Power Grid Hardware Setup

Set 1 open the Power Grid case and remove:

- **All models**. Handle the models with care. They are instrumented systems. Take special care with the Wind Turbine Model and the Solar Panel Model as these are both instrumented and actuated.
- **USB C or USB mini cables**. There are 5 of these cables bundled together.
- **Cable labeled "PC"**. This is for connecting to the Windows laptop serial port.
- **AC power adapter** (used if plugging the Power Grid case into an AC outlet)
- **Cable labeled "BAT"**. (used if plugging the power grid case into a 5VDC battery)

Step 2 Connect the data cable to the labtop:
- Close and latch the Power Grid case lid.
- **Connect the USB B cable or USB C cable to the Power Grid 's USB B or C jack**, and the end of the cable to the laptop's USB A port.

Step 3 Connect power to the case:
- **If using the AC adapter to power the Power Grid**, plug the adapter into a 120V AC outlet, and then plug the barrel jack connector into the power port on the side of the Power Grid case.
- **If using a battery to power the Power Grid**, plug the **cable labeled "BAT" into the battery's USB connector** and the barrel jack into the Power Grid case.

Step 4 Connect the USB cables to the models:
- **Connect the short USB C or USB mini cables to each model.** It's easier to plug the cable into the model while holding the model.
- Once each cable is connected, **place the models on the Power Grid case top** in the following configuration:

Set 5 Plug the models into the case:
- **Plug each model into the closest USB C port on the edge of the case or plug each model into the ports on the back of the case.** For some kits, there are only 4 USB A ports, **Use the USB splitter to attach two of the models to one port.** It is best to attach the wind turbine and the fan to the USB splitter cable and place them toward the front of the case nearest to the carrying handle.

Step 6:
- **Use Windows Device Manager to verify the presence of each model.** In the **Device Manager, select View, and select show hidden devices**. Search for the highlighted models under "Ports". Remove any extra or redundant non-highlighted devices by right clicking on them and choosing "Uninstall Device".
- If any models have not appeared as devices, unplug that device and replug it.