

LabJack U3-HV

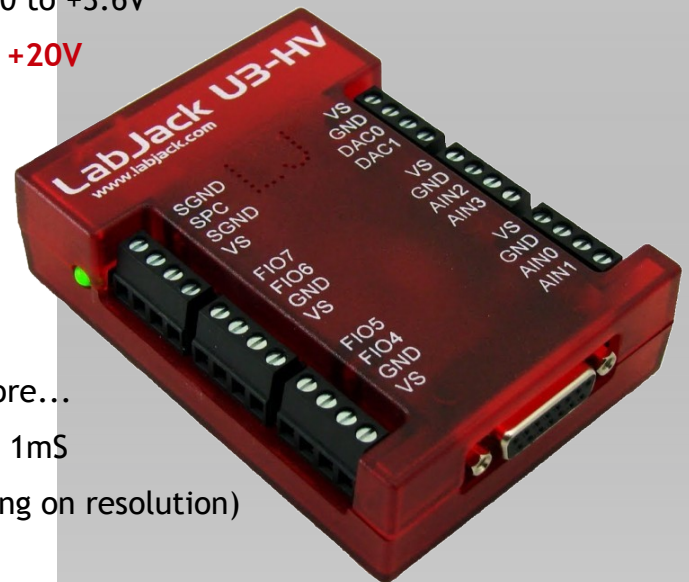
Multifunction DAQ - **USB**

The U3-HV incorporates a wide range of features with unparalleled flexibility, all at a highly competitive price point.

I/O Features

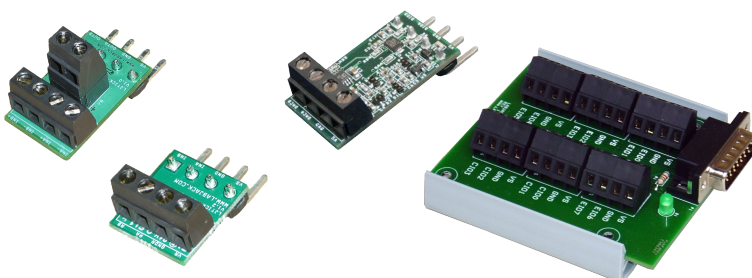
- **12 Flexible I/O** (digital input, digital output, or analog input)
- Up to 12 analog inputs with **12-bit** resolution, 0 to +3.6V
- 4 dedicated high voltage analog inputs, **-10 to +20V**
- Up to 16 digital I/O (3.3V logic)
- Up to 2 counters (32-bits each)
- 2 analog outputs (10-bit, 0-5 volts)
- Serial protocols: SPI, I2C, and more...
- Industrial temperature range (-40 to 85 °C)
- Up to 2 PWM, quadrature, pulse width, and more...
- Capable of command/response times less than 1mS
- Maximum input stream rate of 50kHz (depending on resolution)

labjack.com/u3



Other Highlights

- Each purchase includes **lifetime support**
- **Free applications** to configure, test, and log data to file
- Free examples: **C/C++**, **C#**, **Delphi**, **Java**, **LabVIEW**, **MATLAB**, **Python**, **VB.NET** and more...
- Free UD Library - Wraps the low-level protocol and USB driver layer for ease-of-use
- Expansion boards - Add $\pm 10V$ DACs, 4-20 mA inputs, terminal boards, relay boards and more...



"I really do love your products ... They are first class for coach price, and your customer service is what every company should aspire to have."

-Brad
Neuro-Test Inc

Software

For Windows, use the high level UD library for communication with the U3-HV. This high level library handles the complication of the USB driver layer, and low-level protocol, which allows users to focus on writing code suited for their particular need. Get started using any of the free example code available on our website or, for basic logging and control, use a free application.

Free Applications

- Up to 200Hz using simple LJLogUD
- Up to 50kHz using simple LJStreamUD
- Custom flexibility with DAQFactory Express

Test & Configure in LJControlPanel

The screenshot shows the LJControlPanel software interface. On the left, there's a 'Flexible I/O' section with a table of channels (AIN0-AIN7, FIO4-FIO5, AIN6-AIN7) and their configurations. Below that is a 'Timers and Counters' section with input fields for Timer0, Timer1, Counter0, and Counter1. On the right, there's a 'LJLogUD' window showing a table of channels with columns for # Channels, In, Out, Range, Voltage, Scaling Equation, and Scaled. At the bottom, there's a graph showing multiple data series over time.

```
UD library - Python Example  
from labjack import u3  
device = u3.U3()  
  
#Read the voltage on AIN0  
value = device.getAIN( 0 )  
  
#Set DAC0 to 3.3V  
device.getFeedback(u3.DAC0_16(Value = 43253))
```

“Your product saved me a bunch of money and time... I usually contact support organizations... about how bad their products are. I felt like I had to say how well yours worked!”

-Thomas
Software Engineer

Why LabJack?

Flexibility

- We don't force you into a certain operating system, software, or programming environment. We provide free support for C/C++, C#, Delphi, Java, LabVIEW, MATLAB, Python, VBA, VB.NET, DAQFactory and more. If you use something we don't already support, we will work with you to add support.
- Add new kinds of sensors on-the-fly. We provide inexpensive signal conditioning modules.
- Control valves, motors, lights, pumps, etc - using one of many digital I/O control options.

Quality Hardware

- Leveraging smart designs and the latest semiconductors, allows us to provide more performance for less money.
- New features are readily available through field-programmable firmware.
- Each device has multiple protection mechanisms on every I/O to help prevent damage.

Legendary Support

- Free lifetime support.
- Timely Email responses that actually answer your question.
- Get answers from the engineers who made the product.

“You guys are the best and your customer support should be the world-wide standard.”

-Mike
Indiana University

