8x Voltage Input Phidget

Required Hardware

- A DAQ1000 Voltage Input Phidget
- A VINT Hub
- A 3-wire Phidget cable
- A USB cable
- A computer
- A Phidgets sensor or some other device that has a 0-5V output

Connecting the Pieces

- 1. Connect the DAQ1000 to the VINT Hub using the Phidget cable.
- 2. Connect the VINT Hub to your computer with a USB cable.
- 3. Connect a Phidgets sensor or other 5V device to one of the DAQ1000's inputs.

Testing Using Windows

Phidget Control Panel

In order to demonstrate the functionality of the DAQ1000, the Phidget Control Panel running on a Windows machine will be used.

The Phidget Control Panel is available for use on both macOS and Windows machines.

Windows

To open the Phidget Control Panel on Windows, find the **(D)** icon in the taskbar. If it is not there, open up the start menu and search for Phidget Control Panel



macOS

To open the Phidget Control Panel on macOS, open Finder and navigate to the Phidget Control Panel in the Applications list. Double click on the phidget control panel.

For more information, take a look at the getting started guide for your operating system:

- Getting started with Windows
- Getting started with macOS

Linux users can follow the getting started with Linux guide and continue reading here for more information about the DAQ1000.

First Look

After plugging the DAQ1000 into your computer and opening the Phidget Control Panel, you will see something like this:

Phidget Control Panel				_		×
File H	Help					
Phidgets	Network Service	PhidgetSBCs				
Name	^		Serial #	Channel	Version	^
E-Loca	Phidgets					
i di-			370128		115	
	Port 0					
- 📾 & Voltage Input Phidget					101	
- Voltage Inputs						
	Voltage Input			0		
				1		
	- Voltage Input			2		
	Voltage Input			3		
	Voltage Input Voltage Input			4		
				5		
		e Input		6		
		e Input		7		
	⊟-Voltage R					
		e Ratio Input		0		
		e Ratio Input		1		
		e Ratio Input		2		
		e Ratio Input e Ratio Input		4		
		e Ratio Input		5		
		e Ratio Input		6		
		e Ratio Input		7		v
Daubla Cl	- lick to launch Ul				Logs 🔇	

The Phidget Control Panel will list all connected Phidgets and associated objects, as well as the following information:

- Serial number: allows you to differentiate between similar Phidgets.
- Channel: allows you to differentiate between similar objects on a Phidget.
- Version number: corresponds to the firmware version your Phidget is running. If your Phidget is listed in red, your firmware is out of date. Update the firmware by double-clicking the entry.

The Phidget Control Panel can also be used to test your device. Double-clicking on an object will open an example.

Voltage Input

Double-click on a Voltage Input object in order to run the example:

		8 <u>-</u>		×
ut Phidget				
: 370176 : 5		REMOTE		
00V 1ms	Sensor Type:	Generic voltage	e sensor	~
	: 370176 : 5	: 370176 : 5 Data Voltage: Sensor Type:	: 370176 : 5 REMOTE Data 00V Voltage: 0.2 V Sensor Type: Generic voltag	: 370176 : 5 пемоте Data Voltage: 0.2 V Sensor Type: Generic voltage sensor

General information about the selected object will be displayed at the top of the window. You can also experiment with the following functionality:

- Modify the change trigger and/or data interval value by dragging the sliders. For more information on these settings, see the data interval/change trigger page.
- If you have an analog sensor connected that you bought from us, you can select it from the Sensor Type dropdown menu. The example will then convert the voltage into a more meaningful value based on your sensor, with units included, and display it beside the Sensor Value label. Converting voltage to a Sensor Value is not specific to this example, it is handled by the Phidget libraries, with functions you have access to when you begin developing!

Voltage Ratio Input

Double-click on a Voltage Ratio Input object in order to run the example:

Voltage Ratio	Input						×
Phidget Info Attached: DAQ	1000 - 8x	Voltage Input	t Phidget				
Version: 102 Channel: 0	Hub S	Serial Number: Hub Port:			REMOTE		
Settings Change Trigger:		0.000V/V		Data Voltage Ratio:	0.0383 V/V		
Data Interval:	20	241m	IS	Sensor Type: Sensor Value:		tric sensor	~

General information about the selected object will be displayed at the top of the window. You can also experiment with the following functionality:

- The voltage ratio is reported in Volts per Volt. For example, if the Phidget is providing 5V and the sensor is sending back 2.5V, the ratio will be 0.5V/V.
- Modify the change trigger and/or data interval value by dragging the sliders. For more information on these settings, see the data interval/change trigger page.
- If you have an analog sensor connected that you bought from us, you can select it from the Sensor Type dropdown menu. The example will then convert the voltage into a more meaningful value based on your sensor, with units included, and display it beside the Sensor Value label. Converting voltage to a Sensor Value is not specific to this example, it is handled by the Phidget libraries, with functions you have access to when you begin developing!

Testing Using Mac OS X

- 1. Go to the Quick Downloads section on the Mac OS X page.
- 2. Download and run the Phidget OS X Installer
- 3. Click on System Preferences >> Phidgets (under Other) to activate the Preference Pane
- 4. Make sure your device is properly attached
- 5. Double click on your device's objects in the listing to open them. The Preference Pane and examples will function very similarly to the ones described above in the Windows section.

Testing Using Linux

For a general step-by-step guide on getting Phidgets running on Linux, see the Linux page.

Using a Remote OS

We recommend testing your Phidget on a desktop OS before moving on to remote OS. Once you've tested your Phidget, you can go to the PhidgetSBC, or iOS pages to learn how to proceed.

Technical Details

If you want to know more about the capabilities of the DAQ1000, check the Analog Input Primer.

What to do Next

- Software Overview Find your preferred programming language here to learn how to write your own code with Phidgets!
- General Phidget Programming Read this general guide to the various aspects of programming with Phidgets. Learn how to log data into a spreadsheet, use Phidgets over the network, and much more.
- Phidget22 API The API is a universal library of all functions and definitions for programming with Phidgets. Just select your language and device and it'll give you a complete list of all properties, methods, events, and enumerations that are at your disposal.