

1K Space!

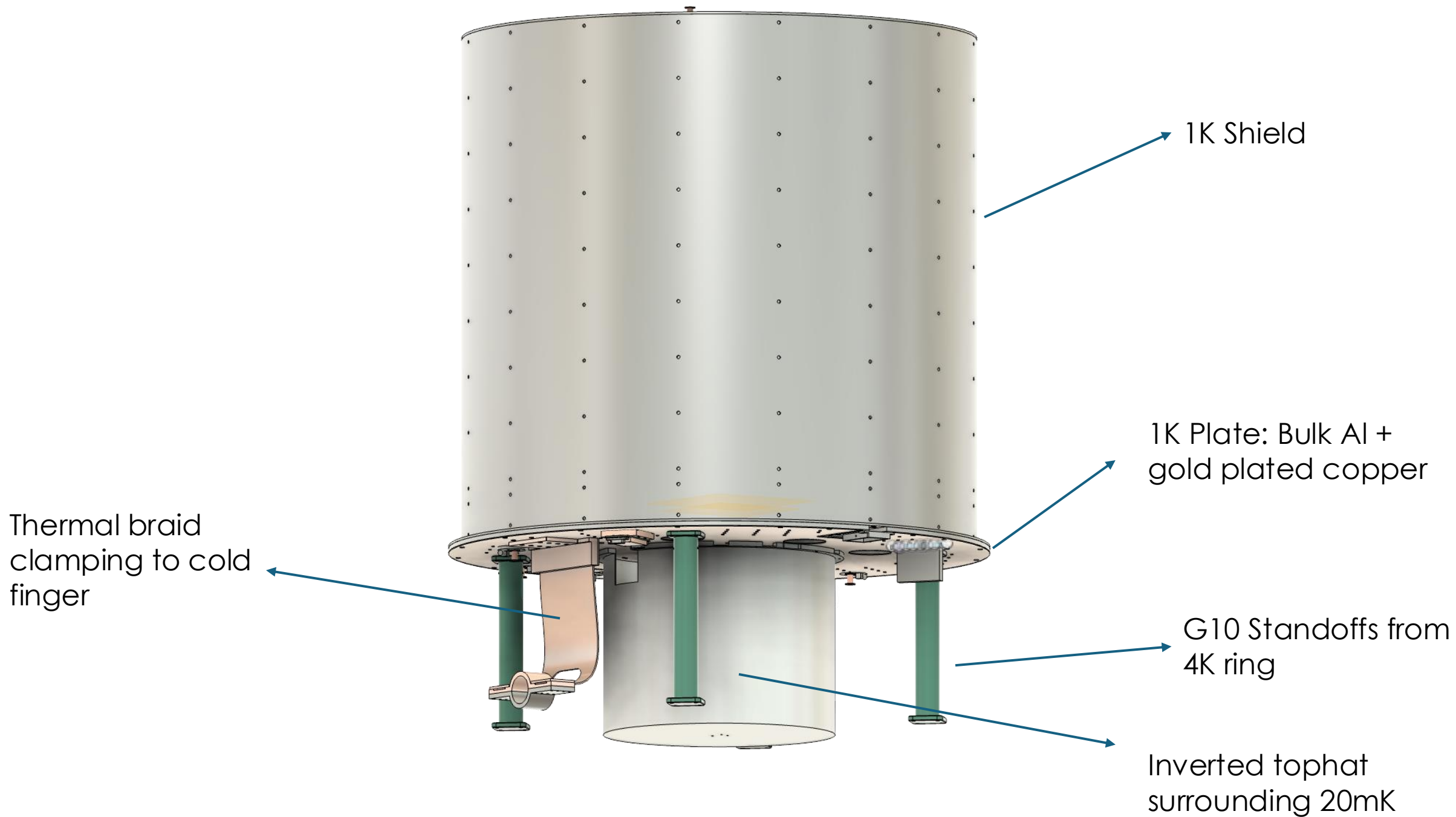
DMRadio collaboration meeting

10/8/25

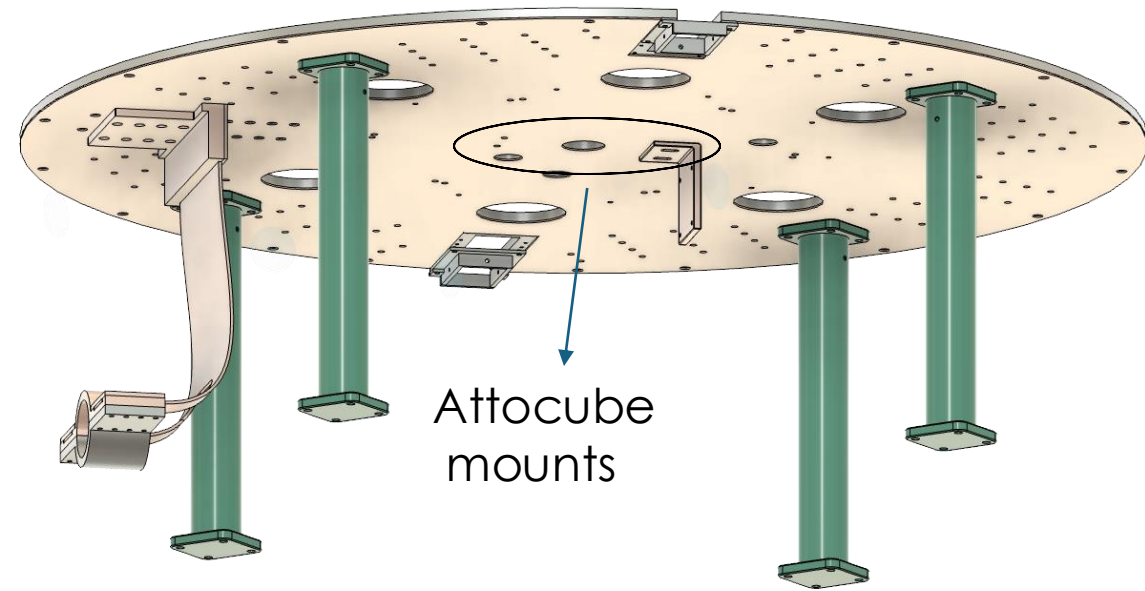
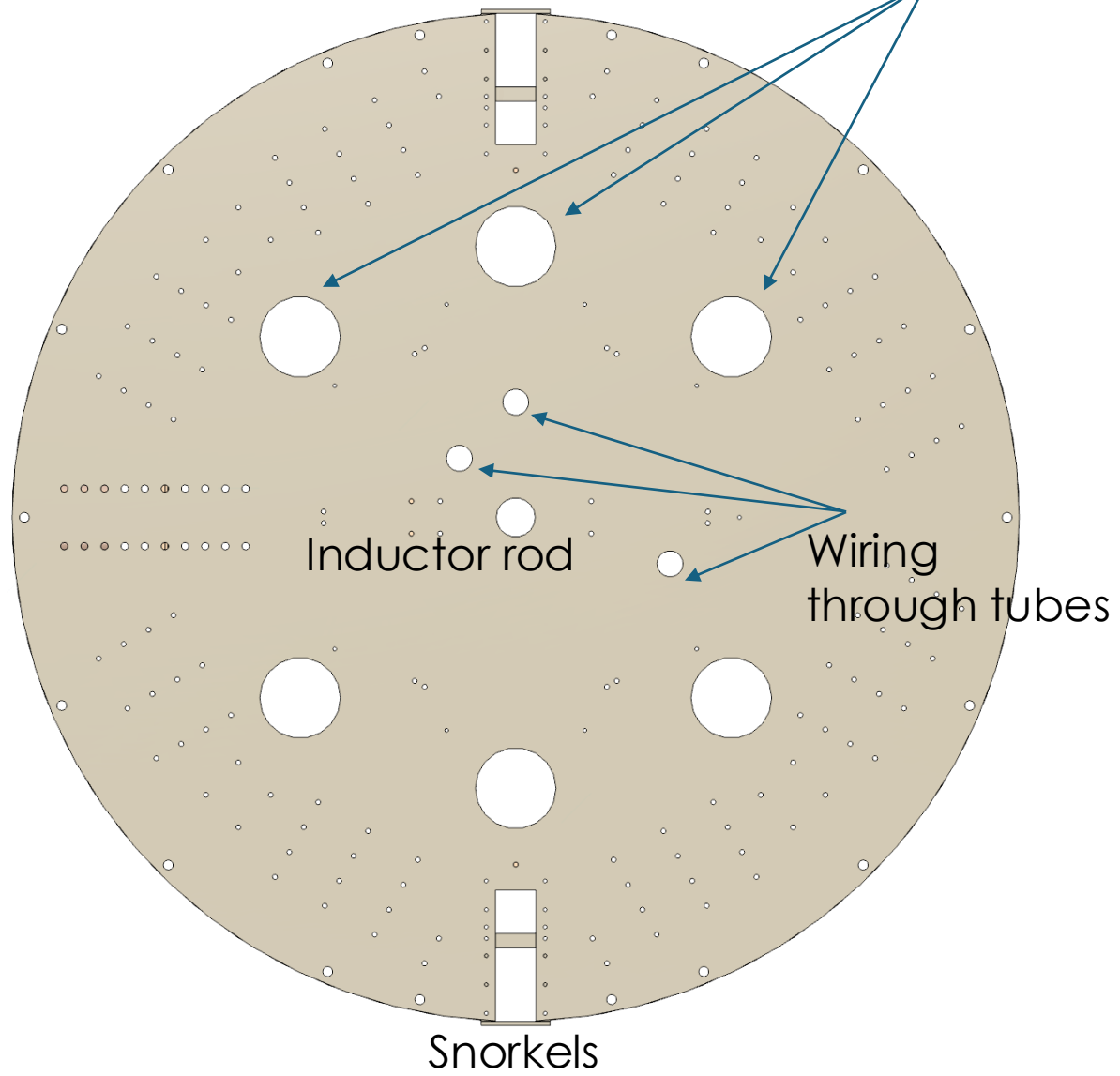
1. Status

2. Upcoming cool-down

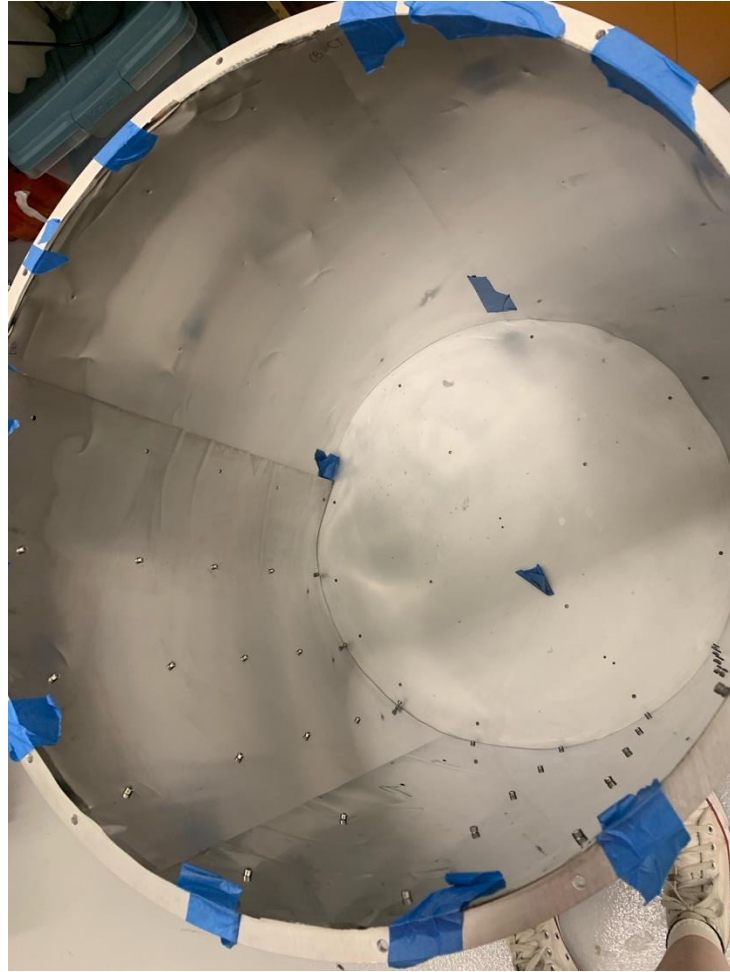
3. Future design work



Thermal + structural magnet legs

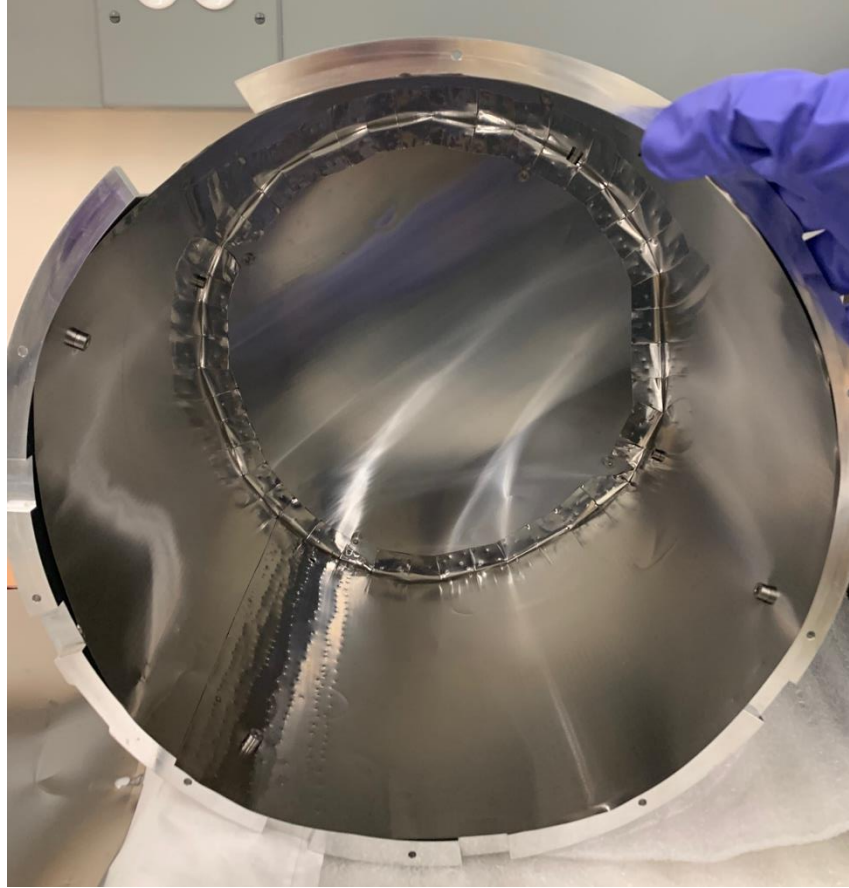
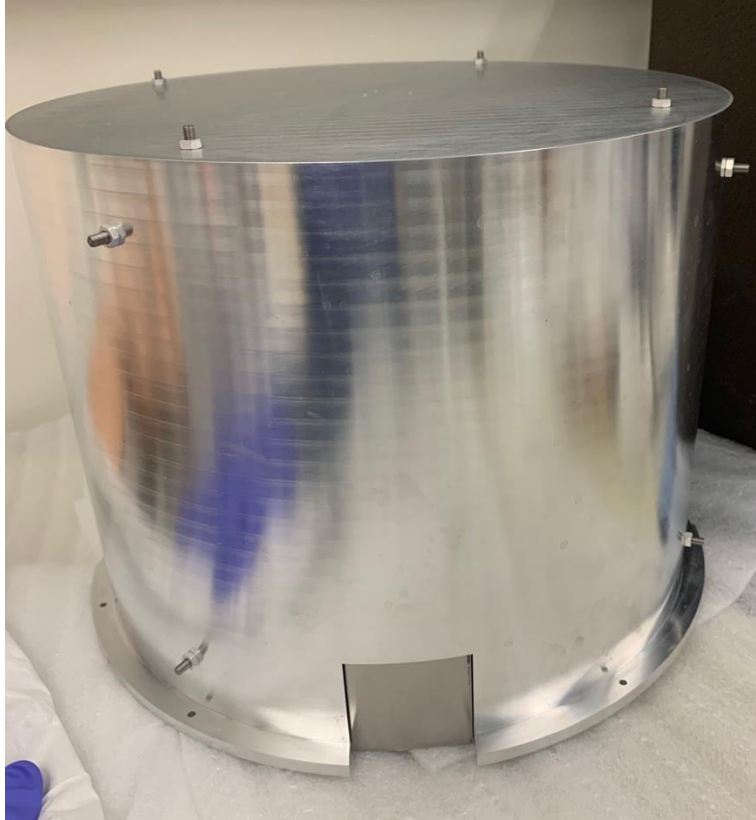


Shield construction & Spotwelding

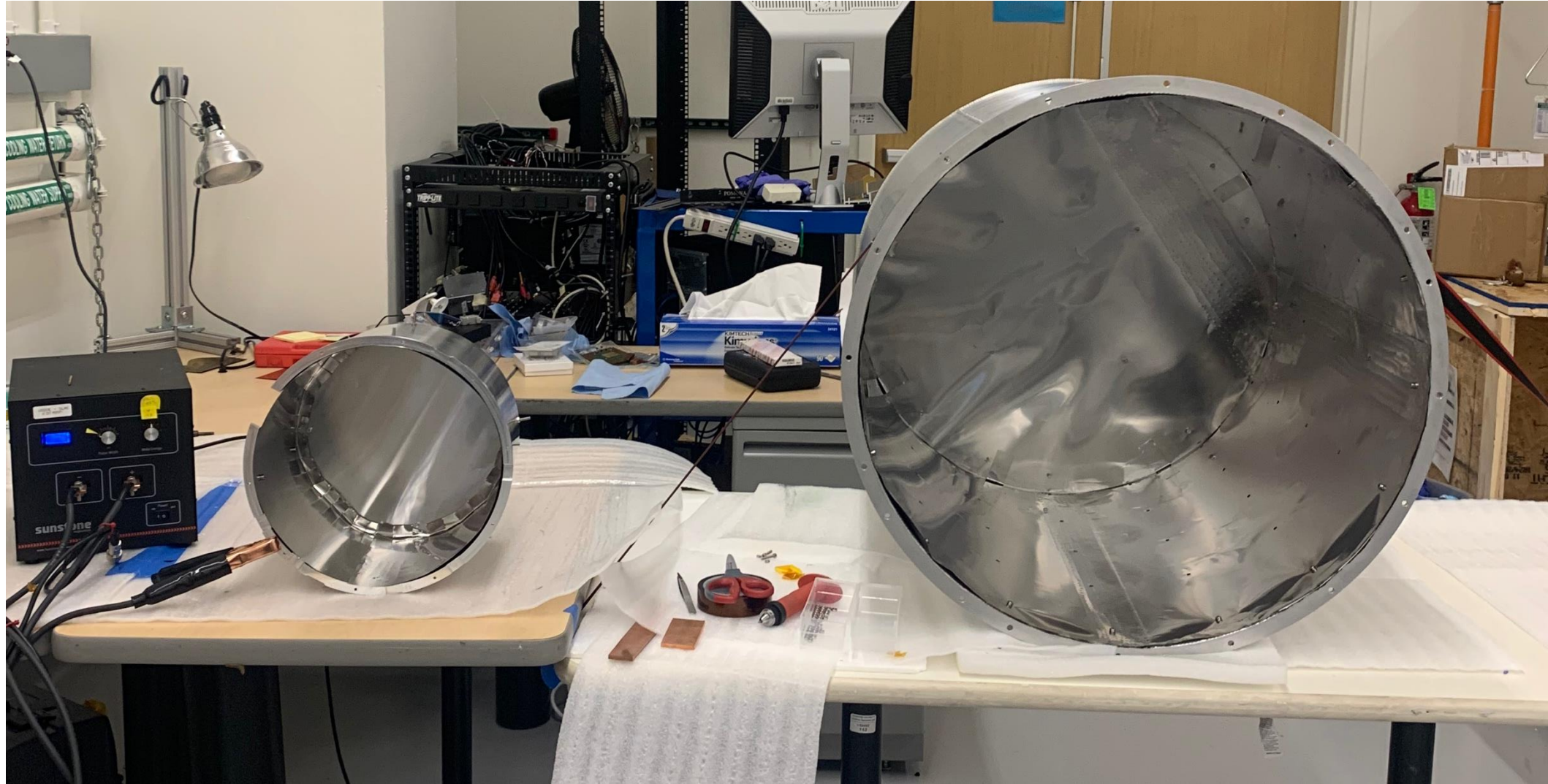




Inverted Tophat



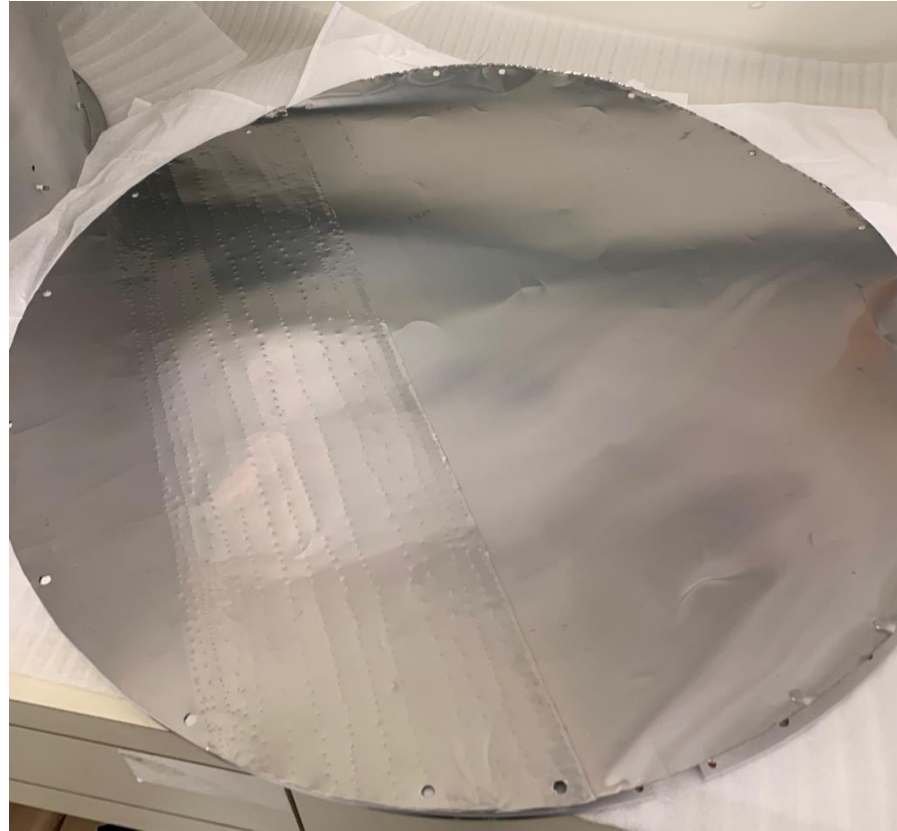
Fit within 4K cryoperm



1K Plate



PhBr helicoils installed

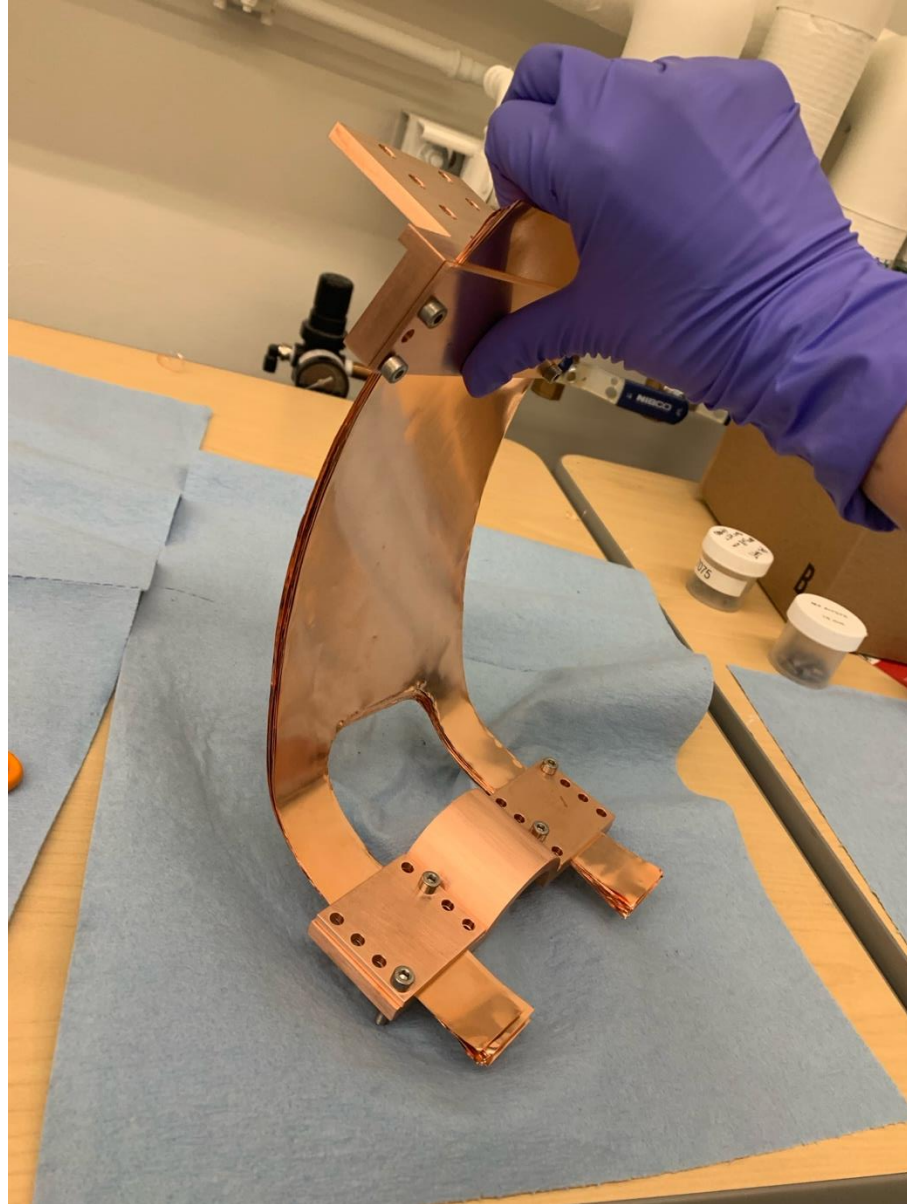


Nb plate cover spotwelded,
final machining of holes tbd



copper 1K Plate goldplated

Braid



Designed to have $> A/L$ as the 1K braid at the other side of the cold finger

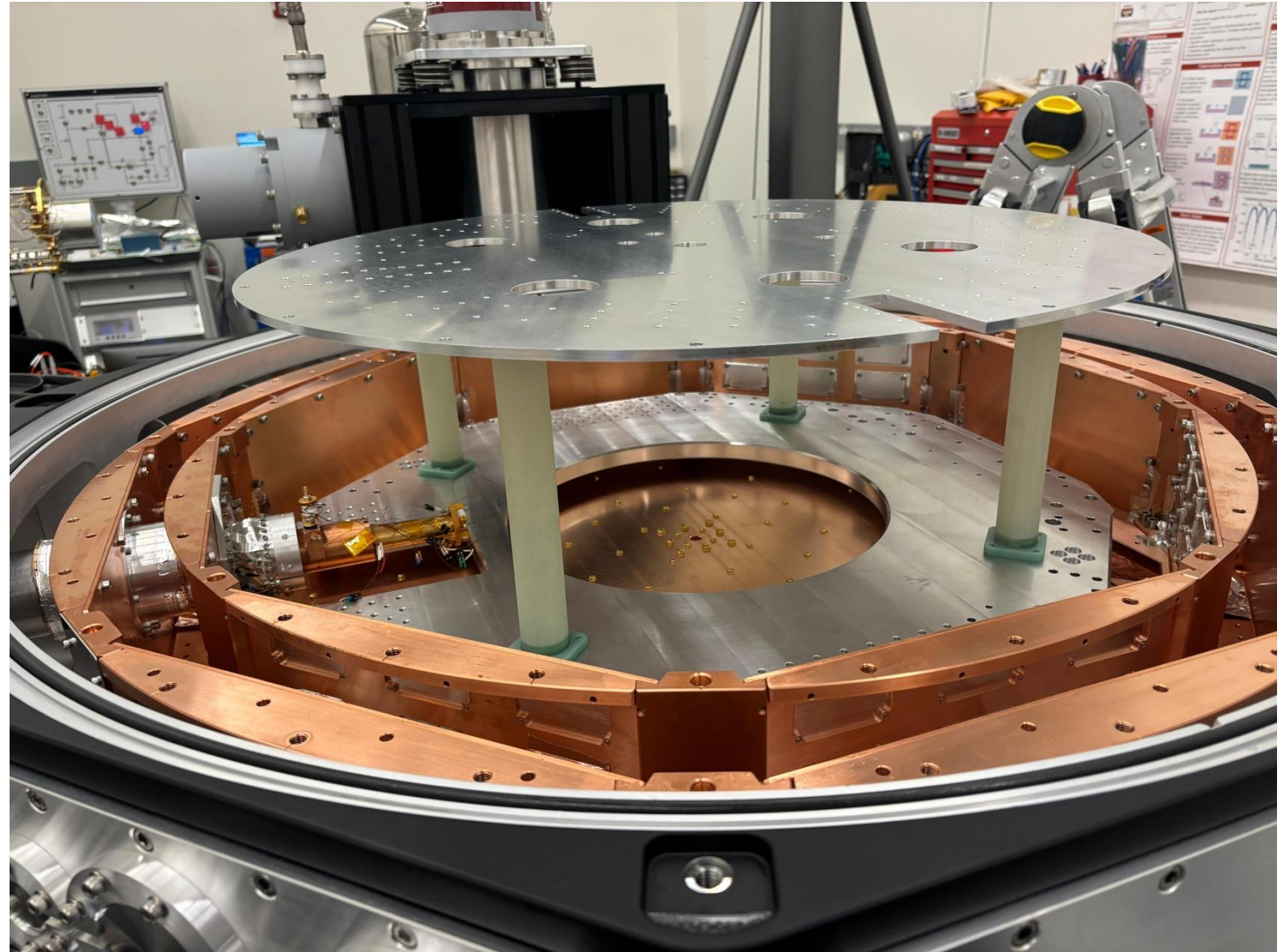
Currently being welded & finished!

26 x sheets of 0.005'' thick copper 101 (mcmaster-carr)

Next Cooldown

Characterize the thermal gradient across the 1K space

Thermometer	Location
Diode	Top of shield (300K -> 1K)
RuOx	Top of shield (1K)
RuOx	Close to 1K braid
RuOx	Far side of 1K plate
RuOx	1K cold finger
RuOx	Inverted tophat



Will look like this more or less...

Still TBD

1. Snorkels – Nb foil validated, waiting for final magnet design

2. Attocube mounts – attocube tested in vertical orientation, waiting for final transformer and hutch designs

3. Bock black all possible surfaces! Radiation is an issue in Woodstock