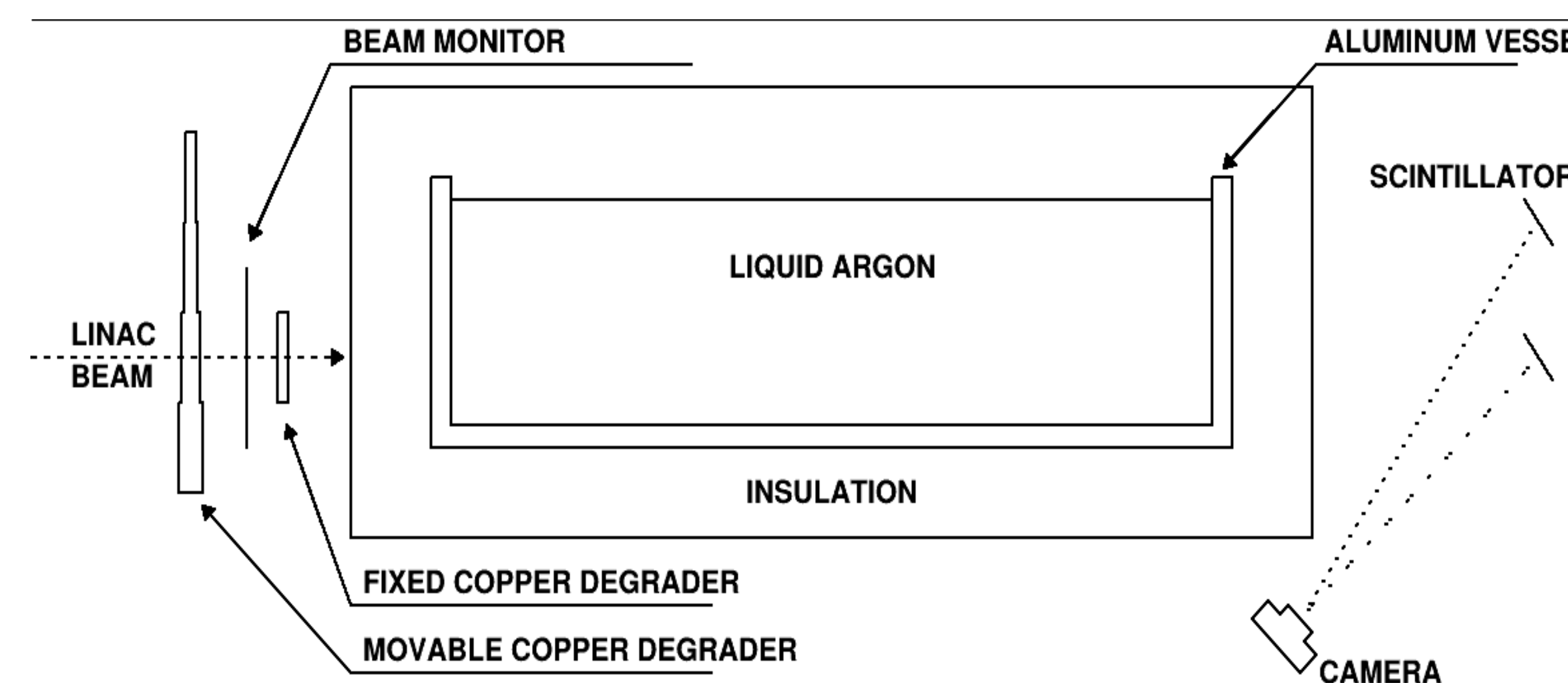


The absolute stopping power of LAr is not known well enough.

We are reducing the uncertainty.

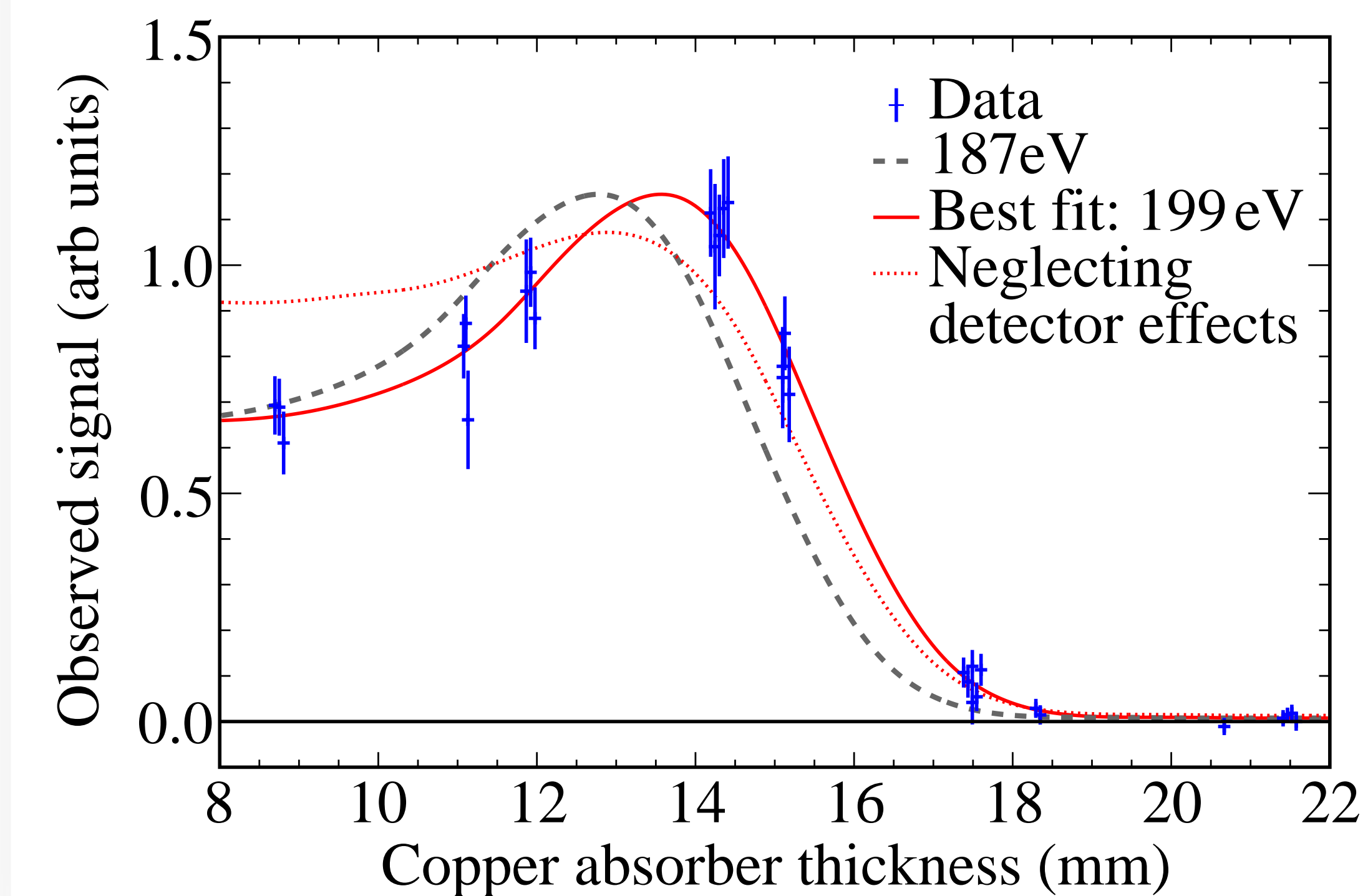
## Method

403 MeV beam at Fermilab's MTA



## Results

(199±5) eV. 2501.10550. Stopping power 0.4% lower than usual 188eV.



### Uncertainties:

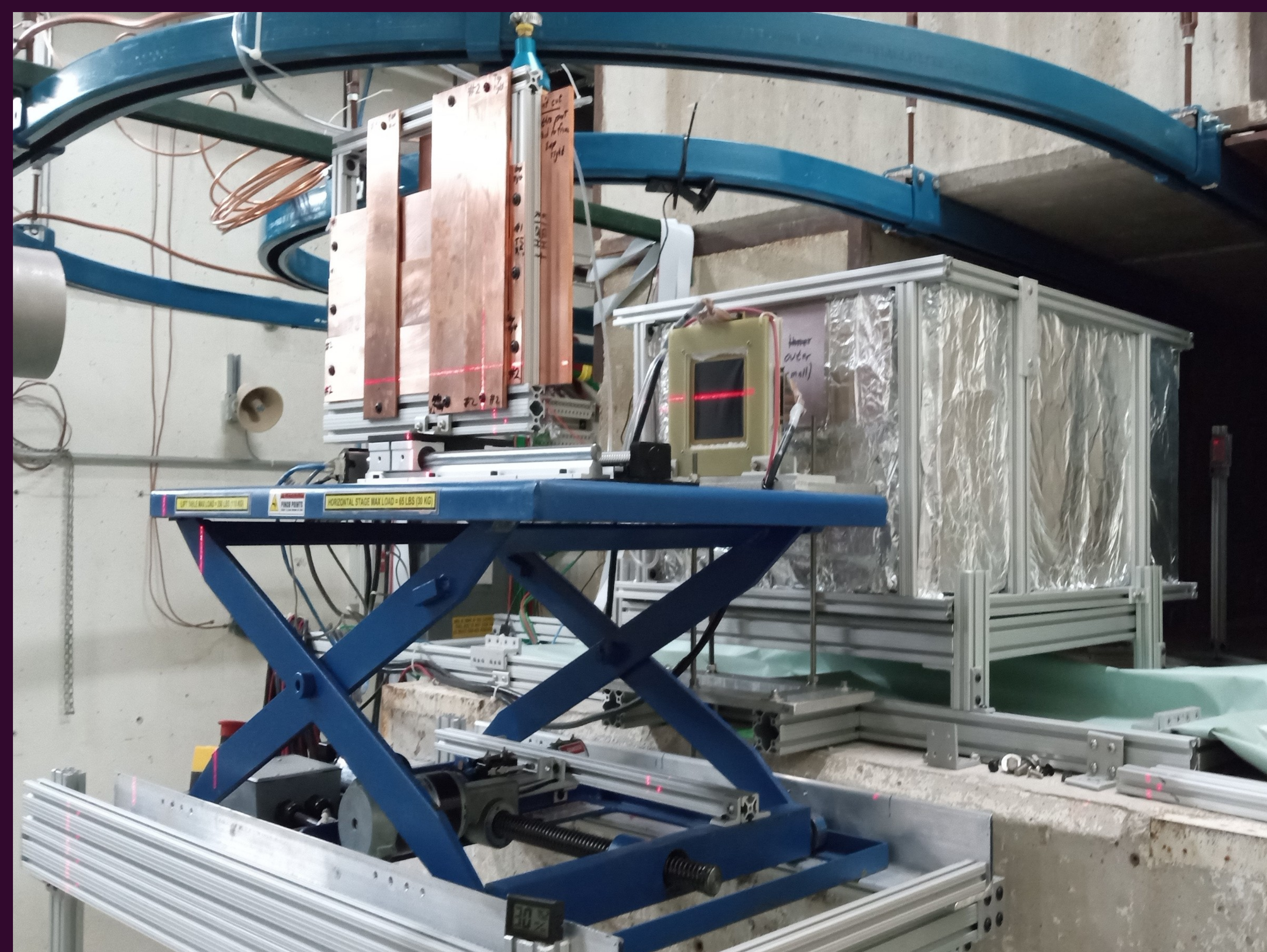
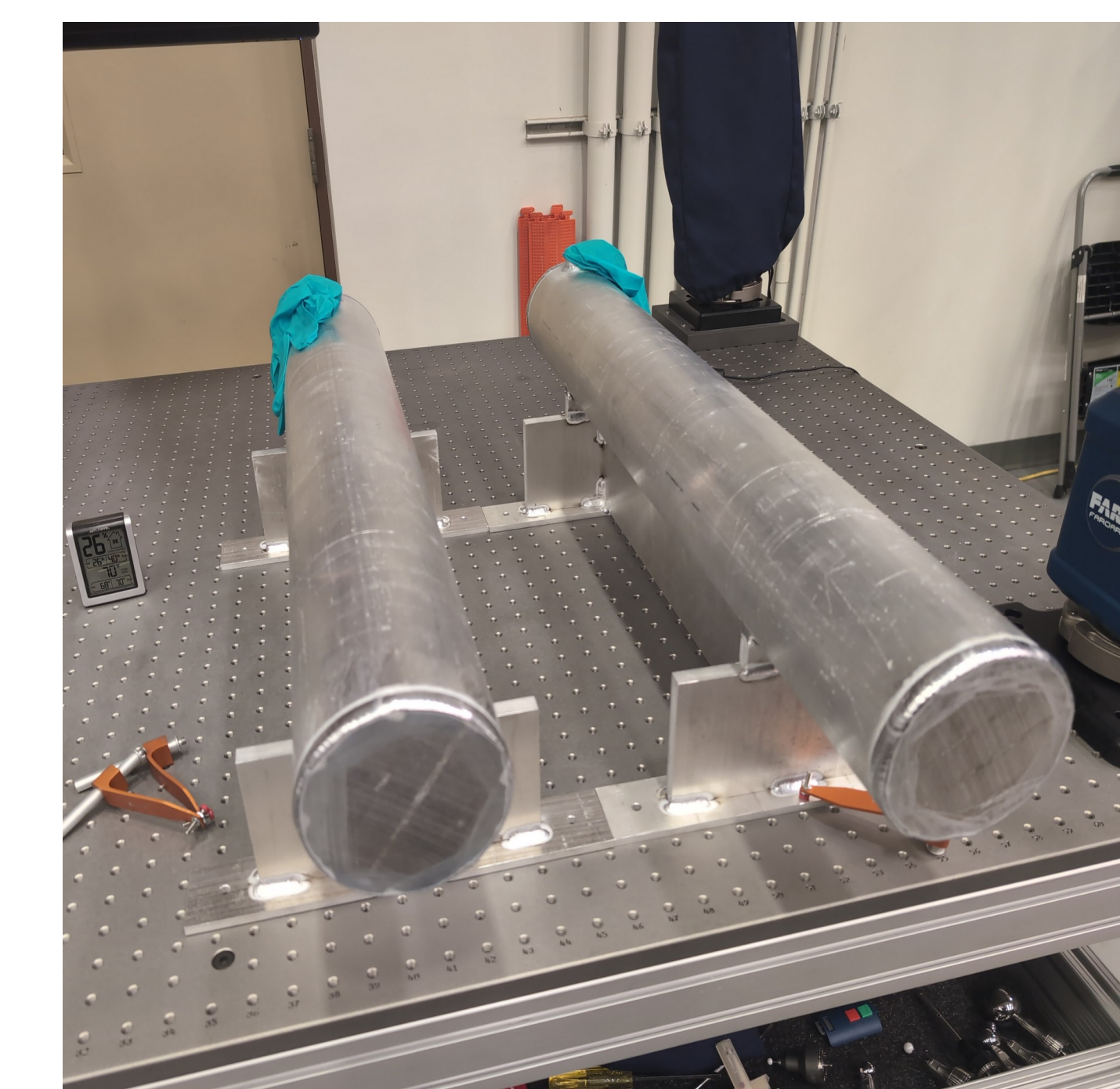
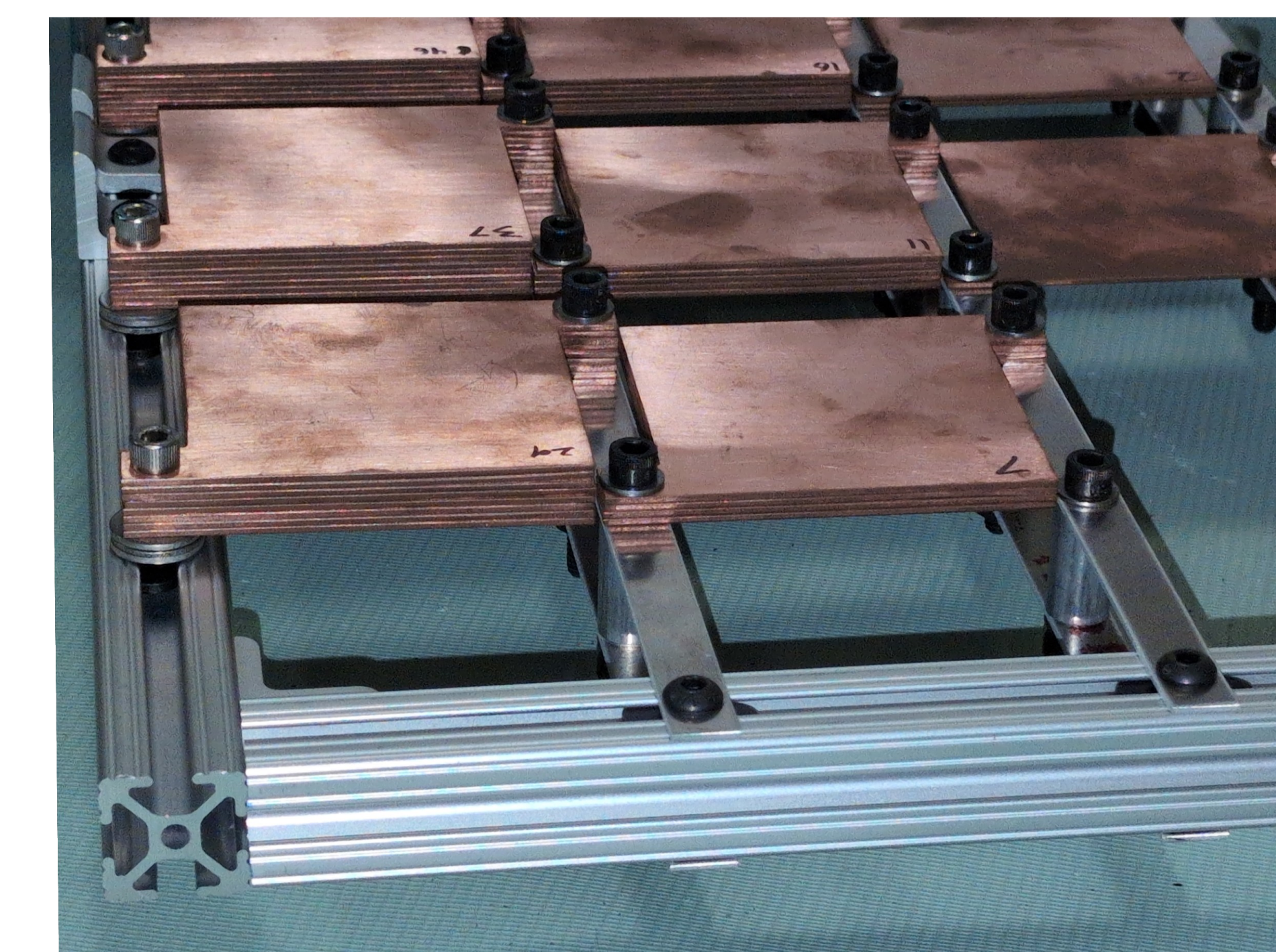
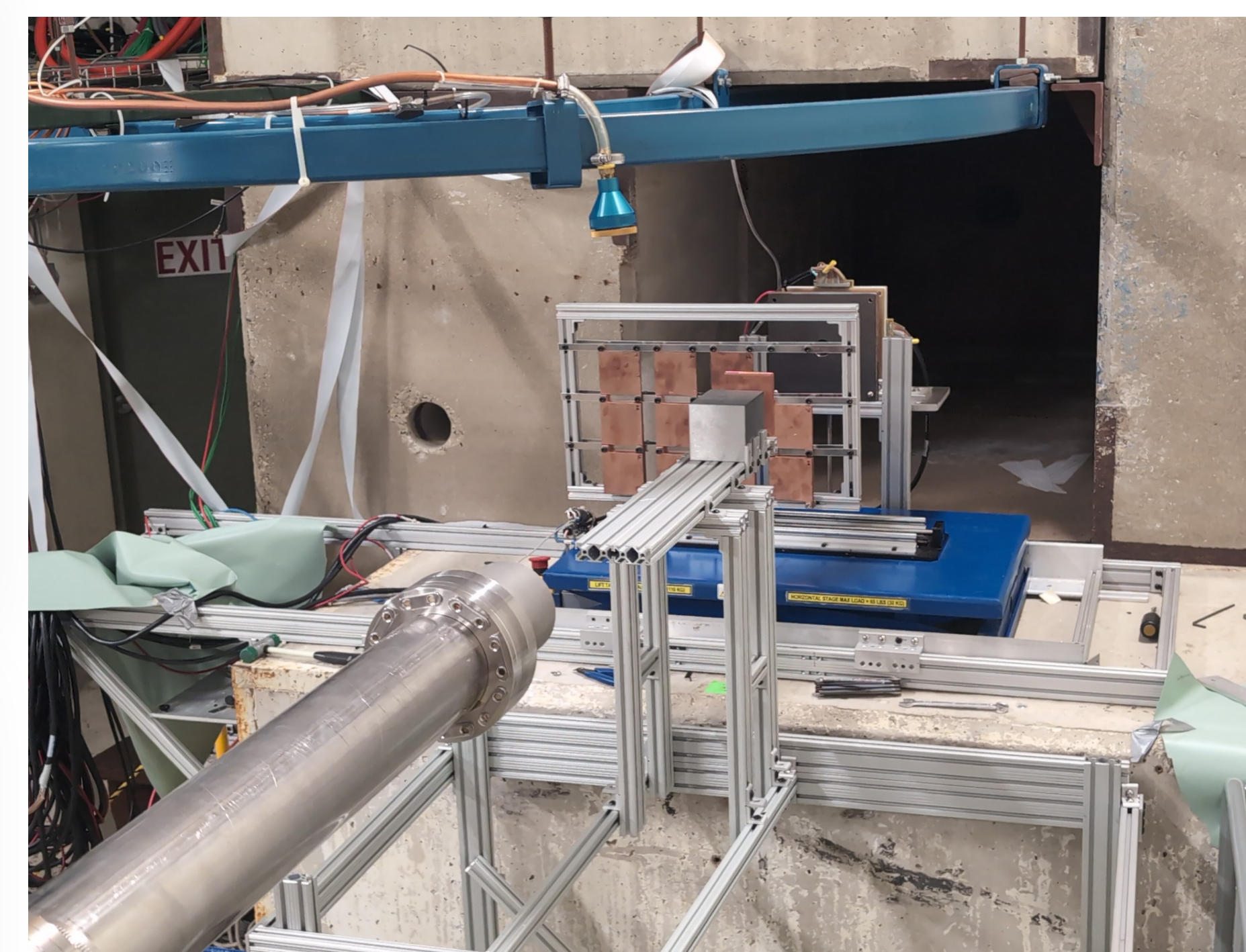
- Detector – 2024 run used ceramic scintillator; now using wire chamber
- Beam energy – 2024 run was dead-reckoned; now measure with copper, track drift
- ±2eV goal

### Data taken this month:

- Zr: double-beta
- Mo: double-beta
- NOvA liquid scintillator
- MINOS steel
- Water

### Future plans:

- Te, Nd, Se, Ho, Ge
- LNe, LKr, LXe
- Ice



Matthew Strait, Fermilab