

# Siting using the Vernier LabQuest, GPS sensor, and Light Meter

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You will now have the opportunity to obtain simultaneous light intensity and location data using the Vernier Labquest. You will then export the data via LoggerPro software from Vernier into a usable format for ArcGIS.

## Obtaining data

- Grab your Vernier LabQuest, GPS sensor, and light sensor. Turn on the LabQuest.
- Set the light sensor to the largest range, 0-150,000 lux, for being outside.
- Plug-in the two sensors to the LabQuest and head outside. The GPS sensor plugs into the USB port.
- Once outside, wait for the GPS to acquire a signal. This will be evident when the latitude and longitude change from 0.00000.
- Touch the “mode” box on the right side and change the selection from “time based” to “selected events”. A name is not required.
- On the top of the screen, tap the  $x-y$  column data to enter the table screen. The graphing screen is not helpful with this type of measurement.
- Get into the desired position and hit the play button
- Info will now be stored in the table.
- Move to your next location and hit “keep”
- Repeat for as many steps as needed/desired.
- Click the stop button to end data collection

## Downloading data

- Begin by making sure the data collection has stopped.
- Open up LoggerPro on the computer. It is listed under Program Files → “Vernier Software”.
- Unplug the two sensors, then use the USB wire to connect the LabQuest to the USB port of the computer.
- LoggerPro should recognize the LabQuest and ask you if you want to retrieve the remote data. Click “yes”. It is fine to load it into the same window, so click “OK” to import the data into the current session.
- You now have a table of  $x-y$  data based on latitude, longitude, and light intensity. Altitude is there as well, but not useful for this lab.

## Exporting Data

- To export the data for use in ArcGIS or other GIS software. You have a few options. You can export as a text file, csv file, or GIS format. It is also possible to export directly to Google Maps and see your latitude/longitude data on a GoogleMap, but not other data.