

Product Information Sheet

Light Gate (Set of Two)



Our range of science experiment kits will equip you with all you need to carry out each of the practical experiments included in your LJ Create science program.

The kits can be used for teacher demonstration, individual student, or group activities.

The Data Logging equipment has been produced for ease of use in a wide range of science and technology applications.

The Light Gate has an infrared transmitter and receiver that will detect an object passing through the 'gate'. They can be used singly or in pairs for time, speed, velocity, acceleration and event monitoring.

The Light Gate is supplied with a steel mounting rod which can be screwed into the base or side of the Light Gate and clamped into a suitable holding device. A red On/Off indicator will light when the infrared beam is blocked. When used in a non-Timing mode e.g. Graph, the Light Gate can be used to mark an event on a graph and the length of the interrupt can be used to determine velocity.

The sensor can be used in a range of teaching applications, including:

- All timing and basic dynamics work
- Free fall
- Proof of g
- Diluted gravity (Galileo's gravity from slope)

Sensor Specifications:

- Infrared source: Peak at 880 nm
- Response Time: less than 5 microseconds
- Timing Resolution: 10 μ s

Examples of some extension and advanced ideas include:

- Time period of an oscillating body
- Impulse (with force sensor)
- Conservation of energy (momentum)
- Centripetal force in a pendulum
- Muscle fatigue

Items Included:

- 2 Light Gate Sensors

Other Items Required:

- Data logger (520-01)
- LJ Create Science Content and Computer

General Information:

Packed Volume: Approx. 0.001 m³
Packed Weight: Approx. 0.5 kg

Order Code: 520-04

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For more information visit www.ljcreate.com