## GC Quick Guide for Single Sample Runs

1. Turn on the **H₂ tank** and **Air tank** using the main valve on the top of the tank.
2. Log into the computer if not already logged in (**chem147, Ch3m1stry**)
3. Open the "**GC147 (online)**" software. If the "Choose Load Method Option" window pops up, select "**Download to Instrument**" to load the last selected method.
4. Check solvent and waste vials in the autosampler. Be sure there is solvent in the two wash vials, filled to the line at least.

   Solvent A: Methylene Chloride, Solvent B: Hexane
5. Enter sample information into GC log sheet.
6. To load a saved method, go to **Method > Load Method**, select the method and click **OK**.
7. If method parameters need to be changed, go to **Method > Edit Entire Method**, and make necessary changes, clicking **Apply** after the change is made, and then click **OK** to go to the next section until editing is complete. Be sure to "**Save**" the changes to the method, or "**Save As**" to create a new method and not overwrite the original method.

8. <u>**Light the FID,**</u> if it is not already lit, by clicking on the "**Detector**" icon  in the main window, and selecting the boxes for **H₂**, **Air**, and **Makeup**. Select **Flame** and click **Apply**. The flame takes a few seconds to light. If it does not light, see Celeste.

9. <u>**To start a single sample run:**</u>

   a. Go to **RunControl > Sample Info**
   b. Data path should be **C:\Chem32\1\Data\**
   c. Type in a Subdirectory. If one hasn't already been created, you will be prompted to create one. Click **Yes**.
   d. In **Signal 1**: Type in a data file name. (This will be a **.D** file.)
   e. Enter Vial/Location, Sample Name, Sample Amount (actual injection amount is determined by the injection inputted into the method), add any comments you feel is necessary. This information will appear on the report.

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f.  Click **OK**, if not starting the run immediately, or click **Run Method** to start right away.

g.  **RunControl > Run Method will start a single sample run,** if the sample info has already been entered.

10.  **Shutdown Procedure:**

a.  <span style="color:red">**Turn off detector,**</span> by clicking on the **"Detector" icon**  in the main window, deselecting **H₂**, **Air**, and **Makeup** and **Flame,** clicking **Apply** and then **OK**.

b.  Exit out of the software.

c.  Leave the instrument and computer on. Logging out is not necessary.

d.  Turn off the main valve for the H₂ and Air tanks. <span style="color:red">**Helium tank remains ON.**</span>

e.  Remove your samples from the autosampler tray and clean the area.

f.  Be sure you have filled out the sample run log sheet.