
PLR Loading Considerations

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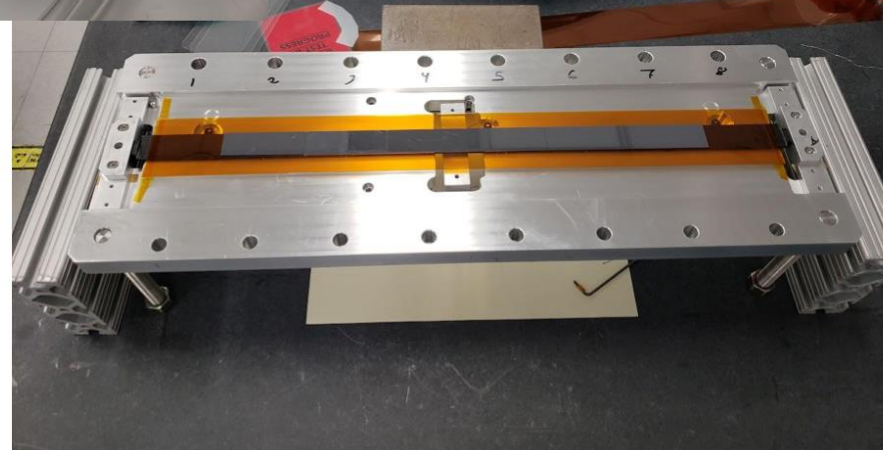
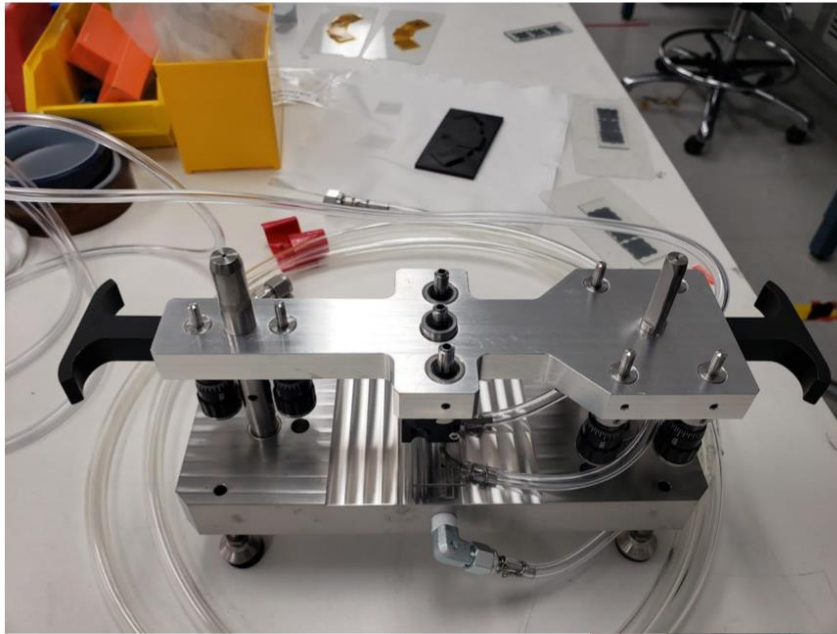
Summary

- Being based on IS modules, it is clear that IS loading techniques are most pertinent to (eventual) loading of the PLR
- A loading precision spec should be set
 - It is entirely possible that modules could be loaded by eye, by hand with minimal tooling
 - With that said, loading with a modified IS loading setup is also reasonable
- Following is a small intro to IS loading tooling

SE4445 Deposited Directly on Module with volumetric tip in star pattern

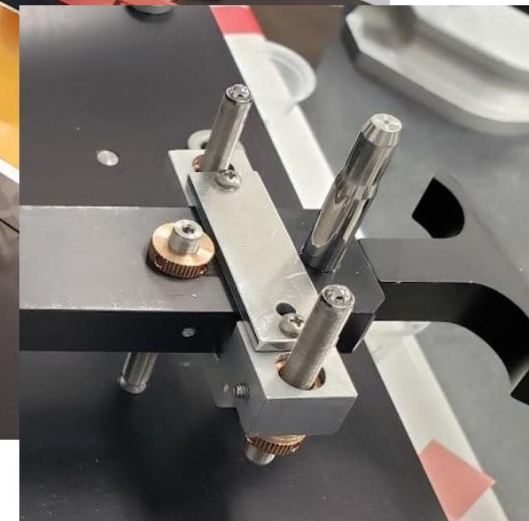
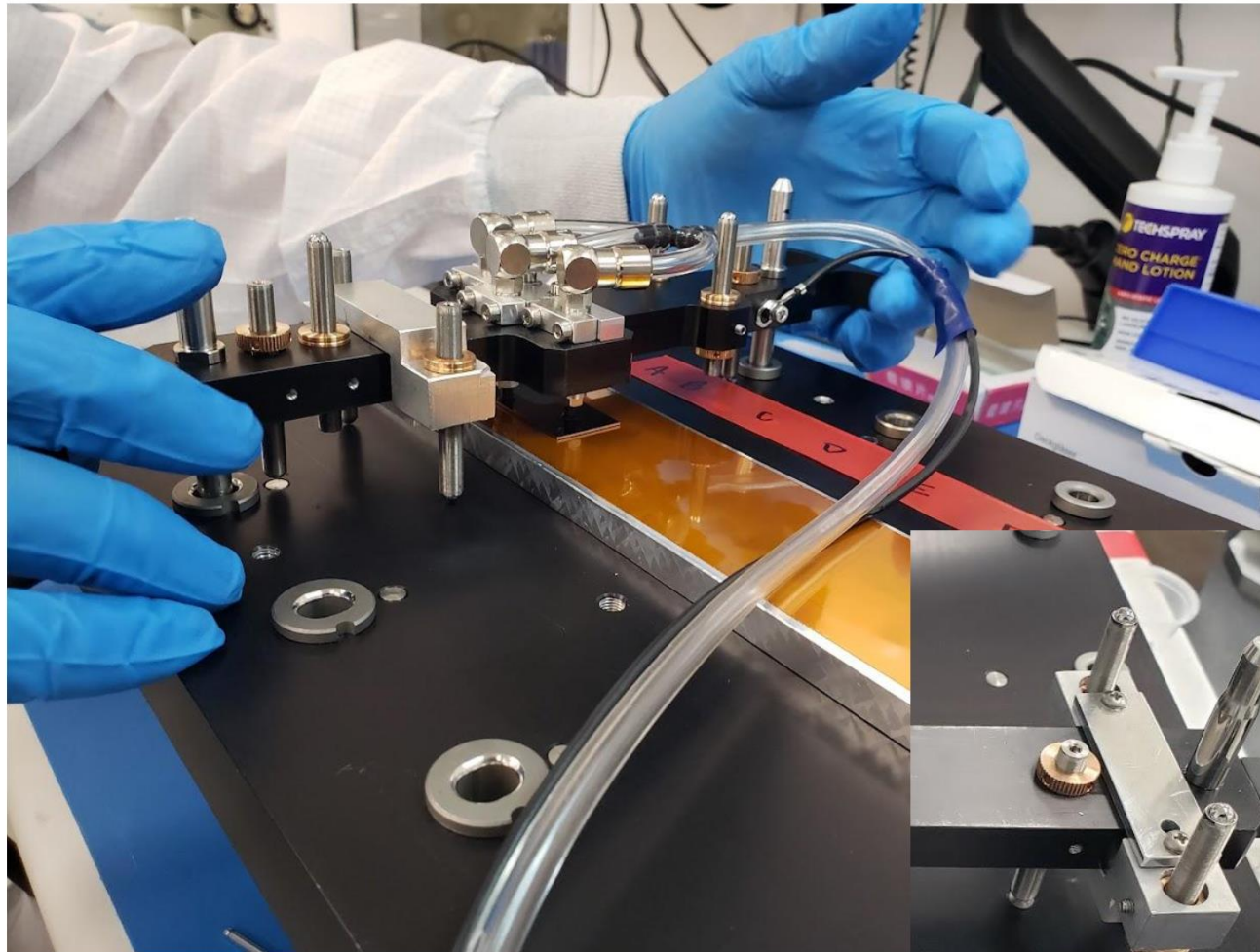


Linear Triplet Loading Tooling



Prototype loading tooling, showing the pickup bridge and the baseplate

Bridge and Module being Applied (to test structure)

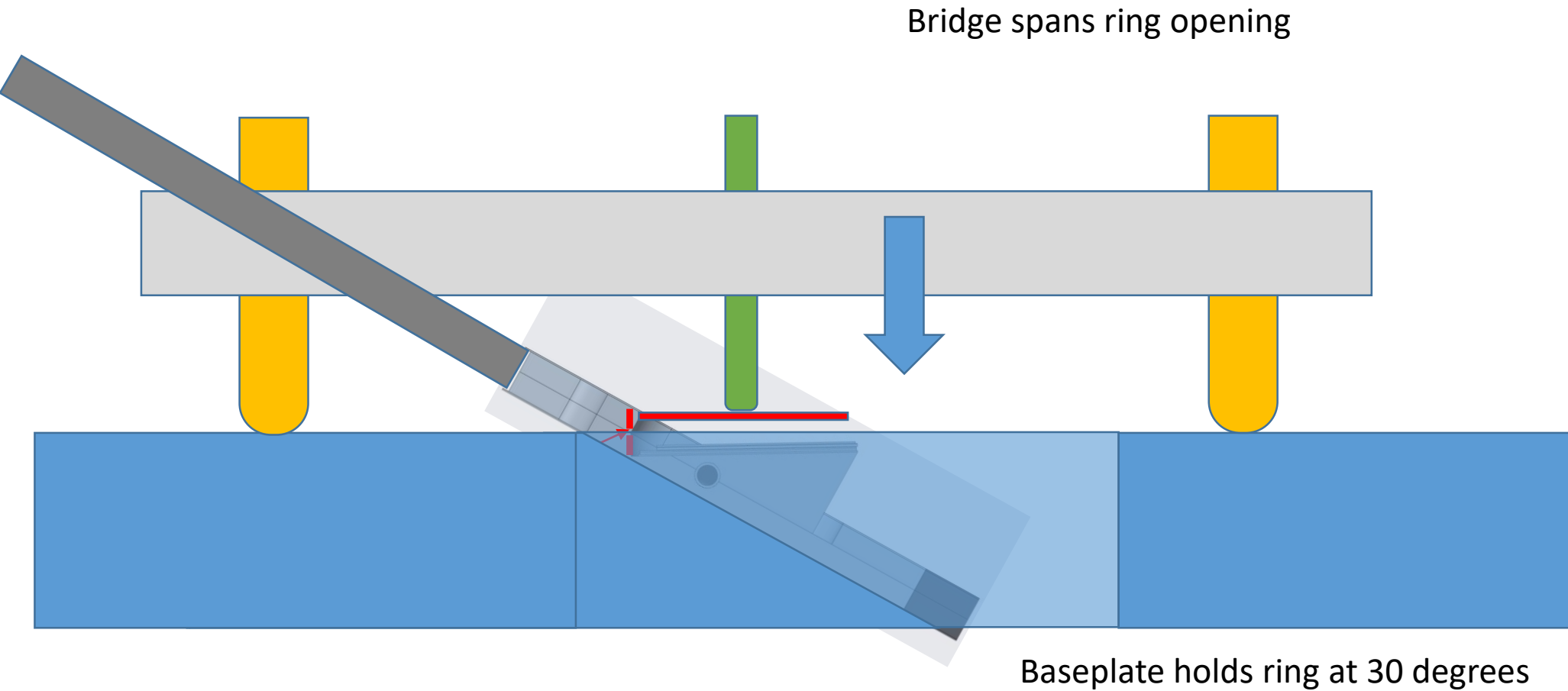


SLAC ATLAS

Potential Loading Tooling for PLR

- Option 1
 - Load glue on module with bridge and robot
 - Use hand-vacuum pickup to load module onto PLR ring
- Option 2
 - Load glue on module with bridge and robot
 - Hold PLR ring in a 30-degree angled tooling setup that allows bridge to cross over ring wedge
 - Load module with this loading tooling (must produce new tool)

Schematic of PLR Loading



Conclusions

- Loading, even with new tooling, should be very straightforward
- Seems lower risk to have US do the loading before shipping to Norway
- However, project-wise would need to figure out how this could be possible
- Potentially, Purdue could do loading with old tooling of ours while making PLR supports...