



CleveLabs™

Laboratory Course System

Biomedical Engineering • Health Sciences

Hardware & Software

Wireless Physiological Monitor

Educational Software with over 30 Lab Sessions

The CleveLabs™ Laboratory Course System consists of the materials required for a group of two to three students to complete most laboratory sessions. In addition to the BioRadio® 150 hardware and the CleveLabs software, the system comes with a Starter Kit that includes gold cup electrodes, snap electrode leads, electrode jumper cables, a Disposable Supply Kit (disposable cloth snap electrodes, alcohol wipes, conductive electrode cream, cotton swabs, gauze, medical tape and skin preparation gels) and a 10 Hz Square Wave Test Pack. Additional transducer options such as Piezo-electric respiratory effort belts, blood pressure cuffs and oral/nasal airflow cannulas and thermocouples are also available to expand the students' laboratory experience and exposure to physiological signal acquisition.



Note: A Starter Kit, consisting of various electrodes and disposable supplies and a 10 Hz Square Wave Test Pack, comes with each CleveLabs system.

CleveLabs Sessions	Required Accessories
Engineering Basics	
Data Acquisition Basics	Supplies Included
Digital Signal Processing	Supplies Included
Statistical Analysis	None
Breadboard Circuit Design	Breadboard Design Kit
Accelerometry	Supplies Included
Post-Processing Toolbox	None

Basic Physiology	
Biopotential Basics	Supplies Included
Electrocardiography	Supplies Included
Electroencephalography	Supplies Included
Electromyography	Supplies included
Electro-oculography	Supplies included
Respiration	Respiratory Effort Belt, Nasal/Oral Thermocouple
Advanced Physiology	
Blood Pressure	Disposable Supply Kit (included), Blood Pressure Cuff
Electromyography II	Disposable Supply Kit (included), Hand Dynamometer
Electrocardiography II	Supplies Included
Electroencephalography II	Supplies Included
Polysomnography	Disposable Supply Kit (included), Nasal/Oral Thermocouple, Respiratory Effort Belt
Pressure Based Airflow	Respiratory Effort Belt, Nasal/Oral Airflow Cannula
Pulse Oximetry	Disposable Supply Kit (included), Pulse Oximeter Finger Clip Sensor, Respiratory Effort Belt
Speech Recognition	Microphone on your PC
Spirometry	Spirometer, Respiratory Effort Belt
Biomechanics	Disposable Supply Kit (included), Force Plate
Clinical Applications	
Alertness Detection	Supplies Included
Biofeedback	Disposable Supply Kit (included), Respiratory Effort Belt
Environmental Controls	Supplies Included
Gait Pattern Recognition	Supplies Included
Heart Rate Detection	Supplies Included
Motor Control	Supplies included
Student Designed & Capstone Laboratory	Students may integrate any transducer from our available options

This device is intended for scientific and research purposes only. IRB approval must be obtained before using this device in human testing. CleveLabs is a trademark of Great Lakes NeuroTech, Cleveland OH. BioRadio is a registered trademark of Great Lakes NeuroTech, Cleveland OH. Acknowledgments: This work utilizes technologies supported by Small Business Innovation Research grants from the National Institutes of Health (NINDS, NHLBI, NIMH) and the Department of Defense.