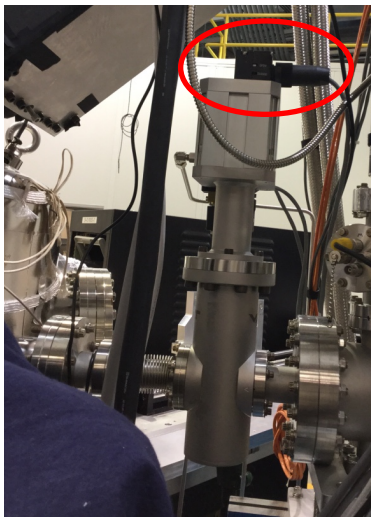
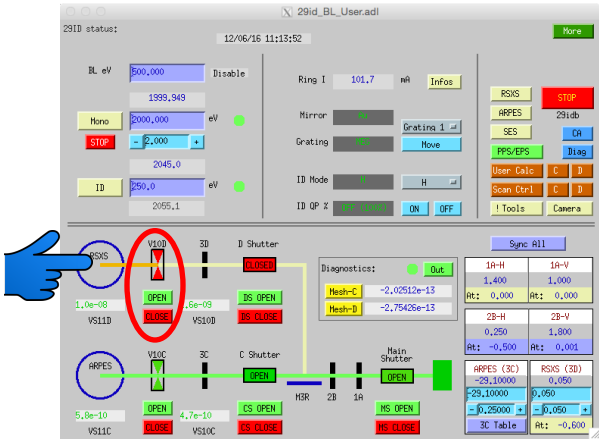
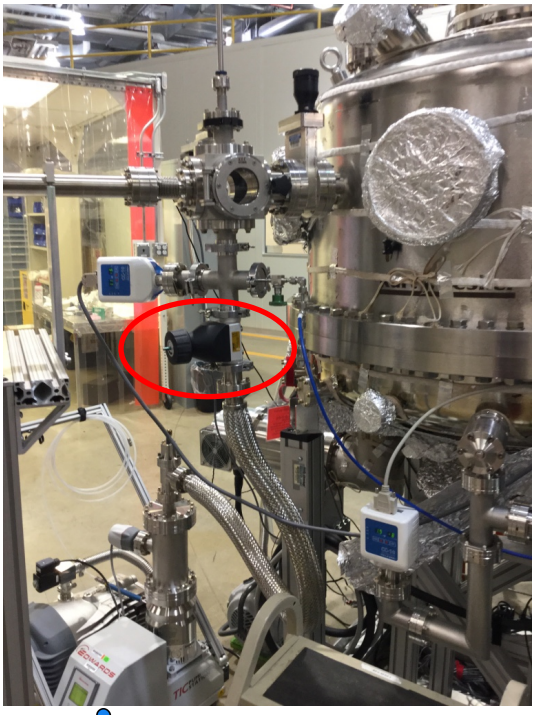
Loading Sample into RSXS LoadLock

1) Check that the beamline valve (VS10D) is closed:





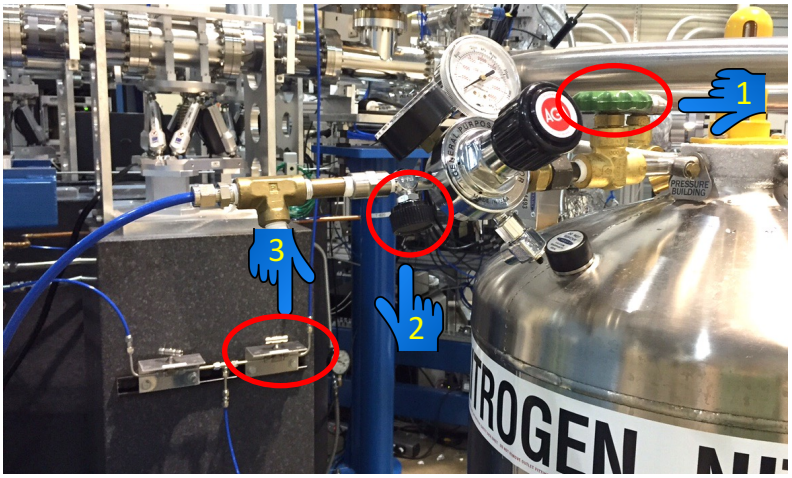
2) Valve-off LoadLock pumping:



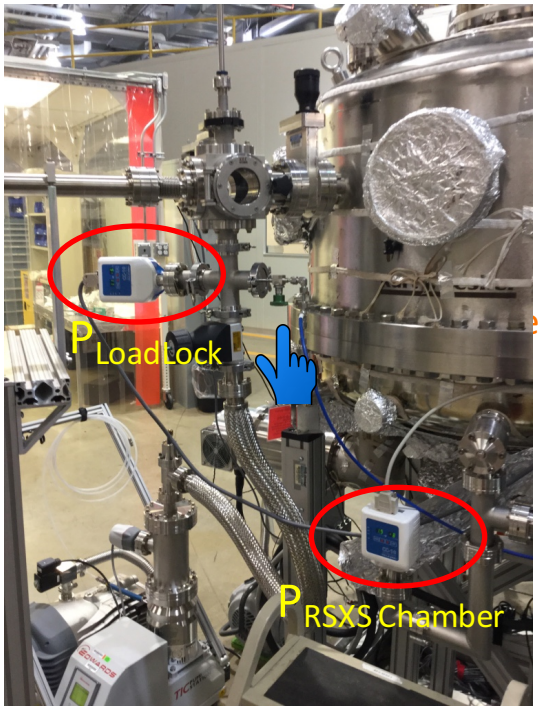
Do not over close or over open (pin exposed = open)

3) Turn off the Turbo Cart, the turbo cart auto vents to air!

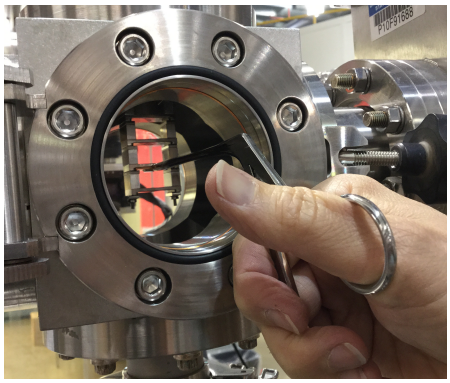
4) Turn on N2 (open all three valve). Set flow to 6 PSI:



5) Slowly open Nupro-valve (right side of the LoadLock) while watching that the pressure does not increase in the RSXS chamber



6) Once the pressure reads ≈ 7.2×10^{2}, open the LoadLock door and load samples



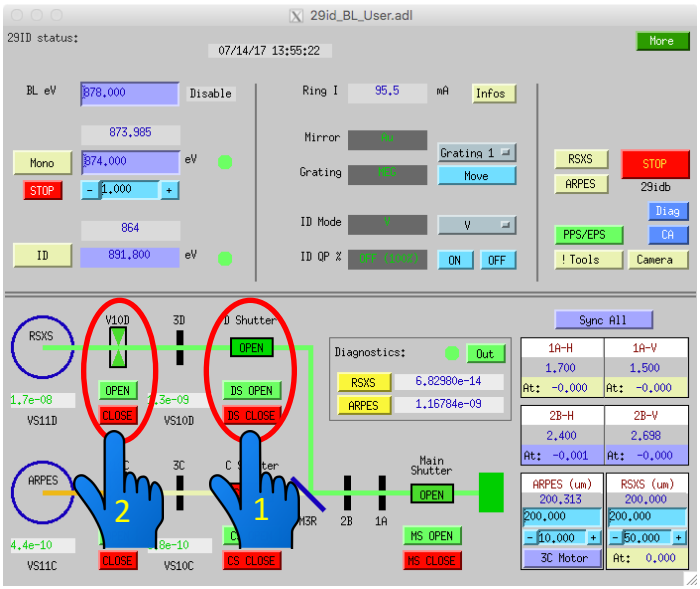
7) a) Close door and the Nupro-valve to the N2
b) Open the valve to the Turbo Cart
c) Turn on pump

It should take < 45 min to reach 1×10^{-5} Torr

8) Turn off the N2 by closing the valve (#1) at the N2 dewar

Transferring Sample to/from RSXS Chamber

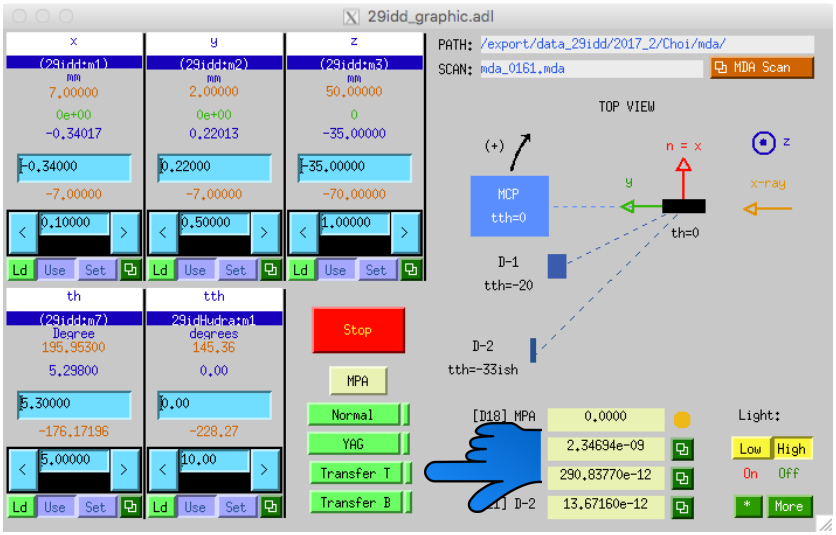
1) Close D-Shutter and Valve to beamline (V-10D)



2) Move to Transfer Position

Transfer T = samples in Top receiver: reflection geometry

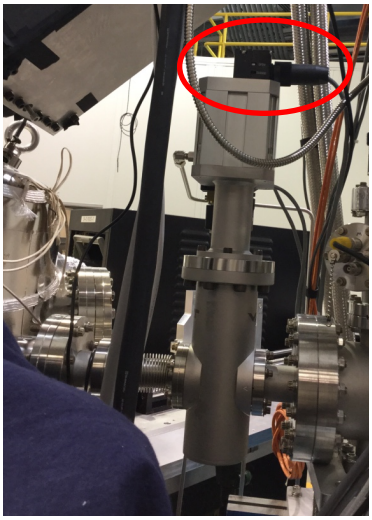
Transfer B = samples in Bottom receiver: transmission geometry



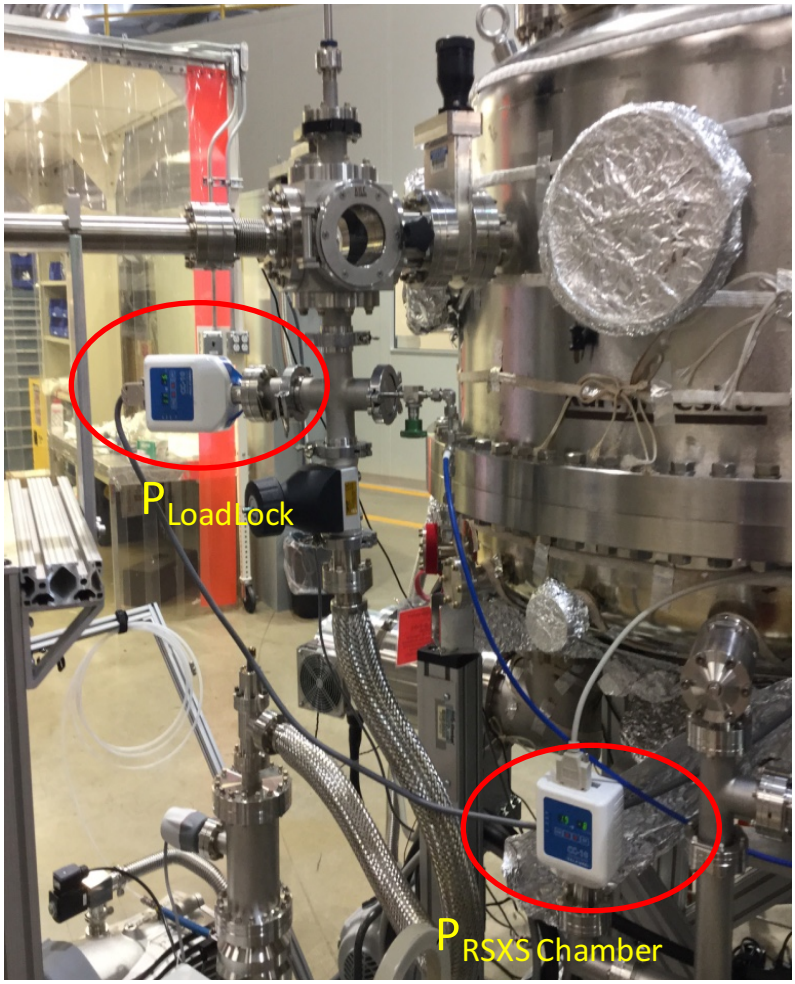
You must remove sample from RSXS before a new sample can be mounted on the pinchers in the LoadLock

Removing Sample from RSXS Chamber

1) Check that the beamline valve (VS10D) is closed:



2) a) Check the pressures:
$P_{loadLock} < 1x10^{-5}$ Torr
b) Check that the transfer arm and the magazine are fully retracted
c) Open the valve between the LoadLock and the RSXS Chamber

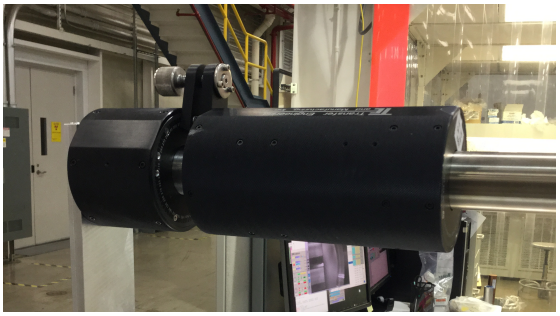


3) Insert transfer arm while watching through window so that you don't crash in the manipulator

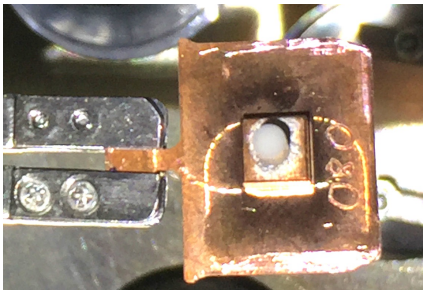
4) Grab sample with pincher, the thumb screw pointing up:

CW ➪ close

CCW ➪ open



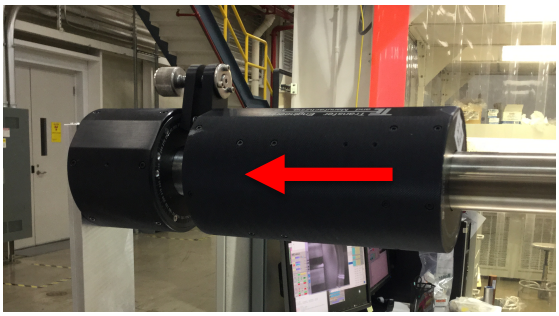
Make sure the pincher is securely "snapped" on the sample tab:

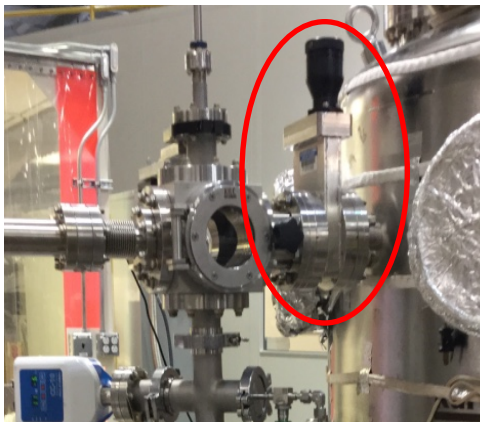


Note: Window above the LoadLock/RSXS valve has an additional line-of-sight in line with the transfer arm (ideal to adjust "x" motor)

5) a) Retract the Transfer Arm all the way

b) Close the valve to the between the LoadLock and the RSXS chamber:

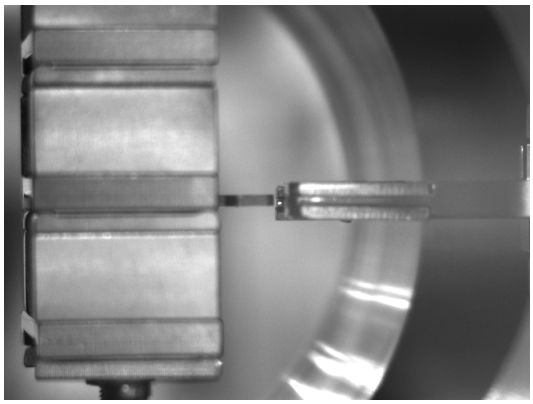




Loading Sample into RSXS Chamber

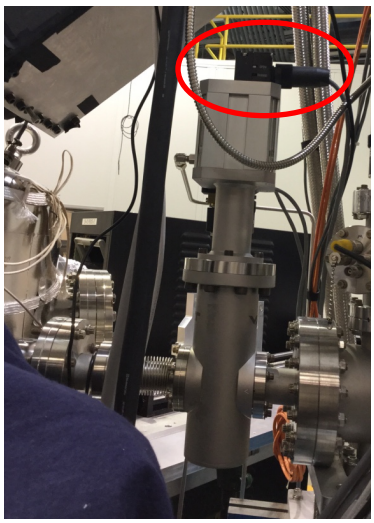
1) Grab sample from magazine with pincher, the thumb screw pointing up (see previous page).
Make sure to retract magazine all the way.

ImageJ / 29id_ps6:image1:



Note: The camera set up so that you an see the sample while transferring is from the backside (left/right are inverted) – ImageJ / 29id_ps6:image1:

2) Check that the beamline valve (VS10D) is closed:

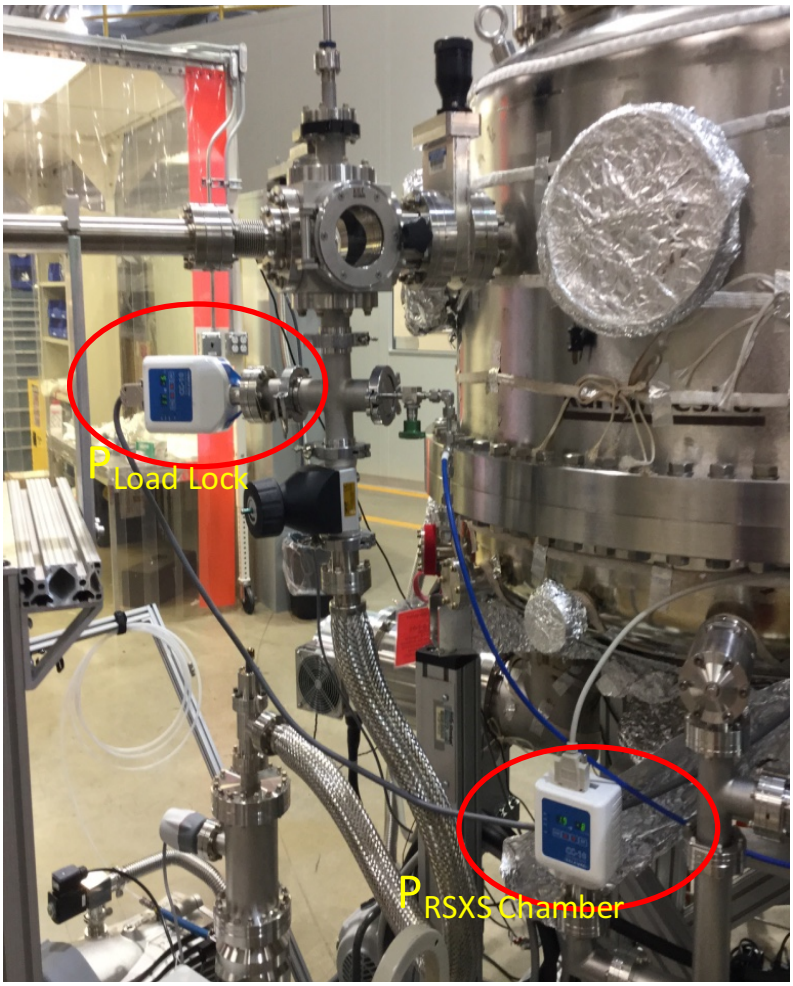


3) a) Check the pressures:

$P_{load\ Lock} < 1x10^{-5}$ Torr

b) Check that the transfer arm and the magazine are fully retracted

c) Open the valve between the Load Lock and the RSXS Chamber



3) Insert transfer arm while watching through window so that you don't crash in the manipulator

4) Insert sample into the RSXS receiver

5) Open pincher

6) a) Retract the Transfer Arm all the way

b) Close the valve to the between the LoadLock and the RSXS chamber: