|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Overall  **Sample change checklist** |  | Venting |  | Pumping down |  |
| Sample-OSA distance is sufficient at required angle |  | Close shutter |  | Take picture of sample surface |  |
| Verify region of interest <4mm to any upstream edge |  | genie\_in() |  | Sample in |  |
| Exit wave has clear path to detector |  | zp\_out() |  | Close bay door |  |
| Use Leica microscope to find distance to ROI from fiducials |  | prism\_in() |  | Sample theta-🡪 0.0 |  |
|  |  | Stop turbo |  | AttoX 🡪 surface to mark  (Use on-axis scope:  left TV screen) |  |
|  |  | Turbo at “levitation” |  | Sample theta 🡪 40 |  |
|  |  | Close roughing pump valve |  | SamY/AttoZ 🡪 ROI to mark |  |
|  |  | Turn off roughing pump |  | Close needle valve |  |
|  |  | Open needle valve |  | Close top valve |  |
|  |  | Hissing sound stopped |  | Start roughing pump |  |
|  |  | Open sample door |  | Vacuum < **1 torr** |  |
|  |  | Sample theta to 30 degrees |  | Start turbo |  |
|  |  | Use forceps extract sample |  | 48000 rpm achieved |  |
|  |  |  |  | genie\_in() |  |
|  |  |  |  | prism\_out() |  |
|  |  |  |  | beamstop\_out() |  |
|  |  |  |  | Open shutter |  |
|  |  |  |  | Set sample theta to 0 (genie) |  |
|  |  |  |  | zp\_in() |  |
|  |  |  |  | medipix\_in() |  |
|  |  |  |  | Adjust OSA alignment |  |
|  |  |  |  | Split focused beam with sample |  |