

Getting Started with
**The Wii Balance
Board Extension
for LabChart**



Overview

The Wii Balance Board Extension for LabChart facilitates communication between a Nintendo Wii Balance Board and LabChart over a wireless Bluetooth connection. Data from four load sensors within the board can be streamed into LabChart with each sensor's data mapped to a separate LabChart channel. Combining channel data in LabChart allows for measurements such as a person's weight or center of balance.

This guide will help you to quickly set up the Wii Balance Board extension for LabChart. It also provides tips for solving any potential Bluetooth pairing problems.

For further detailed installation and setup instructions, please refer to the Balance Board extension help within LabChart.

Setup Procedure

To use the Wii Balance Board extension with LabChart you need to:

- Install the extension.
- Install or initialize a Bluetooth radio on the computer running LabChart.
- “Pair” the Wii Balance Board with the computer to allow communication between the two devices.
- Configure LabChart to accept Balance Board data.

What You Need...

- A Wii Balance Board with 4 AA batteries.
- A computer with an internal Bluetooth radio, or an external USB Bluetooth dongle.
- LabChart 7.3.4 or later.
- Your computer must be running Microsoft Windows 7, Vista or later.

Getting Started

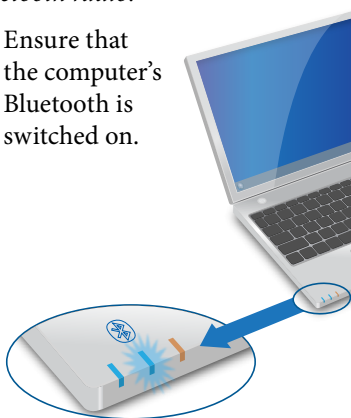
1 Install the Wii Balance Board Extension

- Run the Extension installer and follow the prompts in the installer dialog.
- Note the extension requires LabChart version 7.3.4 or later.

2 Initialize your computer's Bluetooth device

For computers with an internal Bluetooth radio:

- Ensure that the computer's Bluetooth is switched on.



For computers without an internal Bluetooth radio:

- An external USB Bluetooth dongle can be used. Plug the device into a free USB port.

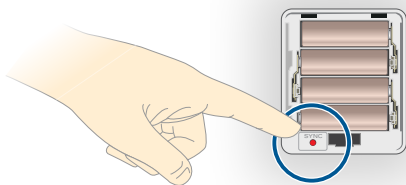


- In most cases, Windows will install drivers for the device automatically. You will be alerted when the device is ready for use.

Getting Started (continued)

3 Pair the Balance Board with the computer

- Make sure LabChart isn't already open and your computer's Bluetooth is on.
- Press the Wii Balance Board's Sync button inside the battery compartment ONCE. The blue LED on the front of the board will begin to flash.



- Run LabChart while the LED on the board is still flashing. The program will scan for the Wii Balance Board and, when found, prompt Windows to install the board as a device.
- Click **OK** to close the dialog and continue opening LabChart.



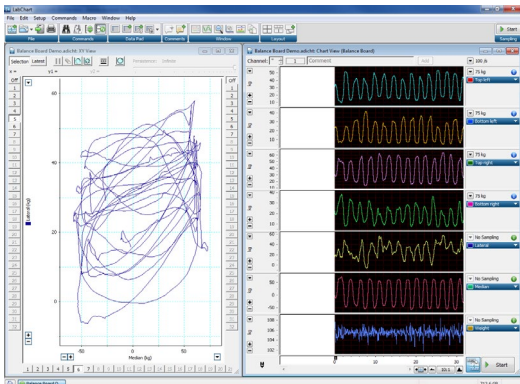
Note that this pairing procedure only needs to be performed when setting up the board for the first time. Thereafter, opening LabChart will automatically wake the board, unless the board has not been used for a long period and has gone into “power saving” mode. In this case, press the large power button on the front of the board to wake it prior to starting LabChart.

Getting Started (continued)

4 Configure LabChart

The most convenient way to set up LabChart for the Balance Board is to run the accompanying settings file:

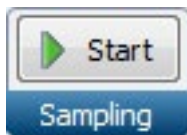
- From the **Getting Started** tab of the Welcome Center, select the **Wii Balance Board** folder.
- Double click the **Wii Balance Board Settings** file in the right-hand panel.



Detailed information about mapping Balance Board inputs to LabChart channels can be found in the Wii Balance Board section of the LabChart help.

4 Record!

- Click **Start** in LabChart to begin recording.



Troubleshooting

Communication problems between LabChart and the Wii Balance Board are almost invariably caused by the Bluetooth bond between them being broken. In most cases, removing the Balance Board “device” from Windows, followed by re-pairing of the board and computer, solves the problem.

Possible reasons for a broken pairing:

- *The Wii Balance Board’s SYNC button has been pressed more than once.* While the first pairing attempt may have been successful, subsequent presses of the board’s SYNC button will break the link to the computer.
- *The Wii Balance Board’s SYNC button has been pressed for more than 10 seconds.* This action clears any bond that the board may have had with the computer.
- *The computer’s USB Bluetooth dongle has been removed and reinserted.* Removing and reinserting the Bluetooth dongle (into another USB port) also has the effect of breaking the pairing between the computer and the Balance Board.

Solution: Remove the Wii Balance Board “device”

For all the above scenarios, the operating system’s record of the Wii Balance Board needs to be removed before pairing can occur again.

To do this:

- Select **Devices and Printers** (Windows 7) or **Bluetooth Devices** (Windows Vista or later) from the Windows Control Panel.
- Locate the device named **“Nintendo RVL_WBC-01”** (under the Devices tab for Vista or later).
- Right-click on the icon and select **Remove device** (or click the **Remove** button for Vista and later).

You can then repeat the pairing process described in the previous section.

Troubleshooting (continued)

Other reasons LabChart may fail to find the Wii Balance Board

- *LabChart's Device Discovery options are not set to find the Wii Balance Board.*

LabChart can be set to discover only certain types of devices when it is loaded. If LabChart is set to ignore “human interface” devices, the Balance Board will not be detected.

To ensure that LabChart does scan for and detect the board, open the Device Discovery dialog (Setup > Device Discovery...) and check that Human Interface Devices is selected.

Note that multiple balance boards are not supported by LabChart.

- *The Wii Balance Board is already paired with another device.*

The board cannot be paired with multiple devices. Ensure there are no other Bluetooth radios that may interfere when pairing the board to the computer on which you wish to record.

- *The Wii Balance Board is out of range*

The distance of the Balance Board from the computer may also affect the ability to connect to LabChart. Ensure the board is reasonably close to the computer's Bluetooth radio when pairing.

- *Low batteries*

Low batteries in the Balance Board may affect pairing. The board's batteries should be replaced regularly, or recharged when not in use if using rechargeable batteries.

Troubleshooting (continued)

The Wii Balance Board produces erroneous data

The following circumstances may lead to improper generation or acquisition of data from the Wii Balance Board:

- *Soft surfaces*

Placing the Wii Balance Board on a soft surface, such as thick carpet, can mean the forces applied by the participant are not solely distributed through the feet of the board.

- *Low batteries*

The four AA batteries in the board should be replaced regularly, or recharged when not in use if using rechargeable batteries.

- *Participants are too heavy*

The Wii Balance Board is designed for people weighing no more than 150 kg. Applying weights greater than this may exceed the linear dynamic range of the board.

Further Resources

There are many resources available to help you get the most from your LabChart software and extensions.

Help

LabChart has a comprehensive help, including information about installed extensions. You can easily access the help when using LabChart by pressing **F1**. You can search the help and navigate through topics using the table of contents. You can also send feedback on help topics by clicking the send feedback link and entering your feedback in the form provided.

Forum

The ADInstruments forum (adstruments.com/forum) provides researchers with an interactive environment for discussion of ADInstruments products and related topics. It is a place you can ask questions and make suggestions – with total anonymity if you prefer. You can also share ideas, tips, tricks and experiments with your peers worldwide.

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