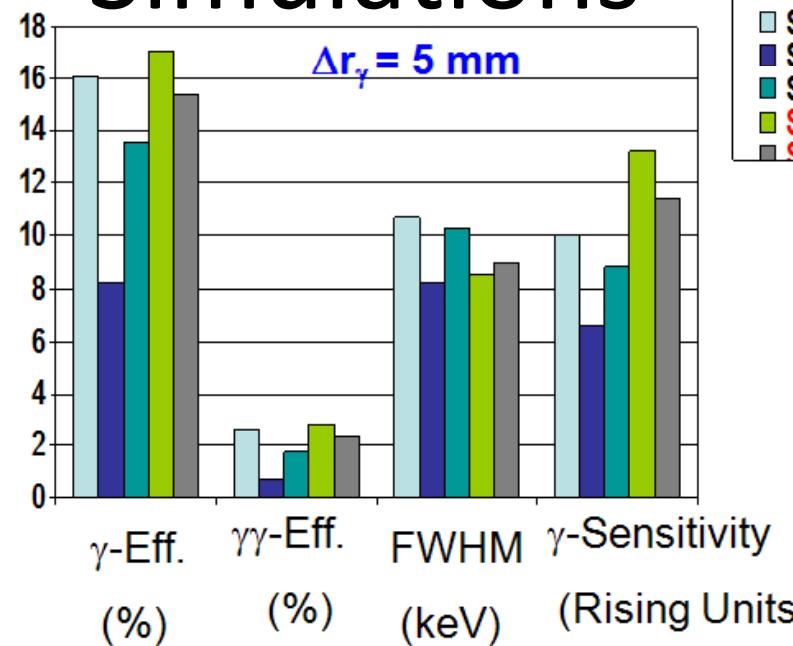
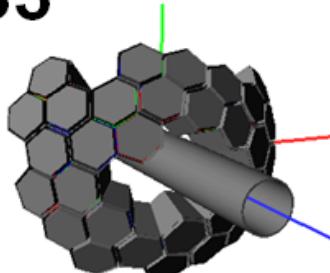
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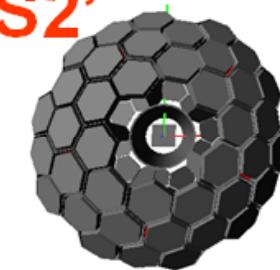
S2



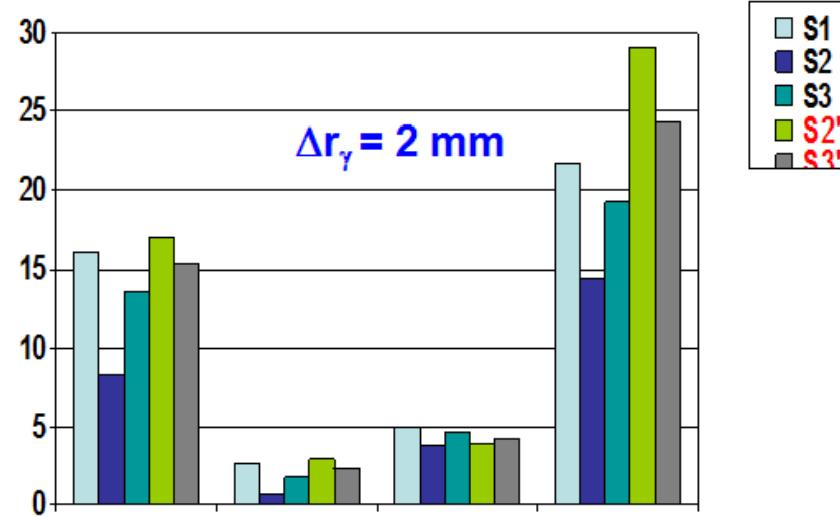
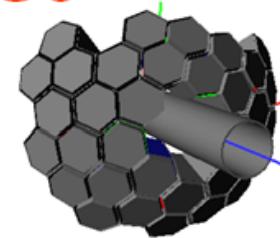
S3



S2'



S3'

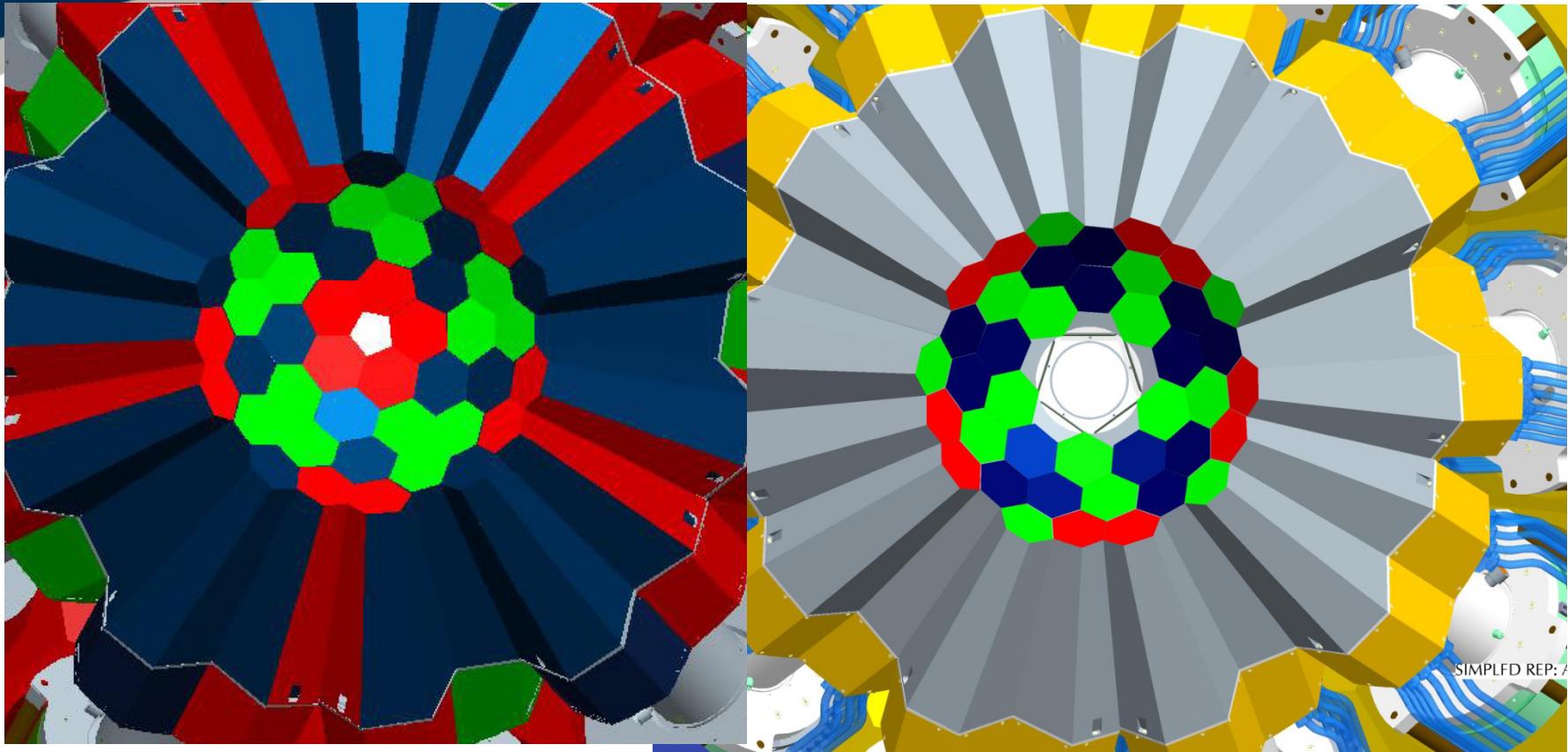


Shell Geometries performance comparison: Summary



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Crystal layout



Existing Arrangement

Proposed arrangement at GSI
Just considering crystals at 130 dia beampipe
Can be accommodated

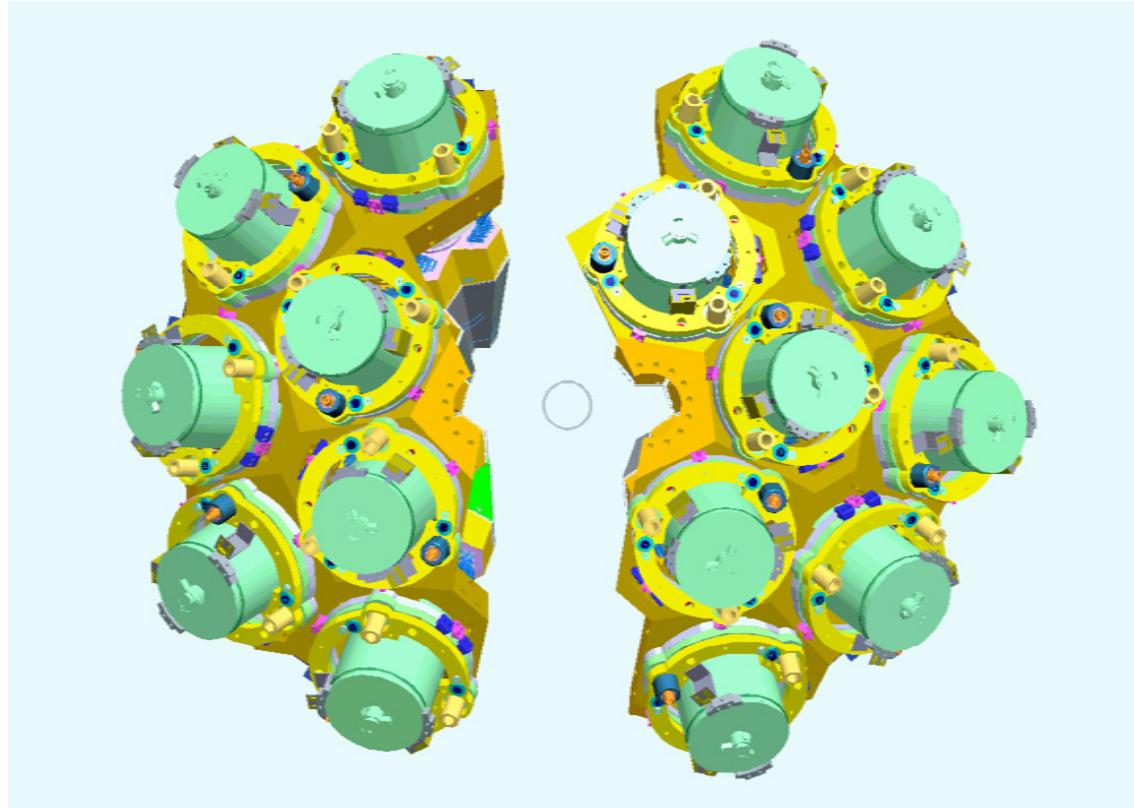


CTT Comments

1. No real difference in cost/timescale between ordering a double or triple cryostat.
2. On GSI timescales, 2 new double cryostats could be made, and 3 old ones modified and reworked simultaneously



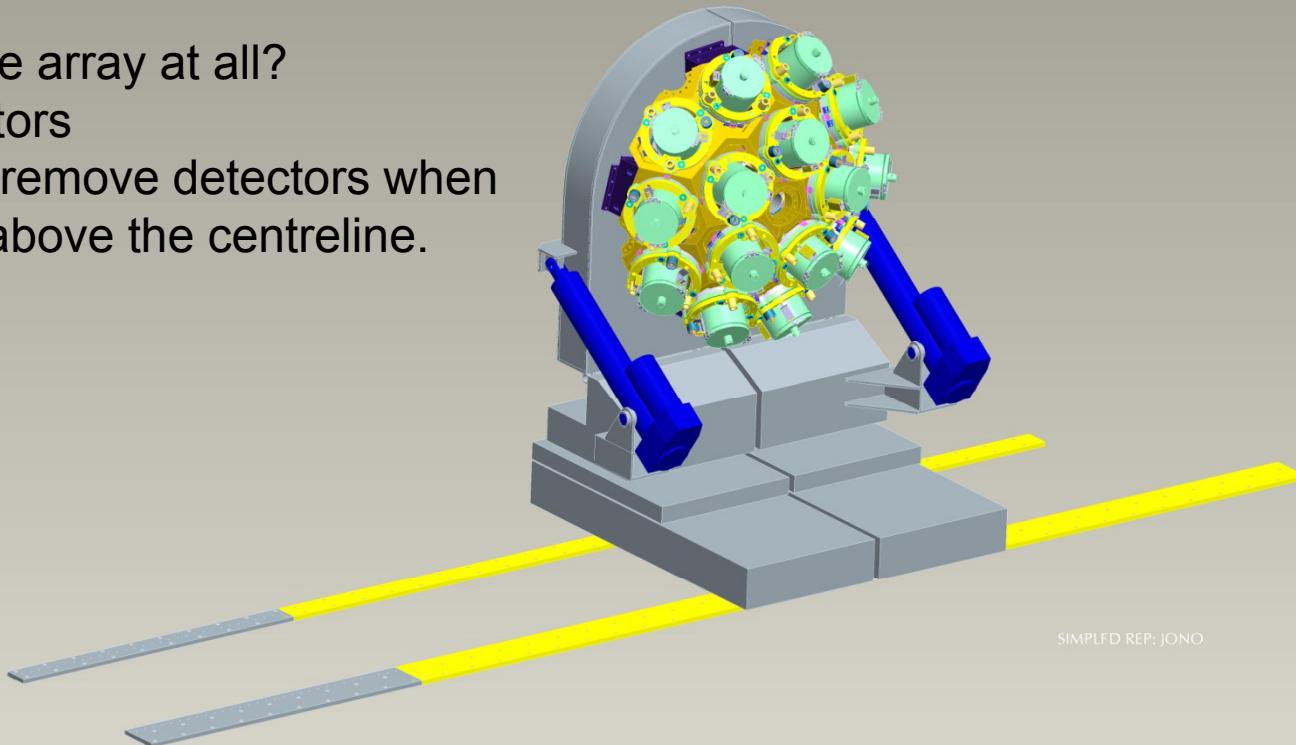
Splitting of Array



Rear view showing split line between
2 halves and existing support flanges

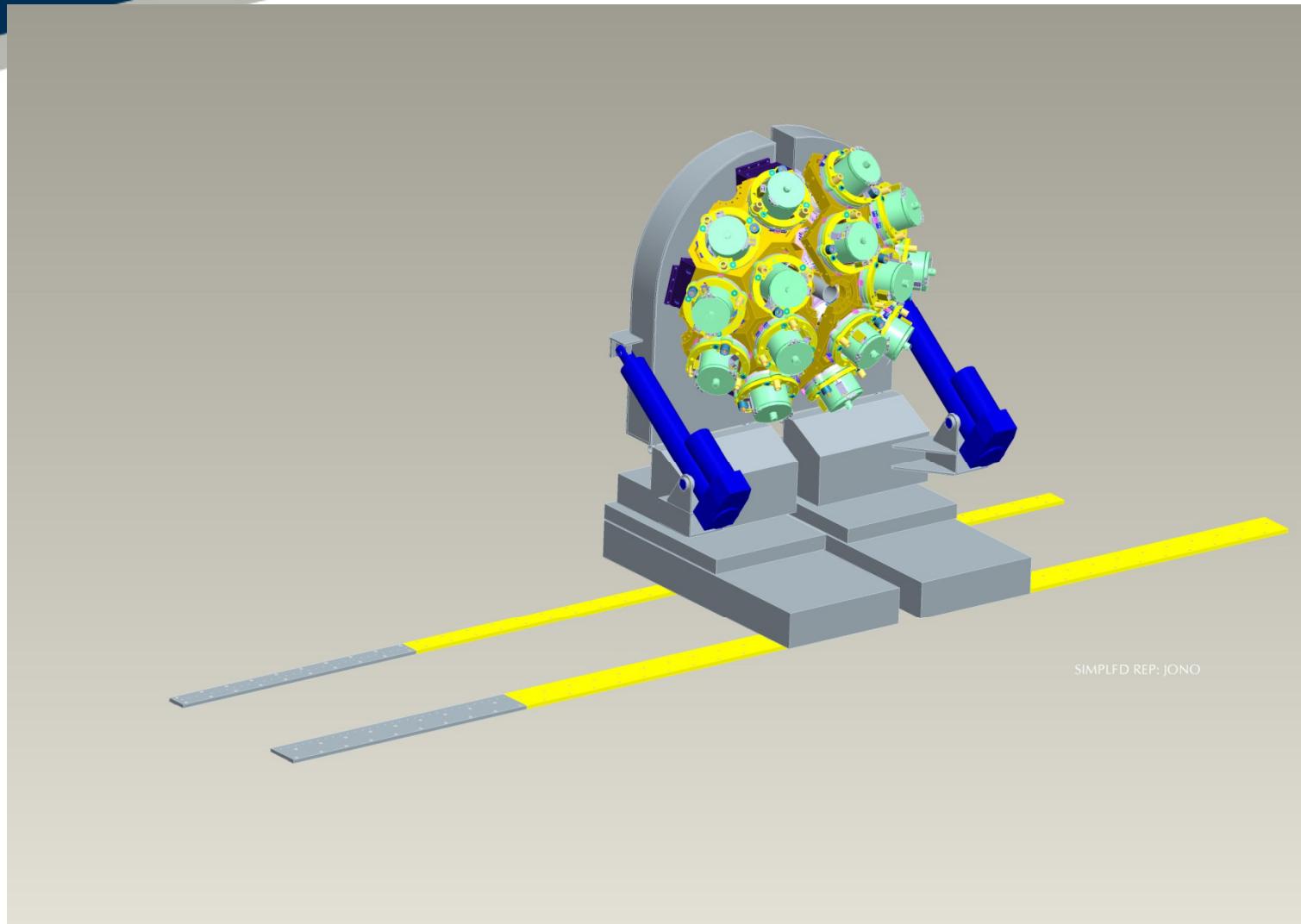


1. Why move array at all?
2. Manipulators
3. Easier to remove detectors when they are above the centreline.



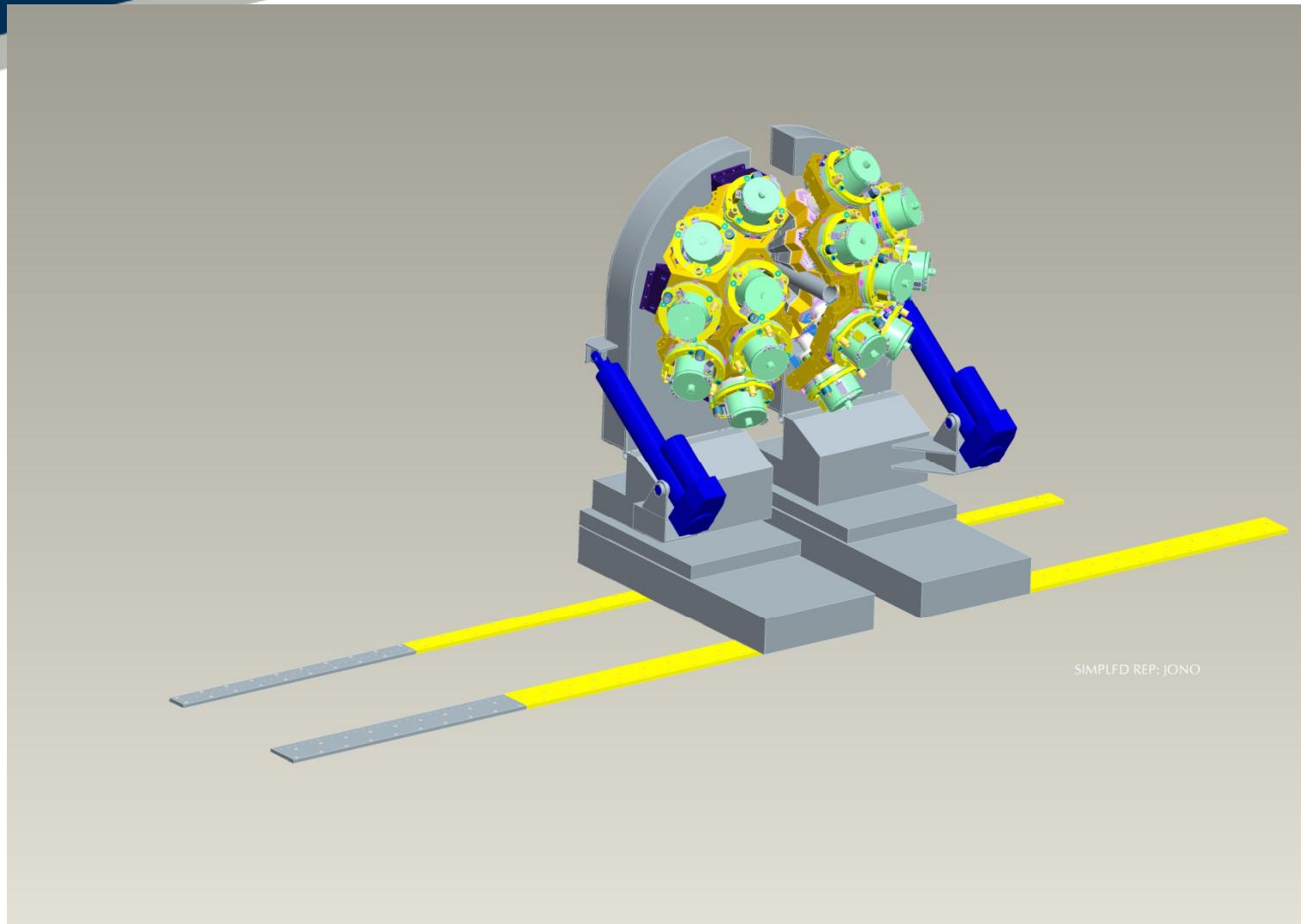


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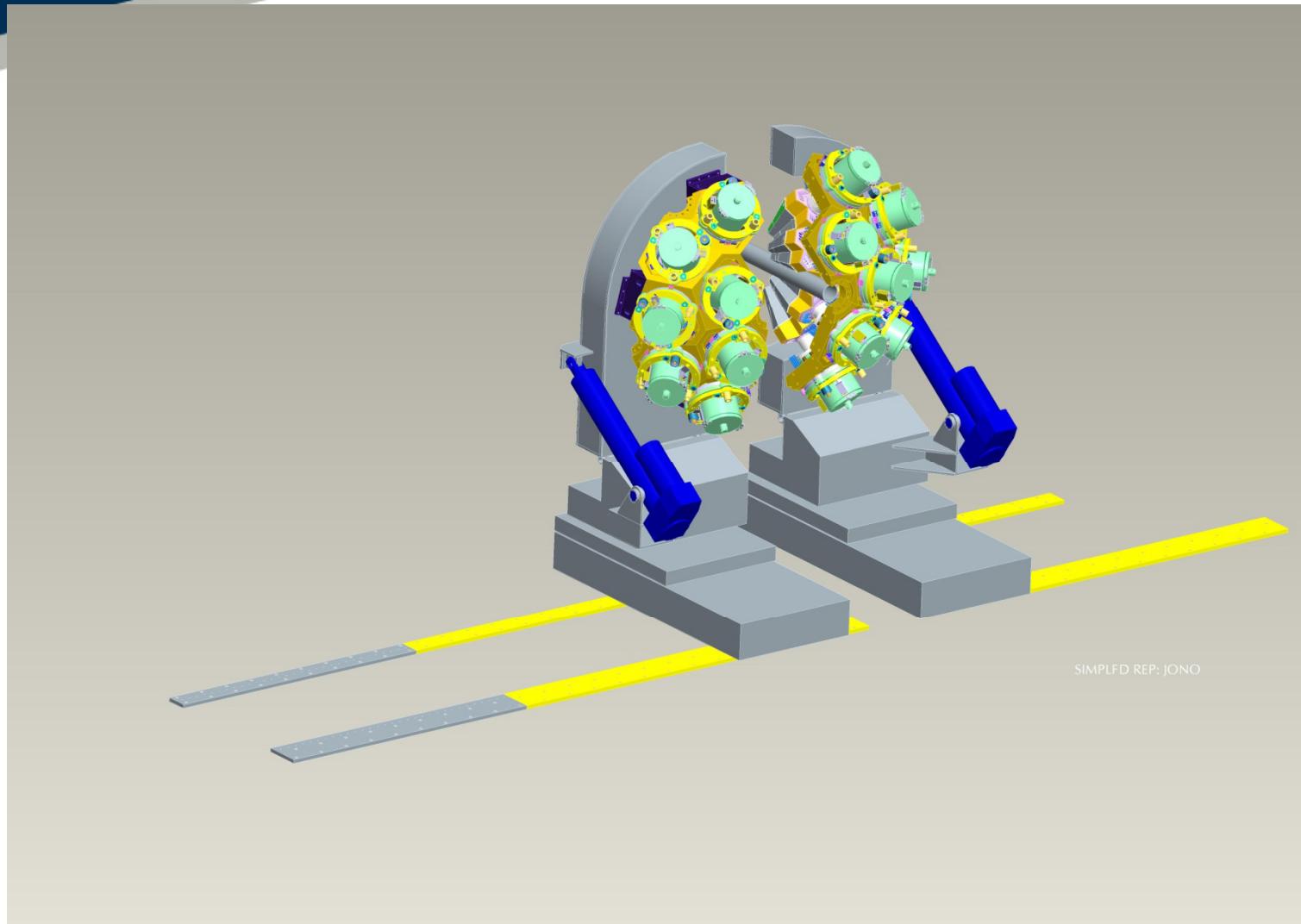


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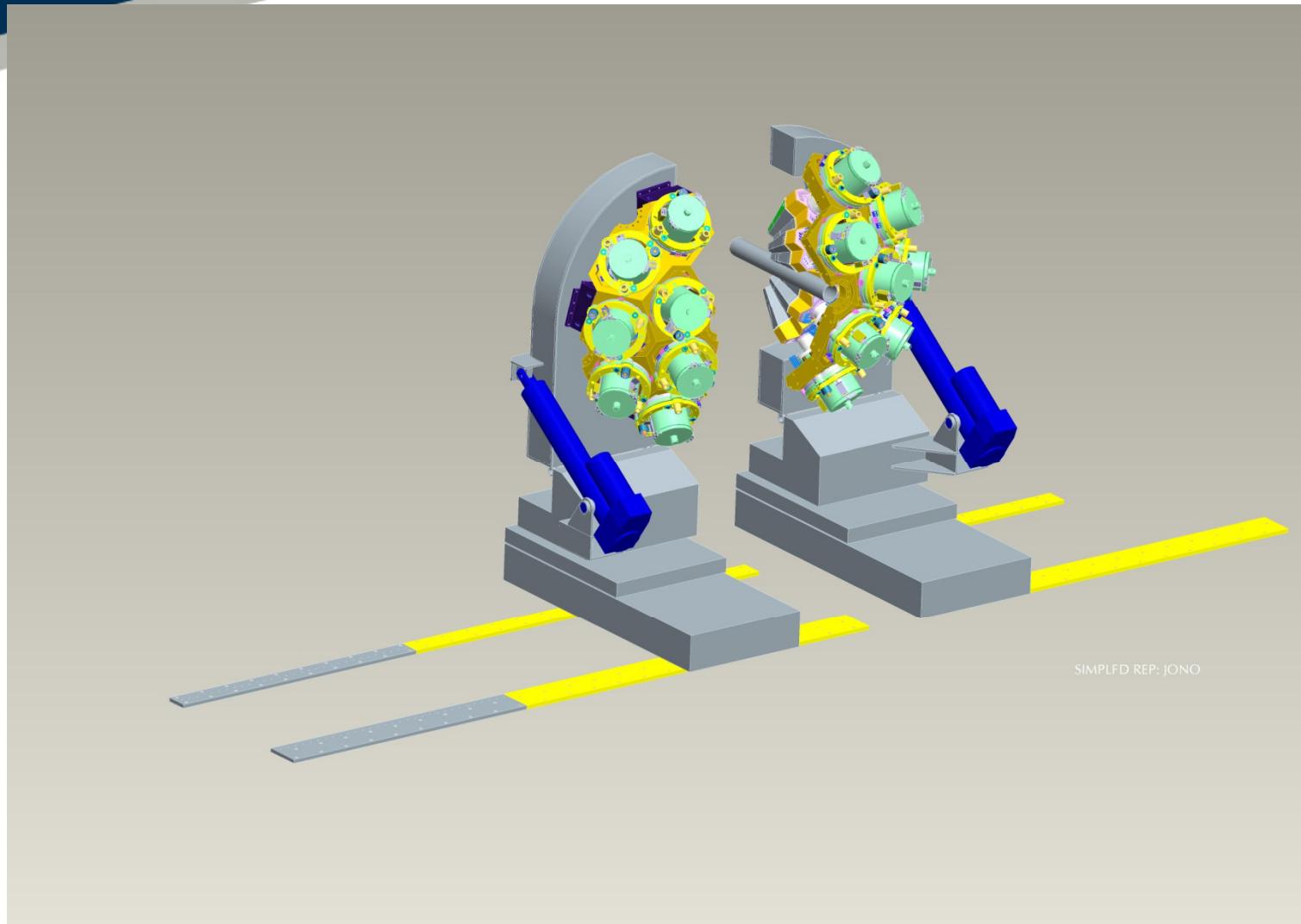


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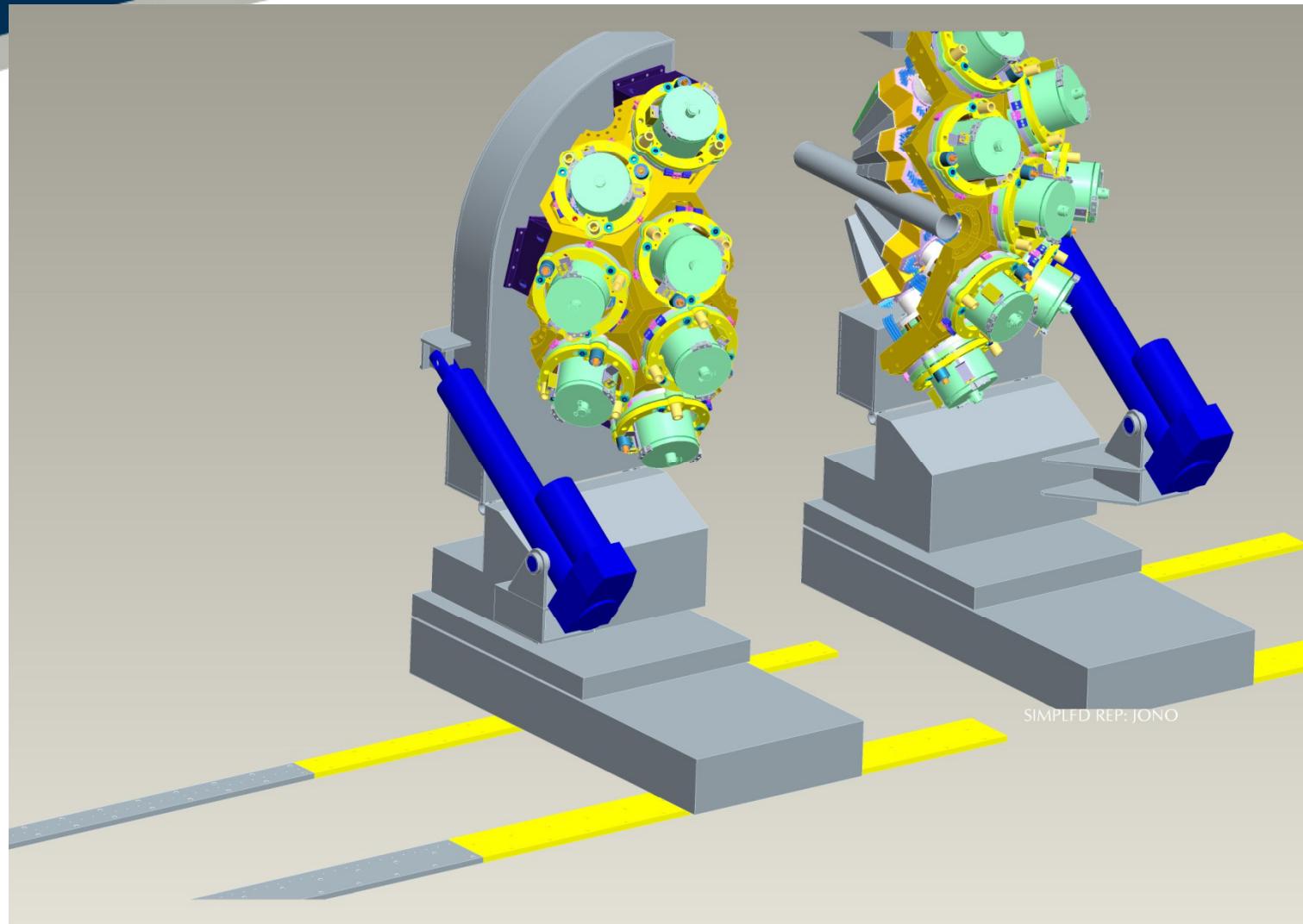


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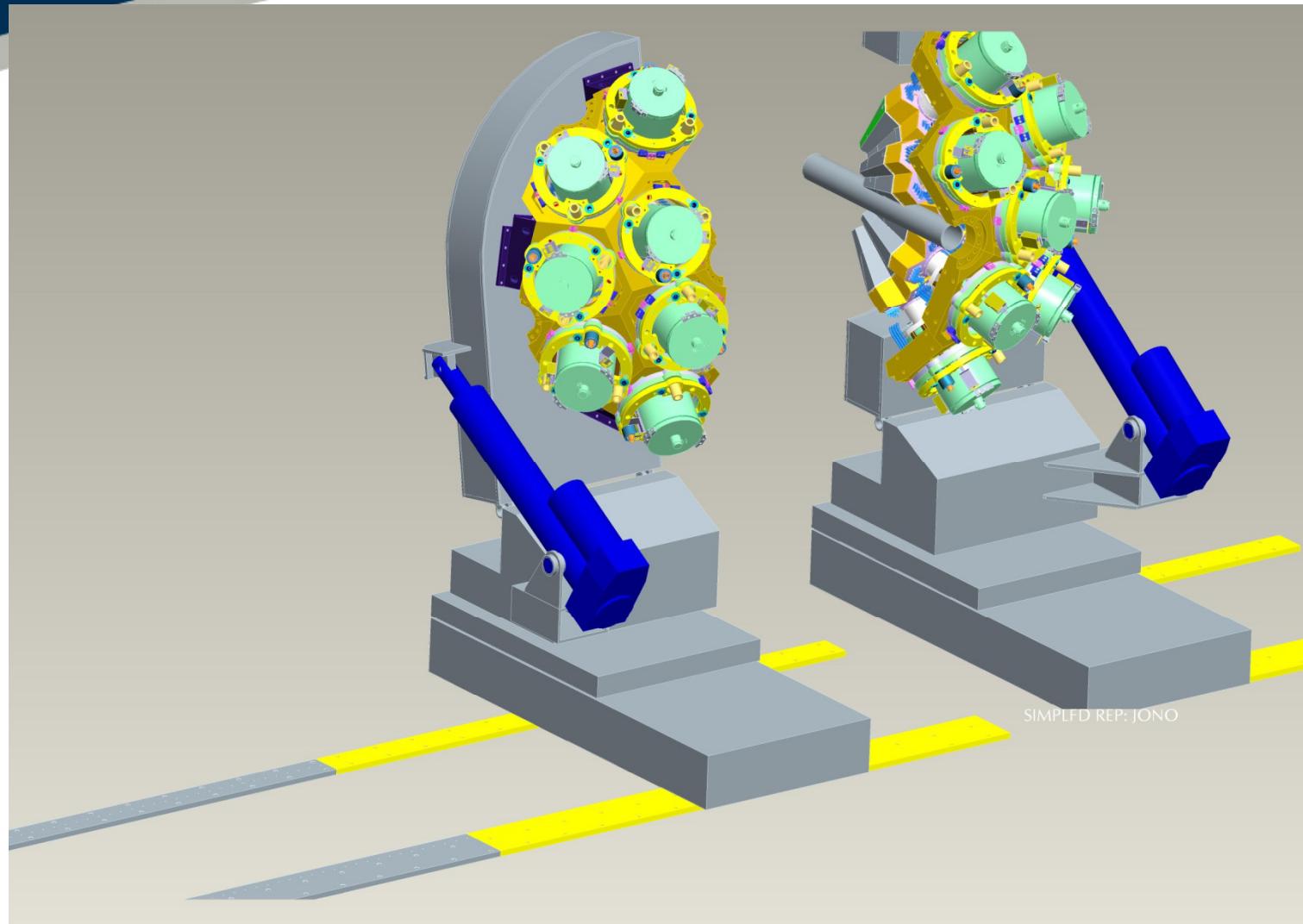
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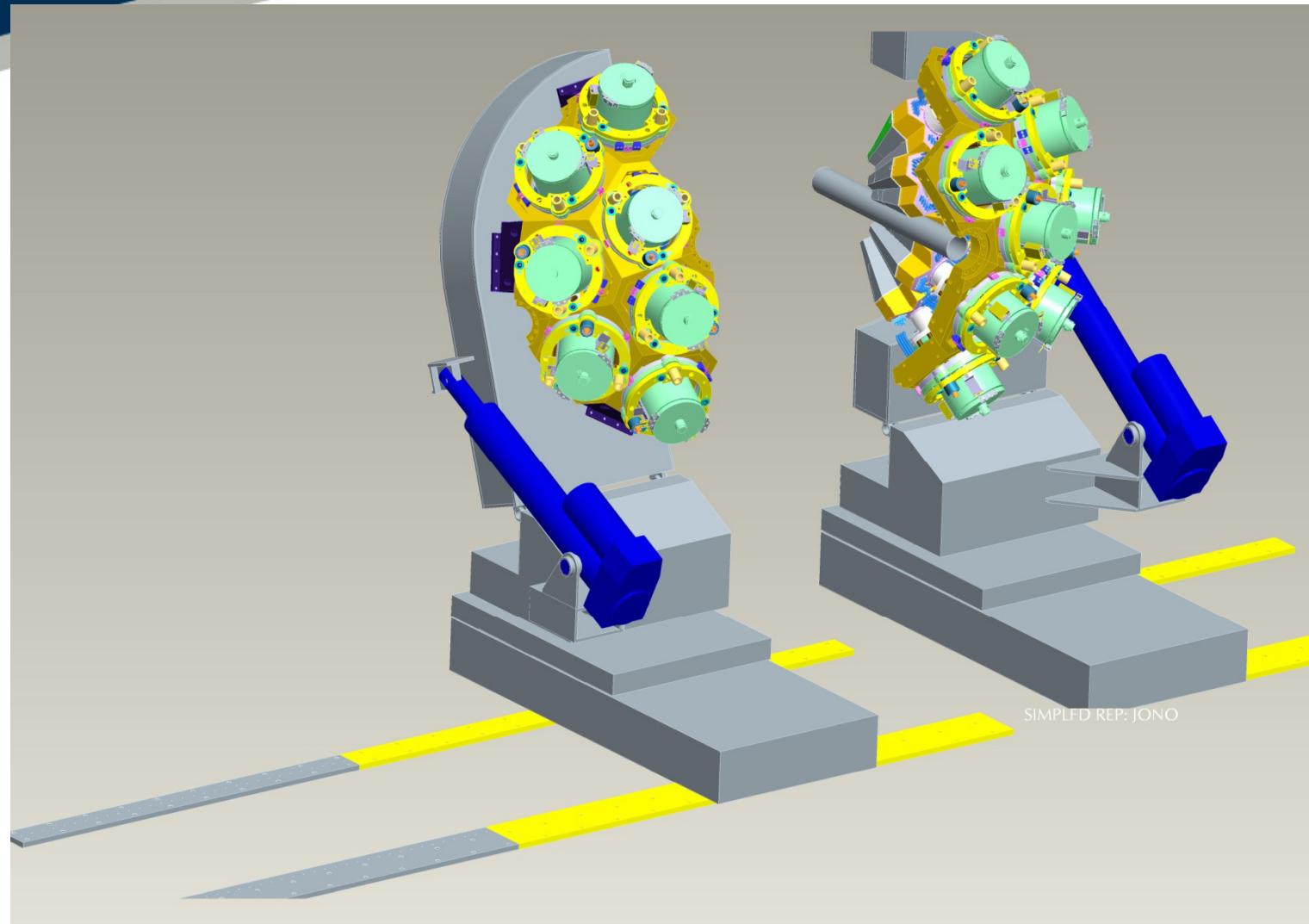
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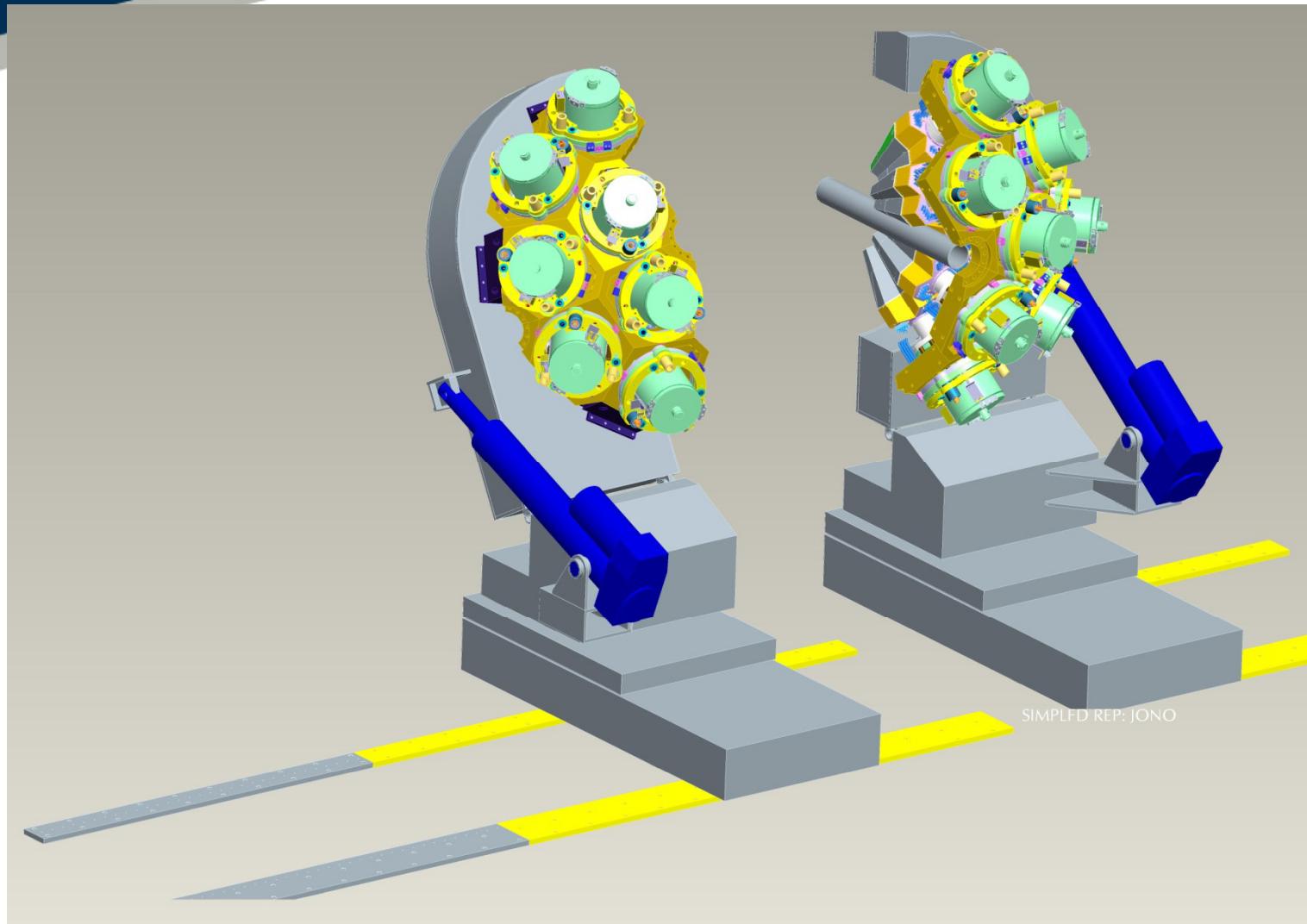


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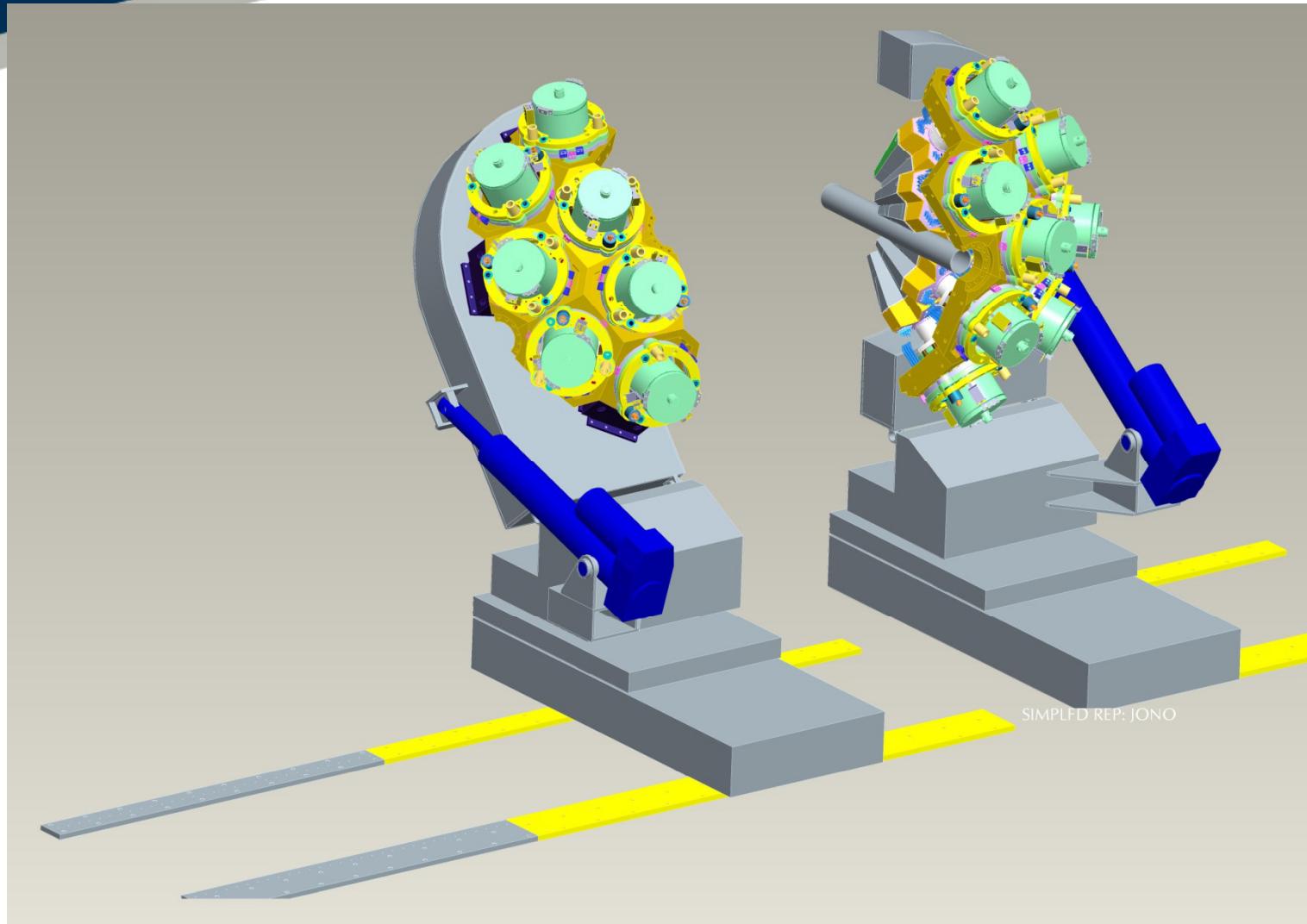


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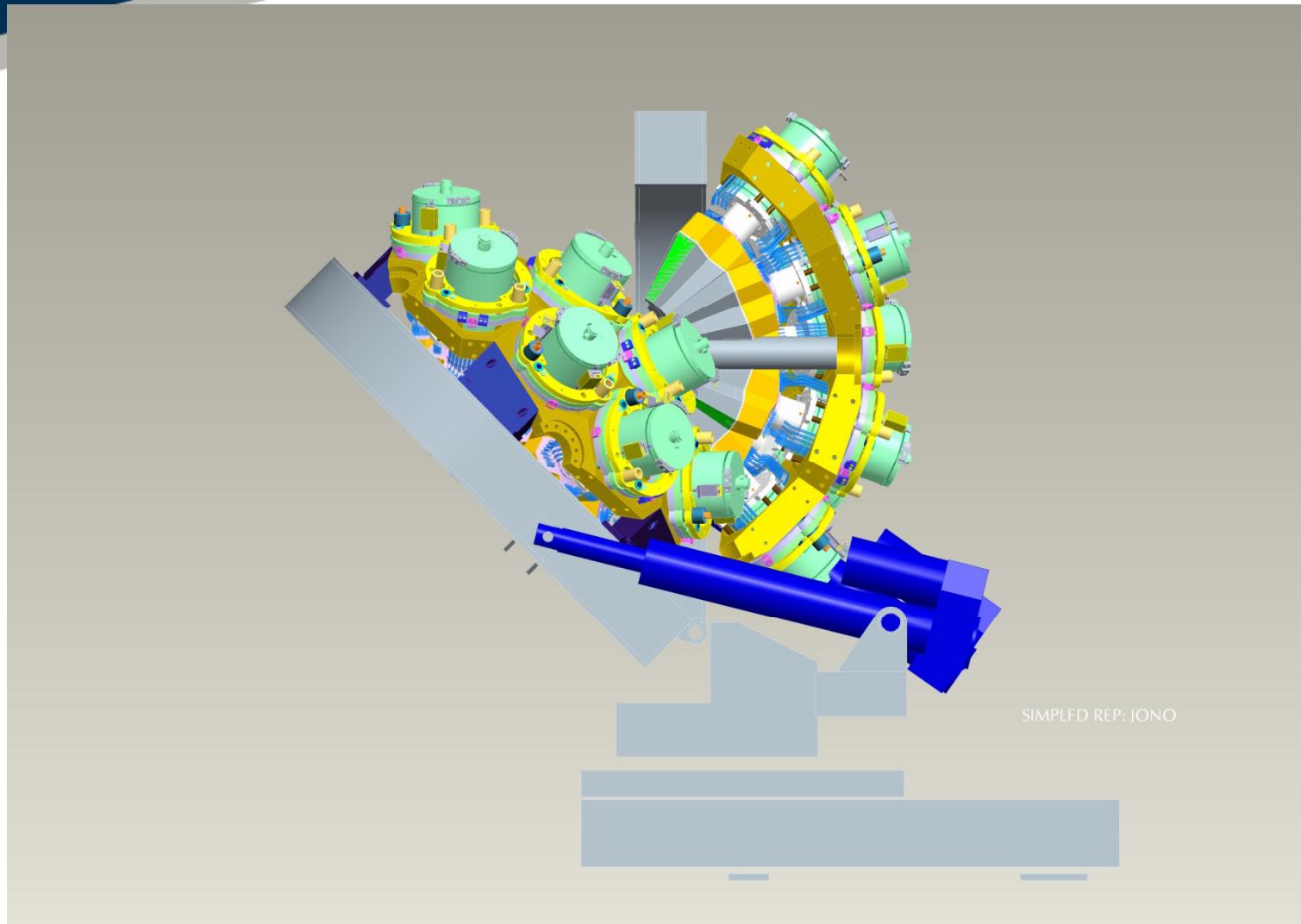


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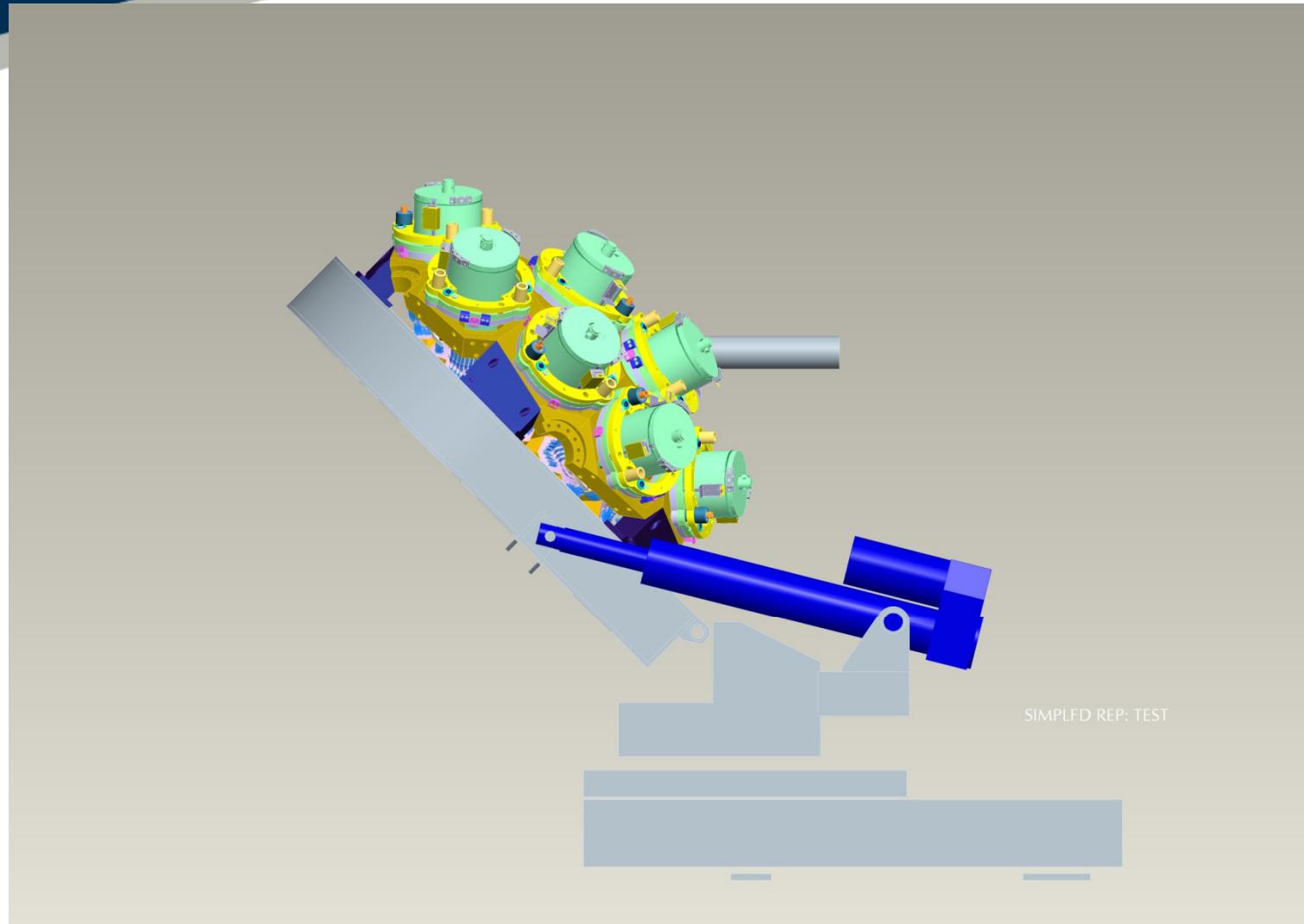


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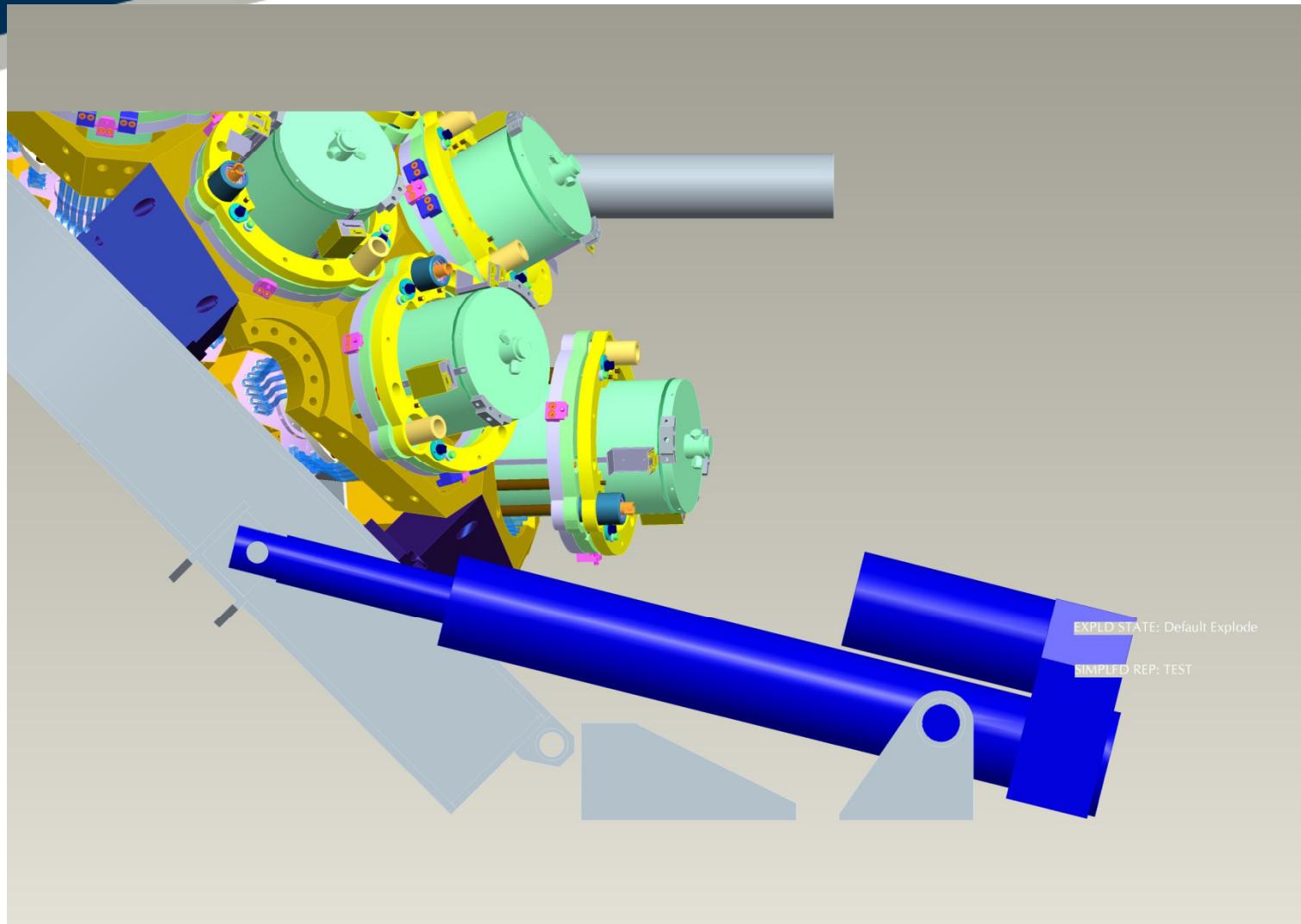


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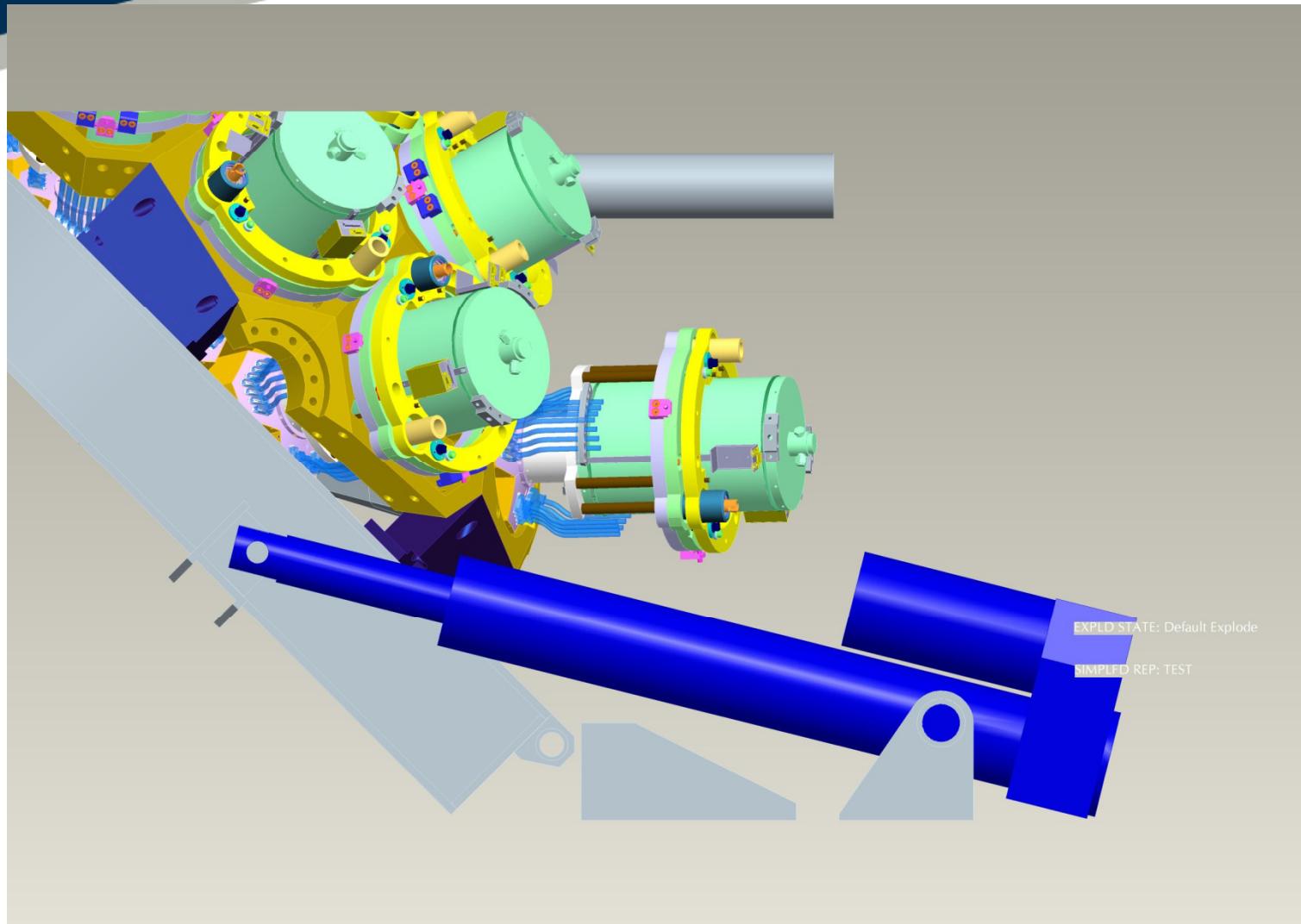


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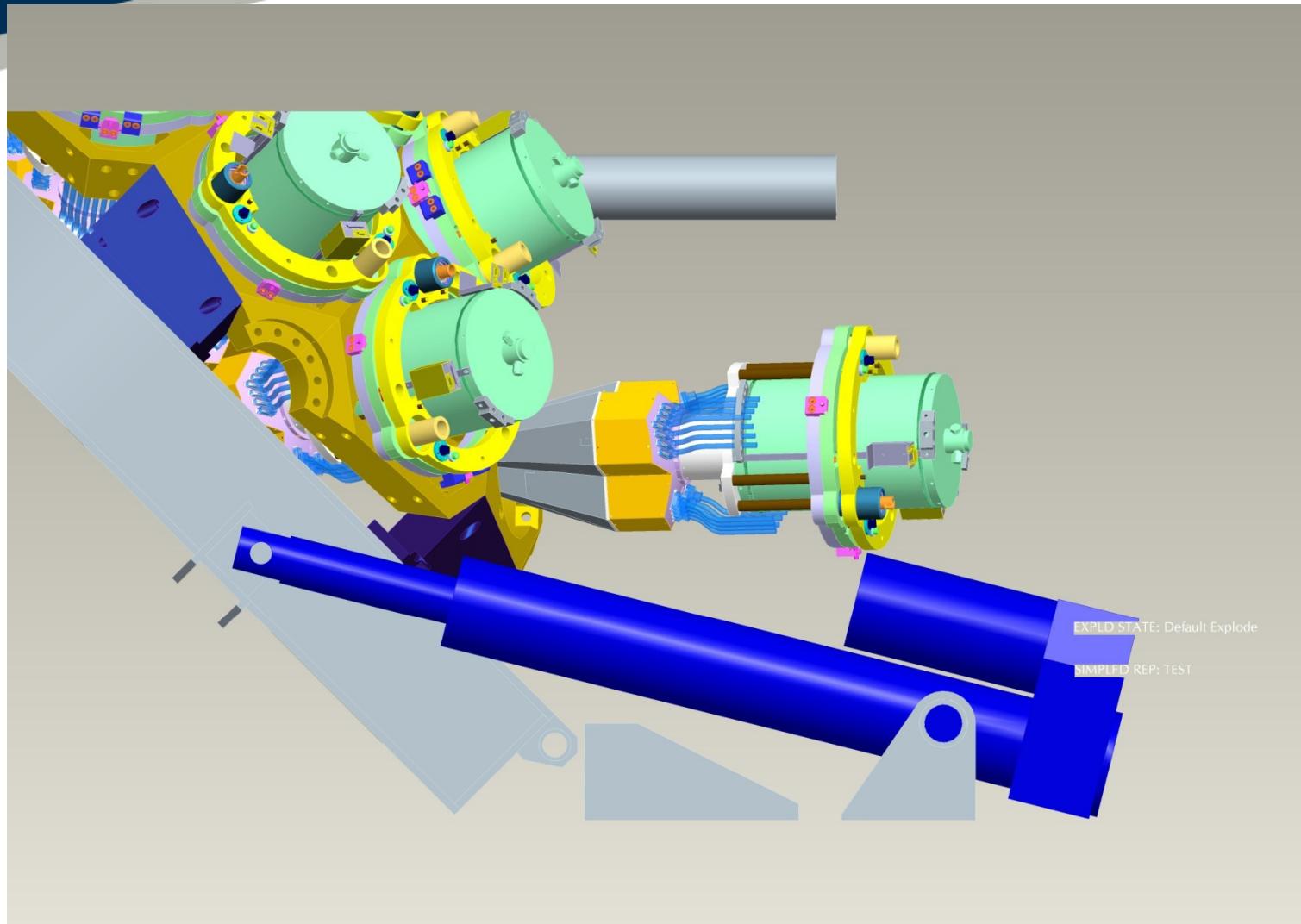


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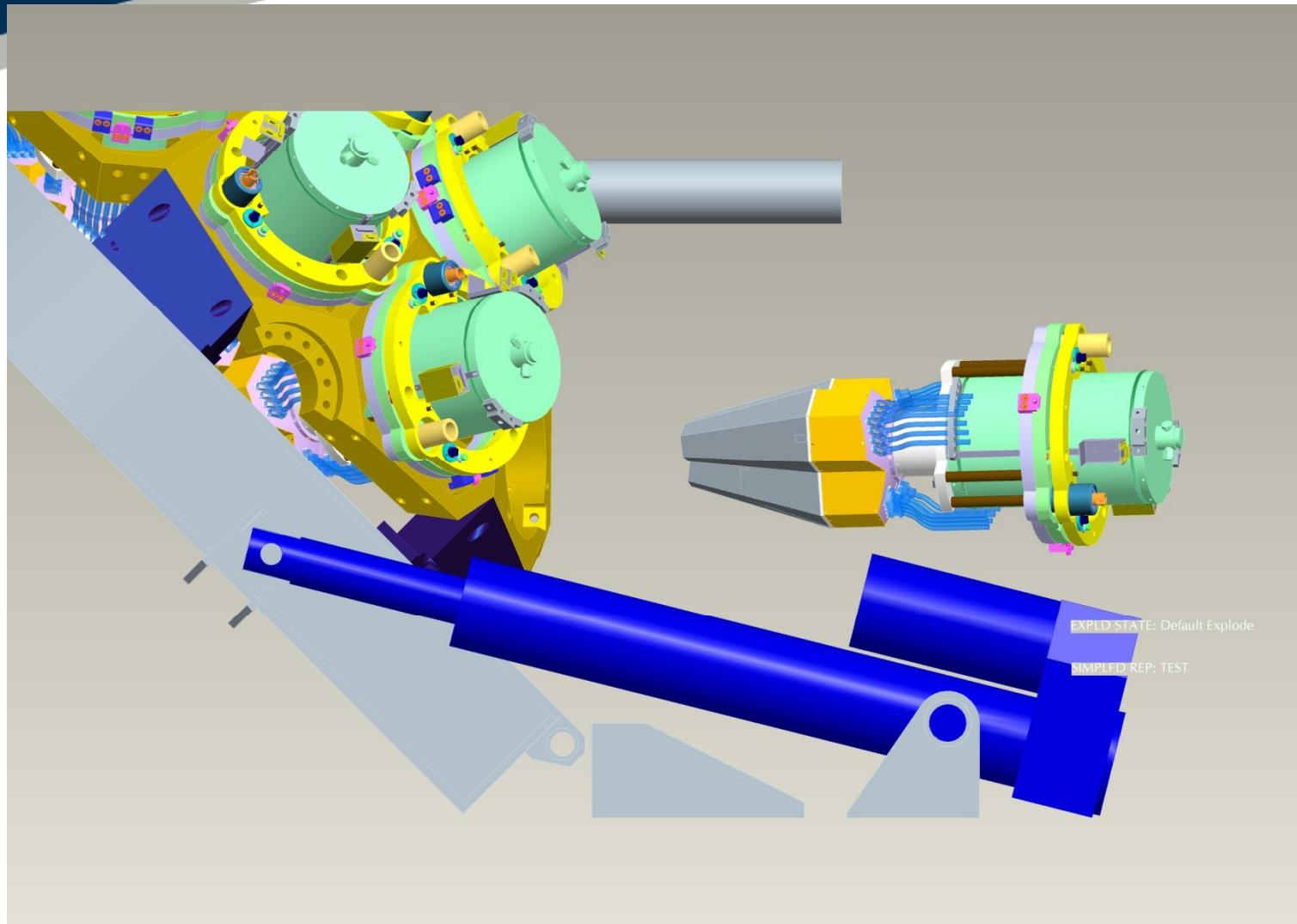


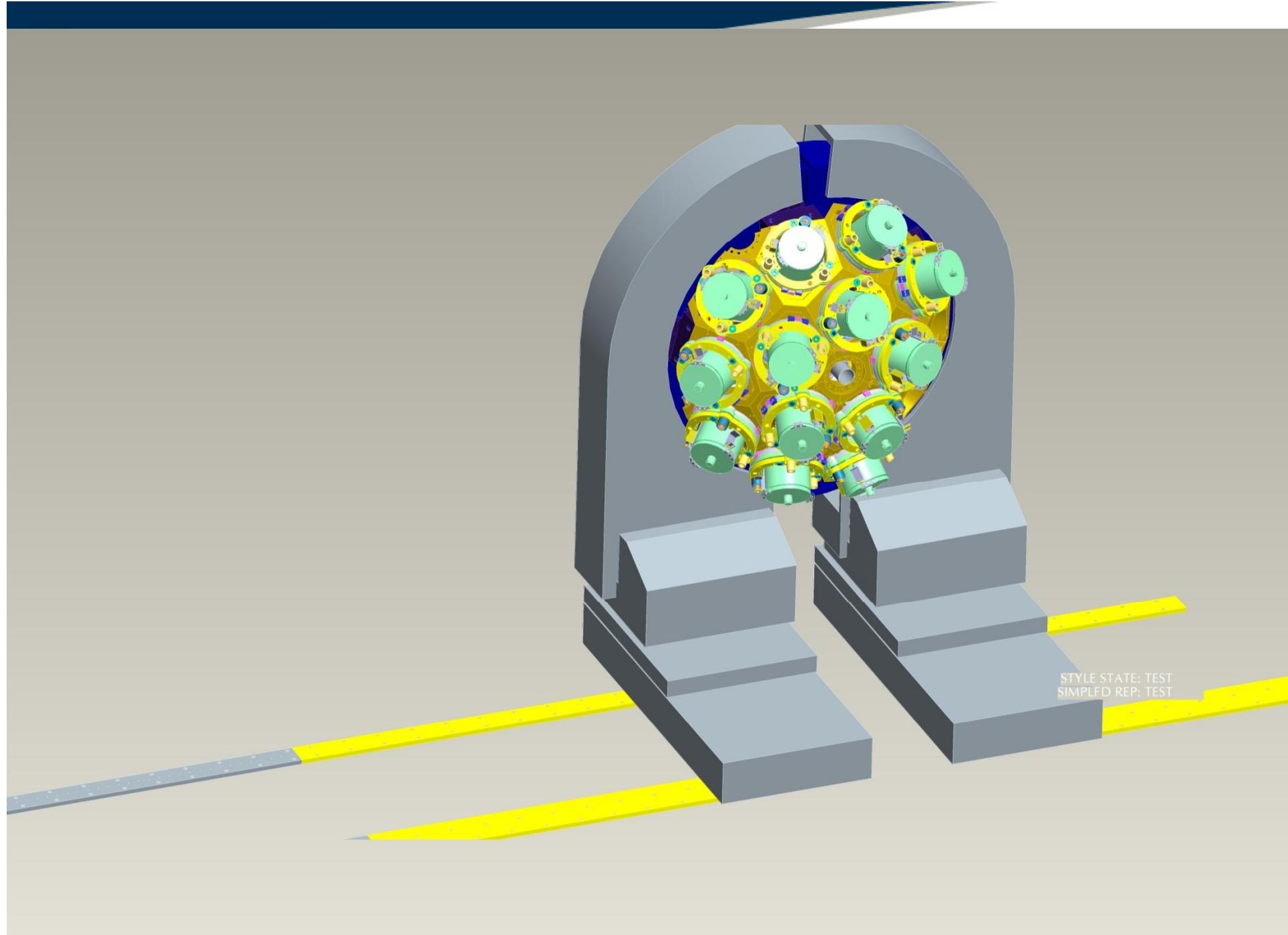
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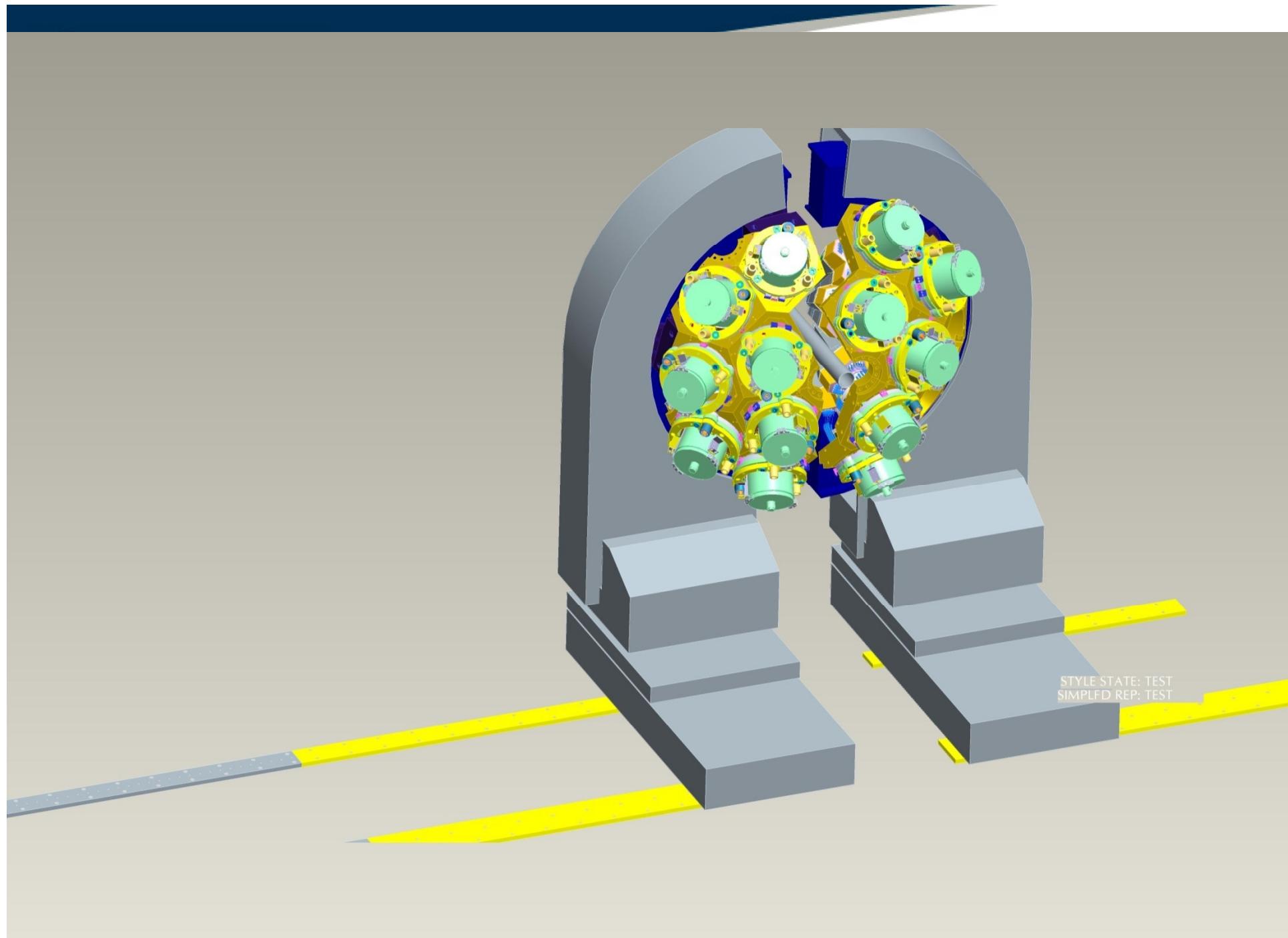


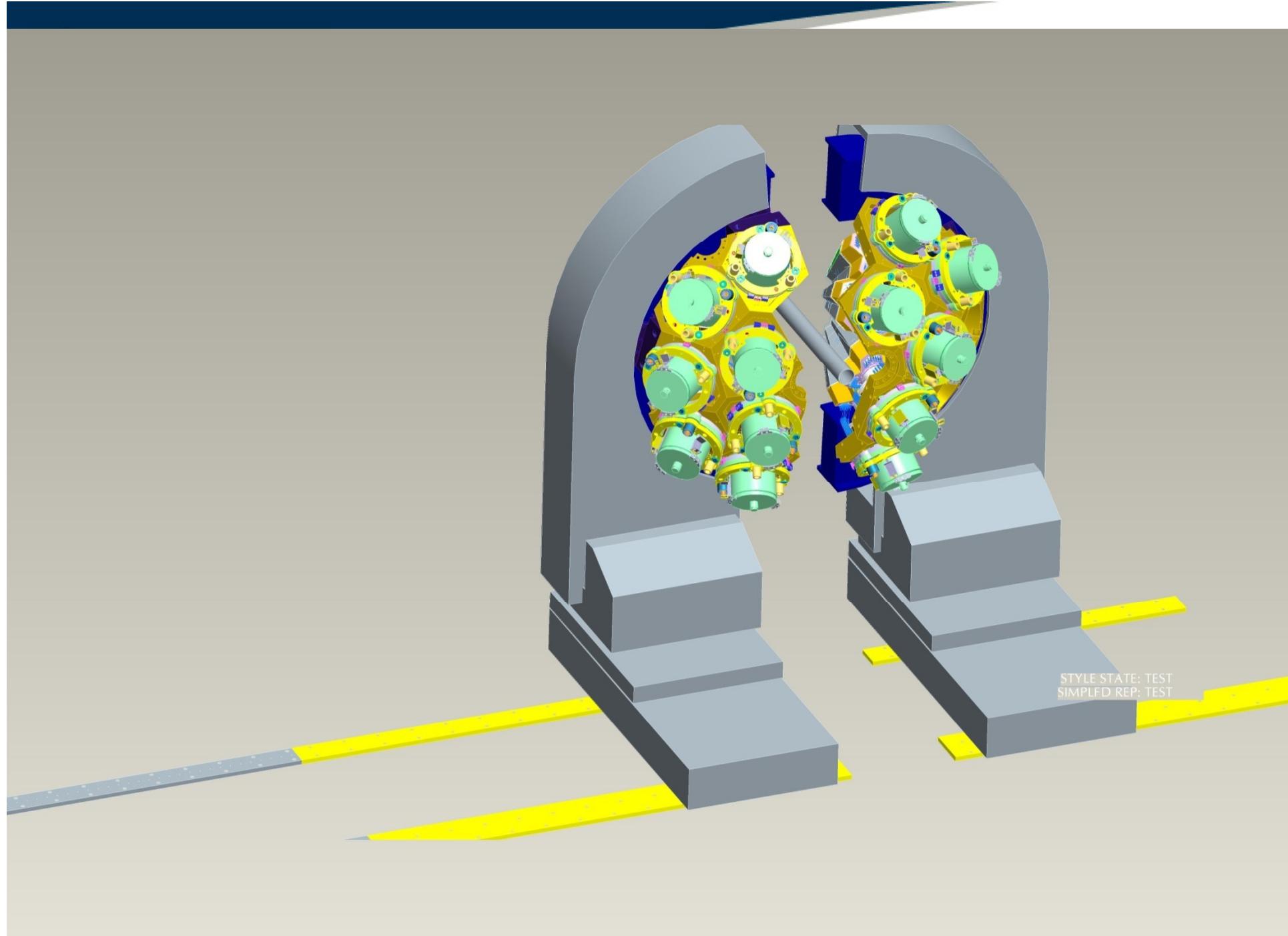


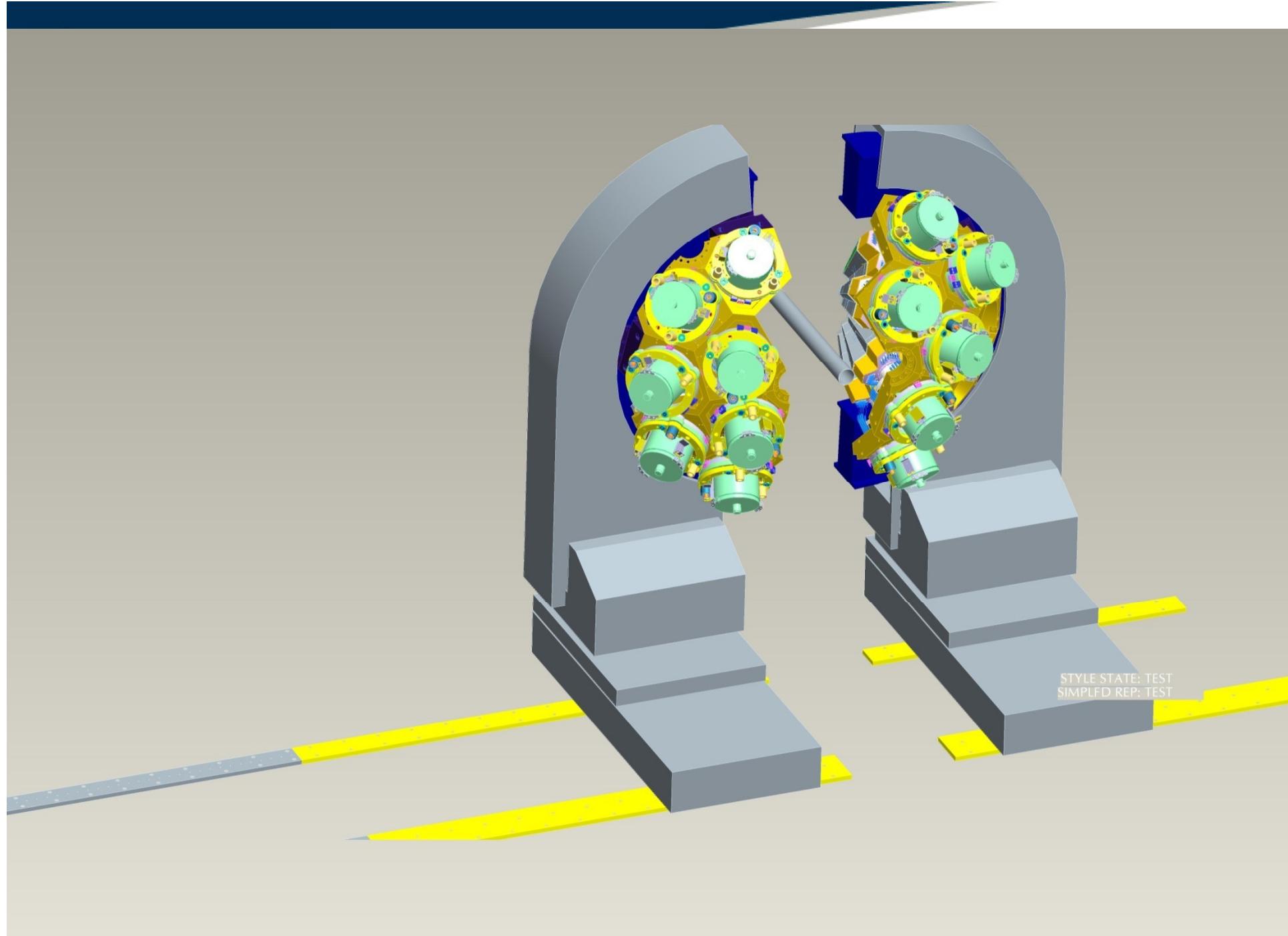
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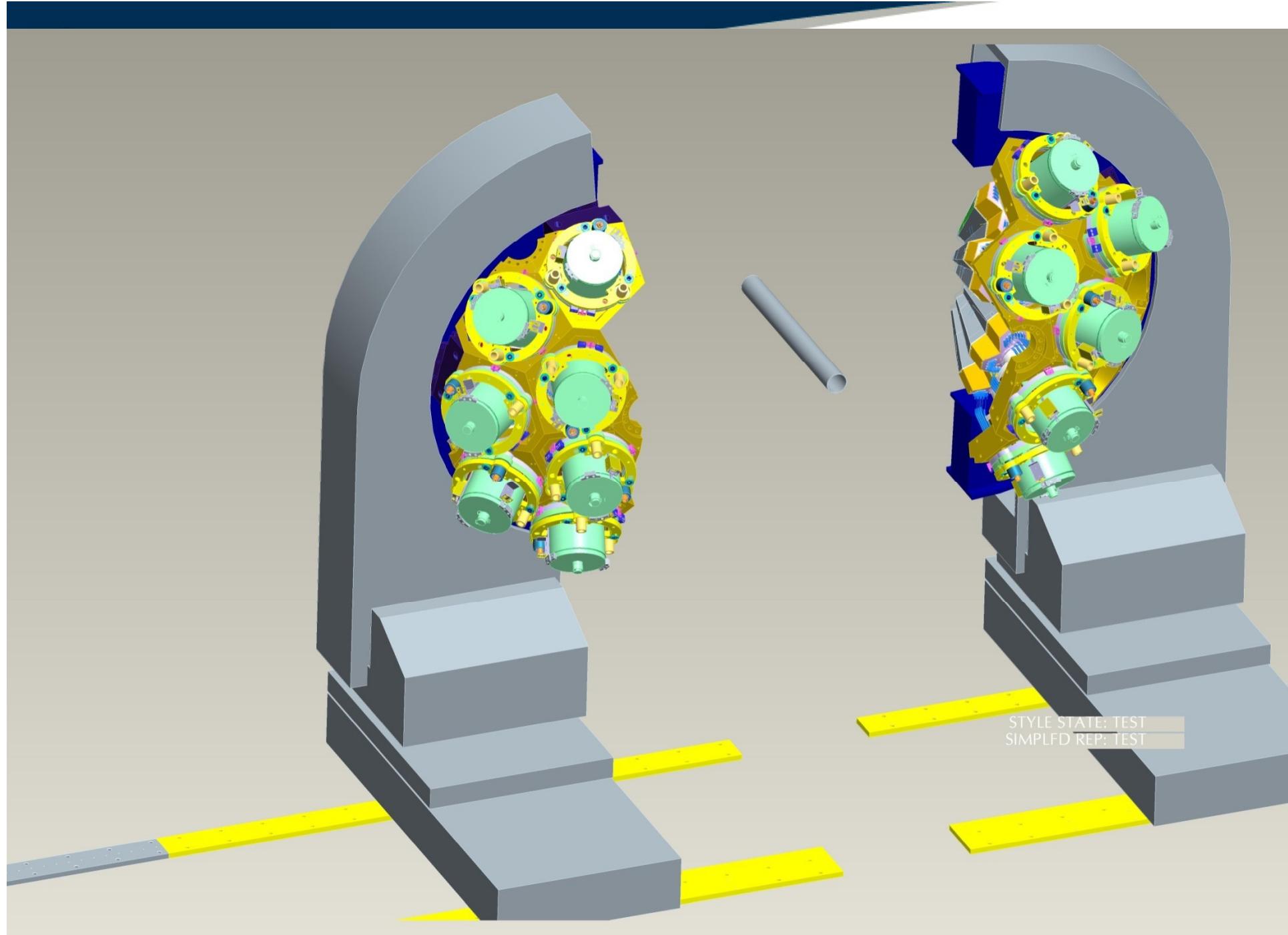


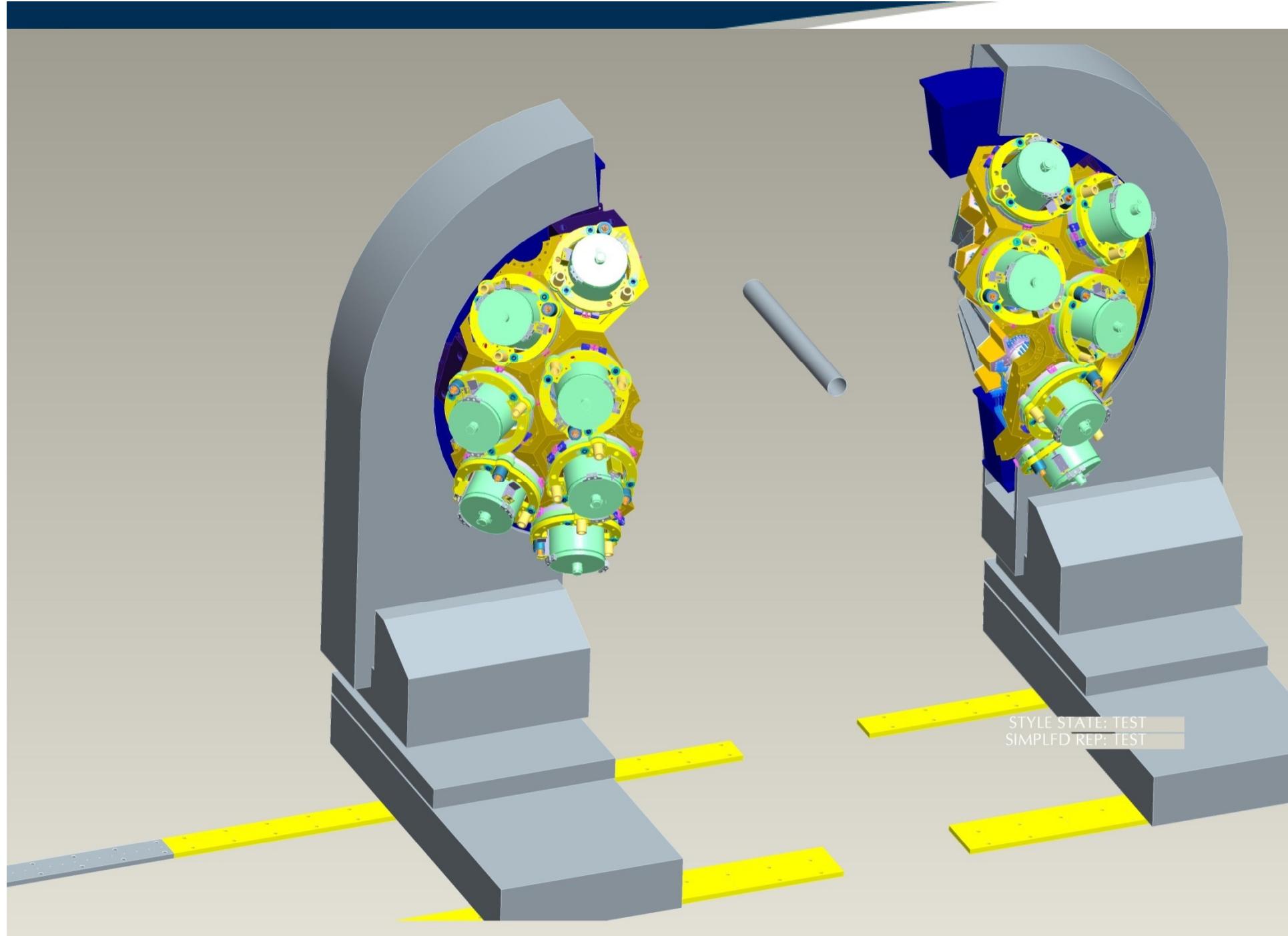


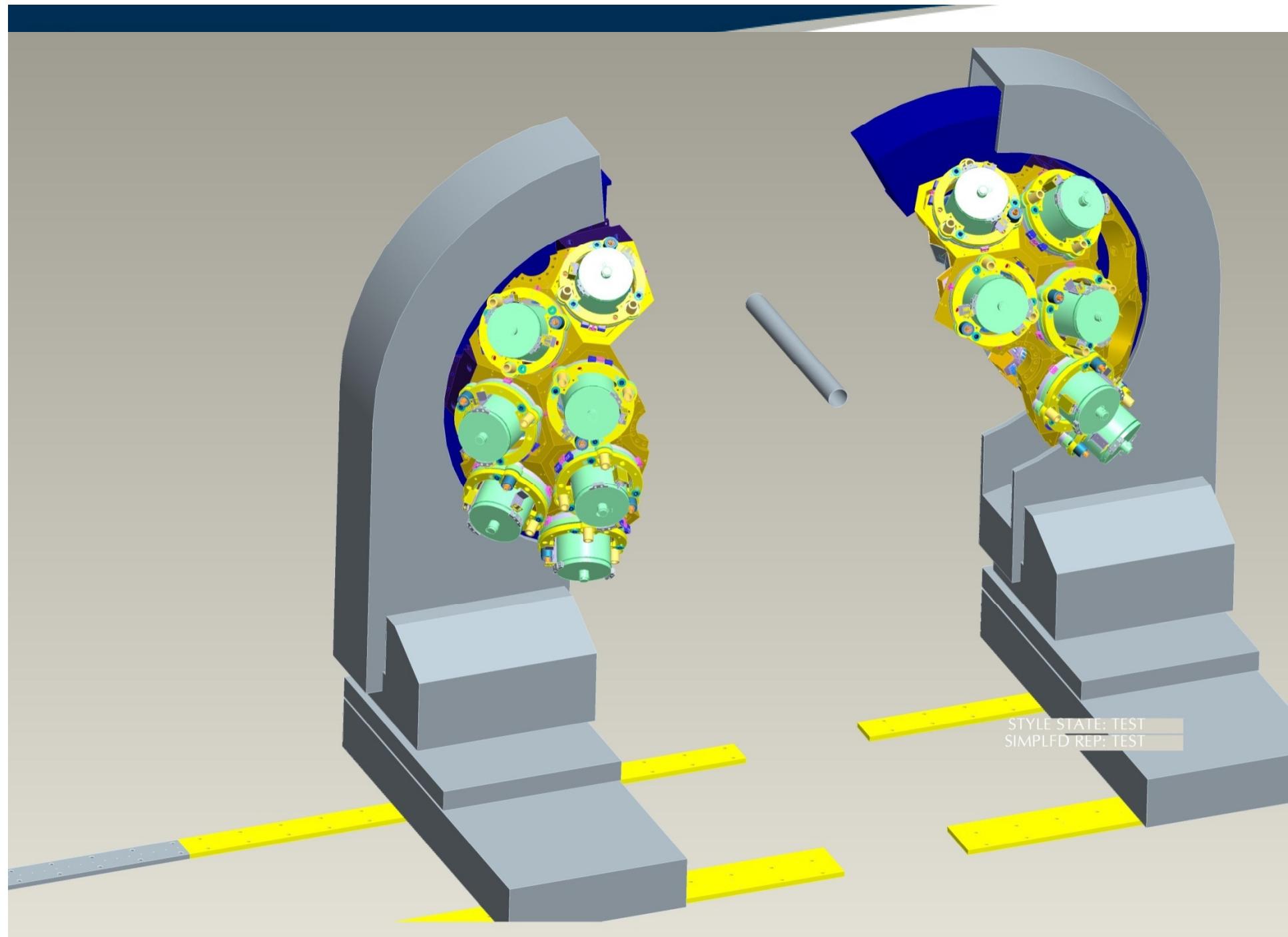


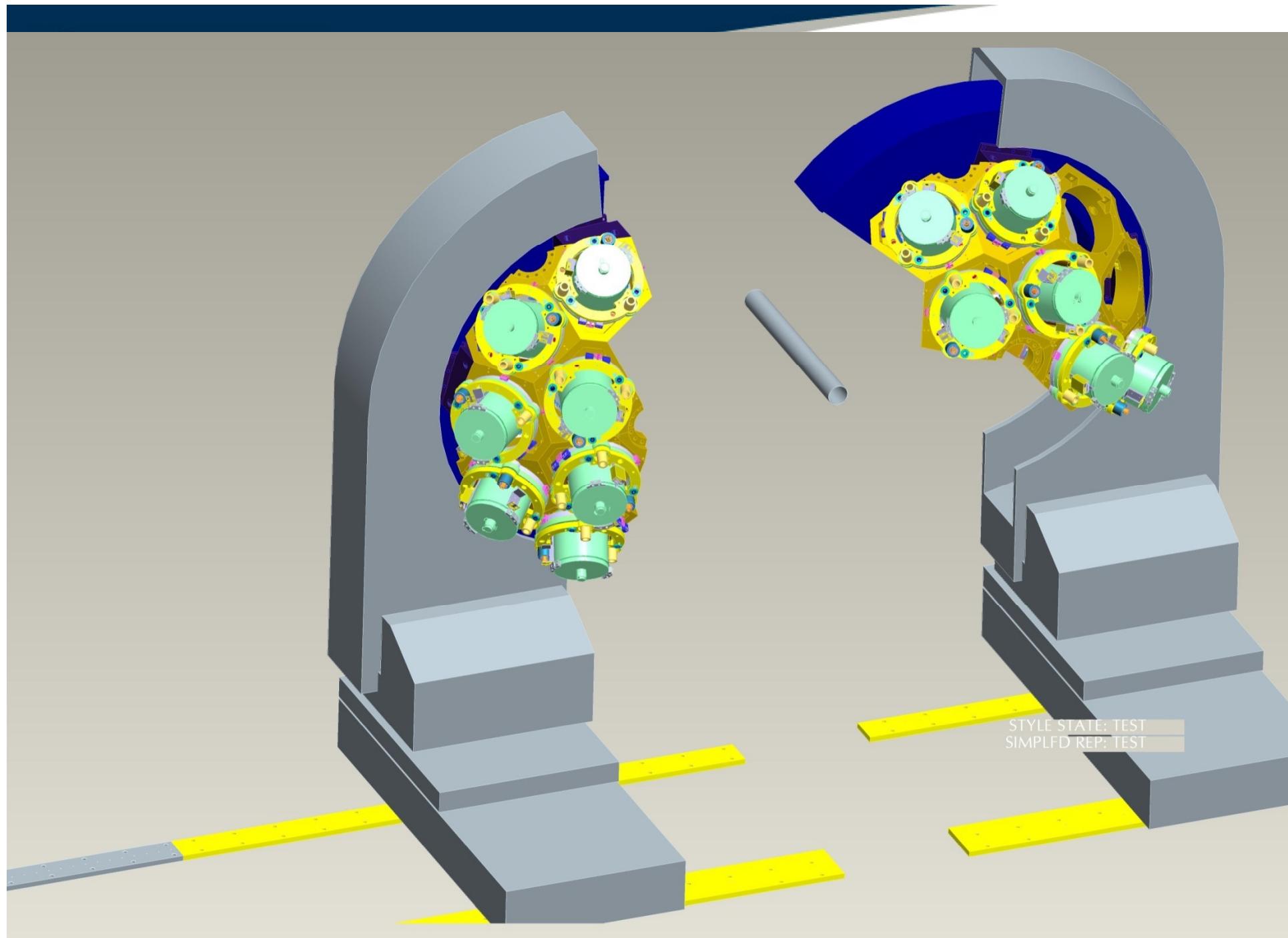


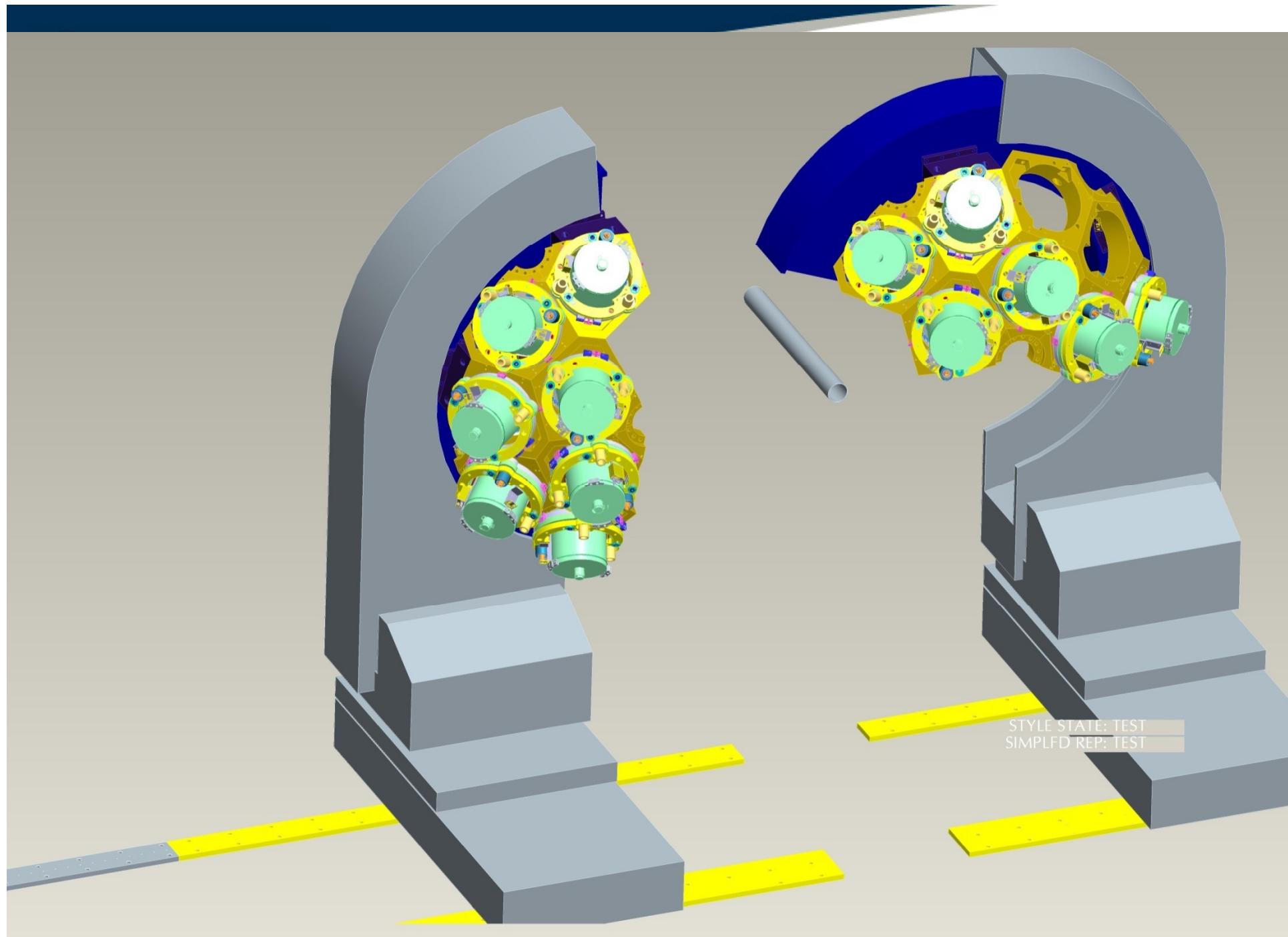


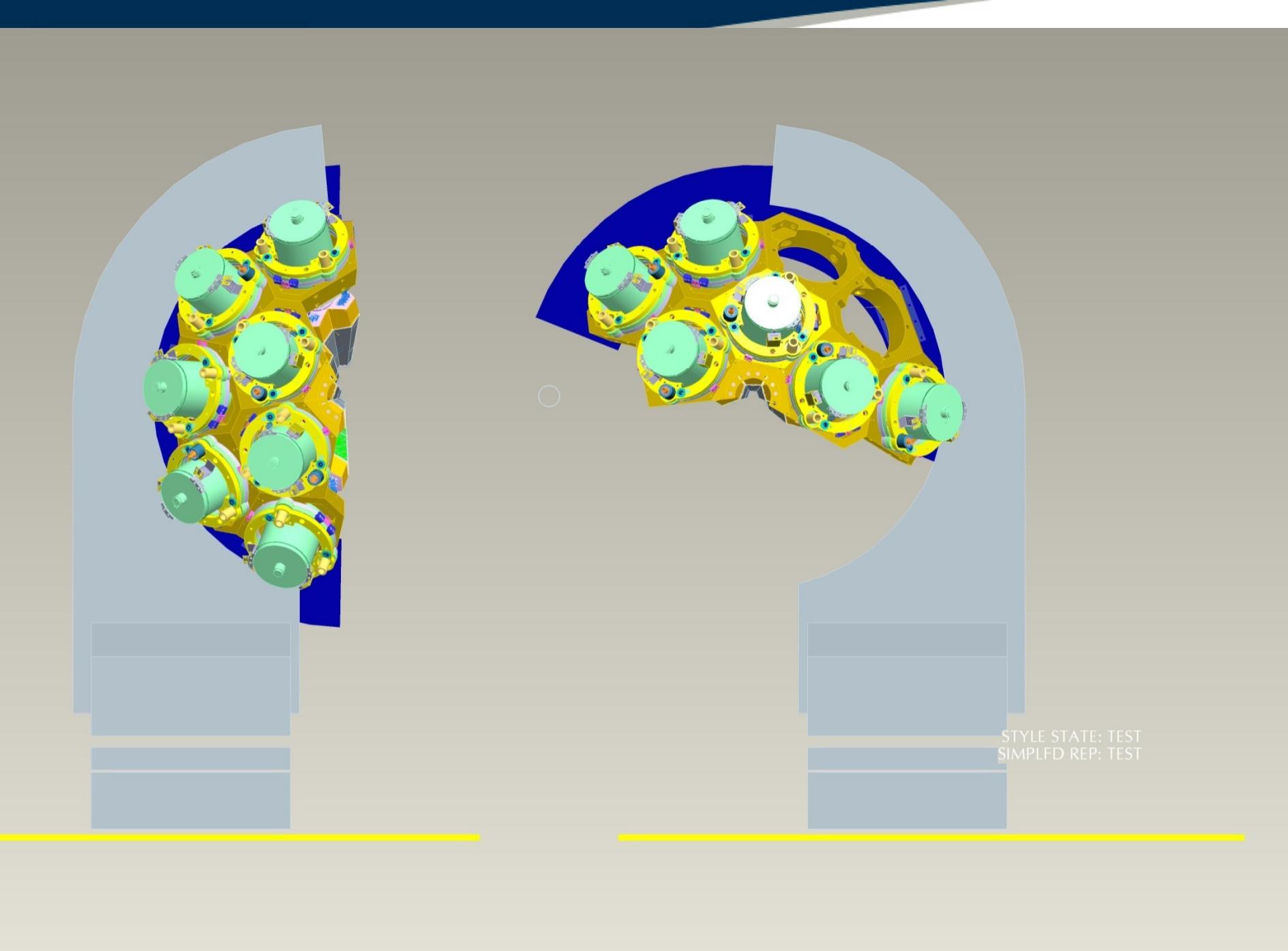














Timescales

1. Mechanical Spec Complete March 2010
2. Mechanical Support Detailing complete January 2011
3. Manufacturing of Mechanical Support June 2011
4. Mechanical Support installed at GSI August 2011



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Questions/Discussion