

## Xplorer GLX Tutorial:



The Xplorer GLX is a very powerful, very useful tool that will be used for a variety of labs this year. This tutorial is designed to help guide you through some of the basic functions.

\*Tutorial will be using the motion detector.



Figure 1

### Starting:

- Plug the AC adapter into the wall and then into the GLX.
- The GLX should come on automatically. If not, push the power button  and hold for a few seconds.
- Plug the motion detector (or any other sensor) in the number 1 Sensor Port on the top of the GLX
- The GLX home screen should appear. Shown in Figure 2.
- Press  $F1$   to view graphs.

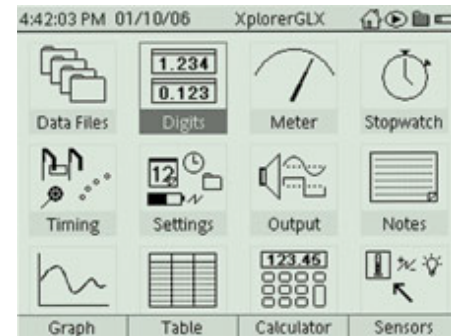






Figure 2

### Taking Data:

- Press the  button to begin collecting data.
- Press the  button again to stop collecting data.
- Most experiments will require multiple trials.
- To take another set of data, press the  button again to start and stop the next data set. The top right hand corner of the screen will display the 'Run #'
- Press  $F1$   to autoscale the graph.
- Press the Escape (Esc) button to exit any selected menu.

### Changing Graphs to Look at Multiple Runs of Data:

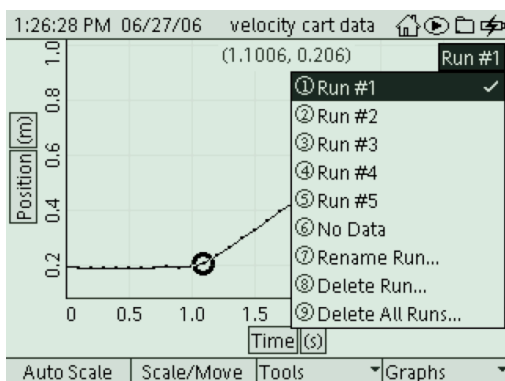





Fig. 3: Select 'Run #1'

- To view multiple sets of data, in the Graph screen, press  to activate the vertical axis label. It will appear highlighted in gray.
- Use the left/right arrows to move to the 'Run' number in the upper right corner of the screen.
- Press Activate  to open the 'Run' menu. You should see a check mark next to the data run currently being displayed.
- Use the arrows to select a different data run and press  to activate your choice.

### To View Multiple Sets of Data on the Same Graph:

- With multiple sets of data already taken, press **F4** (F4) underneath the word Graphs.
- Select Two Runs.
- Two graphs should now appear on the screen together.
- You can choose which two sets of data are graphed together by changing the graphs displayed (see section above.)
- To go back to viewing one graph at a time, press **F4** (F4) underneath the word Graphs again. Two Runs should have a check mark next to it.
- Press the Activate key (✓) next to Two Runs again to deselect.

### To Delete a Graph/Data Run:

- Press the Activate key (✓) and then use the left/right arrows to highlight the run number in gray.
- Press the Activate key (✓) and select Delete Run.

### To Switch the Kinds of Graph Displayed or the Change Axis Labels.

- Press the Activate button (✓) on the GLX. On the position vs. time graph, press the left/right arrows until the word Position appears highlighted in gray.
- Press the activate button (✓) again.
- Press the up/down arrows and select More.
- Velocity and Acceleration should appear. Highlight Velocity in gray and press the activate button (✓) to select.
- A velocity vs. time graph should appear on the GLX.
- For practice, change the graph axes to display an acceleration vs. time graph.

### Opening a GLX File:



Data Files Icon

- To open a specific GLX file, go to the Home Screen (press (Home)). In the Home Screen, select Data Files and press the Activate (✓) button.
- In the Data Files screen, use the up/down arrows to navigate to the file you want. Press **F1** (F1) to open the file.
- Press the Home button to return to the Home Screen.
- Press **F1** to open the Graph screen.

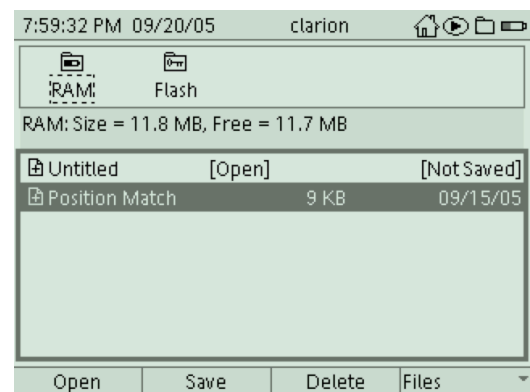


Figure 4