Scanning the Monochromator with Terminal in Experiment 1B, Part VIIB. For Stations 1-6 CB-1

1. Open the folder C:\CH461 and launch the program Terminal.

2. From the "File" menu in Terminal, open CH461.TRM.

3. Turn on the power to the stepper motor controller (CB-1).

4. Strike any key on the keyboard. Something similar to the following should appear on the screen, **PTR CB-2 5.318 v2.05 20**; if not, contact a TA (or restart Terminal.)

5. Once communication with the controller has been established you can begin to send commands in the table below.

Purpose & Explanation	**Command**
A. Go to the Starting Wavelength	
Set scan rate to maximum value of of 2500 nm / min for initial set-up. Scan rate (nm/min) = 150 I / D = 150 * 50 / 3 = 2500	D3 & press enter I50 & press enter
Sends stepper motor to Home at V=1000 (3750 nm/min)	F0 & press enter
Scan to zero order. ***In place of the number 327, insert the offset posted on top of <u>your</u> monochromator*.** You should see wavelength display near 0 nm.	(Read note at left before you do anything ...) +327 and press enter*
Go to starting wavelength of scan, 300 nm. 300 nm x 8 steps / nm = 2400 steps	+2400 and press enter*
B. Select Scan Rate for Spectral Scan (nm/min)	
Set scan rate of 200 nm / min for spectral scan. Scan rate (nm/min) = 150 I / D = 150 * 4 / 3 = 200	I4 & press enter D3 & press enter
C. Choose Final Wavelength and Start Scan	
Scan starts immediately when you press enter, so be ready to start the recorder before you press enter. (750 nm - 300 nm) x 8 steps /nm = 3600 steps.	(Read note at left before you do anything ...) +3600 and press enter*
D. Return to Initial Wavelength after the Scan Is Over	
change scan rate to 2500 nm/min (slew)	I50 & press enter
slew back to 300 nm	-3600 & press enter*

6. When finished, turn off stepper motor controller (switch on back).

* In case an error is made in wavelength specification and monochromator is "grinding" at end of scan range, promptly turn controller off with switch on back.