The Trion PECVD system has four process gases for deposition of films such as silicon dioxide, silicon nitride and poly-silicon. The system is controlled by a user-friendly touch screen computer system.
Operation Procedure:

1) Log into both “Cr-Cleanroom” and “CR-PECVD” using FOM.

2) Touch the screen to wake” up the computer. The machine will indicate “Standby mode”. Press “Cancel” to exit standby.

3) Vent the system by pressing the “Vent Reactor” button. The venting process will take approximately 1 minute. The top lid will open automatically.

4) Load your sample onto the platen. Be Careful because the platen is HOT! DO NOT LOAD WET SAMPLES!

5) Wipe down the o-ring and sealing surface. Press the “Close Lid” button.

6) Press the “Load/Edit Recipe” Button and select “Recipe From Disk”.

7) Select the desired recipe from the list.

8) Press “Exit” to use standard process.

9) Make recipe modifications through manual and save your unique recipe for current or future processing.

10) There are five process gases available, NH3, N2, N2 with 5% SiH4, N2O, and CF4.

12) Enter a lot name if desired. An on screen keyboard can be selected by pressing “Screen text Entry”. Otherwise just press “Enter to continue.

13) After pressing the “Enter” button, the screen will show the set points and the actual readings for each parameter.

14) Record the parameters and actual readings for your records and future reference.

15) The plasma may be viewed through the side viewport and the process will be counting down on the screen.

16) Once the process is completed, the screen will display the time and the name of the process that was completed.

17) Press “OK” to return to the main screen.

18) Press “Vent Reactor” to vent the system.

19) The lid will automatically open. Carefully remove your samples from the chamber. Remember the electrode is very hot! Wipe down the o-ring and sealing surface. Press “Close Lid”.

20) Load and run the “NFCF Clean” recipe. The clean recipe should be at least as long as the previous process. Modify the time accordingly.

21) Once the process has completed, press the “Standby” button.

22) Log out of the PECVD through FOM.