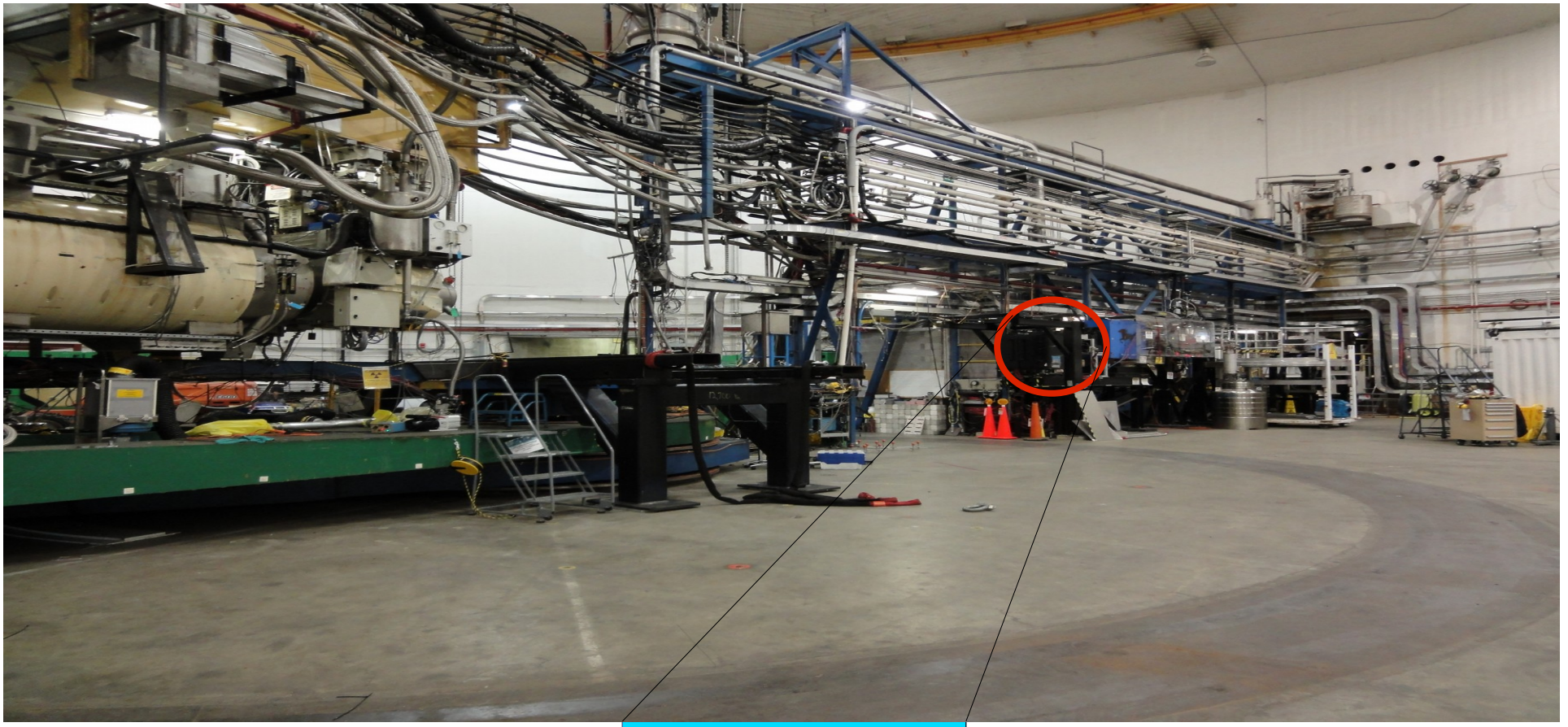
BPM & Raster



Patch panel

Left arm

Right arm

To LHRS

Right HRS

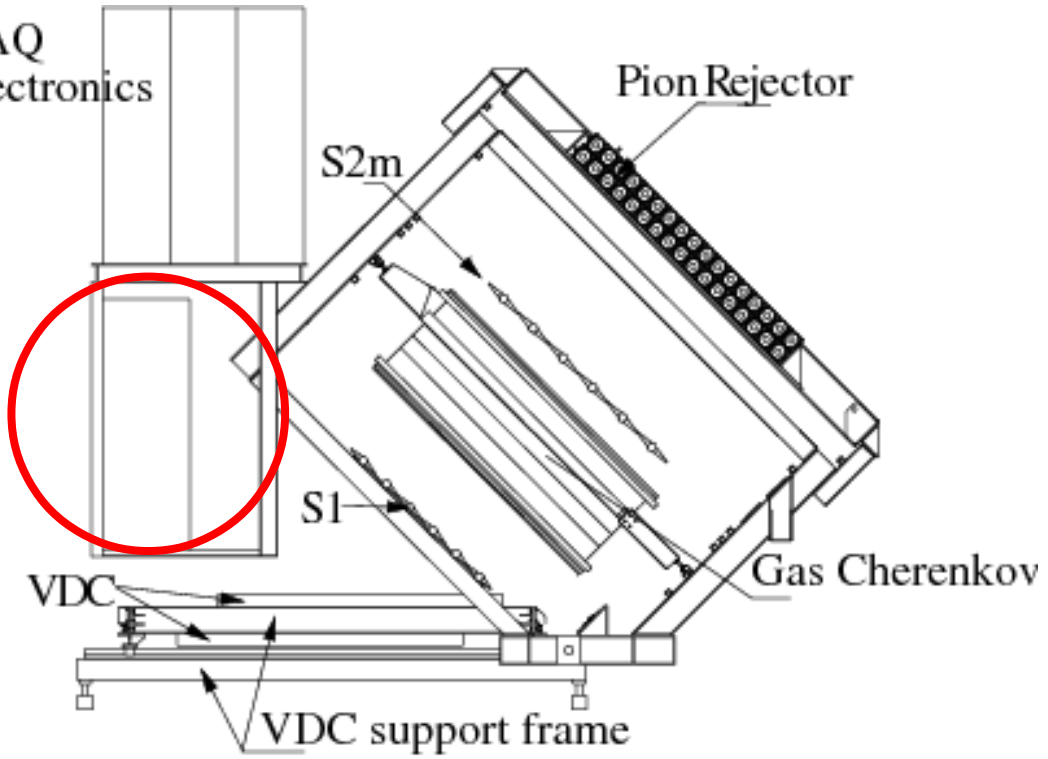
Patch panel

Patch panel

Patch panel

Fastbus ADCs

FADCs



offset attenuator

To RHRS

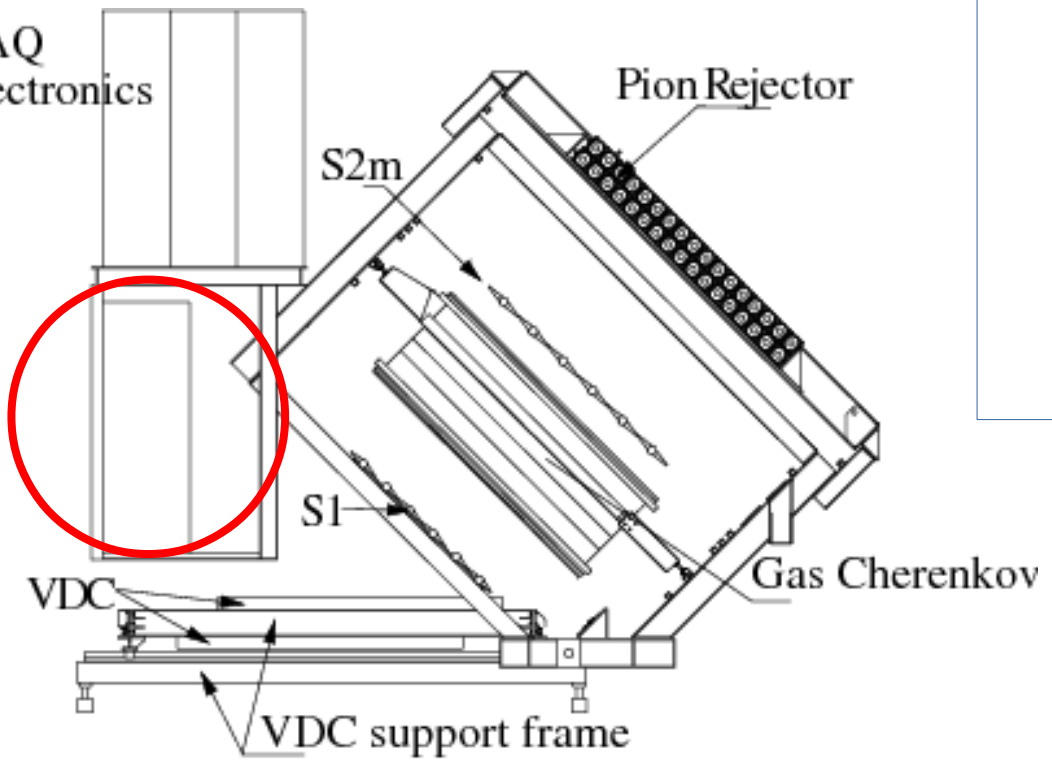
left HRS

Patch panel

offset attenuator

Patch panel

Fastbus ADCs



FADCs

Patch panel

Twiddle test!

- Investigate the range of voltages seen in the daq from the BPMs to prepare to add BPM signals into the FADCs.
- Turn twiddle on and view the range of voltages seen by the diagonal wires.
  - Twiddle simulates a current of ~7.9 uA

Twiddle results

- BPMA
  - Twiddle X+
    - Y+ sees -2.84 Volts
    - Y- sees -2.76 Volts
  - Twiddle X-
    - Y+ sees -2.84 Volts
    - Y- sees -2.86 Volts
- BPMA
  - Twiddle Y+
    - X+ sees -2.86 Volts
    - X- sees -2.84 Volts
  - Twiddle Y-
    - X+ sees -2.84 Volts
    - X- sees -2.84 Volts

Twiddle turned off X+ ~-1.24, x- ~ -1.24,Y+ ~-1.24, Y- ~-1.24

Twiddle results

- BPMB
  - Twiddle X+
    - Y+ sees -2.9 Volts
    - Y- sees -2.76 Volts
  - Twiddle X-
    - Y+ sees -2.9 Volts
    - Y- sees -2.76 Volts
- BPMB
  - Twiddle Y+
    - X+ sees -2.9 Volts
    - X- sees -2.9 Volts
  - Twiddle Y-
    - X+ sees -2.9 Volts
    - X- sees -2.9 Volts

Twiddle turned off X+ ~-1.28, x- ~ -1.28,Y+ ~-1.16, Y- ~-1.16

Simulated signal to help map out cables

- Used a pocket pulser on the floor, first sent signals into both the left and Right arm
  - Saw a reflection ~ 880 ns after original pulse.
- Used pulser just on one arm:
  - Did not see the reflection.
- Sent a split signal from pulser to oscilloscope and to the offset attenuator, saw relfection?????
- The reflection seems to come from the offset attenuator:

Hmm????

- Need investigate the reflection
- The BPM voltage is on the border line for the FADCs
  - Need to acquire some attenuators for the BPM signals being plugged into the FADCs.
  - Also need to make sure that addition of splitters /Ts will not cause reelections