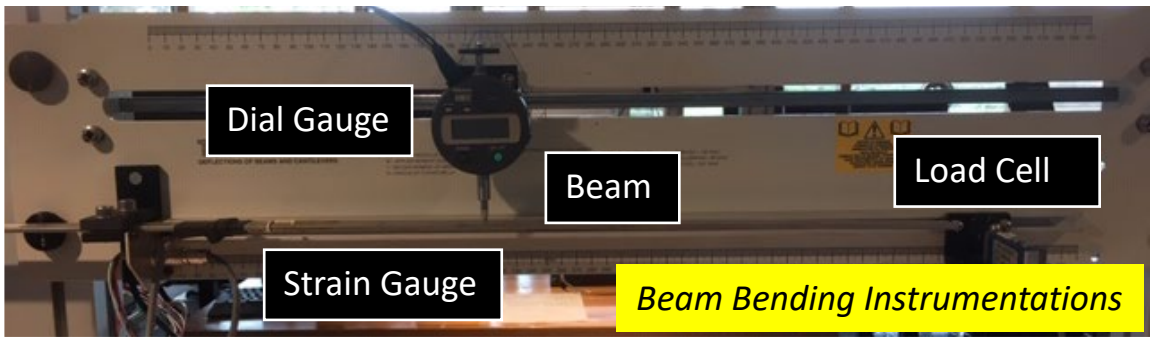
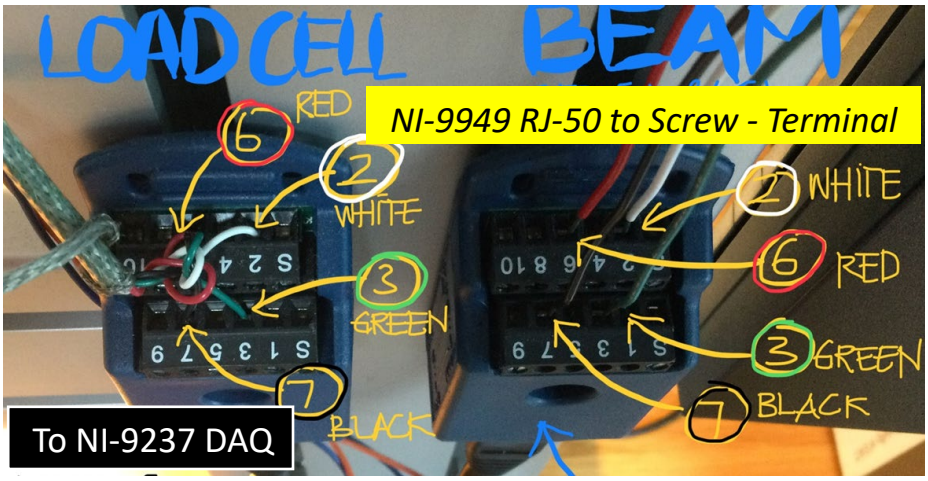
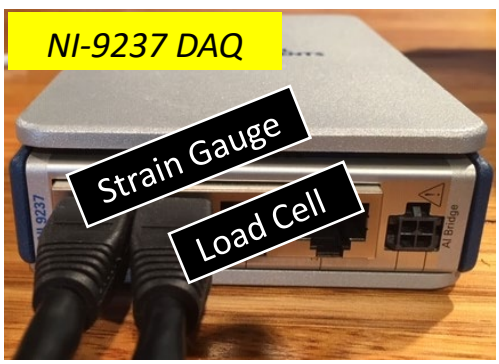
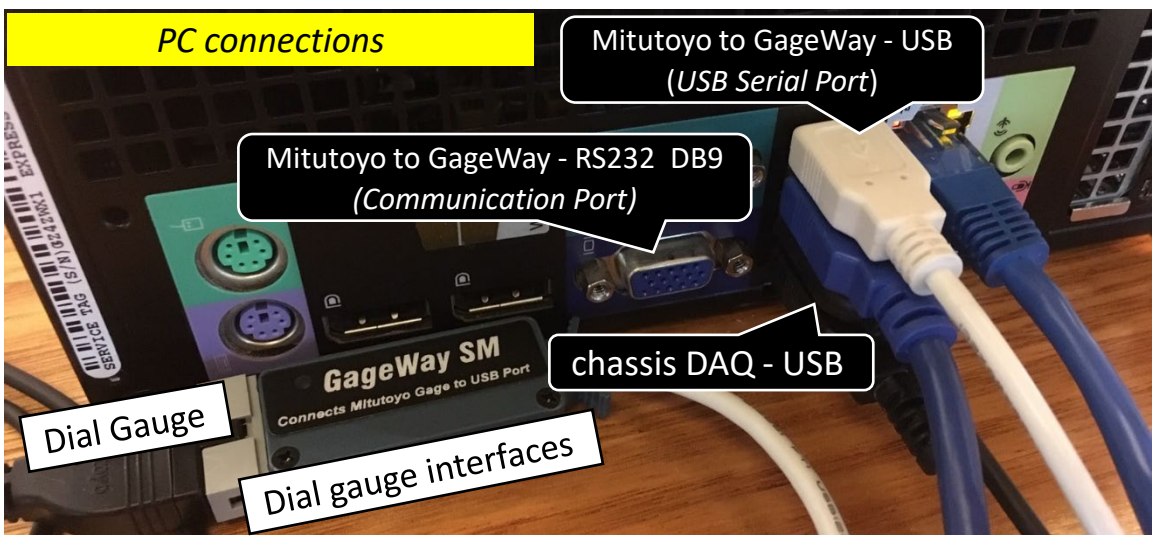
A. Hardware set-up



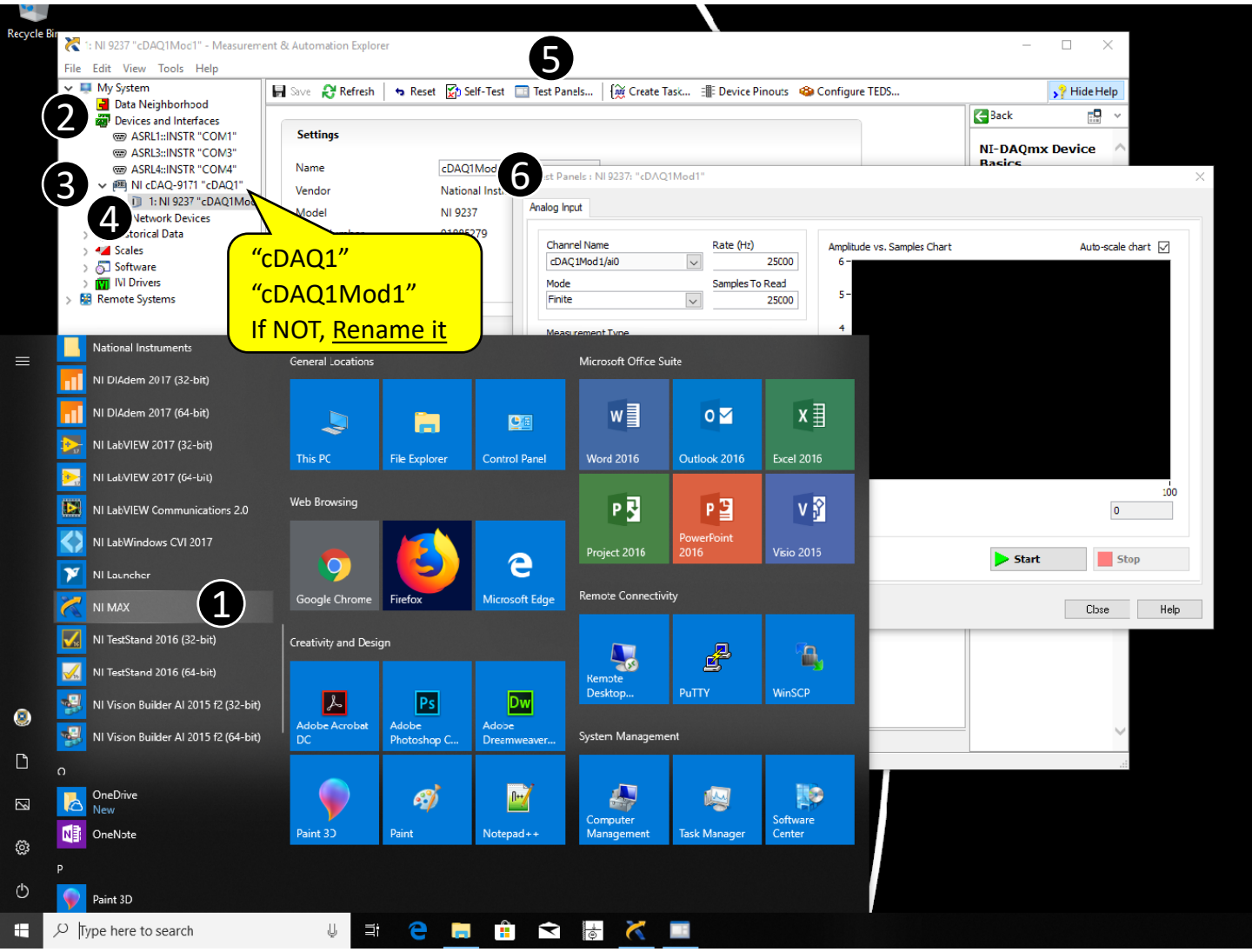






B. Signals Check of Load Cell & Strain Gauge to PC

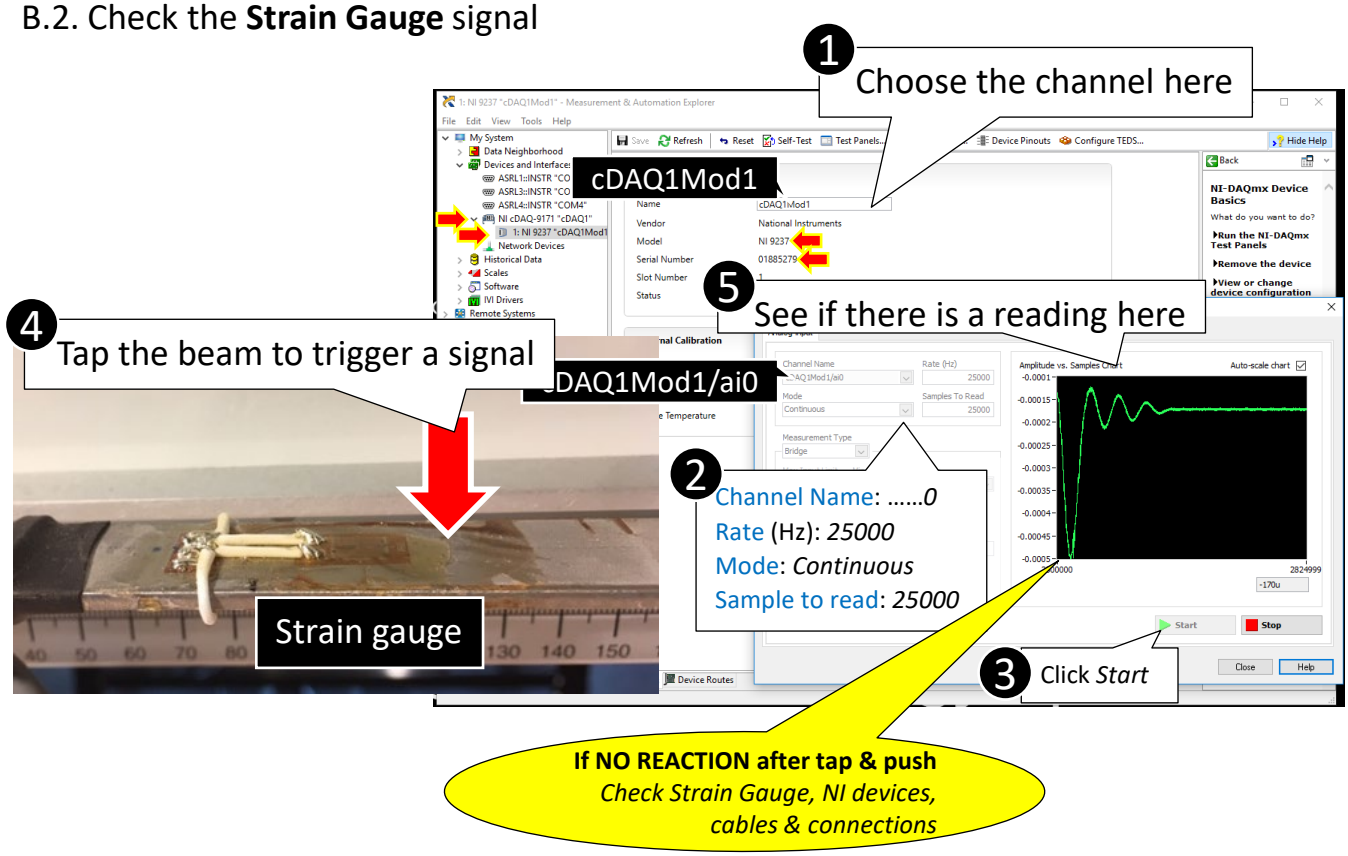
B.1. Open **NI MAX** application, ❶ and continue



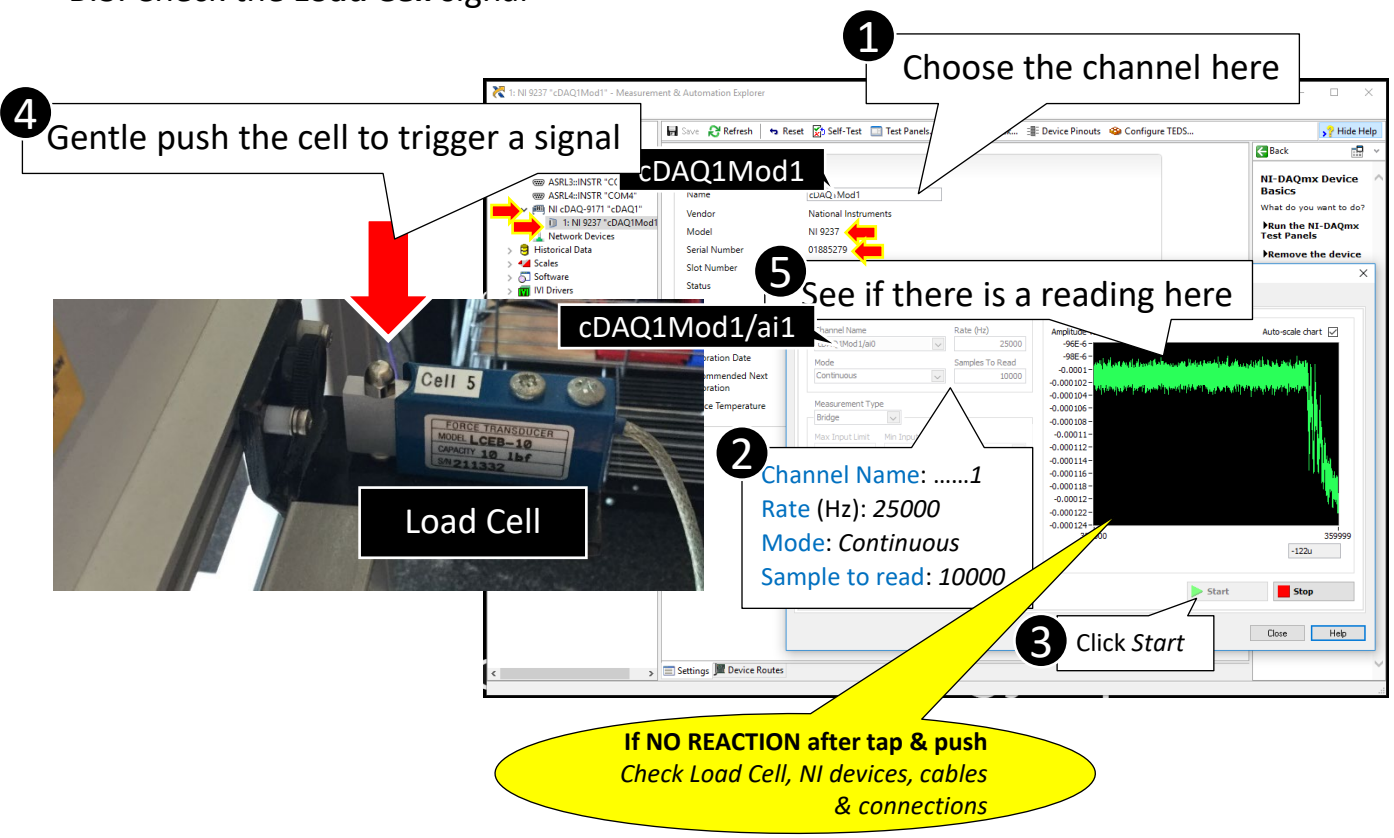
… Continue to B.2 on the next page

B. Signals Check of… (continue)

B.2. Check the **Strain Gauge** signal

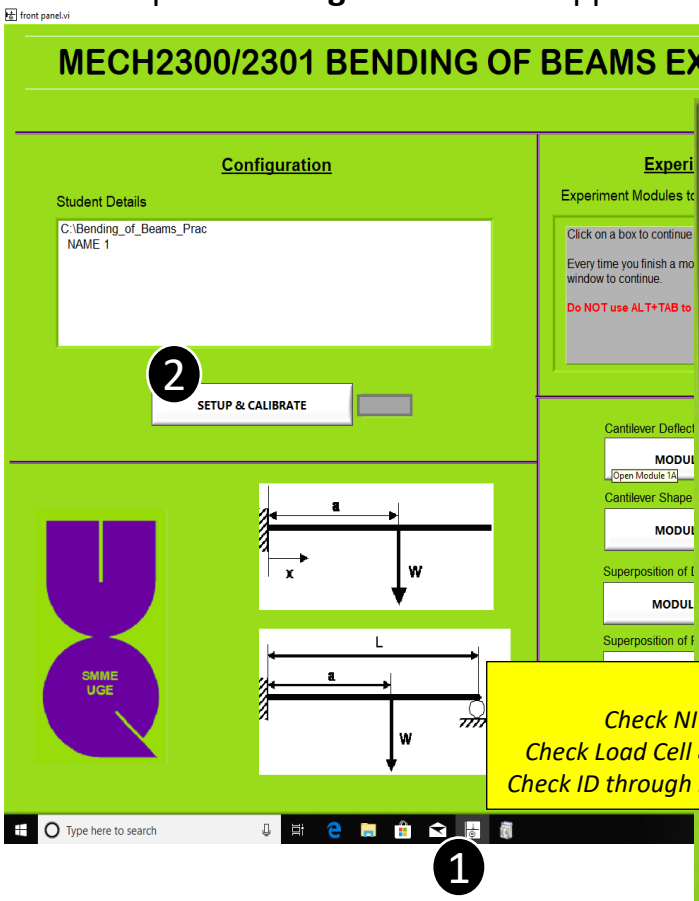


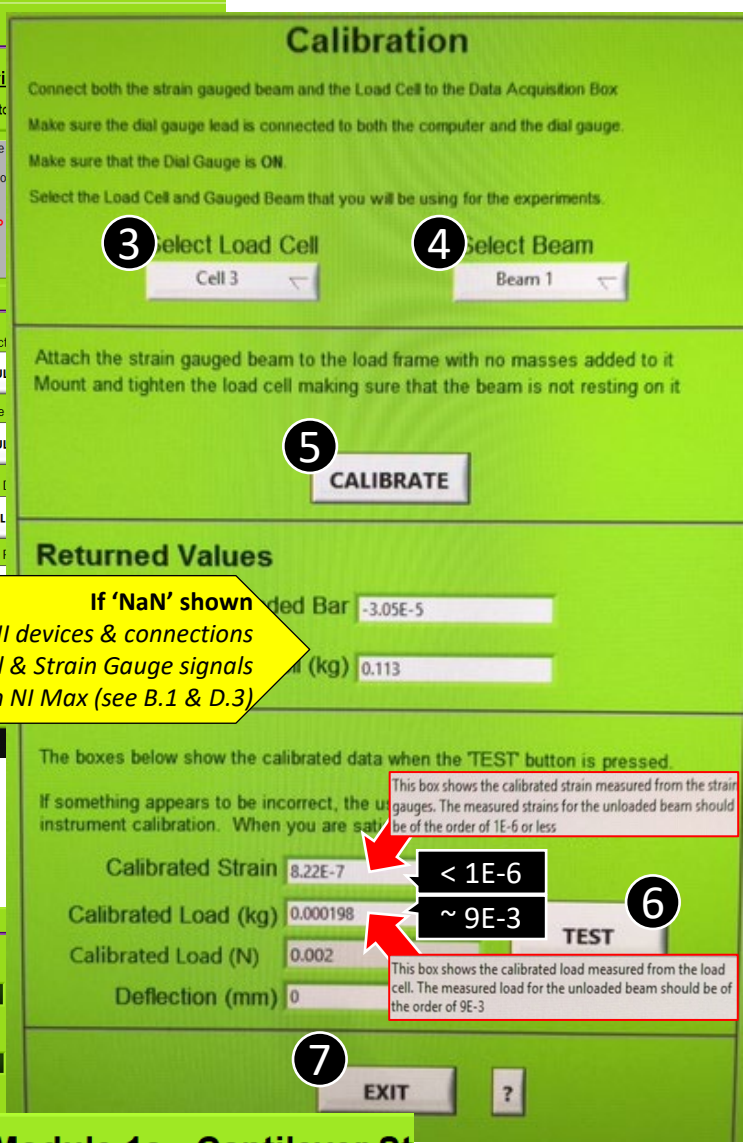
B.3. Check the **Load Cell** signal



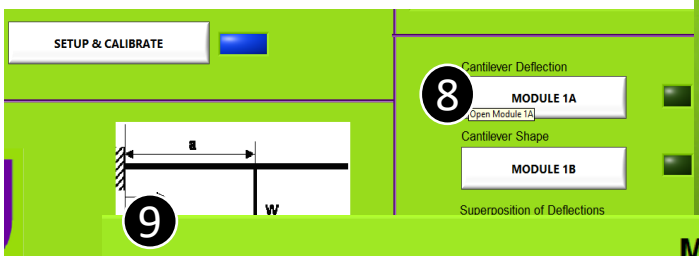
C. Software Check

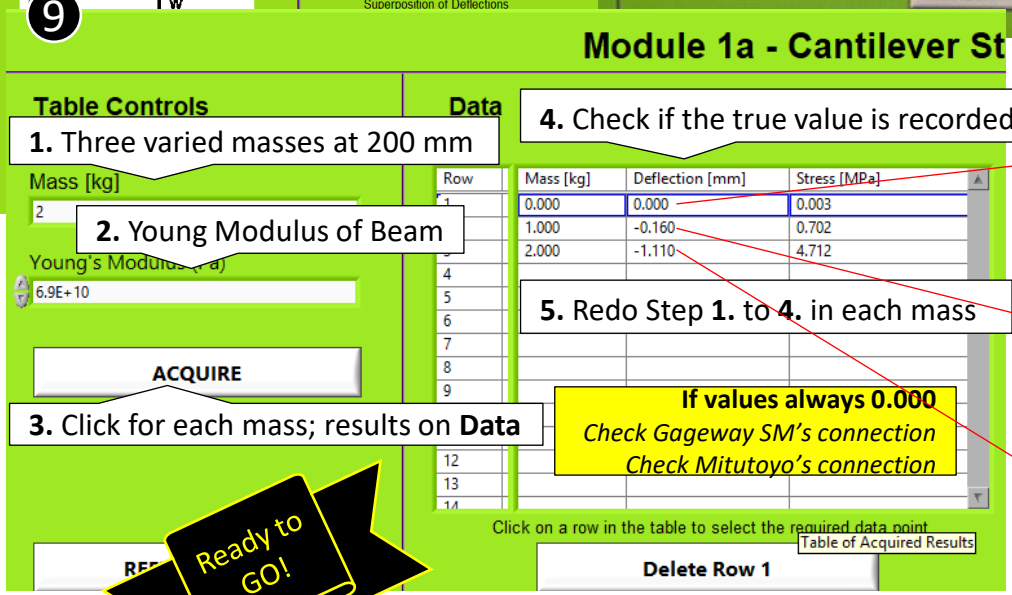
C.1. Open **Bending of Beams V3** application, ❶ and continue

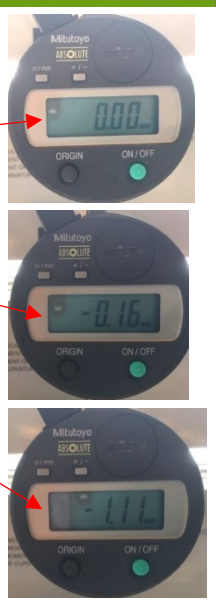




C.2. Followed by **MODULE 1A**



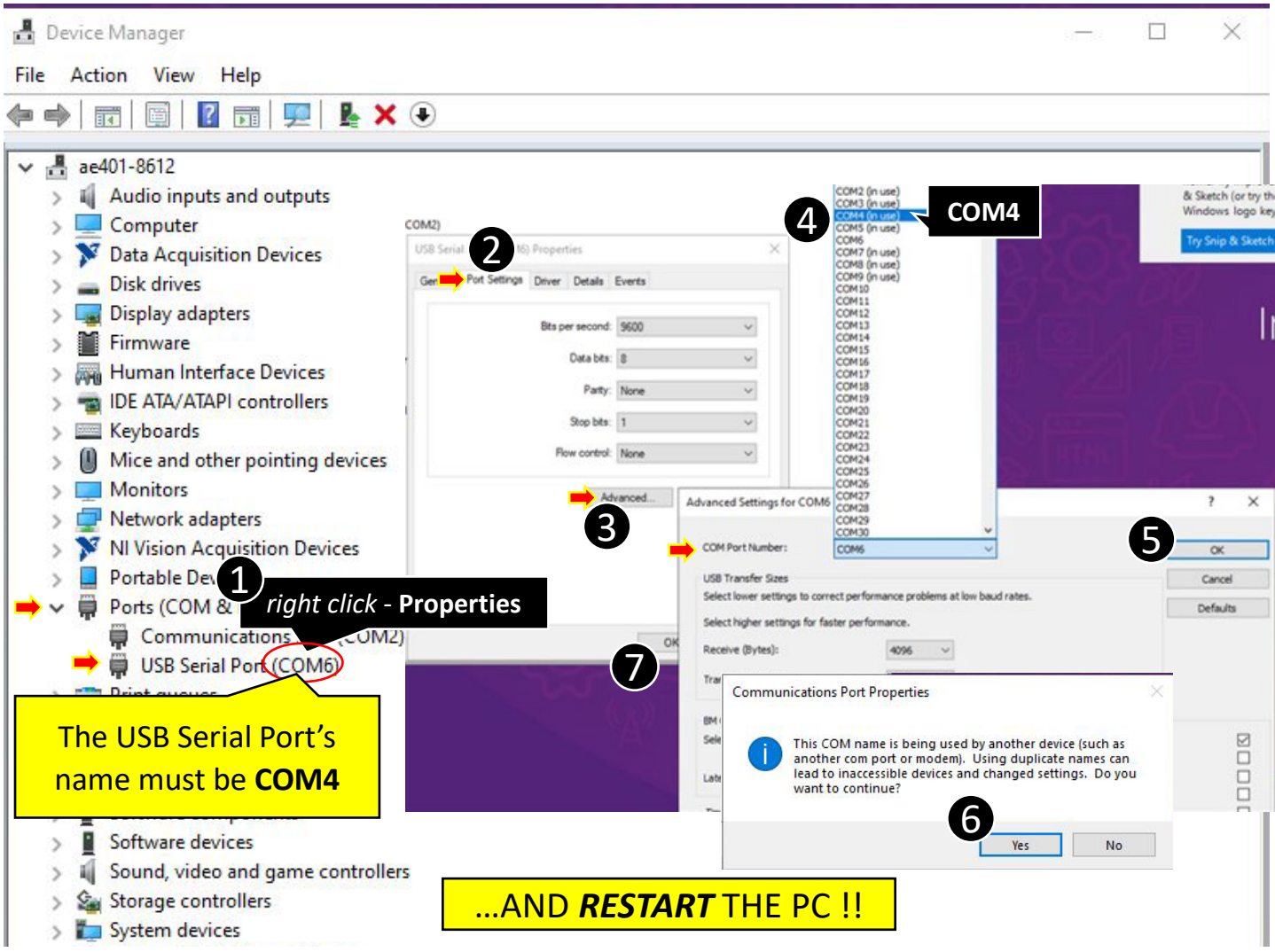




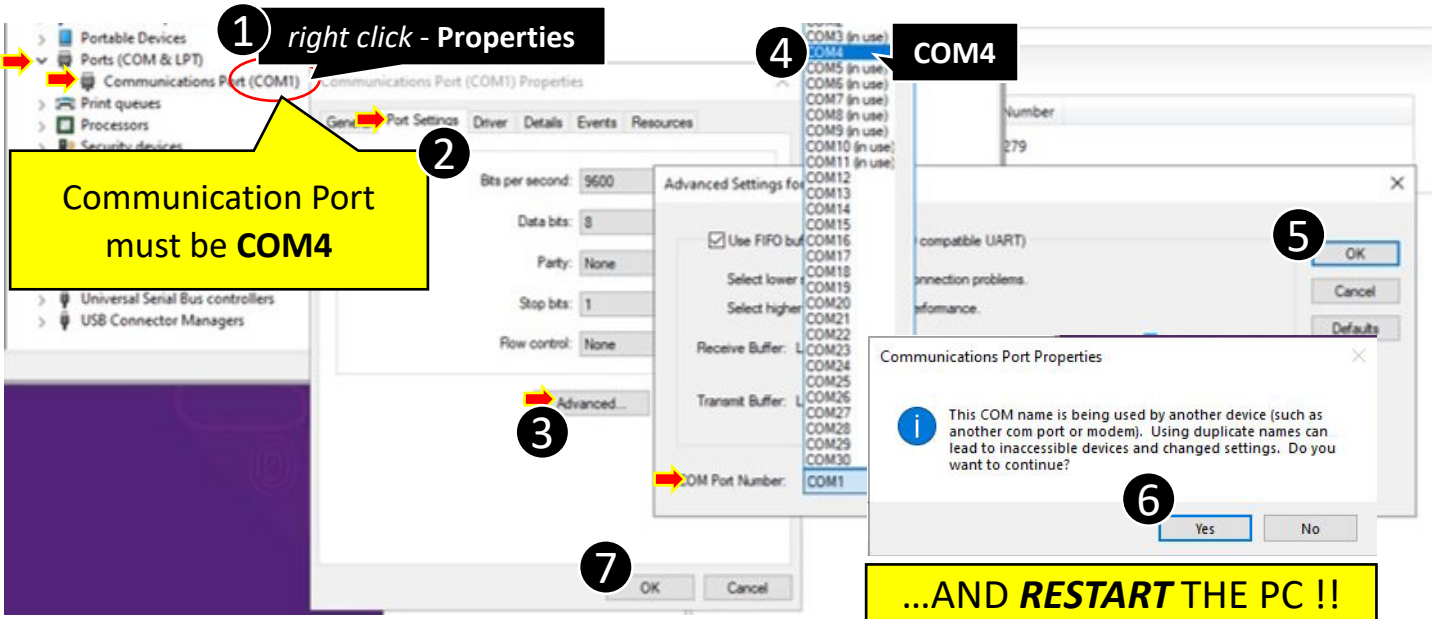
D. PROBLEM SOLVING

D.1. Unable to read values from the **Mitutoyo Dial Gauge** (**always '0.000'**)

D.1.1. For **GageWay SM – USB**, go to the Device Manager

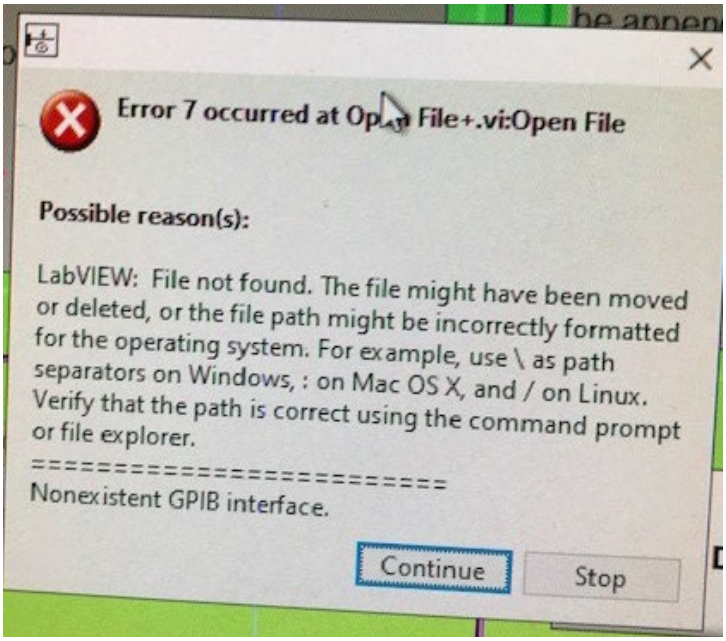


D.1.2. For **GageWay SM – RS232 DB9**, go to the Device Manager



D. PROBLEM SOLVING… (Continue)

D.2. A pop-up **Error 7** window



1. This error occurs when specified path does not exist.
2. This VI will not create a path for you.
3. E.g. the specified path:. C:\Data\Today\Document1.doc ; thus the "Today" folder should be available under the "Data" folder.
4. Ours is: C:\Bending_of_Beams_Prac\
5. Additional information from *NI.com*:
   https://knowledge.ni.com/KnowledgeArticleDetails?id=kA00Z0000019OgmSAE&l=en-AU

To resolve the issue you can:

- Manually create the appropriate directory using your operating system's file explorer.
- Change the specified directory within your LabVIEW program to a valid directory.
- If the full file path already exists, ensure you are referencing the file with the correct spelling and syntax.
- If you are reading from/writing to a file on a Real-Time target, ensure that the format of the file path matches the requirements for the Operating System. See Working with File Paths on Real-Time Targets for more information.
- If you are working with a Real-Time controller and you try to access a file that is located on the host computer from the Real-Time VI, you will also receive this error, since the file does not exist on the Real-Time controller. Even if the Real-Time controller is connected directly to the host, when using any VI that references a filepath, it will search on the Real-Time controller. You will need to transfer the file from the host to the Real-Time target.

D. PROBLEM SOLVING… (Continue)

D.3. Unable to do **Calibration** resulted on **'NaN'** even self-test in NI Max **is OK**

Open "**Device Manager**" and assure the ID of the active NI cDAQ-9171 is **"cDAQ1Mod1"** (as the highlighted, enclosed).

Delete any broken (x) NI cDAQ-9171