## TURNING ON THE X-RAY MACHINE

- 1. Turn key to unlocked on left side of X-ray machine.
- 2. Turn Haskris (Haskris cools X-ray source) on (front).
- 3. Turn Lytron (*Lytron cools X-ray detector [APEX2]*) on (back and front).
- 4. Press GREEN power button on right side column of X-ray machine.
- 5. Open front bottom panel of X-ray machine using two black hinges
- 6. Turn the detector power supply On (left side).
- 7. Turn and hold HIGH VOLTAGE switch clockwise until you see XRAY light ON inside machine on right side.
- 8. Turn on Dry Air Unit.
- 9. Turn on Oxford Cryostream.
- 10. Turn on AMI controller.
- 11. Log into Cryopad on desktop (if it does not connect, exit and re-open, it may take a couple trys)
  - a. Click on Command Tab
  - b. Choose Cool from menu: target temperature is 125K
  - c. Click Execute now
  - d. Wait until it hits target temperature
  - e. On Command Tab: Choose Hold from menu and click execute now
  - f. Exit out of Cryopad (Cryopad and BIS can not be open at same time)
- 12. Log into D8 Tools.
  - a. Click online status
  - b. Click online refresh on/off (Computer with blue screen icon)
  - c. Check to make sure there are no warnings
  - d. Exit
- 13. Open BIS.
  - a. Confirm detector distance
- 14. Open APEX2.
  - a. Instrument: Connect
  - b. Confirm IP
  - c. Instrument: Show Status
- 15. Make sure CCD temperature is at -55 degrees Centigrade before starting an acquisition