

Setup of Triplet Polarimeter at JLab

- Cabled up 32 channels to fADC (3/30)
- Assembly of motor stand (3/31)
- Wiring of motor (4/1)
- Tests with β^- source (4/1)

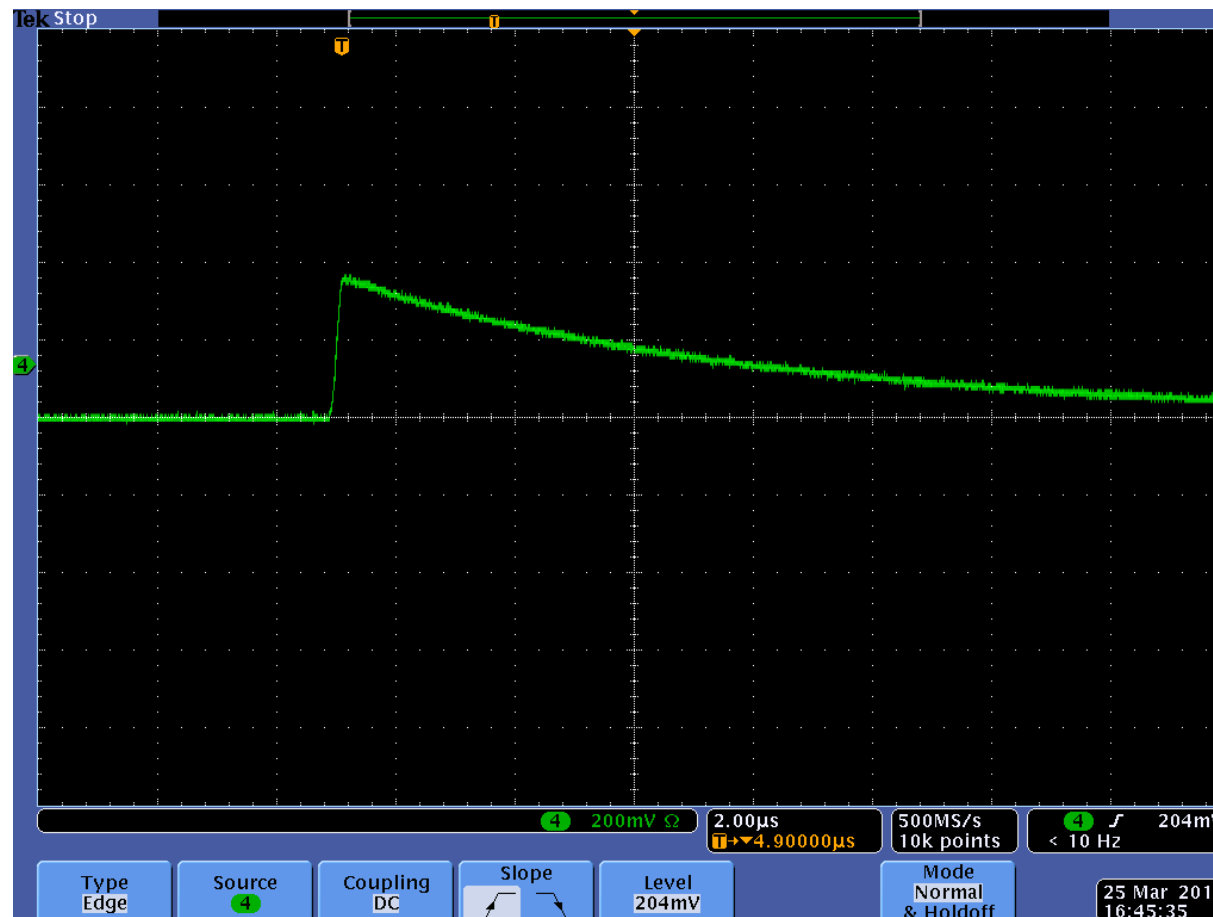
April 1, 2015
Kei Moriya, Michael Dugger

Source in Chamber

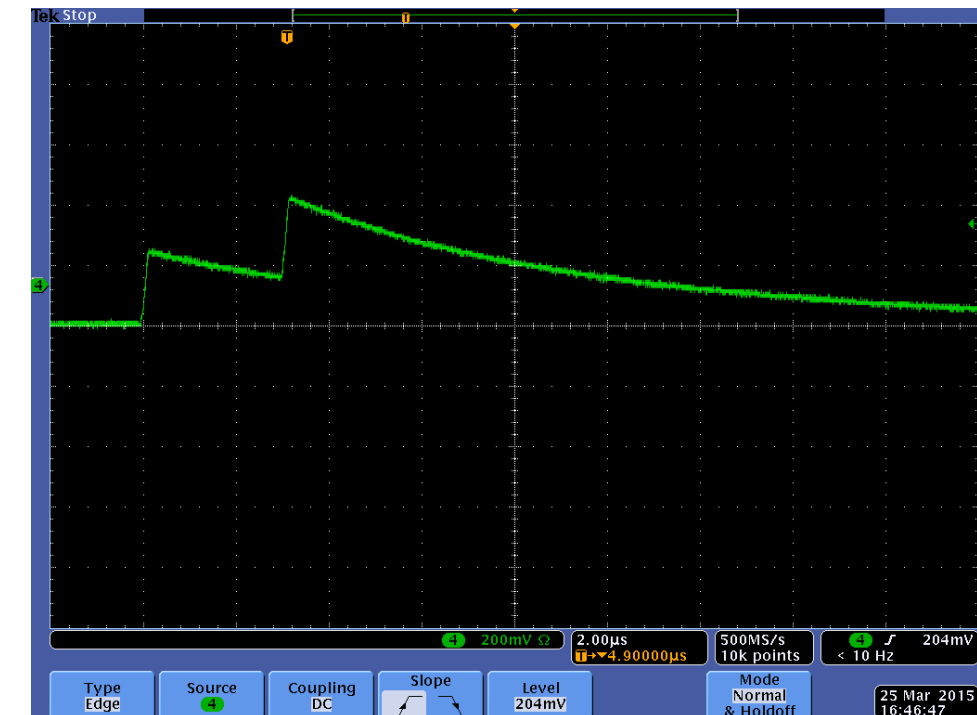
- Put ^{241}Am source next to detector
- Turn on, set HV to 200 V
- Turn on LV, preamp fans
- Check signals on scope



200 mV, 2 μ s
divisions



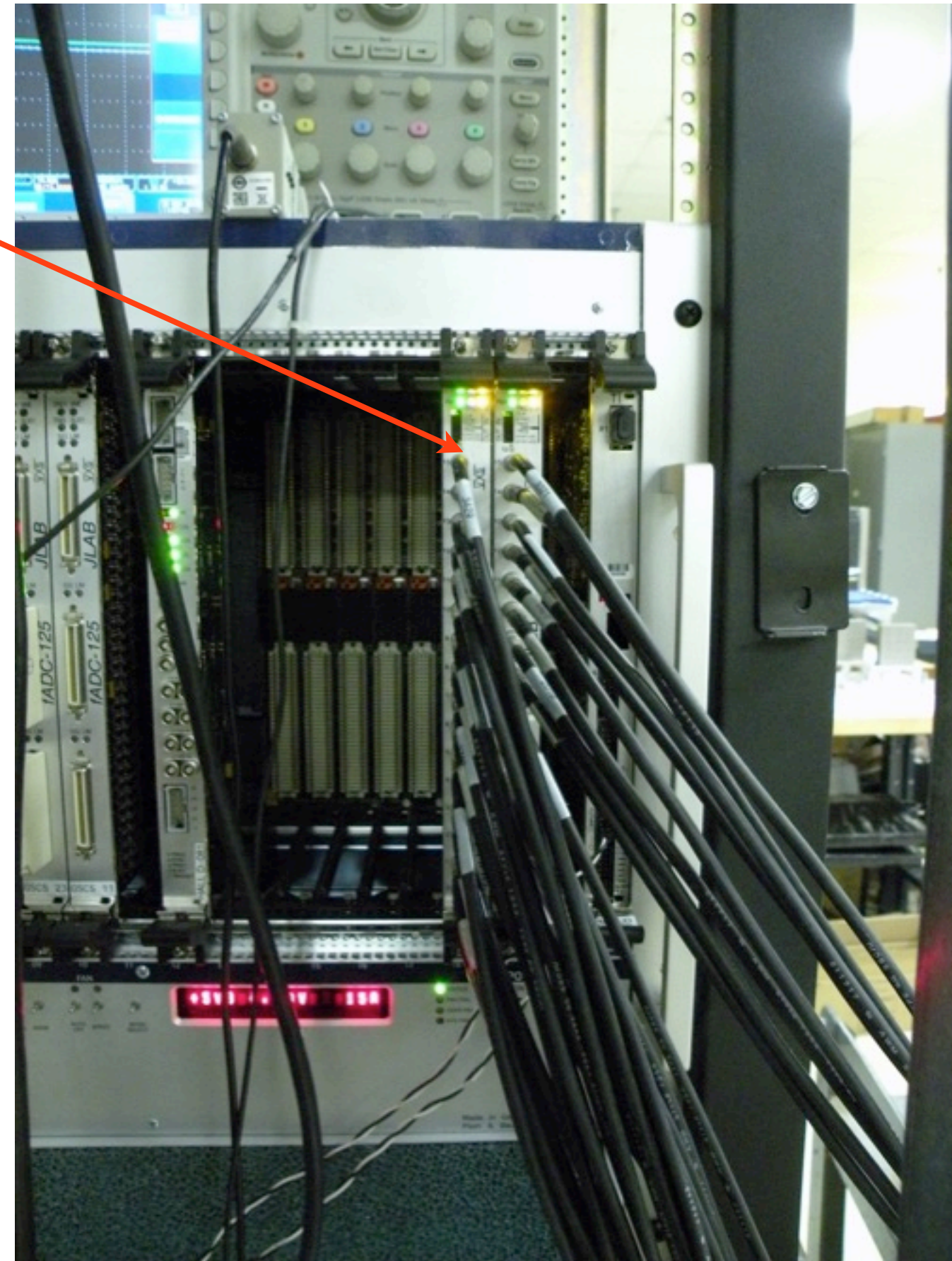
multihit
event



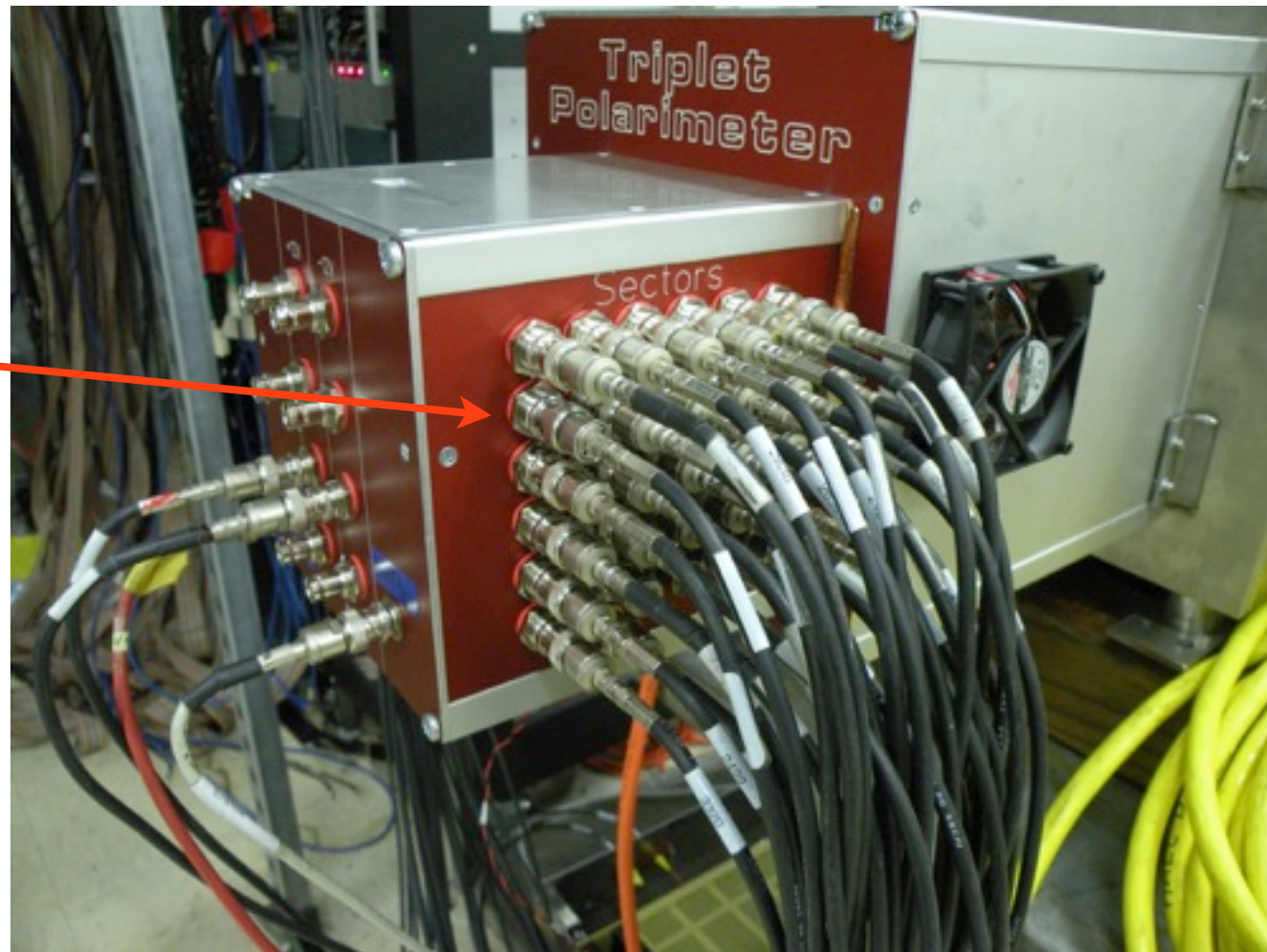
Cables and fADC

- Thanks to Fernando, Chris
- Beni has done initial configuration
- Waiting for Sasha on whether we can self-trigger

fADC250s



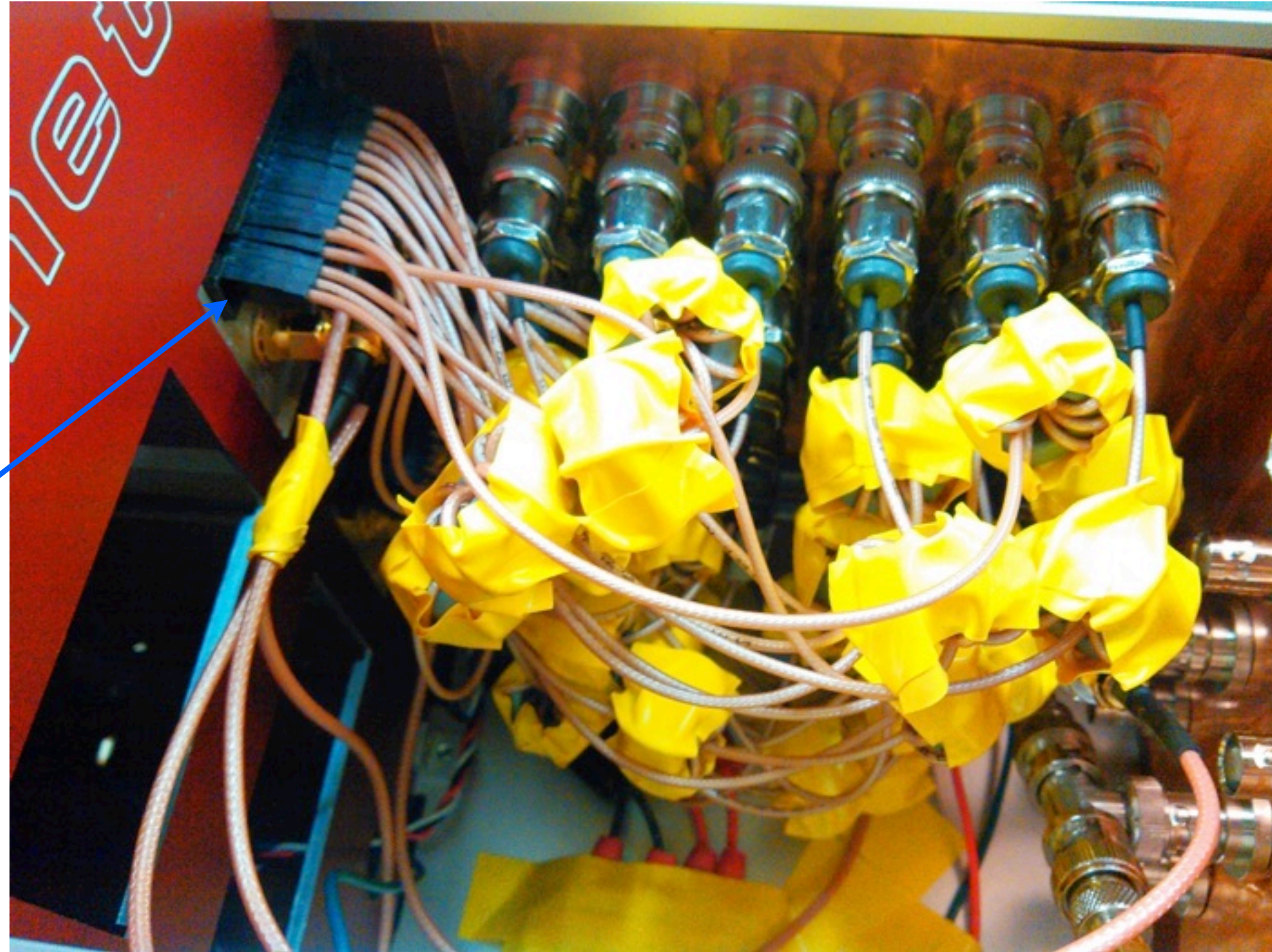
signals



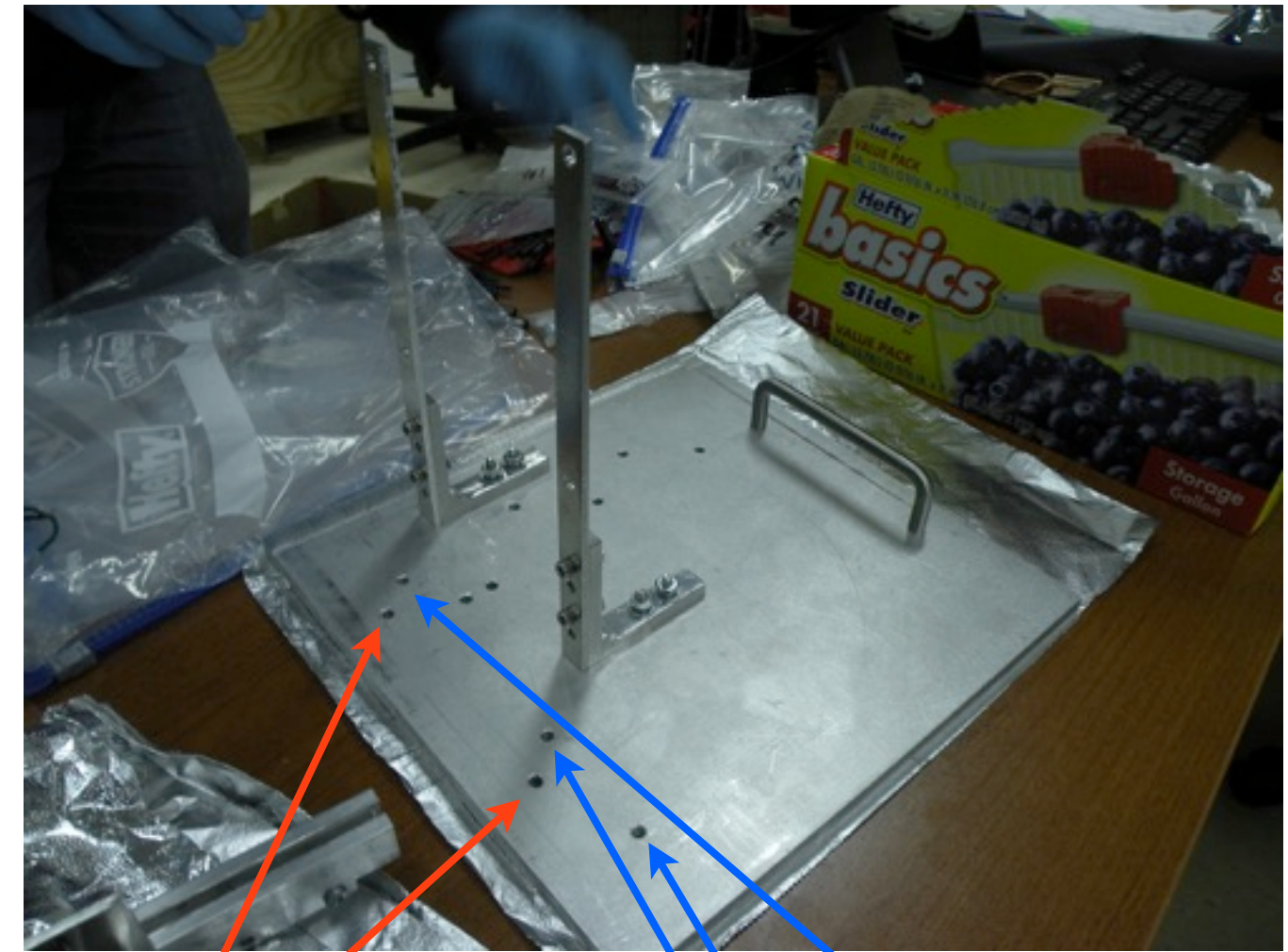
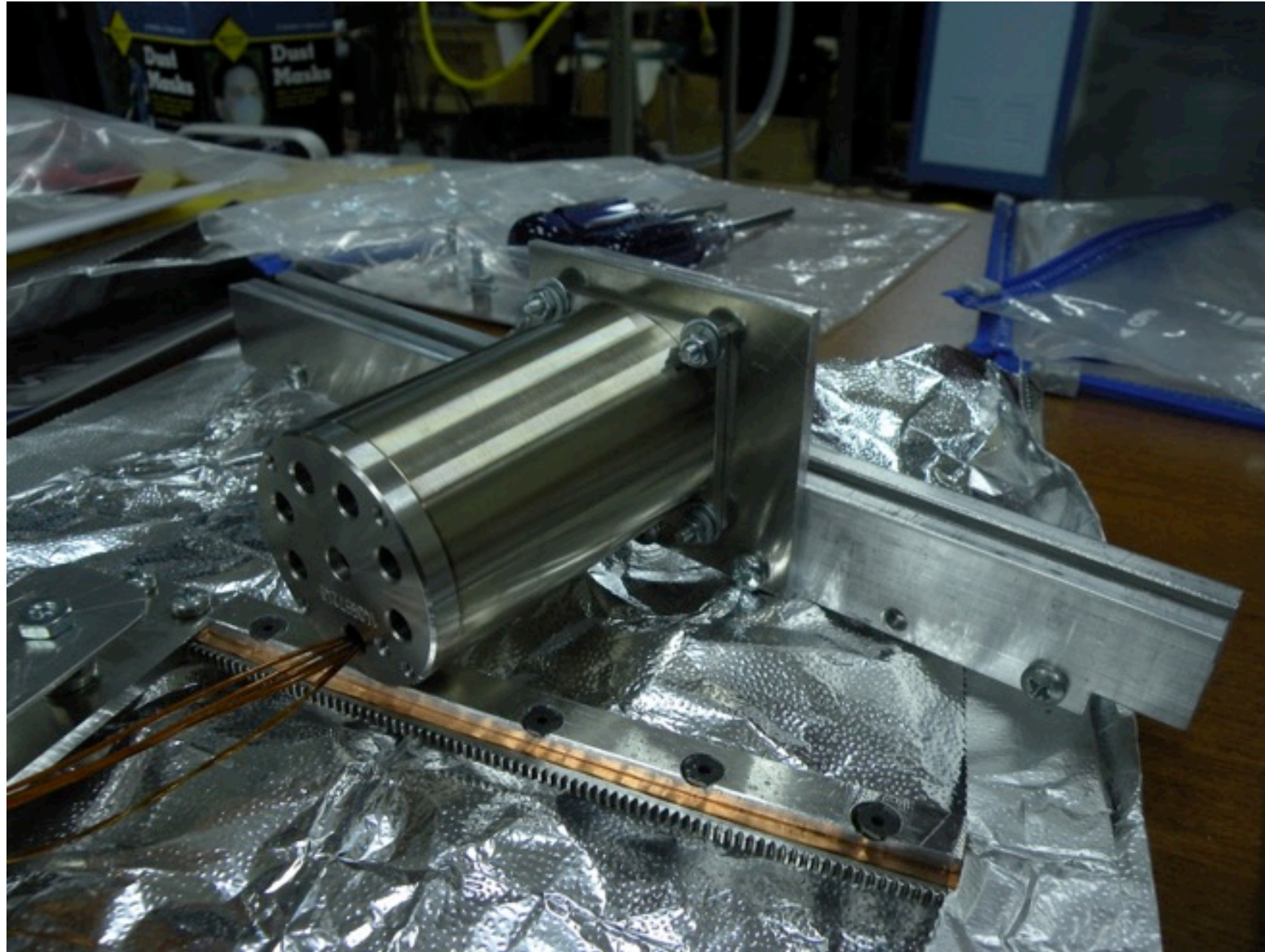
Inside Distribution Box

- Fully cabled inside
- Getting signal cables connected can be a pain, needs planning
- Fits nicely for now

preamps



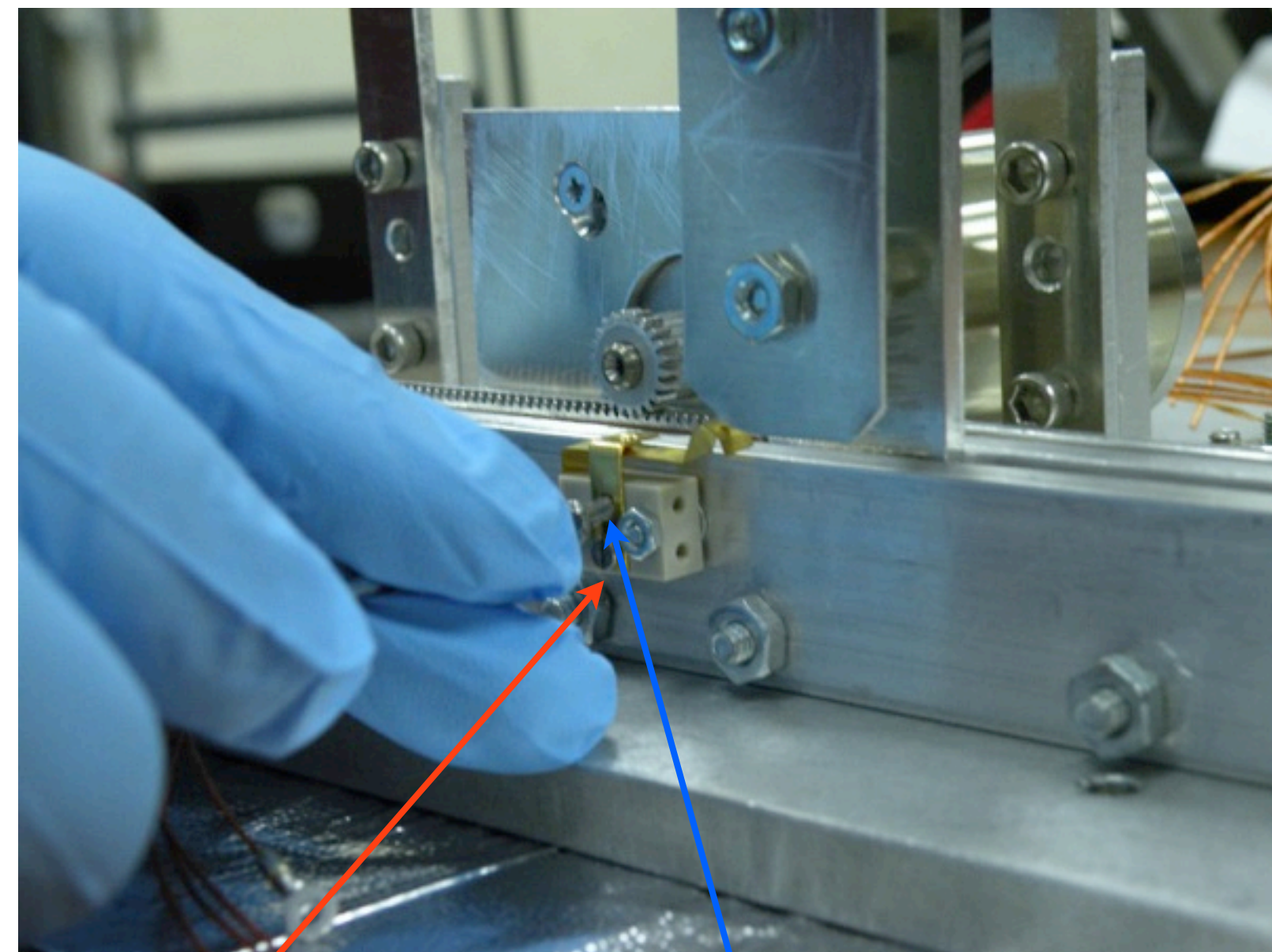
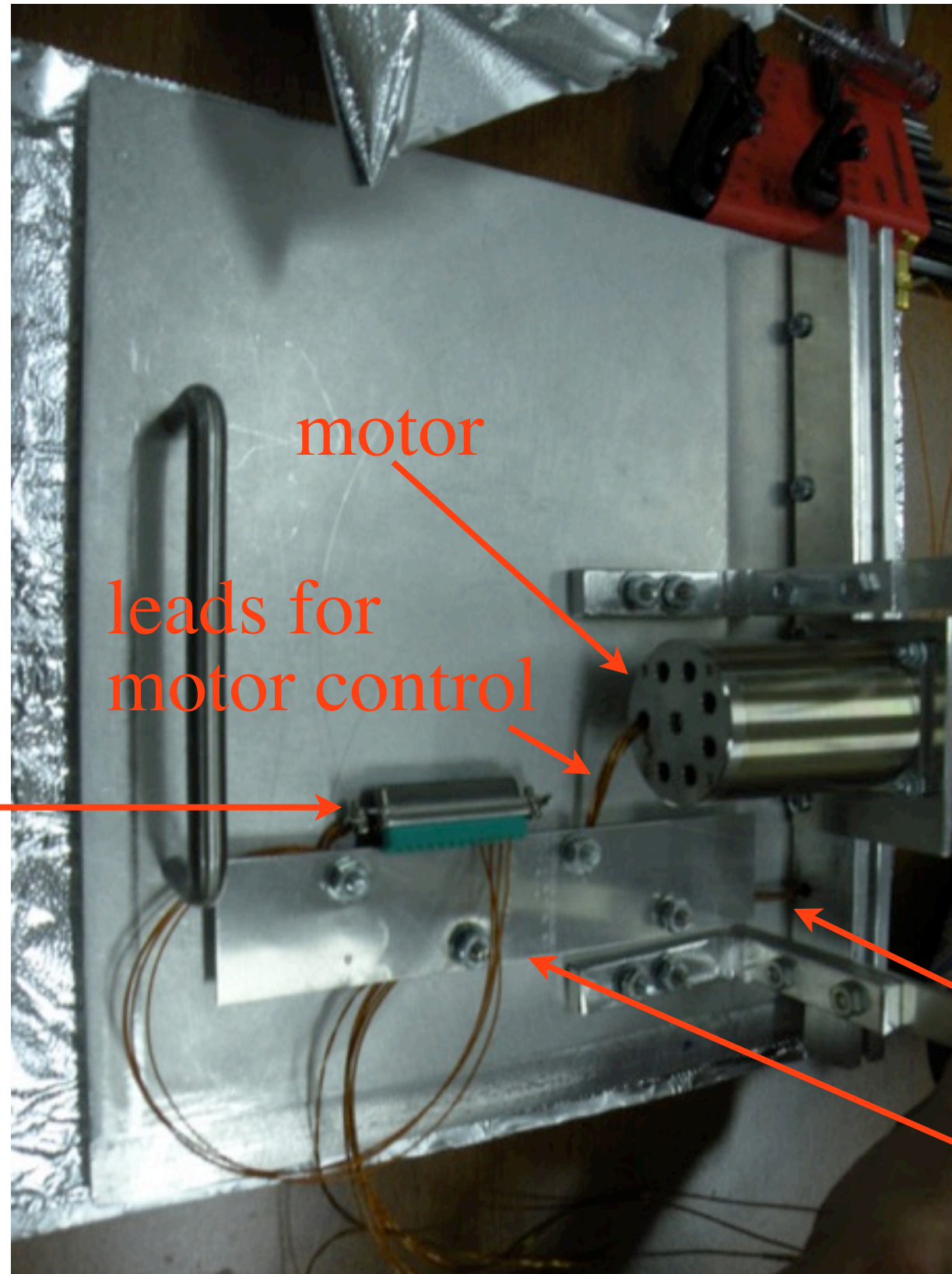
Motor Stand



for unused handle

for motor
stand

Motor Stand



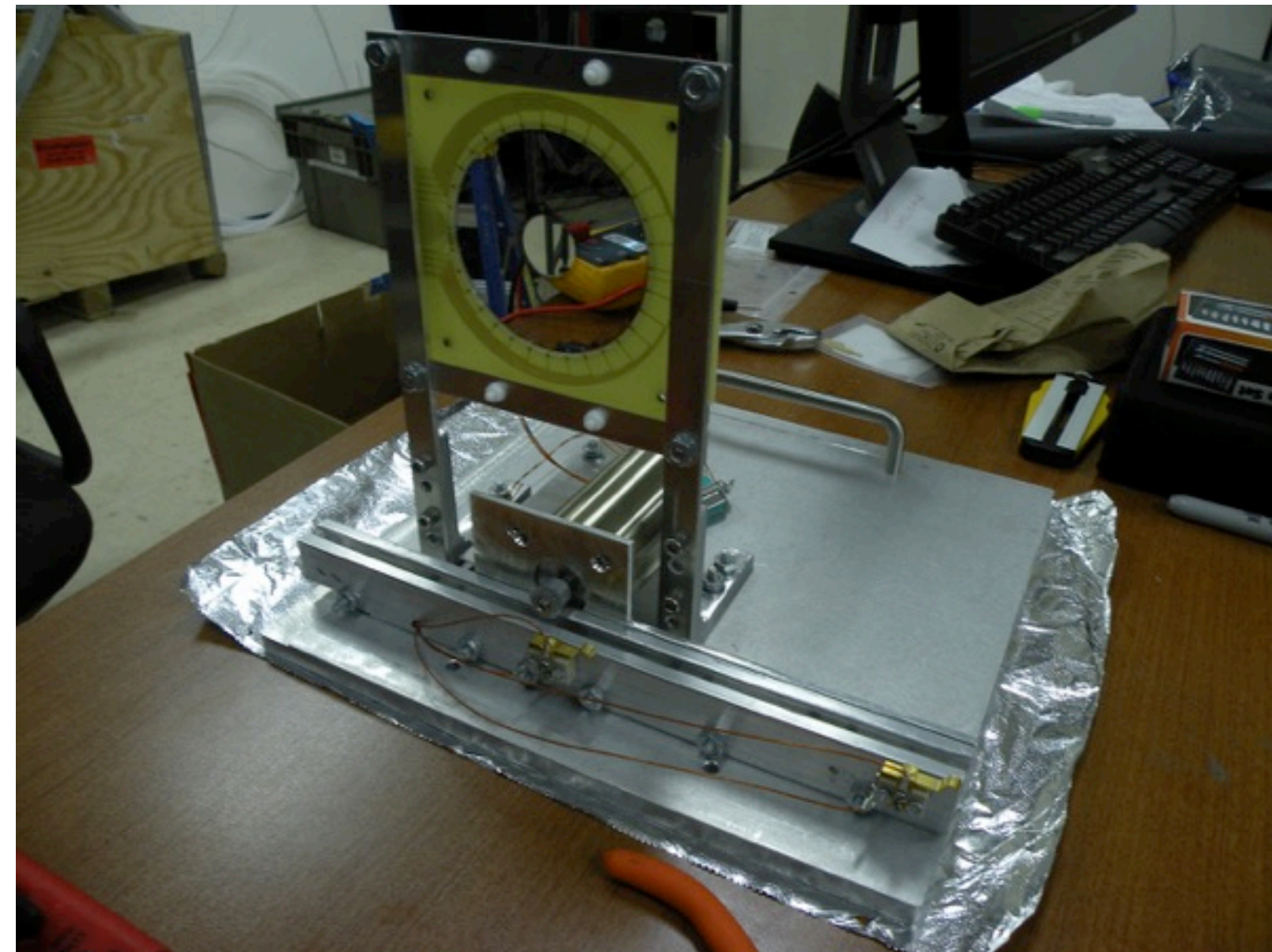
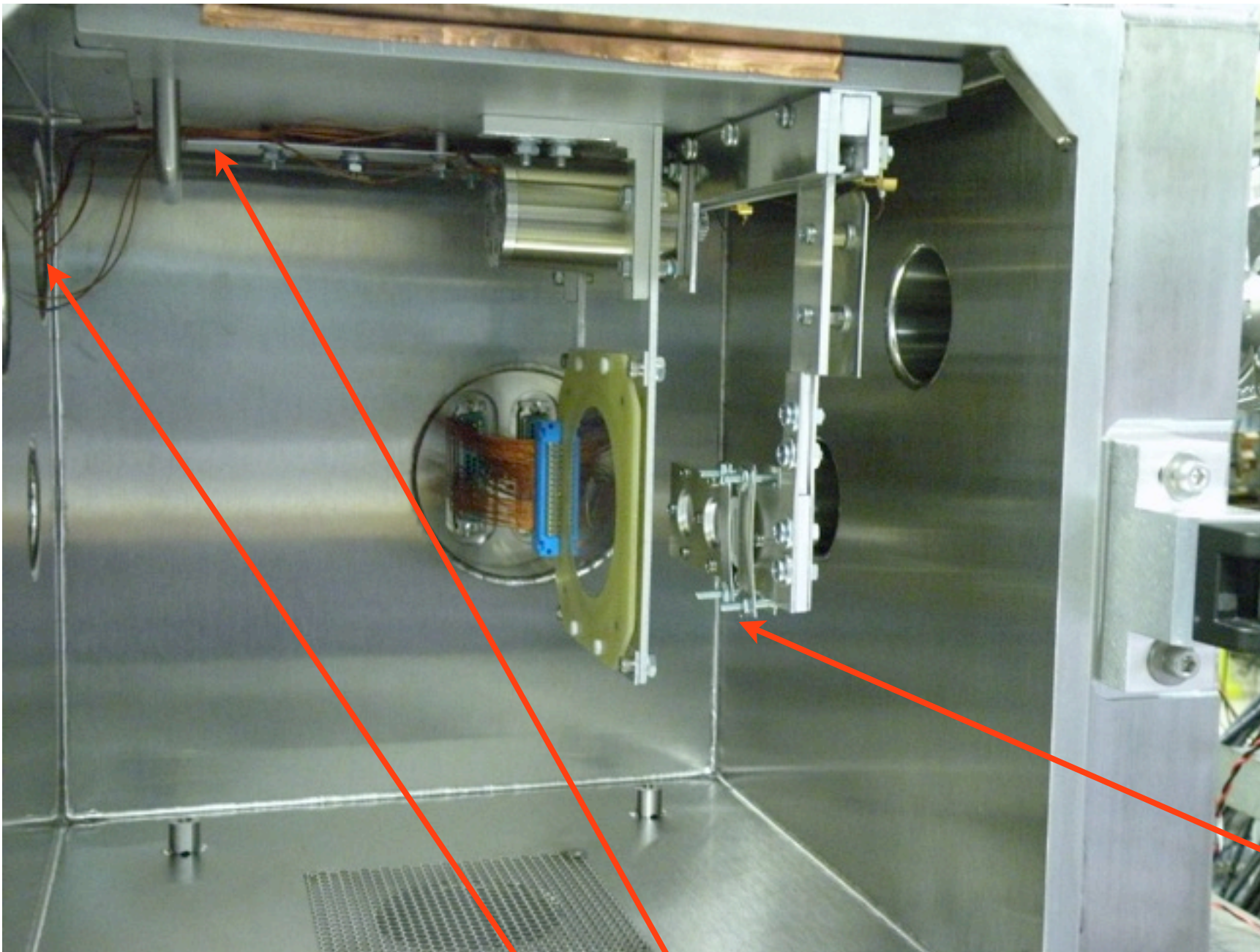
motor switch

connect leads for readout

leads from switches

snake leads through

Detector and Motor

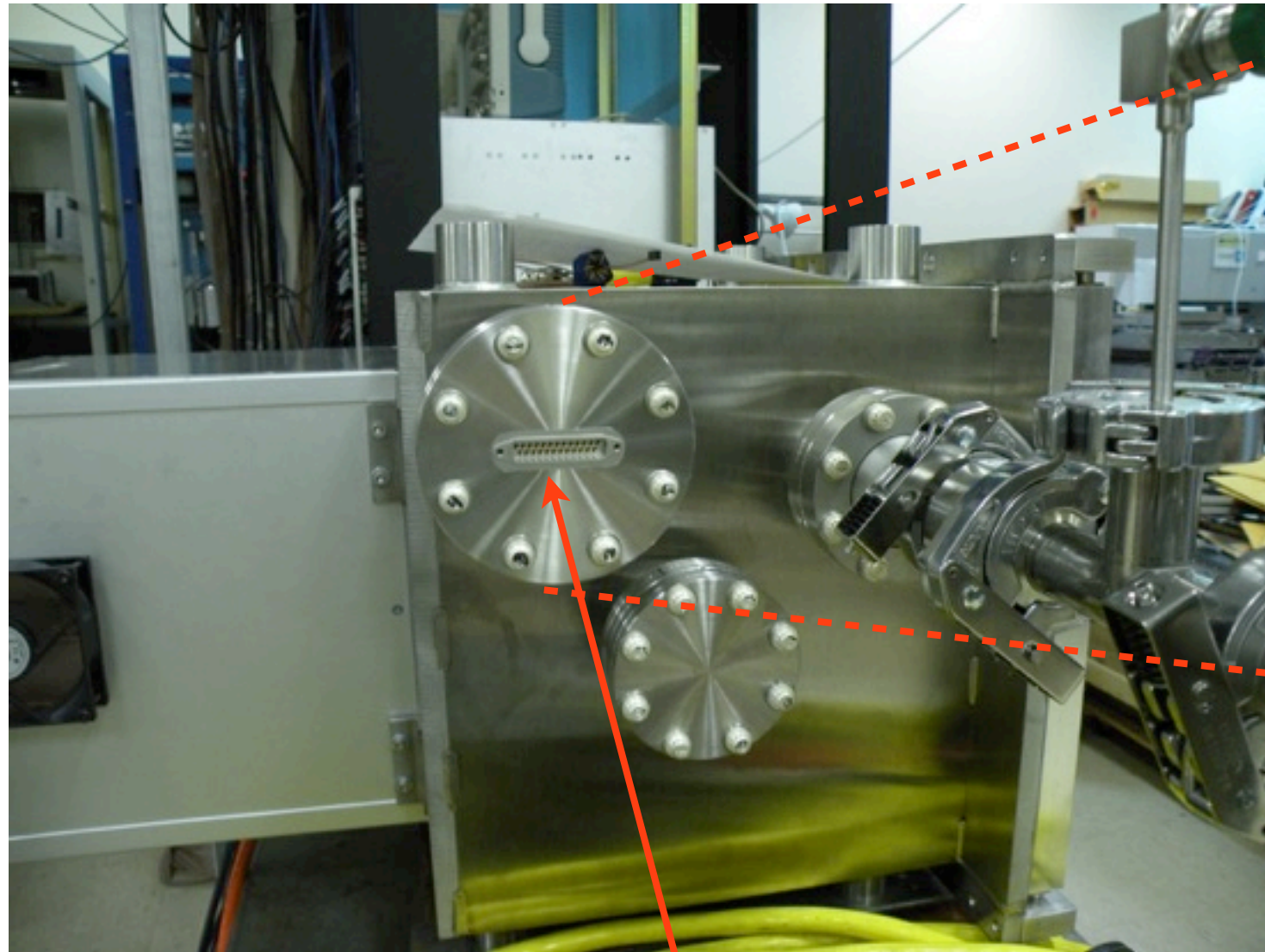


radiator stand with source holder

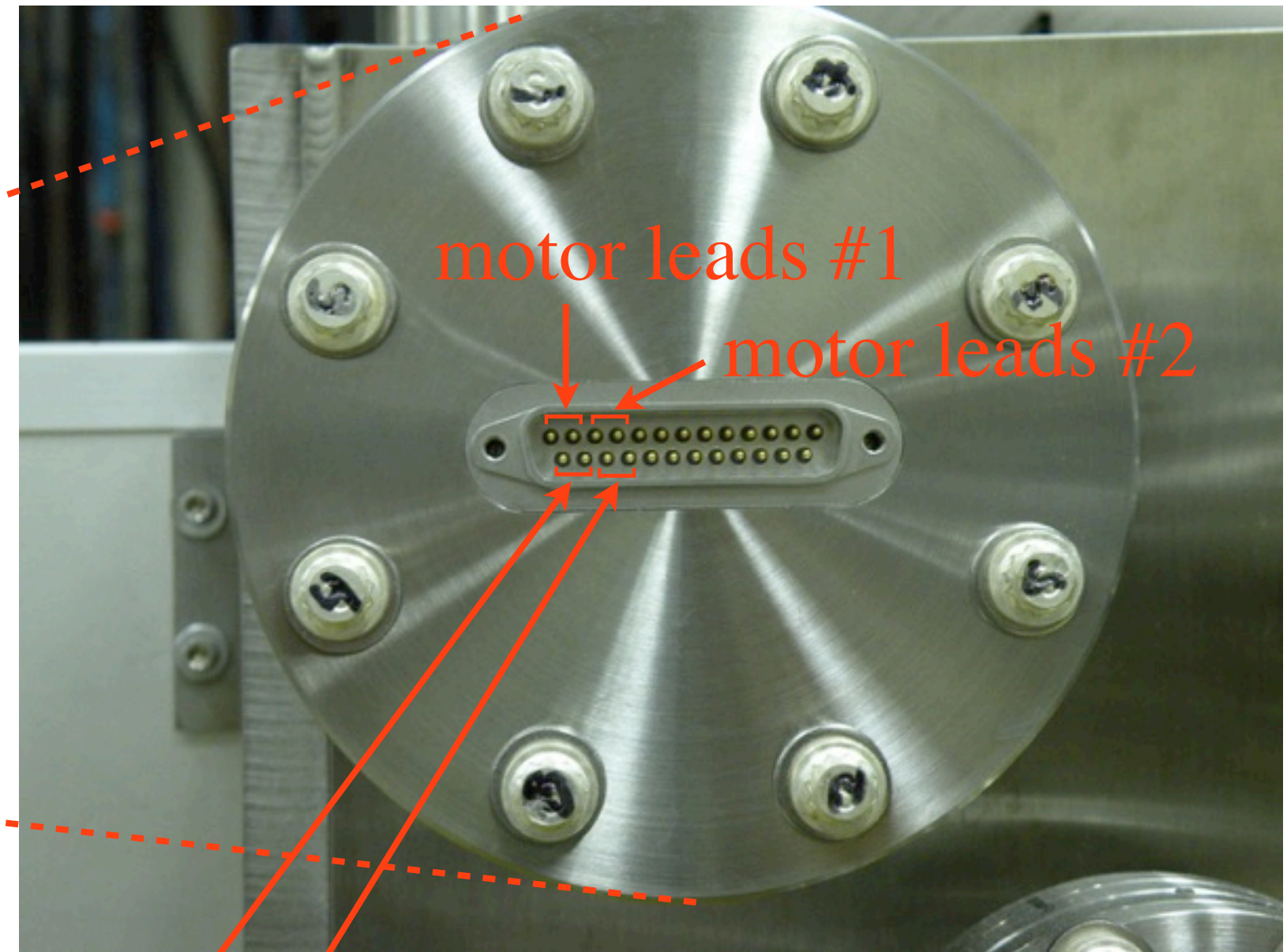
leads from motor and switches

D-sub pin connected to flange (difficult to get in)

Motor Leads



leads from motor and switches



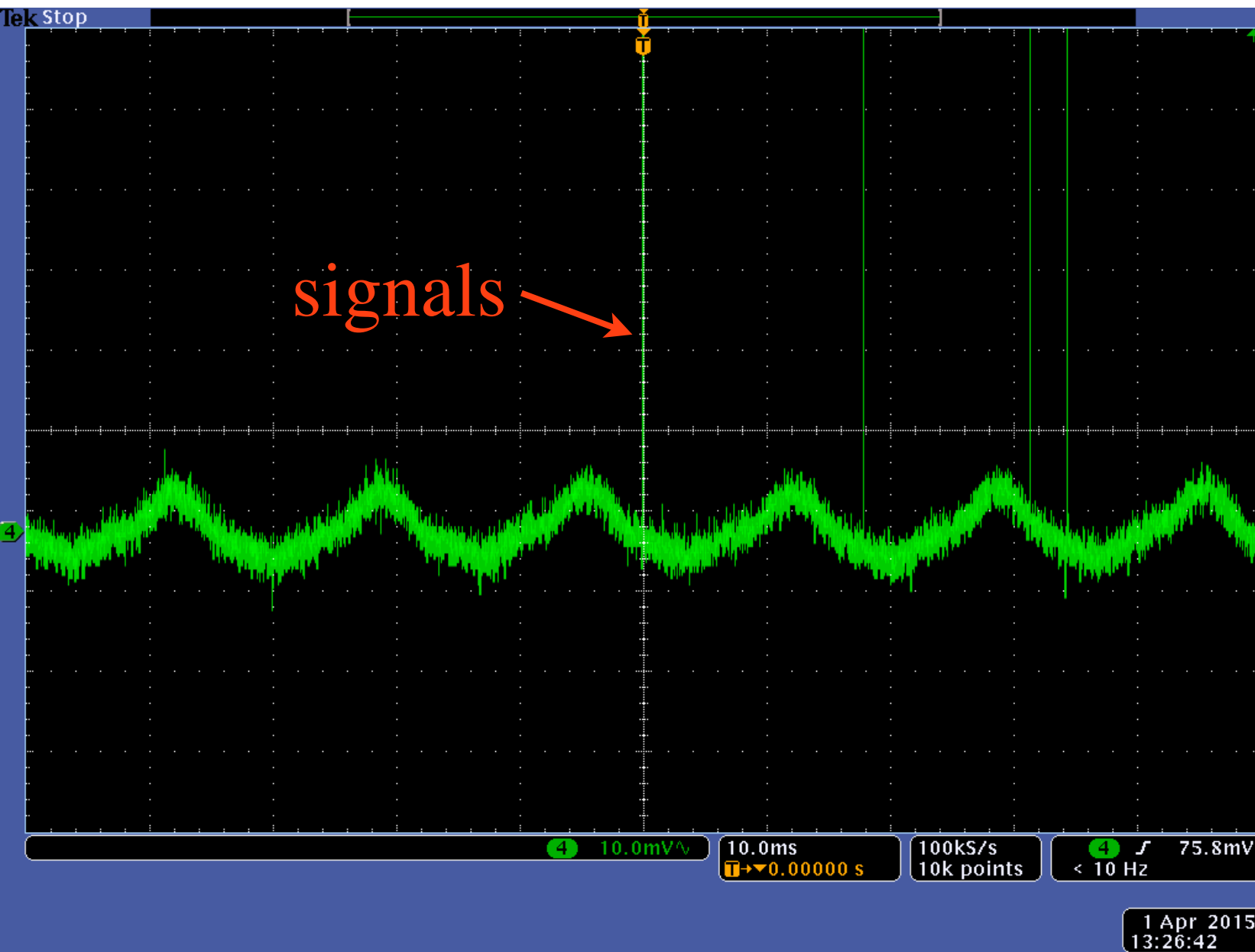
switch 1

switch 2

Continuity tests can be done on connected leads

Scope Shots

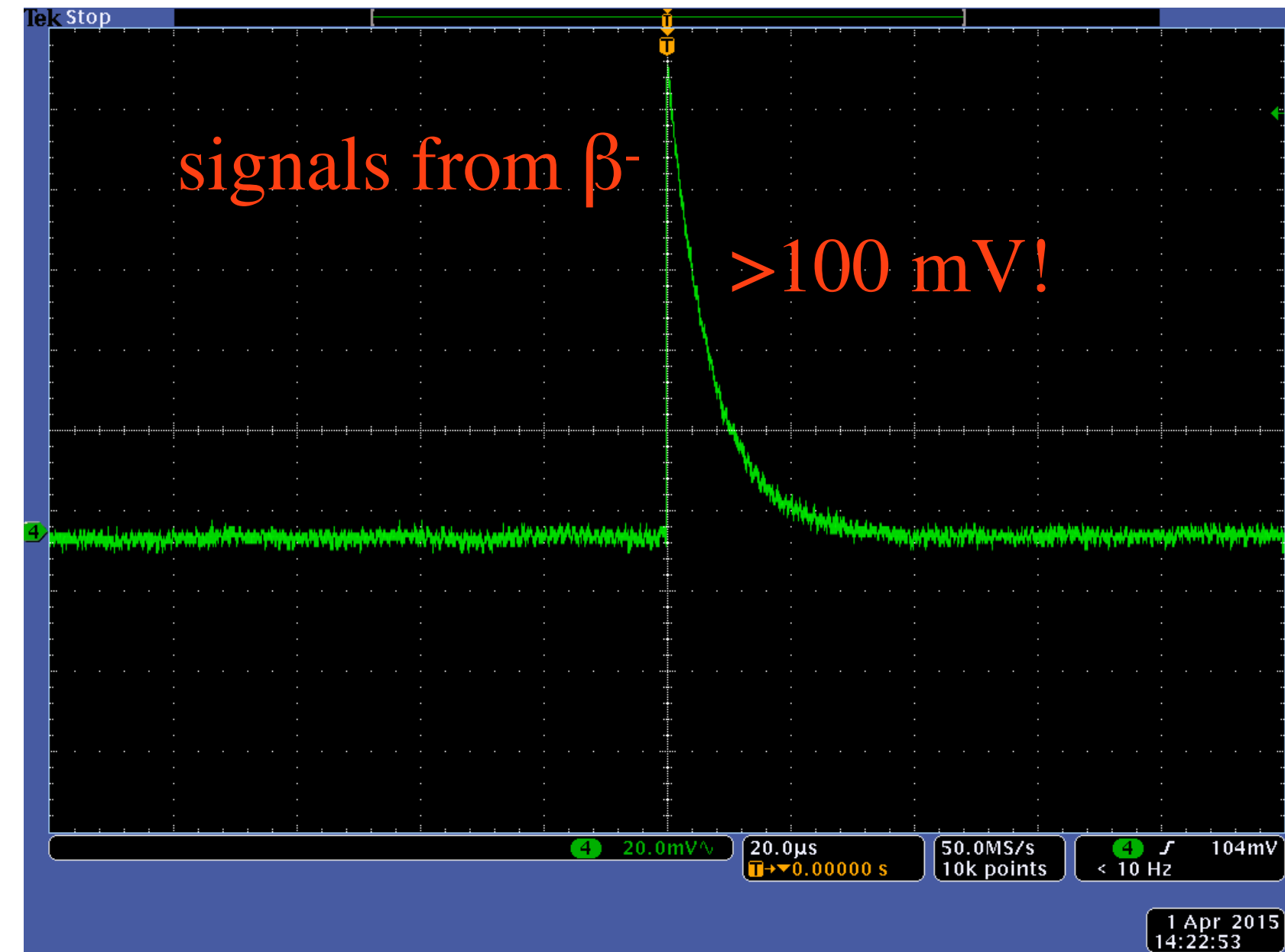
HV: 200 V



baseline modulations

10mV, 10ms divisions

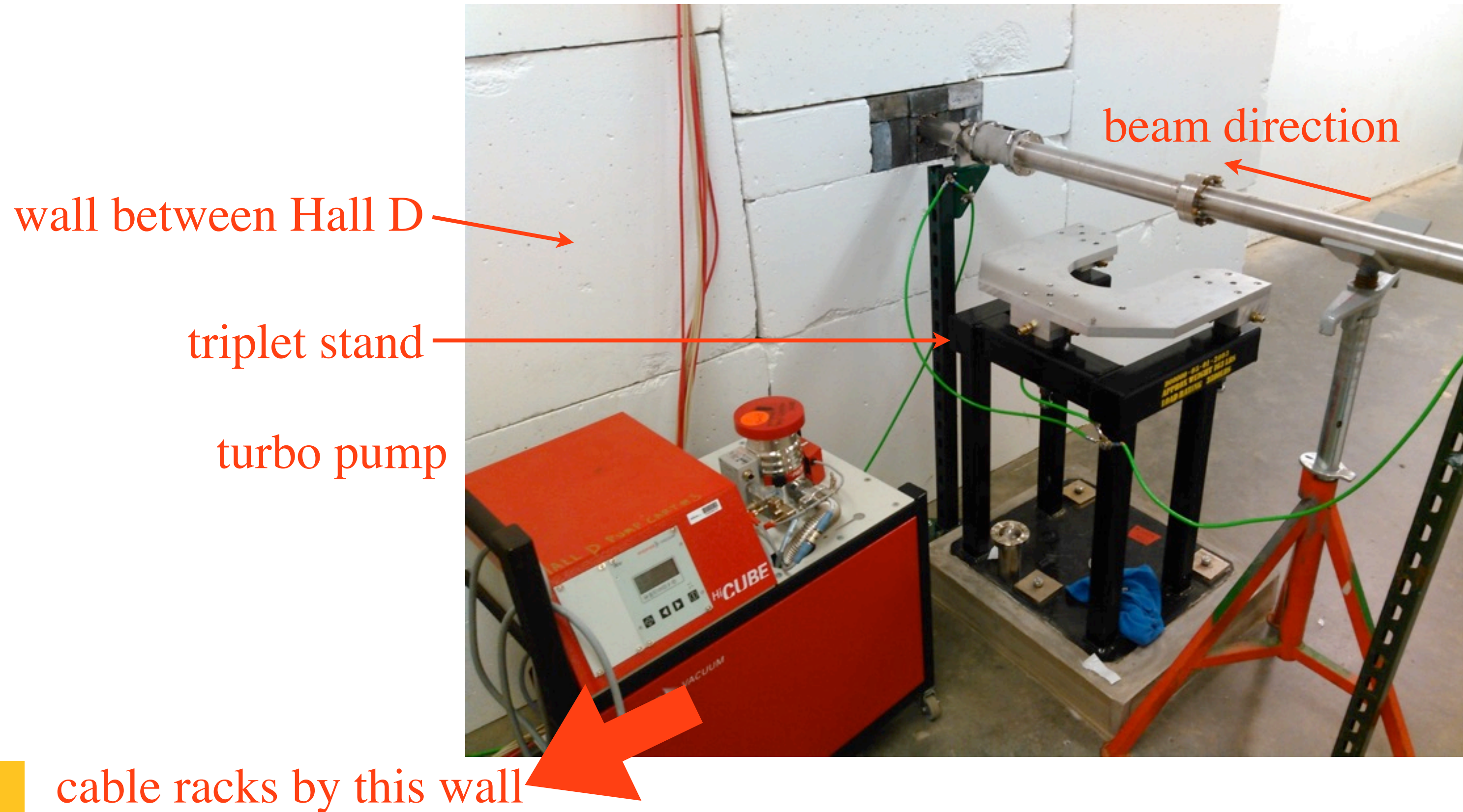
HV: 200 V



^{90}Sr source, β^- $Q = 0.546$ MeV

20mV, 20 μ s divisions

Inside Hall



TO DO

- Waiting for Alex (Sasha) Somov for fADC self-triggering, setup
- Meet with Hovanes, Scot tomorrow for motor controls, install on Friday
- Once fADC is set up, test with source signals (getting > 50 Hz in single channel with ^{90}Sr β^- source)
- Vacuum outgas test with motor inside
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- Ask for survey
- Install in hall