iWorx® Physiology Teaching Solutions

Everything You Need for College-Level Teaching Labs

iWorx offers more than 100 professionally authored experiments, 275 lab exercises and all of the components, software and courseware you need to conduct comprehensive college level lab experiments in:

- Human Physiology
- Exercise Physiology
- Animal Physiology
- Neurobiology
- Psychological Physiology

iWorx offers a unique choice of complete physiology teaching solutions:

LabsByDesign™ — you choose only the lab experiments you want to teach and iWorx will configure the hardware and courseware you need for the specific experiments that meet your lab requirements.

Preconfigured Lab Kits — include all of the components and courseware tailored to teach the full range of experiments and exercises in our human physiology, combination human/animal physiology, neurobiology or psychological physiology labs.

LabsByDesign: Choose the Physiology Lab Curriculum that Fits Your Needs Perfectly

LabsByDesign is the easiest and most cost effective way for you to design the physiology lab curriculum that perfectly fits your needs. LabsByDesign lets you stretch your budget and afford more of the things you do need.

Here's How LabsByDesign Works

You choose from more than 275 iWorx professionally authored lab exercises in cardiovascular, respiratory and neuromuscular physiology. An easy-to-use web-based selection guide lets you simply check-off those labs you want to teach. The automated LabsByDesign configurator then gets to work tailoring the necessary components from our complete line of data recording modules, sensors, electrodes, stimulators and other supporting accessories along with the courseware necessary to support the experiments you selected. One of our LabsByDesign technical consultants will then contact you to ensure the solution fits your requirements precisely.

The end result is a complete lab package that does exactly what you want — no more, no less.

Design your own physiology labs online at **www.iworx.com/labsbydesign.htm**.

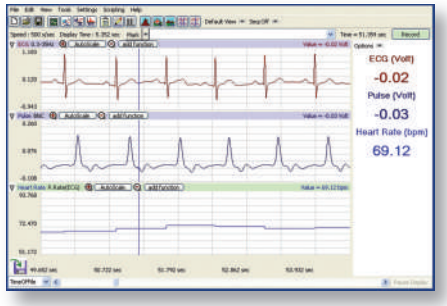
iworx®

Innovation in Life Science Education

iWorx Easy-to-Use Software and Classroom-Ready Hardware

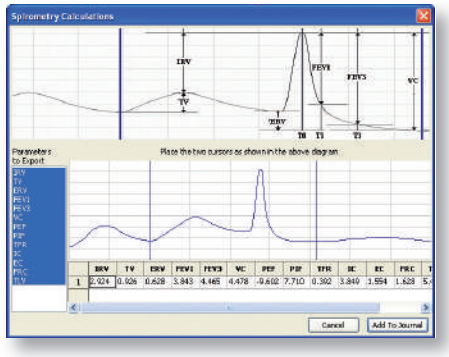
LabScribe2 Software Makes Even Sophisticated Experiments "Click and Play" Easy

LabScribe2 has been developed from the ground up for classroom teaching, and strikes an ideal balance between flexibility and simplicity. Setup of gains, sampling rates, display times and other criteria is automatic via the "settings" file. No complicated adjustments are needed. Users can easily control the various aspects of recording through dialogue windows and save their preferences for future use. In Manual mode, the user has control of all aspects of the recording.



LabScribe2 is a comprehensive, data recording and analysis solution developed especially for classroom use. It's easy to use, yet offers a full range of features for human, animal, psychological physiology and neurobiology teaching.

LabScribe2 includes its own function generator/stimulator for maximum experiment versatility. Easy-to-use tools let the student make measurements from the data with a minimum of manipulation. For example, LabScribe2 can display the Mean, Min, Max, Duration and Amplitude of a selection, or it can display the Rate or Integral of incoming signals in real time. Incoming voltages can be easily converted to real units such as pH or mmHg. And, of course, built-in online help is instantly available.



LabScribe2's Analysis window lets you zoom in on specific areas of the recording and perform calculations on selected pieces of the data.

Recorded data is presented as distance per-unit of time, e.g., cm/sec, exactly as it would be on a traditional paper chart recorder. Using the built-in annotation feature, students can even "write" on the virtual chart recording to quickly locate regions of interest. For convenience, professional-looking LabScribe2 reports can be prepared and edited, all within the program's own Journal. If desired, the pictures and text in the Journal can be easily exported to other programs.

iWorx 214 Data Recorder

The iWorx 214 recorder is the centerpiece of iWorx teaching solutions. The reliable 4-channel data recorder is constructed of rugged, extruded aluminum, with a minimum of student-accessible controls and adjustments.

For most applications, setup is automatic and transparent to the user. From within the software the unit can be configured for EEG, EMG (EOG) or ECG. The iWorx 214 includes a dual-channel biopotential amplifier approved for use on human subjects. Two additional channels accept practically any sensor you're likely to encounter, as well as voltage output of pH meters, spectrophotometers and other laboratory devices. The iWorx 214 also provides a fully functional built-in stimulator useful for a variety of human and animal labs.

The recorder interfaces to a PC or MAC via a USB connection which provides aggregate sampling at 100 kHz continuous, more than fast enough for any teaching experiment.

iWorx 214 Specifications

Analog Inputs:	2 isolated differential biopotential/2 single-ended/2 differential transducer inputs
Input Range:	±5V
Excitation Voltage:	±5V
Input Impedance:	10 Gohm
Amplifier Response:	0 - 2 kHz
Analog Output:	1 (differential)
Output range:	±5V
Output Current:	5 mA
Output Resolution:	12 Bit
ADC Resolution:	16 Bit
System Noise:	±1 LSB (< 1mV)
Sampling Rate:	100,000 samples/sec aggregate continuous
Trigger:	1 (TTL)
Biopotential Amp:	Safe for use on human subjects
Stimulator Output:	±5V