1. Power up the vacuum pump and plasma system using the toggle switch on the power strip attached to the table leg. Press the AC power button on the plasma system if it has been toggled off.

2. Open the black valve mounted to the wall for O2, if desired.
   - The pressure should be 10 psi. Contact a lab technician if the pressure is significantly different.
   - Do not adjust the flow meter knob. Flow will be indicated when vacuum is later applied.

3. Place your sample in the chamber.

4. Let the plasma system tube amps and vacuum pump warm up for **10 minutes**.
   - If O2 is being used, this will provide time to purge the chamber.

5. After warmup, press the VACUUM button to start pumping down the chamber.
   - Press on the front of the chamber to ensure that the gasket seats.
   - If O2 is being used, the flow should be about 50 mL/min.

6. Let the chamber pump down for **2 minutes**.
   - The chamber pressure should be about 300 mTorr or less.

7. After pumpdown, press the RF button to strike the plasma flame.
   - Do not adjust the LEVEL or TUNING knobs.
   - Do not press the METER button.
   - The chamber pressure should rise to about 450 mTorr.
   - RF power will not be applied if the metal door is not fully closed.

8. After exposing your material to plasma, press the RF button again to snuff the plasma flame.

9. Press the VACUUM button again to vent the chamber.

10. Remove your sample from the chamber.

11. Close the black O2 valve mounted to the wall, if you used O2.

12. Power down the vacuum pump and plasma system using the toggle switch on the power strip attached to the table leg.

**Notes:**
- Plasma exposure time will depend on substrate and/or application.
  - Substrates coated with AZ1518 photoresist should be exposed for no more than 1 minute, as longer times will result in complete film removal.
  - For plain glass substrates, 2 minutes of exposure is sufficient for surface treatment prior to bonding or film deposition.
- The March Plasmod is adjusted to about 90 W of power. Please consult a cleanroom technician if you wish to use the system at a lower power.
- Consult the March Plasmod user manual for further information.