NMT-P1310L SPARKvue Guide

Another quick but extended reference to SPARKvue is available at

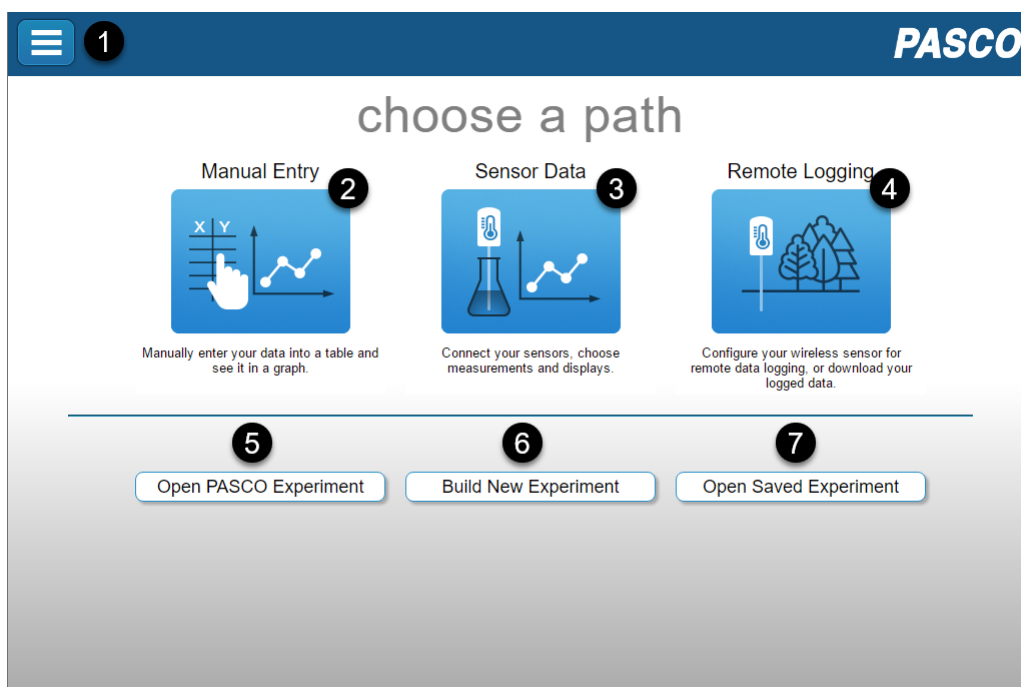https://help.pasco.com/sparkvue/quick-reference/welcome-screen/

Sensors

Sensors are Turned on and off by pressing the power button until the red light (located by the battery icon) turns on. You will need the Bluetooth key to pair the Sensor with your device. This key is printed on the Sensor by the Bluetooth symbol. Locate the Sensor's key and power button, then turn it on.

During the setting of the experiment, the Sensor's sampling rates should be set to 50 Hz.

Experiment Setting

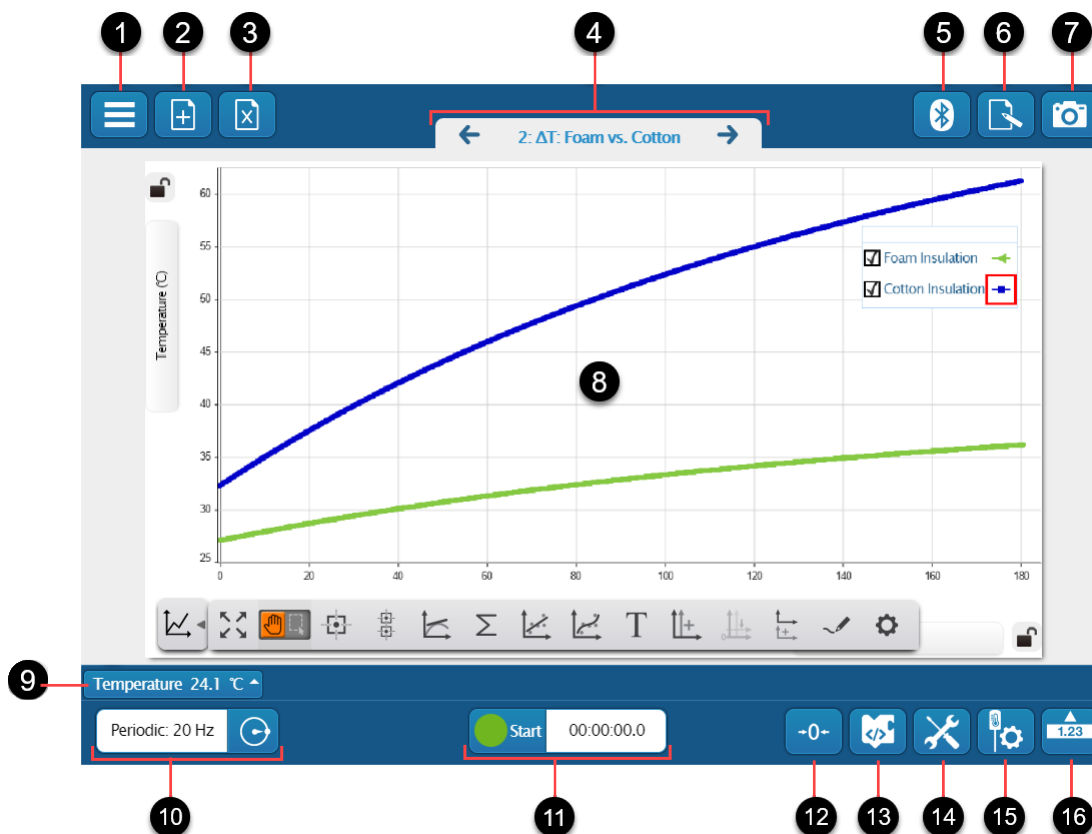Start SPARKvue software on your device –You will see a splash screen like in Figure 1.

Click on Sensor Data. A new screen displaying a list of Connected Devices will show up. From this list, Select your Sensor.

For the Motion Sensor, check only the velocity box, and from the templates, select Graph.

The Experiment Screen will display an empty grid –see Figure 2.

Adjust the sampling options if needed by clicking on the configuration tool –Bullet 10 in Figure 2. The sampling rate for the Motion and Force Sensors should be 50 Hz.

Recording Data

On the Experiment Screen, click the Green Start button; Note that this Button turns into a Red Square, indicating that data is being recorded. To stop the Data collection, click on the red Button. The Data will automatically display on the Experiment Screen; Note that a new plot is displayed every time you start and stop data collection. Legends for these runs are shown in a Box that can be dragged to any convenient place on the Graph. You can display any run by checking the box next to its Legend; the last run is displayed by default.

Select the run that you want to work.

Tools for Data Analysis

A tray of Data Tools is located under the Graph; you may display or hide it by clicking on the graph icon under the Graph's bottom-left corner. Display the Tools tray and click on the *'Scale to Fit'* button –first tool from the left; Next, click on the *'Select Button'* (located to the right of the hand icon) and select the data segment you want to analyze. The selected area is highlighted, and you may resize it by moving its corner points. To Zoom in the selected area, click the *'Scale to Fit'* Button. You may iterate on this process until satisfied with the Data selection. Furthermore, you may remove the selected area by clicking on it and then on the *X* icon that shows up.

Once you are satisfied with the selected Data, use the *'Linear Fit'* Button to find the Best Fit Line; The Best Fit Line's parameters appear in a Box, which can be dragged to any convenient location on the Graph.

Add to your Journal any graphs required by your instructor, particularly the Graph containing the Best Fit Line.

Adding Graphs to the Journal

For this purpose, first, take a snap of the Graph you want to add by clicking on the camera icon (bullet 7 in Figure 2). The snap shows up in a tray below the camera icon. Select the snap you like to add to the Journal from the tray. The selected Graph and two Text Boxes (Name and Notes) appear on the Experiment Screen. Fill the Text Boxes with an appropriate description. (Your instructor may give specific instructions for the content in these Boxes.) Click 'OK' when you finish filling in these boxes.

You can reorder the graphs as needed and delete unwanted graphs, but deleting is an irreversible operation.

You can look at the Journal's content by clicking the icon to the camera's left. To export the Journal, click on the triangle icon on the left side of the Journal tray. You may close this tray by clicking the arrow head on the tray's top-left.

Note that on a standard installation of SPARKvue, the Journal is saved to the directory

Documents>MySparkData>SavedWork.