

## LEOI-31 Single-Wire/Single-Slit Diffraction



### Description

LEOI-31 employs a movable digital photoreceiver to measure the intensity distribution of optical diffraction. With a focus adjustable semiconductor laser

### Feature

- Observe single-wire/single-slit diffraction
- Measure intensity distribution of diffraction
- Confirm relationship between intensity and wavelength
- Obtain relationship between intensity and slit width
- Verify Heisenberg uncertainty principle and Babinet's principle

### Application

1. observe single-wire/single-slit diffraction
2. measure intensity distribution of optical diffraction
3. confirm the relationship between intensity and wavelength
4. obtain the relationship between intensity and slit width
5. verify Heisenberg uncertainty and Babinet's principles



Fraunhofer diffraction of single slit

## Specification

Semiconductor Laser	5 mW @ 650 nm
Diffraction Element	Wire, and Single Slit (adjustable width)

## Part list

Description	Qty
Semiconductor Laser (LLL-1)	1
Optical Rail (LEPO-54)	1
Carrier	2
White Screen (LEPO-14)	1
Single-Slit with Adjustable Width (LEPO-42)	1
Two-Axis Adjustable Laser Holder (LEPO-20)	1
Photoreceiver with Amplifier	1 each
Transverse Measurement Holder	1