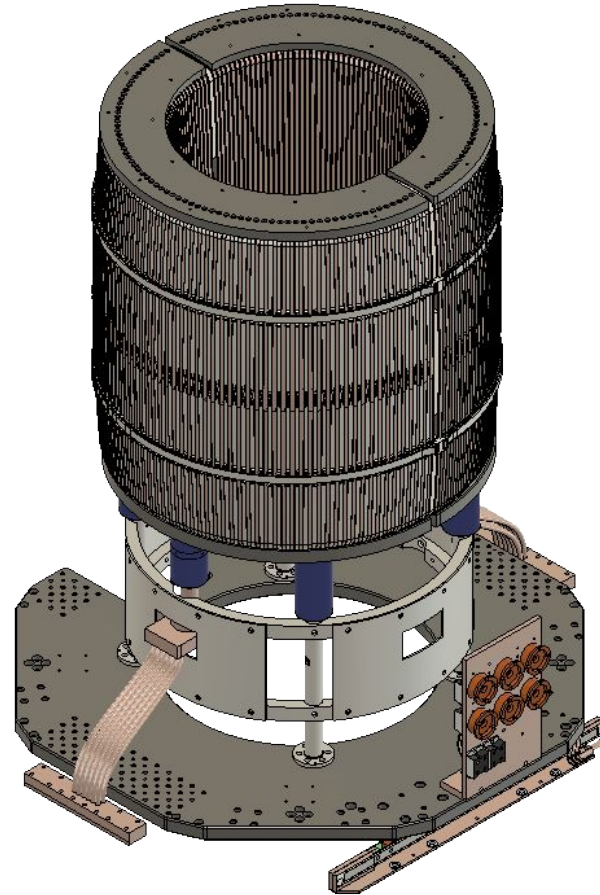


DMRadio-50L magnet

Maria Simanovskaia
October 7, 2025

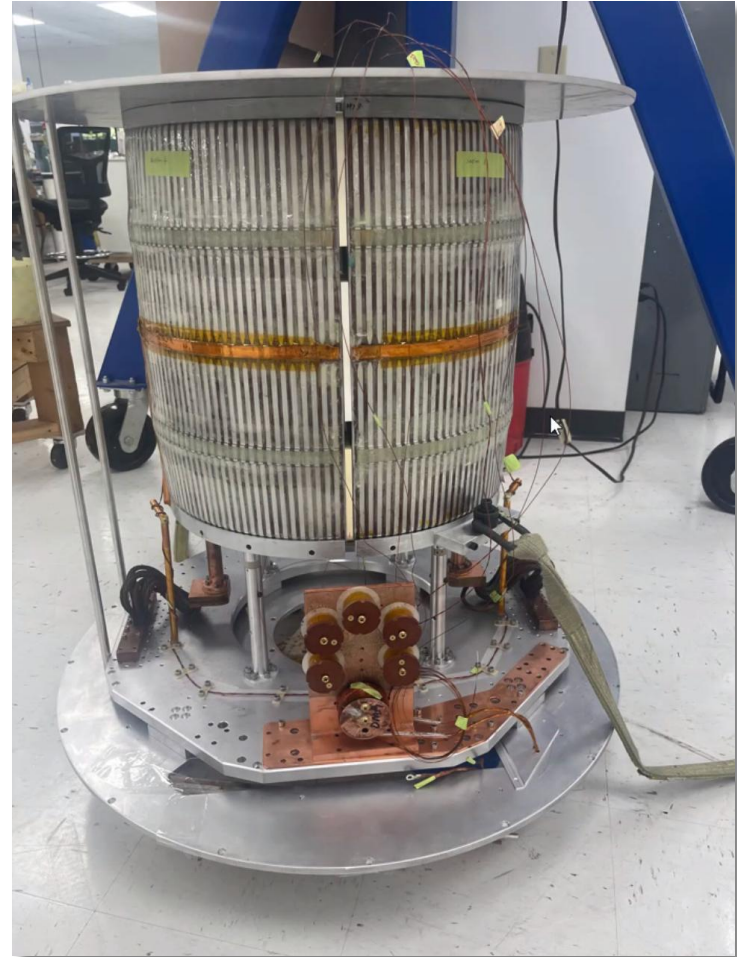
50L magnet assembly

- Mandrel
- Spacers
- Connector bracket
- Structural leg assembly (four structural legs, support rings, shear plates, dielectric break “knee”)
- Thermal leg assembly (two thermal legs, two thermal braids)
- Nb skirts aka pant legs (shields thermal and structural legs in 1 K space)
- Snorkel (shields SC leads in 1 K space)
- Diode tower
- HTS lead assembly aka “stapler”



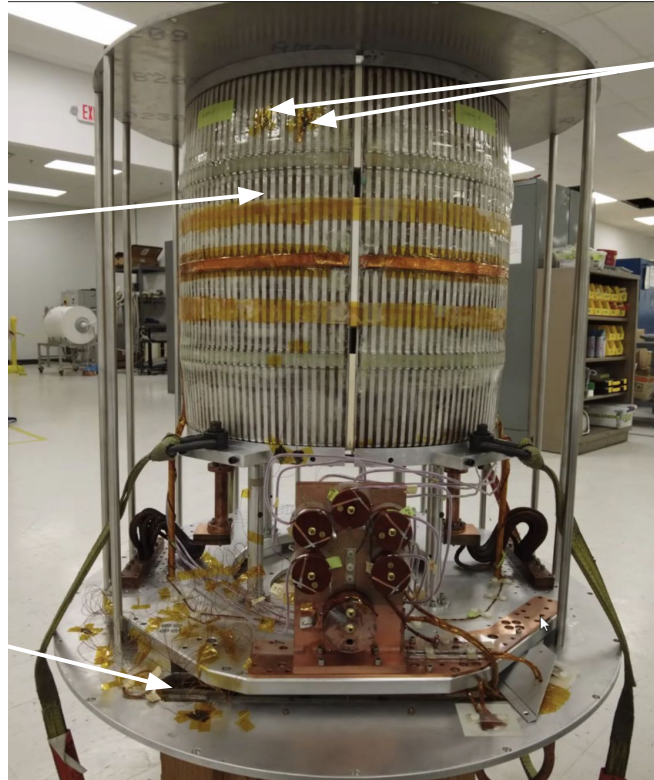
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Cryogenic testing of magnet at SSI is ongoing

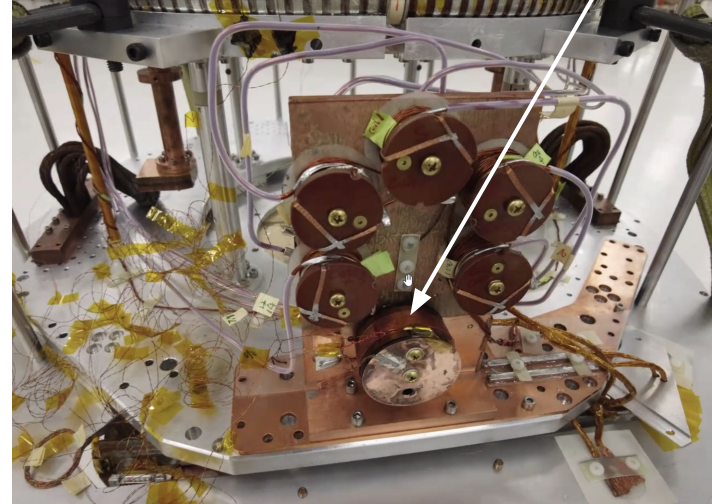
Cryogenic
Hall probe
in mandrel



Thermometer
(diode) on HTS
assembly

Thermometers
(diode + RuOx)
on
top of mandrel

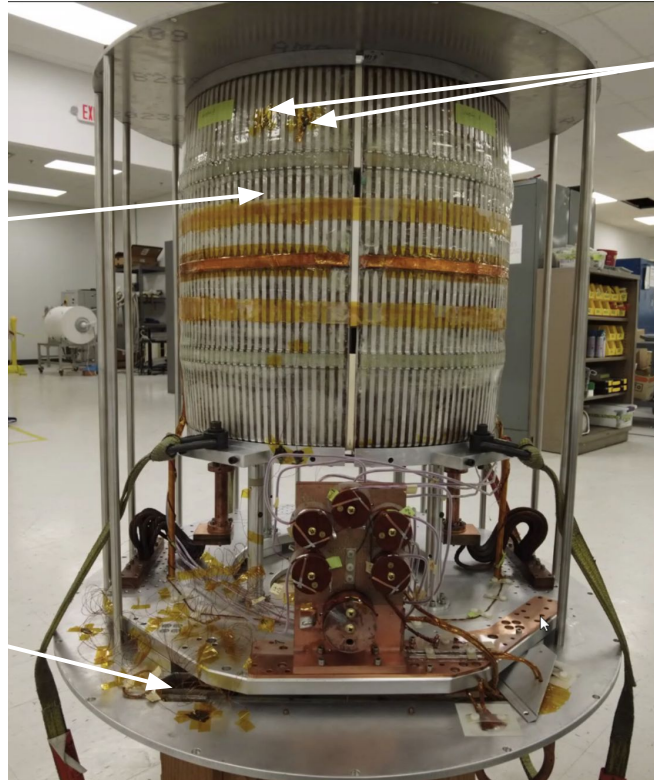
Thermometer
(RuOx) on PC
switch



Cryogenic testing of magnet at SSI is ongoing

Base temps of first cooldown

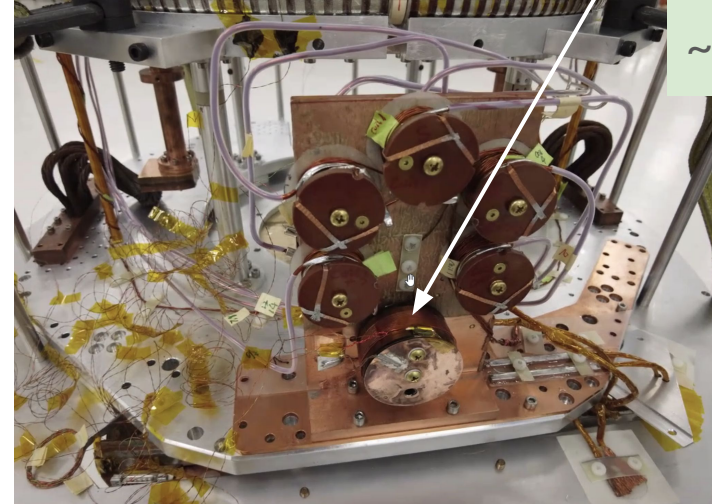
Cryogenic Hall probe in mandrel



Thermometers (diode + RuOx) on top of mandrel

~7.5 K

Thermometer (RuOx) on PC switch



~7.4 K

Thermometer (diode) on HTS assembly

~69 K

First cooldown at SSI is complete

- ~30 K per day cooling time
- Magnet got to ~7.5 K and HTS assembly got to ~69 K due to cryostat issue

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-
- Now warming and will debug the cryostat issue