AJA International ATC Orion-5 3 stage confocal RF Magnetron Sputtering System (Quick Start Guide)

- Turn on the cooling water, compressed air, N2, and Argon gas
- Main power on \(\rightarrow\) Vacuum off (in case of vacuum’s running) \(\rightarrow\) N2 purging (gate value left open) \(\rightarrow\) open the lid (when in atmospheric pressure) \(\rightarrow\) take off a target (if mounted)
- Mount a target
- Mount a substrate
- Close the lid (little pressure on the lid or with the latch and turn on the vacuum
- Shut off N2
- Gate value close until 25~30mTorr after turning on Ar
- Leave N2 purging for 10 sec (removing chemicals)

**Pre-burn**
- Making 5mTorr with the gate valve after setting the initial power (50W)
- Tune the reflective power to zero after showing up the voltage (This voltage bias can removes oxides)
- RF power ramping up to a set power by 10 W increment (in case of dielectric Targets)

**Sputtering**
- open the target window and substrate rotation (if necessary) \(\rightarrow\) running for a desired time

- **CAUTION:** Gate Valve should be all the way back to prevent bending when it is not used in sputtering.