JEOL 1230 – startup procedure overview
Important: Always turn off the beam when changing specimens

1. Turn on 4 devices: 2 monitors, 1 computer (black box), and camera (grey box under computer). (No log in required.)
2. Turn on HT, wait for "beep" at around 46 uA
3. Turn on Beam, wait until it stabilizes at around 59 uA
4. Center the beam: narrow the beam to a small circle, press the "beam shift" button, click and hold the right mouse button, move the mouse to move the beam. When done, press the beam shift button again (to deactivate it).
5. If all looks fine, go to Monitor and check vacuum (should all be in the "Vac ready" mode).
6. TURN OFF THE BEAM prior to removing the specimen rod.
7. Begin to remove specimen rod by pulling out the rod until the "red dot" position (See diagram on side of scope)
    -Be careful not to break the vacuum!
    - When get to "red dot", flip toggle switch, wait for sound of air entering chamber, remove rod.
8. Place grid in specimen holder, make sure it's secure.
9. Insert specimen rod straight in, flip toggle switch, pump down scope.
10. Once you see "Vac Ready" on the monitor, complete insertion procedure.
11. Turn on Beam
12. If your image is not in focus, make sure the OL (objective lens) is ~3.67 to start (under "Monitor/ lens" settings)

*To use the digital camera:
    -click AMT icon on computer's desktop
    -after you get the error message, change the switching-box from "disconnect" to "1230" then select "try again"
    -set the exposure level of the beam to 4-6 seconds using the brightness control
    -insert camera using toggle switch, adjust histogram (brightness control) to get optimum exposure.

*When done for the day:
    -remove the camera by flipping toggle switch so the beam is now focused on the scope's screen
    -lower the magnification to ~2500x
    -shut down the AMT software
    -change the switching box back to "disconnect" (not "1230")
    -turn off the beam
    -remove your specimen
    -turn off the HT
    -DO NOT log out from the scope's computer
    -turn off the 4 devices (camera box, camera computer, 2 monitors)
    -enter your session in the paper log-book (estimate filament time used)