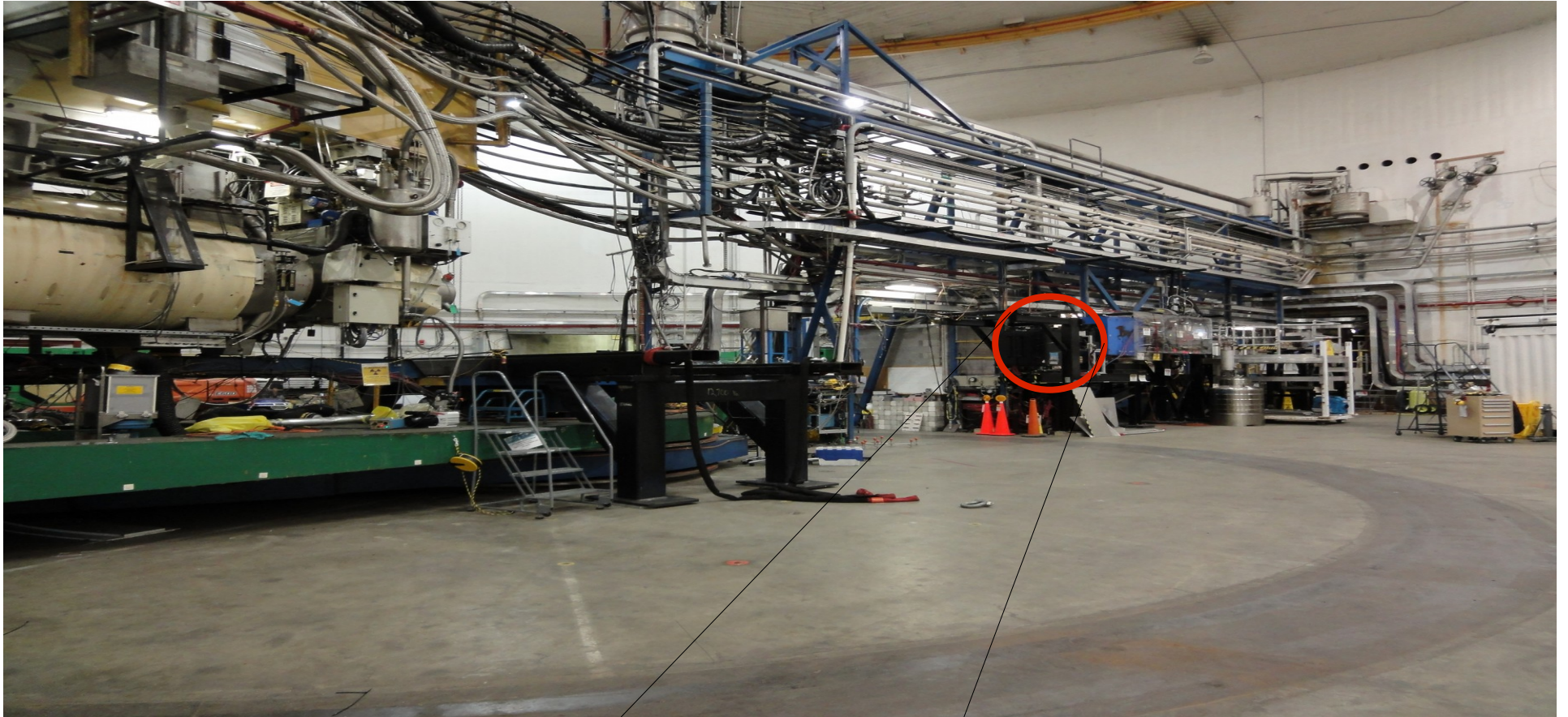


BPM & Raster



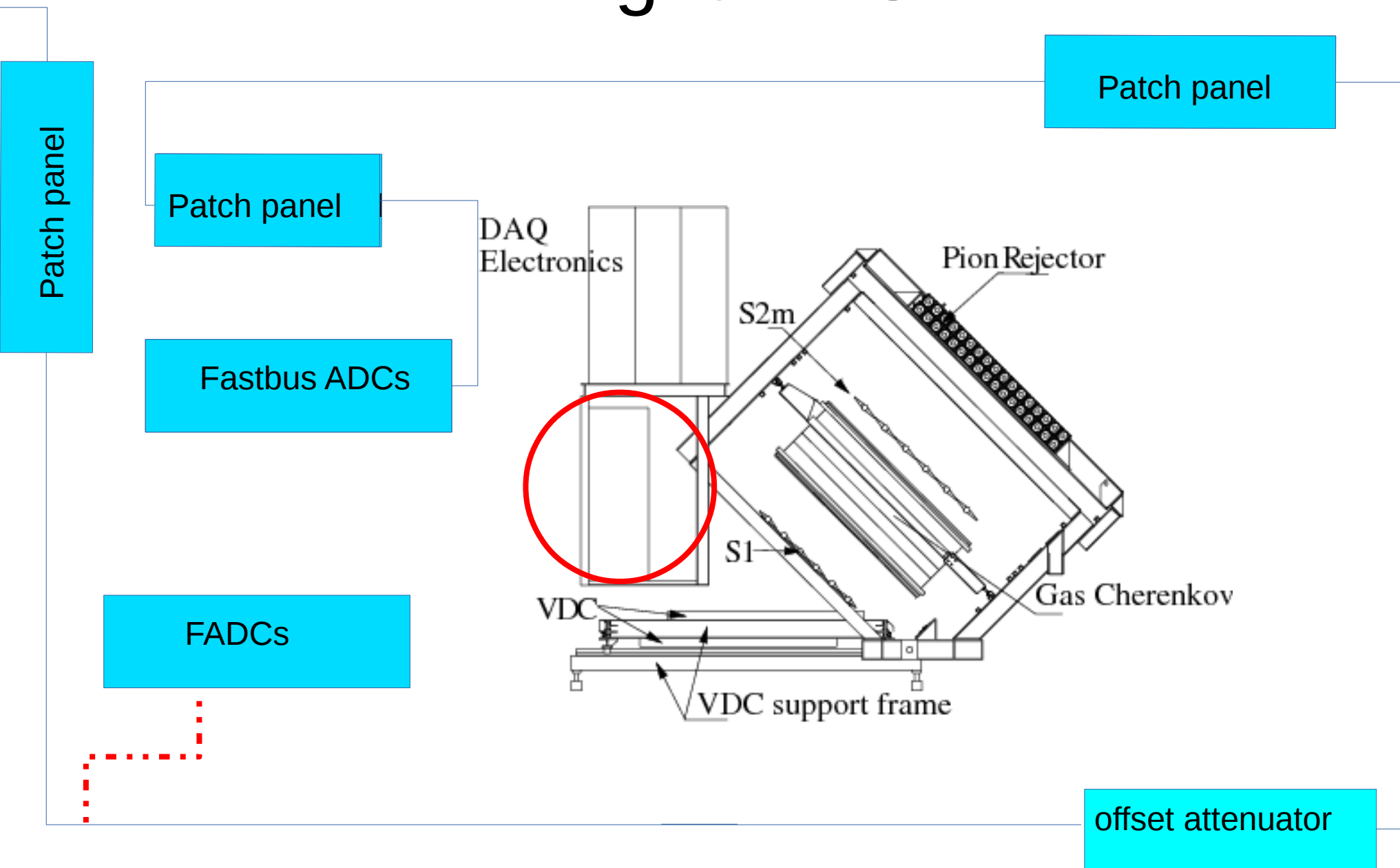
Patch panel

Left arm

Right arm

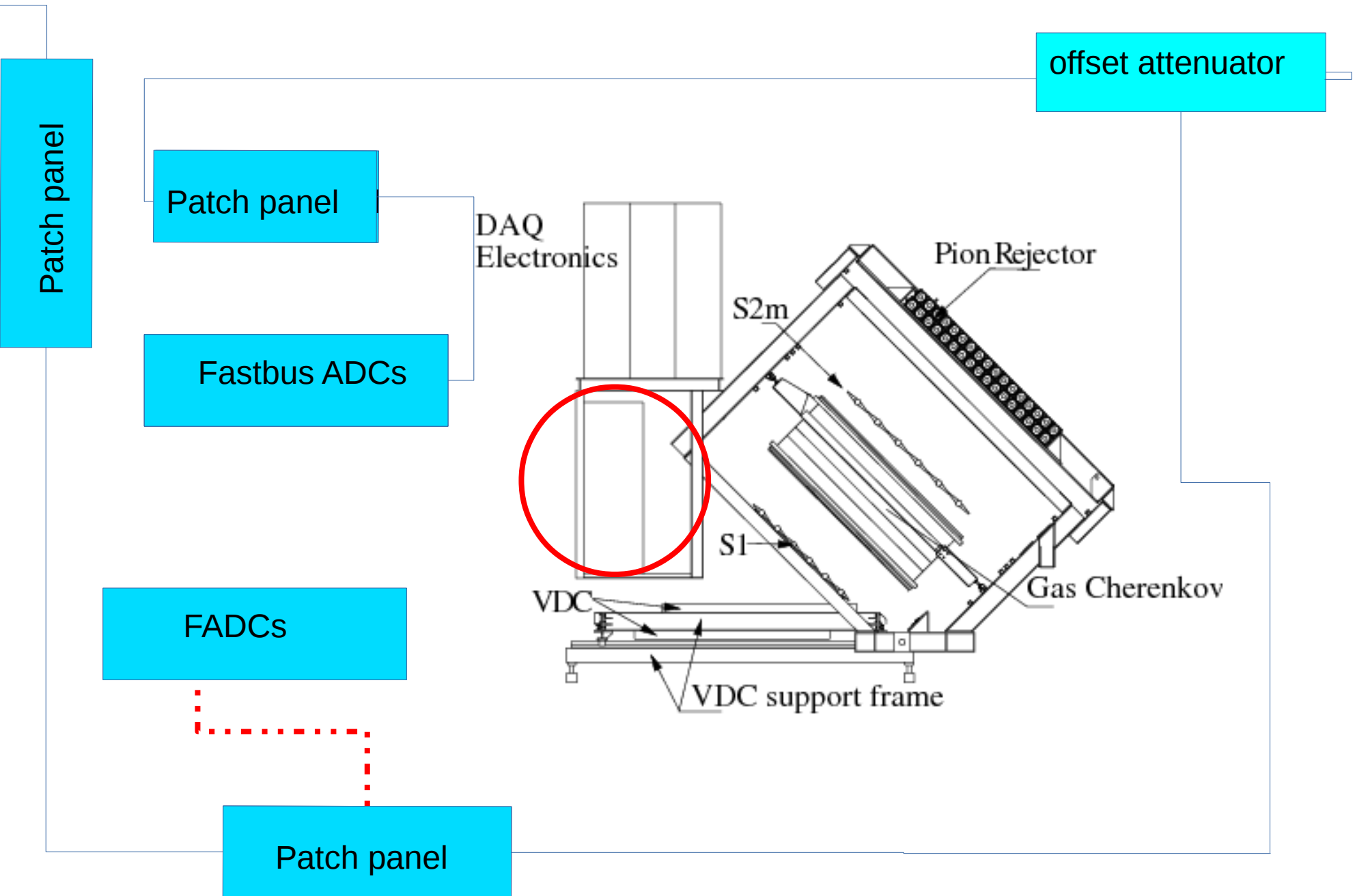
Right HRS

Too LHRS



left HRS

Too RHRS



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 $\sim 7.9 \mu\text{A}$

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+ \sim -1.24, x- \sim -1.24, Y+ \sim -1.24, Y- \sim -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+ \sim -1.28, x- \sim -1.28, Y+ \sim -1.16, Y- \sim -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 reflection?????
- 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 reflections