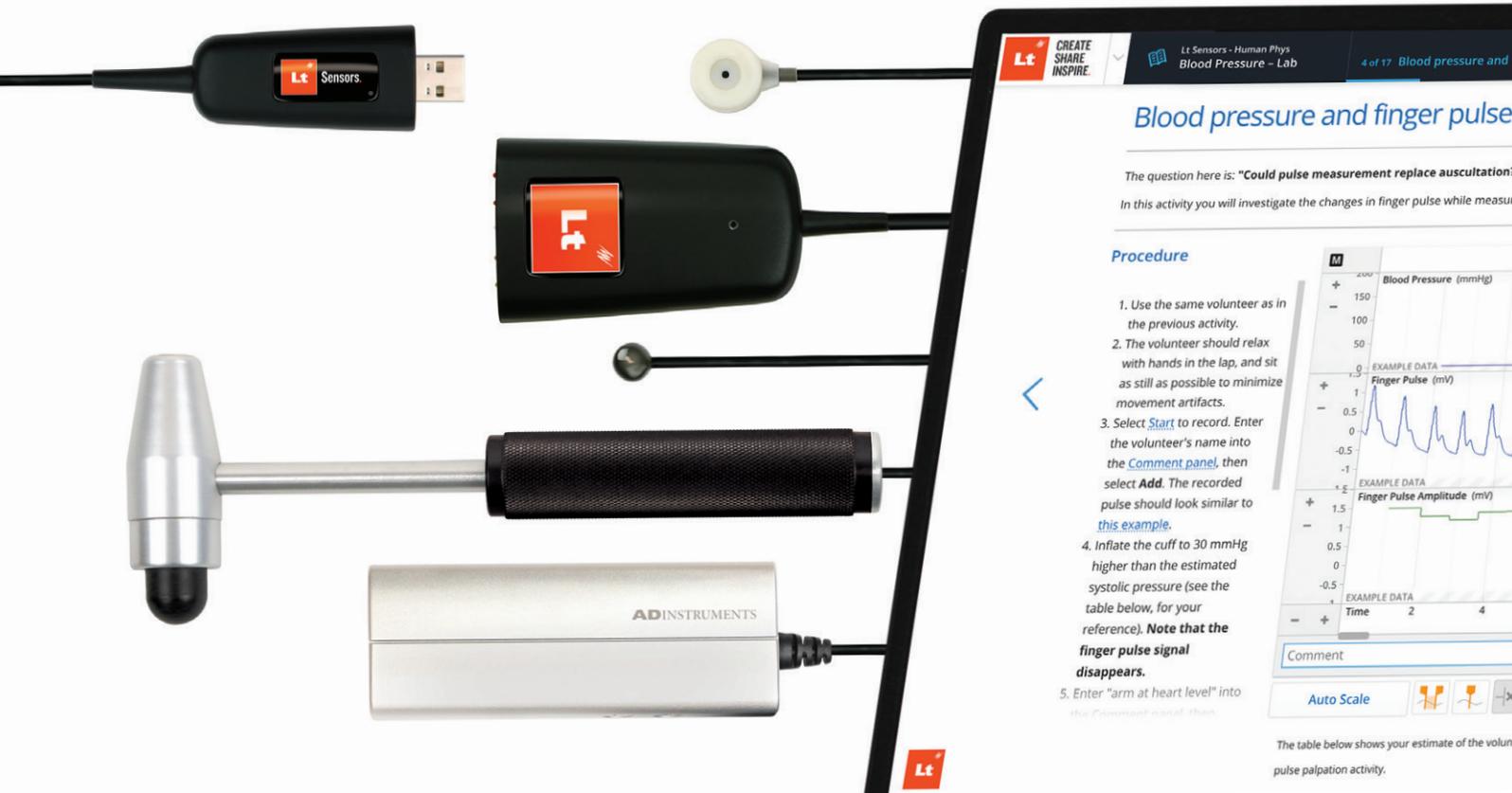




CREATE
SHARE
INSPIRE.

Lt Sensors for Human Physiology

Engage students in active learning in the lab or remotely



Lt Sensors are a cost-effective and versatile solution for recording biosignals directly into Lt via USB.

Our new range of eight plug-and-play Lt Sensors connect directly to Lt through the USB connection on your Windows-based laptop or desktop computer. Students use the Lt Sensors to record and analyze their own physiological signals in real time, including respiratory rate, finger pulse, ECG/EKG, EEG, EMG, and EOG. This active engagement helps students to quickly grasp and understand core physiological concepts in Lt's Human Physiology Labs.

Affordable and easy to use

Lt Sensors are perfect for educators that require new or additional hardware for human physiology based courses. Together with Lt, these sensors are an affordable, easy to use data acquisition solution that provides students with an authentic lab experience, while allowing some flexibility in face-to-face and remote learning.

“Very easy to use — I would 100% recommend Lt Sensors for undergraduate physiology.”

- **Dr Mike Gill**, Professional Practice Fellow, Physiology, University of Otago, New Zealand.



Easy to use



Low cost



Greater flexibility



Authentic lab experience



Lt Sensors are used with a modified version of our Lt Human Physiology Collection that contains 23 customizable lessons, each with a combination of tutorial(s), pre-lab prep, and a lab. Combine lessons with Lt Sensors to engage your students in hands-on learning for a deeper understanding of core physiological concepts. Students record their own biological signals directly into Lt, making scientific theory relevant and real.

Each media-rich lesson is designed to maximize engagement and suit diverse learning styles, with a strong focus on student outcomes. Use our ready-made lessons off the shelf, or tailor lessons to suit your curriculum and teaching preferences. Lessons can be grouped, and ordered per your course needs.

Whether fully online or on campus, Lt has you prepared for uncertainty. Students can complete labs remotely, using our built-in example data, or in the lab environment, using Lt Sensors to record biological phenomena in real time.

Lt is a fully customizable lab solution that allows you to:

- Edit pre-made content to suit your curriculum and align with your course vocabulary
- Quickly supplement labs or create new ones from your existing content resources
- Restrict access of labs to specific periods of time and grant extensions as needed
- Modify assessment questions and point values to match your academic expectations

Lt Sensor range



Lt Biopotential Sensor

LTS2010

Use the biopotential sensor to process a wide variety of biosignals such as ECG/EKG, EMG, EOG, and EEG recordings.



Lt Blood Pressure Sensor

LTS2050

Demonstrate blood pressure measurements in a lecture, tutorial, or practical class with these Sphygmomanometers, each of which is coupled to a pressure transducer.



Lt Finger Pulse Sensor

LTS2020

The finger pulse sensor converts force on the surface of the transducer into an electrical signal that can be recorded in Lt. It is ideal for use in the classroom to study heart rate.



Lt Cardio Microphone Sensor

LTS2060

The cardio microphone sensor accurately converts heart sounds (mechanical vibrations) into electrical signals via an electric (condenser) microphone device.



Lt Tendon Hammer Sensor

LTS2030

Tendon hammers can be used to stimulate muscle spindles which elicit muscle contractions. They also provide triggering, timer or marker signals.



Lt Skin Temperature Sensor

LTS2070

Probes for measuring skin surface temperature. Skin temperature sensors are specifically designed for continuous temperature monitoring using the skin as an indicator of body temperature.



Lt Grip Force Sensor

LTS2040

Students can apply force to the metal bars of this sensor to measure and analyze their grip force in Lt.



Lt Respiratory Belt Sensor

LTS2080

The respiratory belt sensor is designed to measure changes in chest diameter resulting from breathing.

Listed below are the 23 labs that are included in the Lt Sensor version of the Human Physiology Collection, plus the corresponding Lt Sensors that are required to complete each lab.

Labs	Lt Sensors Required
Autonomic Nervous System	<ul style="list-style-type: none"> • Biopotential • Finger Pulse • Tendon Hammer
Blood Clotting	<ul style="list-style-type: none"> • No sensors required
Blood Counting	<ul style="list-style-type: none"> • No sensors required
Blood Pressure	<ul style="list-style-type: none"> • Finger Pulse • Cardio Microphone • Blood Pressure
Body Temperature	<ul style="list-style-type: none"> • Skin Temperature
Breathing	<ul style="list-style-type: none"> • Finger Pulse • Respiratory Belt
Cardiovascular Effects of Exercise	<ul style="list-style-type: none"> • Biopotential • Finger Pulse
Diving Response	<ul style="list-style-type: none"> • Finger Pulse • Respiratory Belt
Electro-oculography (EOG)	<ul style="list-style-type: none"> • Biopotential
Electroencephalography (EEG)	<ul style="list-style-type: none"> • Biopotential
Getting Started with Lt	<ul style="list-style-type: none"> • Finger Pulse
Glucose Absorption	<ul style="list-style-type: none"> • No sensors required
Heart and ECG	<ul style="list-style-type: none"> • Biopotential • Finger Pulse
Heart and Peripheral Circulation	<ul style="list-style-type: none"> • Finger Pulse
Heart Sounds	<ul style="list-style-type: none"> • Biopotential • Finger Pulse • Cardio Microphone
Kidney and Urine	<ul style="list-style-type: none"> • No sensors required
Muscle and EMG	<ul style="list-style-type: none"> • Biopotential • Grip Force
Reflexes and Reaction Times	<ul style="list-style-type: none"> • Biopotential • Tendon Hammer
Sensory Illusions	<ul style="list-style-type: none"> • No sensors required
Sensory Physiology	<ul style="list-style-type: none"> • No sensors required
Spinal Reflexes	<ul style="list-style-type: none"> • Biopotential • Tendon Hammer
Stroop Test	<ul style="list-style-type: none"> • Finger Pulse • Skin Temperature
Water Balance	<ul style="list-style-type: none"> • No sensors required

Lt Sensor kits

Lt Sensors can be purchased in two kit options, or individually.



Beginner Human Physiology Sensor Kit

LTSK0010

Designed as an entry-level data acquisition solution, this kit contains 3 sensors, as well as the accessories and consumables needed for data acquisition in 7 of our Lt Sensor Human Physiology labs. This includes a number of our most popular labs, covering content in the following subject areas:

- Cardiovascular system
- Muscular system
- Circulatory system
- Nervous system

Intermediate Human Physiology Sensor Kit

LTSK0020

This kit is suitable for investigating and recording a wide range of biological signals. It contains 8 sensors, as well as accessories and consumables needed for data acquisition in 16 of our Lt Sensor Human Physiology labs. This includes a number of our most popular labs, covering content in the following subject areas:

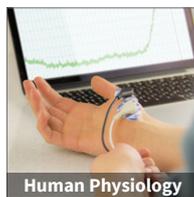
- Cardiovascular system
- Muscular system
- Homeostasis
- Circulatory system
- Nervous system
- Respiratory system

Creating a custom education system is easy:



Active learning software and multimedia content

+



Lt Sensor Human Physiology Collection

+



Lt Sensors (kits or individual sensors)



90-DAY FREE TRIAL
Sign up now: adi.to/lt

Visit our website or contact your local ADInstruments representative for more information

ADInstruments Worldwide

Australia | Brazil | Europe | India | Japan | China | Middle East | New Zealand | North America | Pakistan | South America | South East Asia | United Kingdom

adinstruments.com



ADINSTRUMENTS