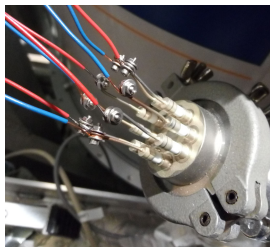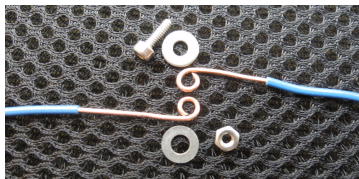# Thermocouple for Magnet Coil

► Eight TC extension cables were installed to the east penetration

► Connected to the TCs for the magnet coil

  ▷ By bolt, washers and nut of M2
  ▷ Will cover with ele.-insulation sleeves

► Connected to MCC E-TC at the slow control rack

  ▷ VI is running fine on the target computer

Kenichi:
These Thermo couple KF connections stick out too much, can we try to fix this with a elbow or small flex hose so they do not stick out on to the platform area.
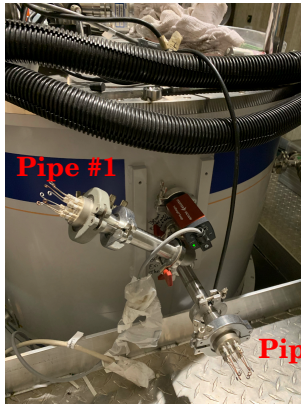
► 7 cm between the vacuum chamber and the flatform

- ▶ Task #1: Insulate TCs inside vacuum chamber
  - ▷ Not electrically insulated for 10 cm
  - ▷ Will Cover them with heat shrink tubes
- ▶ Task #2: Extract IDs of TCs
  - ▷ ID tags are attached only inside
  - ▷ Will attach the same ID tags outside
- ▶ Task #3: Rearrange the KF pipe connection
  - ▷ Will omit the short (reducer) pipe
  - ▷ Will attach KF-16 elbow directly to vacuum chamber
  - ▷ Will attach KF16-to-25 reducer — KF25 long pipe — TC feedthrough
  - ▷ Will point the two pipes as downward as possible

Omit this
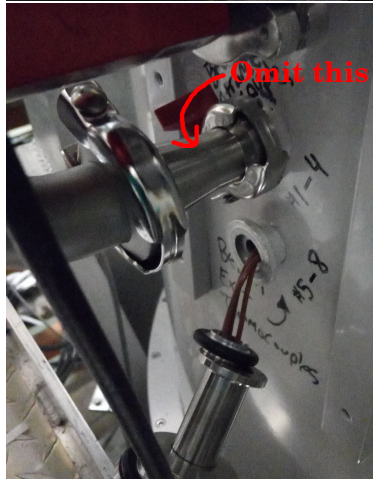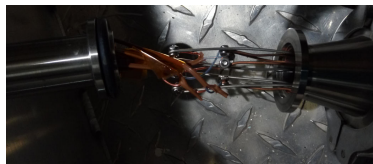
Thermocouple for Other Locations

- ▶ 8-9 sensors at 6 locations
  - ▷ Listed and located on Confluence page by Dustin:
   https://confluence.its.virginia.edu/display/twist/Slow+Controls#SlowControls-Temperature
- ▶ Sensors
  - ▷ Is any of these sensors already installed??
  - ▷ Can I use our standard TC product for these locations??
    PerfectPrime TL0024: https://www.amazon.com/dp/B075QBB99D/
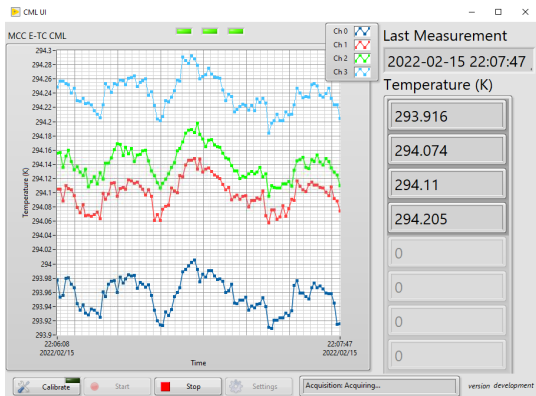- ▶ Extension cables from slow-control rack
  - ▷ Will install 12 cables (including spares)
  - ▷ With this TC connector at the sensor side
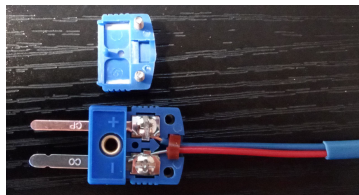
- ▶ If the plan above is fine, I will find or purchase all parts

VI for MCC E-TC

▶ Hopefully usable for all (three or four?) MCC E-TCs

▶ Latest UI

▷ Re-programmed from the bare CML DQMH project
▷ Made max use of "Waveform Chart"
▷ Finding a reasonable method of adding adjustable parameters