## UITF - keV beamline software controls

- Vacuum, UHV supplies
- Viewers
- Video and switcher, old CEBAF Blue Cherry system
- Valves
- Magnets
- Current monitoring (Pcup, FCup1, A3, A4, Master Slit, dump, anode)
- Collision protection for viewers and Pcup and FCup1
- PCup and FCup1 pneumatic insertion, readback
- Master slit stepper motor controls stac5
- Harp
- Gun HV control, voltage and current readback
- DecaRad
- RF amplitude and phase control (laser, choppers, buncher)
- Proteus wheel water flow readback (Pcup, FCup1, A3, A4, Master Slit, dump)
- Chopper and Buncher water skids
- BPMs
- Brock Cavity (fast scope + time of arrival chassis)
- SCAM
- Laser related
  - Seed laser
  - Fiber Amp
  - Power meter at vacuum window
  - o Power meter for pickoff, realtime QE measurement?
  - o shutter
  - Attenuator (stac5)
  - X/Y stepper motor for steering lens (stac5)
  - o CCD camera
  - QE scan program
  - How will we align light into fiber and know we've done a good job from inside laser room?
  - o Add a 405 nm diode to the laser table for simple high current runs with bulk GaAs