

## NEULOG USB MODULE GUIDE



### NeuLog USB module USB-200

The NeuLog USB module is the easiest way to connect the entire NeuLog sensor line and any NeuLog accessory modules (WiFi, or RF) to any smart device that has a USB port.

The USB module is the bridge between the sensor's hardware and your smart device's hardware. By supplying power to sensors from the smart device it's plugged into and acting as an information network, measurements collected from connected sensors are rapidly streamed in real time from the NeuLog sensors directly into the NeuLog software to give live graphic readouts.

Connection to smart devices (computers and tablets) is done through a standard USB to mini USB connection cable which is included in the package. The only requirement is that your smart device has a USB port.

### Using the NeuLog USB module:

As with all NeuLog devices, using the USB module is very quick and easy. Because the USB module is so versatile, there are many possibilities for its usage.

#### Materials needed:

- USB module (USB-200)
- Any NeuLog sensor
- Free NeuLog software
  - Available at NeuLog.com

#### USB usage with sensors:

Using the USB module with any NeuLog sensors (up to 50) plugged directly into it is the easiest and most straightforward way to collect data.

1. Download the completely free NeuLog software from <http://www.neulog.com/Download/SoftwareandApplication.aspx>
2. Connect the mini USB end of the included cable into the USB module.
3. Connect the regular USB end of the included cable into any open USB port on the smart device of which you will be using.

4. Next, connect any NeuLog sensors (up to 50) which you desire to use for this experiment directly into the left side of the USB module. **Note:** No cables are required to plug modules and sensors together. They plug directly into each other.
5. Open the NeuLog software on your smart device. The software will automatically detect all connected sensors. If you wish to connect more sensors you can simply click the "Search For Sensors" button at any time.
6. Your sensors are now connected and you can begin collecting data!

#### USB with RF modules:

Using NeuLog RF modules with a USB module and sensors provides a much more flexible system in which students can collect data from anywhere within 20 meters of their lab bench while wirelessly streaming data in realtime to the NeuLog software at their workstation.

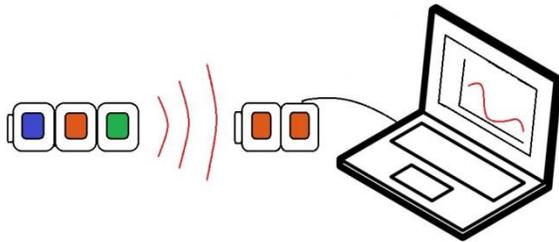
Once you have paired two RF communication modules to the same RF ID number (1 through 9) you can begin connecting NeuLog modules and sensors together. Again it may be easiest to imagine the RF communication modules as a long cable between the sensor and the USB module.

1. Connect the USB module into a smart device using the included USB to mini USB cable.
2. Connect one of the paired RF modules to the left side of the USB module.
3. Separately, connect the second RF module into the left side of a charged battery module. **Note:** press and hold the button on the front of the battery module: if a light comes on, then the battery has sufficient power. If no light comes on, then you must charge the battery some more.
4. Connect whichever sensors you wish to use into the left side of the second RF module (which is connected into the battery). **Note:** You can conduct experiments with up to 5 NeuLog sensors using the RF modules.
5. Open the NeuLog software, it will automatically search for sensors.
6. Once your sensors are detected you are ready to begin collecting data wirelessly!

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For reference, the image below demonstrates roughly how your setup should appear.



### USB with a WiFi module:

The NeuLog USB module can stand in place of a battery module while using the NeuLog WiFi module. This setup is a great option for classrooms or labs where students are working in groups of up to 5. Using only one set of sensors each student can have their own data for analysis and reports.

1. Connect the USB module directly into a smart device using the USB to micro USB cable which is included.
2. Plug the WiFi module directly into the left side of the USB module.
3. Plug any sensors into the left side of the WiFi module.  
**Note:** Each sensor's instruction guide as well as the WiFi module instruction guide has a full tutorial on how to use the WiFi module.
4. Connect up to 5 smart devices (computers, tablets, smart phones) to the WiFi network emitted from the WiFi module.  
**Note:** The WiFi module's network title will be "NeuLog XXXX" where the "XXXX" are the numbers located on the back of your WiFi module.
5. Have one device click on "Control Mode" while the others select "View Mode".  
**Note:** Control mode has control of the experiment setup while view mode has the ability to manipulate only their data.
6. Click "Online Experiment" and then "Run Experiment" to collect data.

### Included in package:

- USB-200 module
- USB to micro USB cable.

### Maintenance and storage:

- Never submerge the NeuLog plastic body in any liquid.
- After use, gently wipe away any foreign material from the RF module
- Store in a box at room temperature out of direct sunlight.

### Warranty:

We promise to deliver our sensor free of defects in materials and workmanship for a period of 3 years from the date of purchase. Our warranty does not cover damage of the product caused by improper use, abuse, or incorrect storage. Sensors with a shelf life such as ion selective probes have a warranty of 1 year. Should you need to act upon the warranty please contact your distributor. Your sensor will be repaired or replaced.

Thank you for using NeuLog!



Flexible, simple, fast, forward thinking.

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