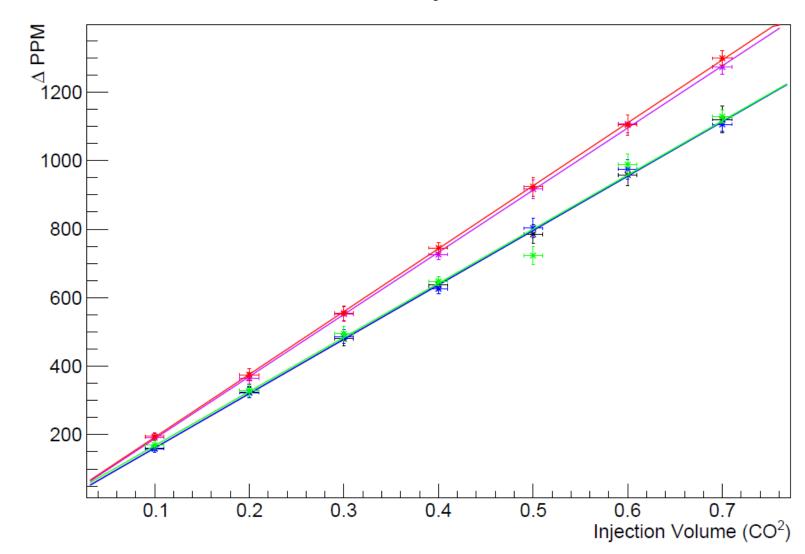
# Fermilab update

Dan Ambrose
University of Minnesota
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### Calibration measurements

#### Leak Chamber Injection Calibration



## Calibration update

Chamber	Geometric 4/15	Tygon Tube 4/15	Injection Argon/CO2 5/15	Injection pure CO2 7/15
0	572 ± 35	569 ± 28	595 ± 18	630 ± 21
1	572 ± 35	582 ± 15	617 ± 24	629 ± 18
2	544 ± 35	555 ± 19	604 ± 16	632 ± 18
3	549 ± 35	494 ± 5	530 ± 16	544 ± 15
4	554 ± 35	481 ± 20	544 ± 15	552 ± 15

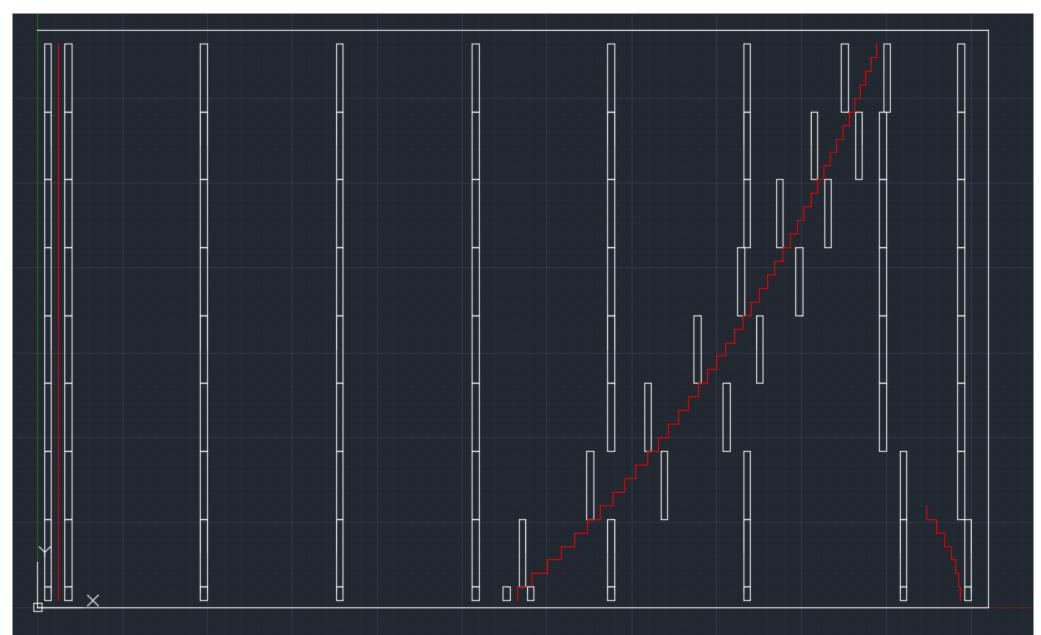
### Leak testing

I have been working on python scripts that actively measure leak rate during data taking.

Also I have been integrating scanners into the python code.

This would separate each chamber to its own text file when we start measuring a new straw.

Laser Cutting design. In Process of being made.



Full plate 140x85 cm^2 Holders 10cm x 1 cm Holders hold 10 straws Small holder at bottom holds 1 pair of straws

Most spacing is 20 cm

First cut starts

x = 3 cm

y = 1 cm