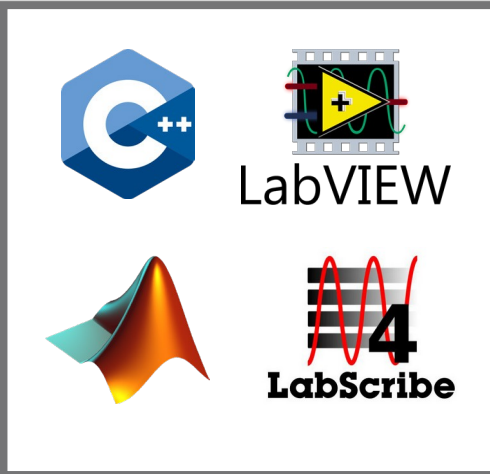


Compatible With:



BiInstrumentation Wired Lab Kit



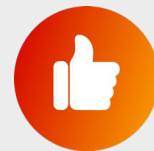
Step-by-step
instructions



59 labs
and 100+
exercises



Adaptable to
any lab
manual



Quick
setup

BiInstrumentation Physiology Kits Include:

TA-ROAM Recorder with Amplifier,
Built-in Pre-calibrated Sensors

- Isolated ECG/EMG/EEG iWire Module
- LabScribe™ Software
- Solderless Breadboard
- Heart Sounds Sensor
- Pulse, SPO2 and Temperature Sensor
- Non-Invasive Blood Pressure Sensor
- Grip Force Sensor
- Event Marker
- Muscle Twitch Sensor
- Lab Manual

Specifications:

- 20k Samples/sec per channel simultaneous
- 2 BNC ± 10 VDC, 16 bit resolution
- 2 DIN8 ± 10 VDC, 16 bit resolution
- 1 - GSR (skin conductance),
3 – Biopotential
- 2 Low Voltage Stimulators – range ± 15 V 35mA
- 1 Isolated HV constant current Stimulator 0-20mA
- 16 Digital inputs and outputs
- Differential pressure sensor
- 2400mV, 1200mV, 800mV, 400mV, 200mV, 100mV, 50mV, 25mV, 12mV Biopotential Ranges
- USB 1.1, 2.0, full speed Interface

iWorx professionally developed lab manual includes over 59 experiments and 100 exercises in cardiovascular physiology, neuromuscular physiology, and BioInstrumentation

Circuit Design:

- Students can create experiments and study design of add-on circuits using the breadboard
- Various waveforms or signals from any input channel can be routed to the stimulator and sent to the breadboard
- Students have the ability to design a custom circuit to condition the signal, and the conditioned signal can then be sent back to the recorder
- Compare the raw signal and the signal conditioned signal in software

BioInstrumentation:

- ECG, EMG Signal Conditioning
- ECG Noise
- Frequency Response of Filters
- Op-Amp Circuits

Human Muscle:

- Grip Strength and Electromyogram (EMG) Activity
- EMG Activity in Antagonistic Muscles
- EMG and Arm Wrestling
- Oculomotor Muscle Activity
- Response, Work, Summation and Tetanus in Human Muscle
- Human Muscle Twitch

Human Circulation:

- Blood Pressure, Peripheral Circulation, and Body Position
- Blood Pressure, Peripheral Circulation, and Imposed conditions

Human Heart:

- The Electrocardiogram (ECG) and the Pulse
- Heart Sounds and the Electrocardiogram (ECG)
- The Effects of Exercise on the Electrocardiogram (ECG) and the Pulse
- The Six-Lead Electrocardiogram
- The Diving Reflex

Human Nerve:

- Auditory and Visual Reflexes
- Human to Human Interface
- Stretch Receptors and Reflexes with Plethysmograph

Human PsychoPhysiology:

- The Electroencephalogram (EEG)
- Multi-sensory Reaction Times
- Visual Evoked Potentials (VEP)