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

    a. Instrument: Connect
    b. Confirm IP
    c. Instrument: Show Status

15. Make sure CCD temperature is at -55 degrees Centigrade before starting an acquisition