

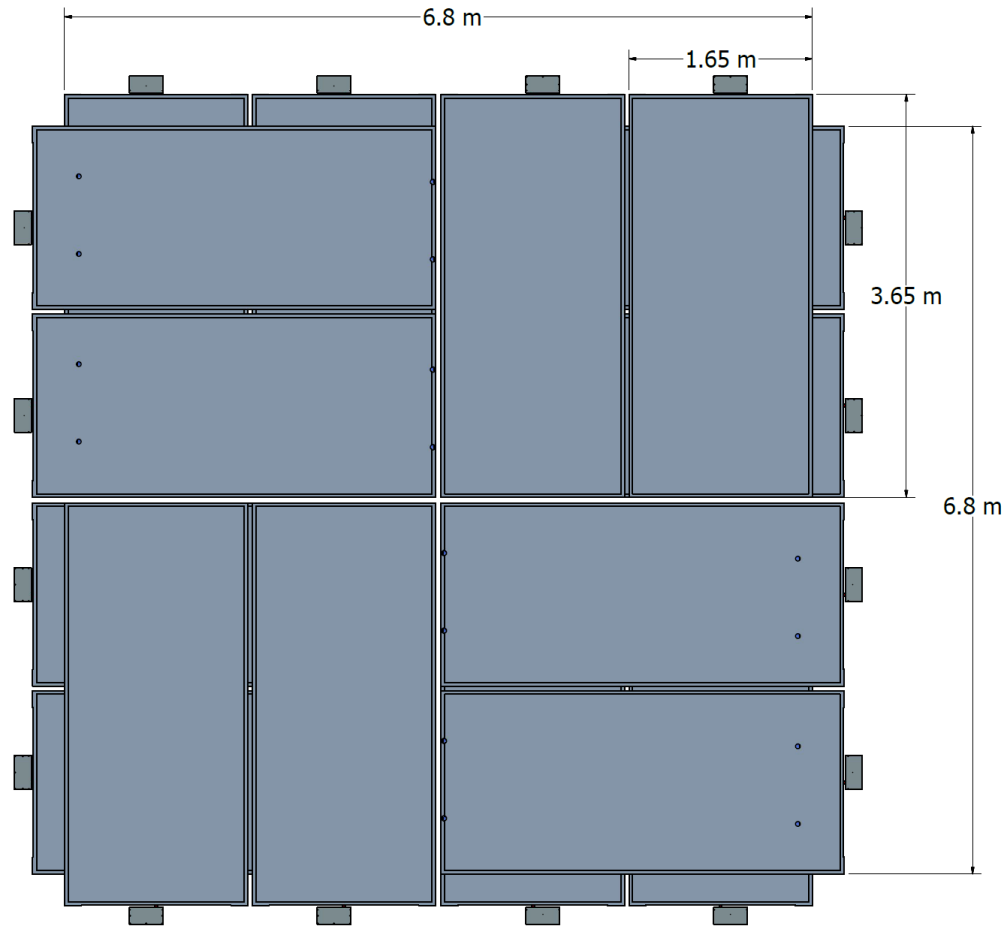
ProtoDUNE CRT Update

Ed, Matt, Camillo, Vishvas, Sarah, Andrew,
Ben

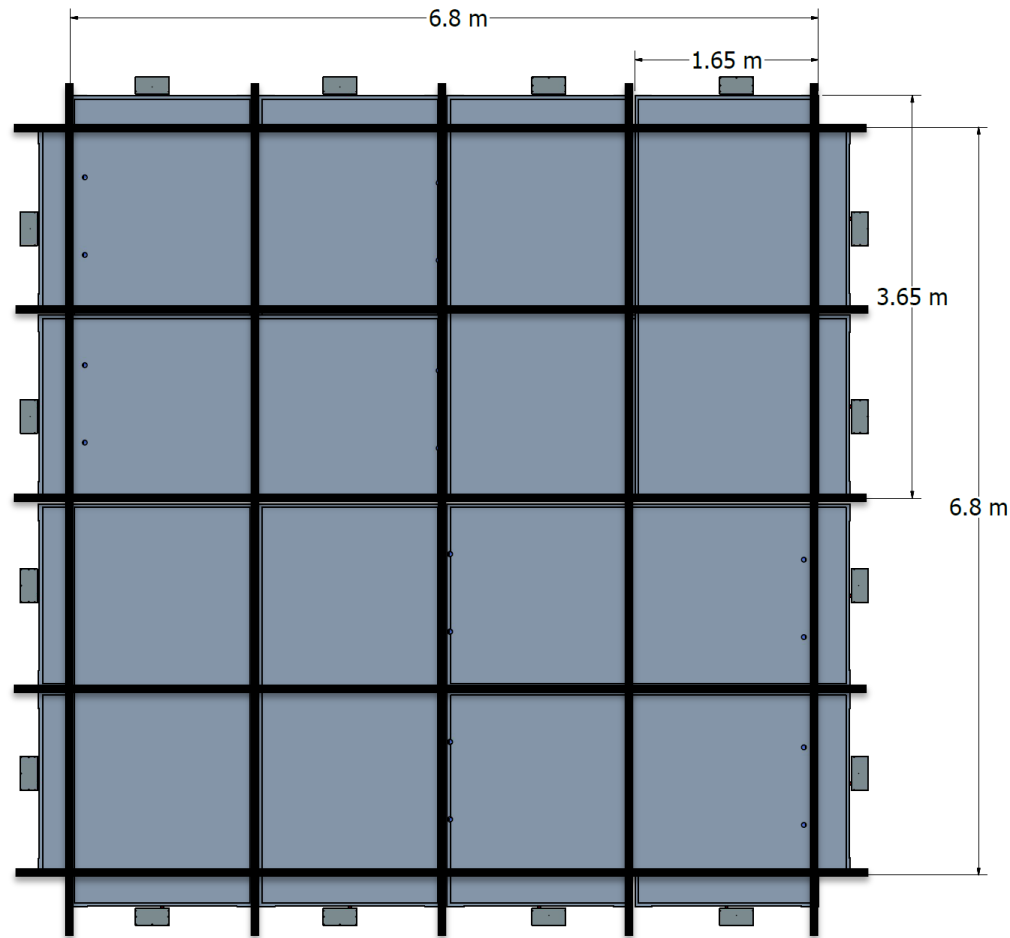


7 June 2018

16 modules upstream and 16 modules downstream of cryostat

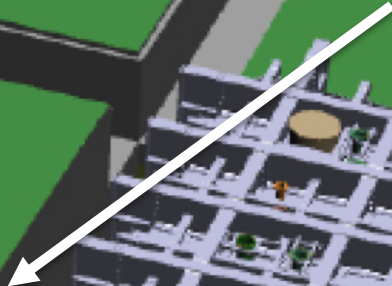


16 modules upstream and 16 modules downstream of cryostat

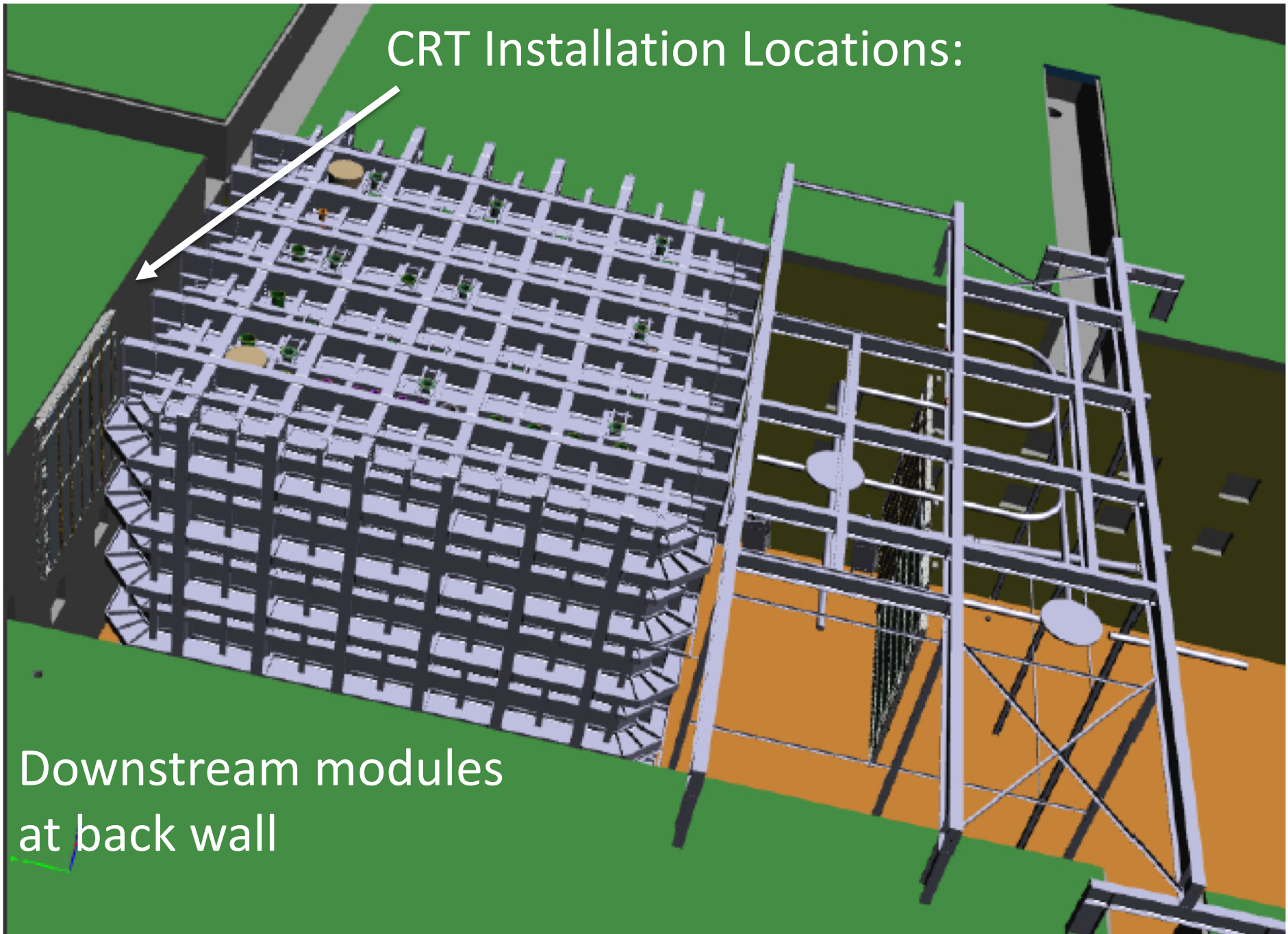


Trigger signals: 16 1.6×1.6m pixels upstream and downstream. Trigger signal for each module requires muon-like double of strips hit.

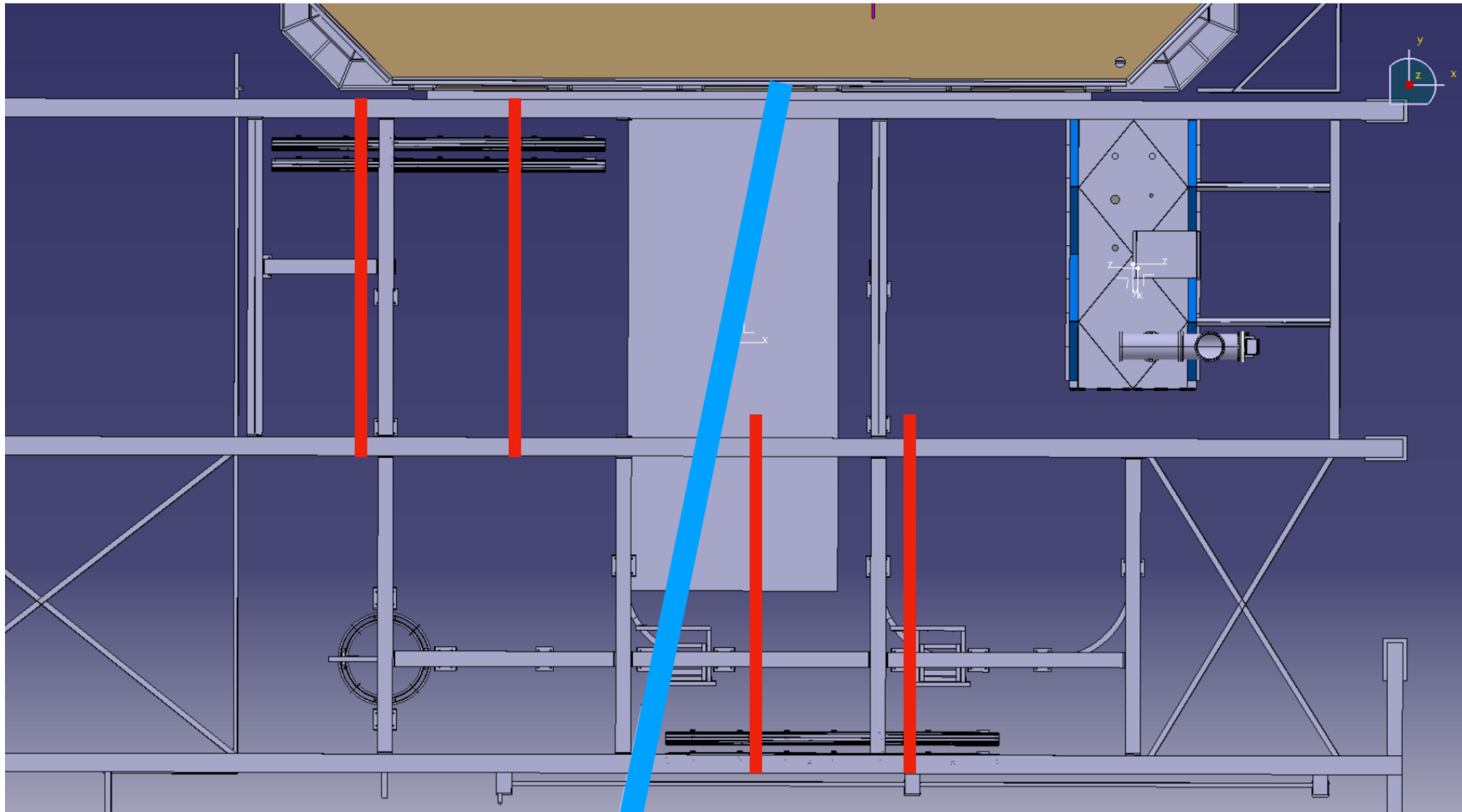
CRT Installation Locations:



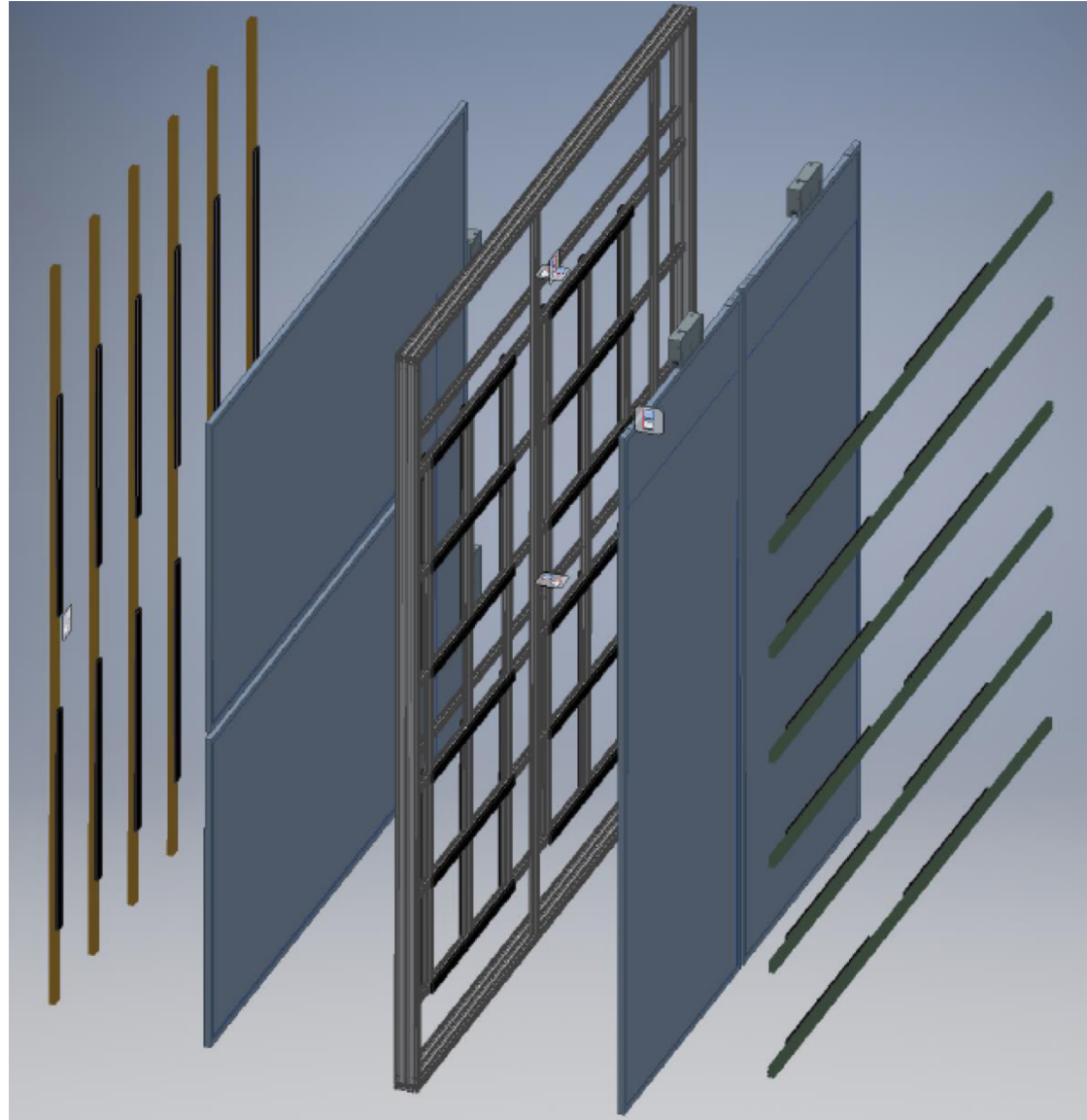
Downstream modules
at back wall



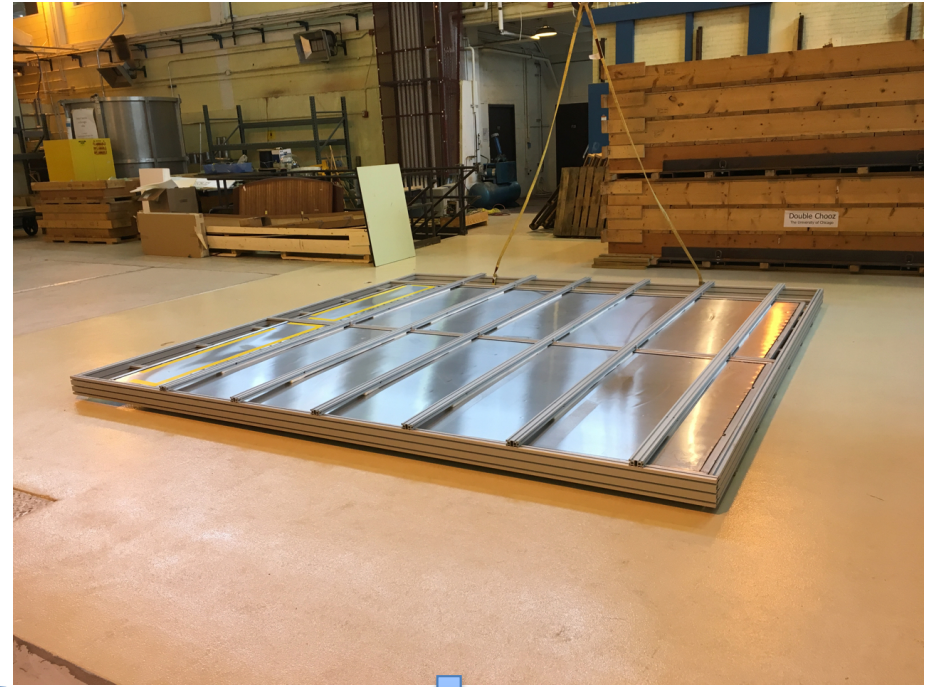
Mounting of Upstream Modules

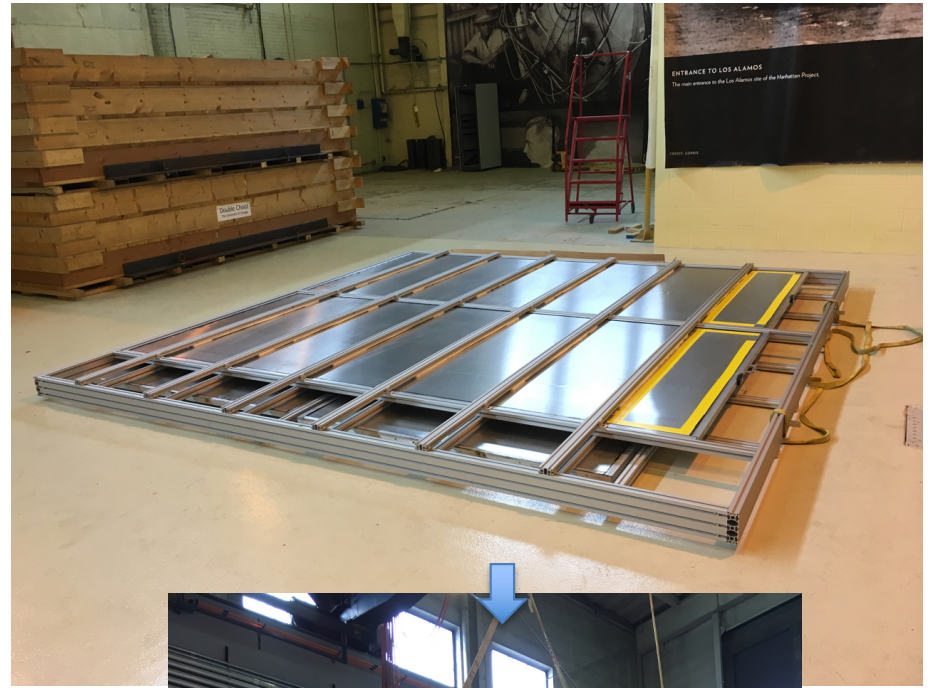


Friction Clamp Module Mounting Scheme



Full Prototype Built in Chicago





7 June 2018

All frames constructed



Ready for module assembly on frames

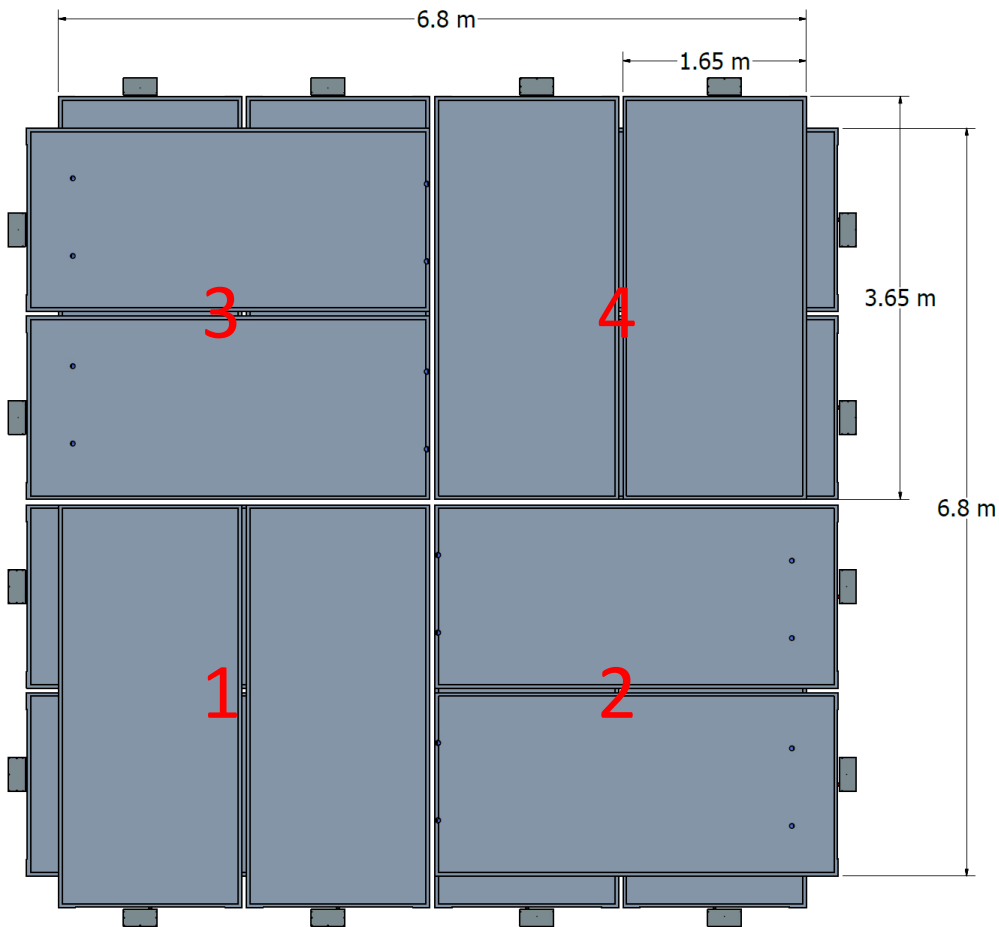


Next steps

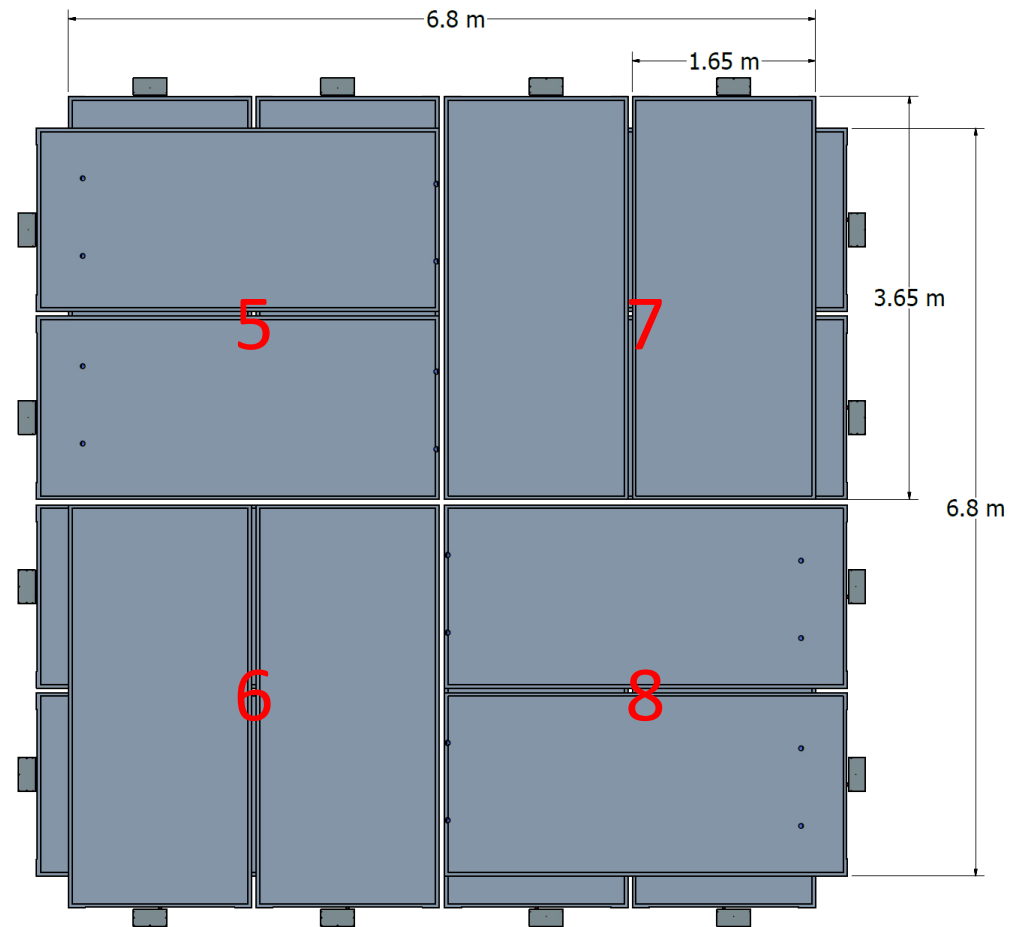
- Waiting for crate that has been stuck in Lyon since May 30 (includes foam, PMT attachment hardware, frame mounting fixtures, etc.)
- Load test of frame with final attachment fixtures
- Install modules on frames and install downstream and upstream modules, in that order
- We need to confirm installation sequence (see next slide)
- Note that modules will be fully cabled before mounting (see Camillo's talk)
- Each frame should take < 1 day to complete, depending on crane access.

Current understanding (facing downstream)

Downstream modules



Upstream modules



Comments

- Do we need to consider temporary (vertical) storage of completed frames?
- Extra floor space in trench could allow us to complete two frames at a time, and might simplify final installation work.