Procedure for using the Anatech HummerX Sputter Coater  
(*in manual mode*)

1. Open the main valve on the argon tank (if not already open).
2. Check that the output on the argon tank is reading 5-8 psi. Adjust if necessary.
3. Place the samples in the chamber, and close the top.
4. Set *Process Selector* switch to **plate**.
5. Set the *Voltage Control* to 0 (zero).
6. Turn on the power.
7. Press the *Vac* button (vacuum).
8. Press the *Coat* and *Limit* buttons. The thickness will be displayed in nanometers. If desired, enter a new limit using the numeric keys. Press to turn off the limit button.
9. When *Vac* reaches 0.100 torr, press *Gas* for 30 seconds to flush the system.
10. When the pressure reaches 0.040 torr, *or at the lowest value possible*, press the *Gas* button.
11. Wait for the pressure to stabilize at about 0.070-0.100 torr. If the pressure does not stabilize, adjust the gas inlet valve (located at the top right of the hinge post) for a pressure reading of 0.070 torr. (Note: turning the valve clockwise decreases the pressure and vice versa).
12. Press the *H.V.* button.
13. Increase the *Voltage Control* to obtain 10 mA.
14. Adjust the gas inlet valve and voltage control to obtain 2400 volts and 10 mA.
15. When the preset limit of thickness is reached, you will hear a series of beeps indicating that the process is complete.
16. Press the *H.V.* button to turn it off
17. Press the *Gas* button to turn it off.
18. Press *STOP*, and wait for the chamber to reach atmospheric pressure.
19. Turn the *Power* off.
20. Set the *Voltage Control* to 0 (zero).
21. Open the chamber and remove the samples.