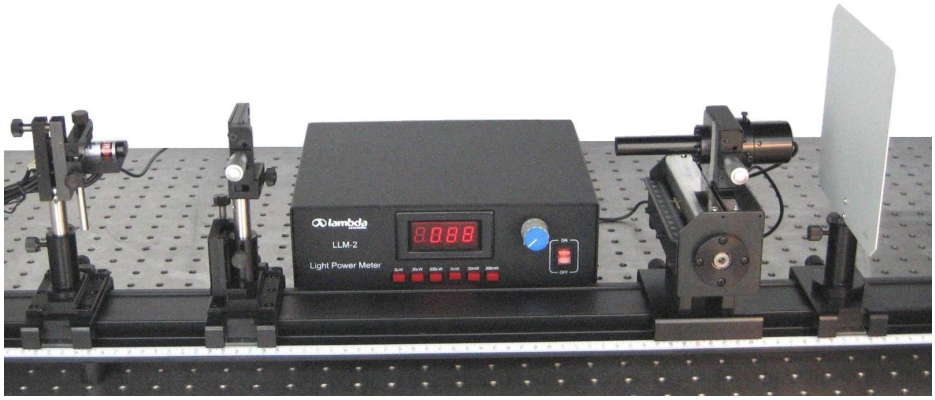
Construct, Conduct & Comprehend Physics Experiments

LEOI-31 Single Wire / Single Slit Diffraction



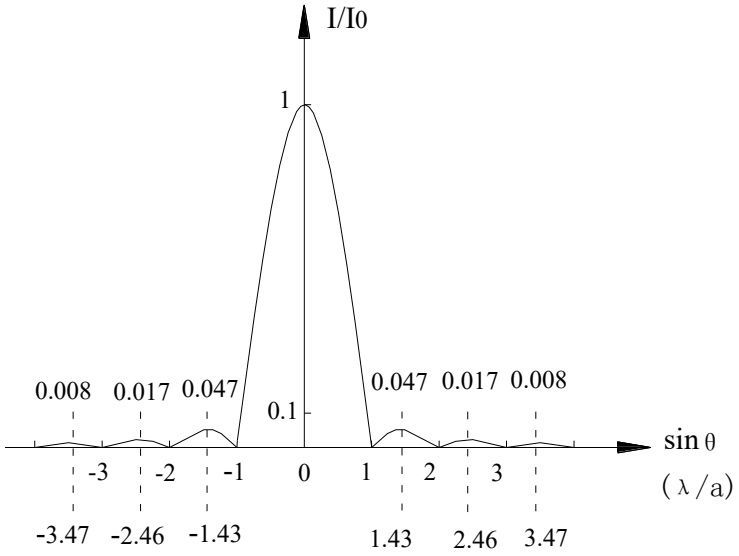
- *Observe single-wire/single-slit diffraction*
- *Measure intensity distribution of diffraction*
- *Confirm relationship between intensity and wavelength*
- *Obtain relationship between intensity and slit width*
- *Verify Heisenberg uncertainty principle and Babinet's principle*

LEOI-31 employs a movable digital photoreceiver to measure the intensity distribution of optical diffraction. With a focus adjustable semiconductor laser, this system can be used to

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

Parts & Specifications

Semiconductor Laser (650 nm, 5 mW)	1
Optical Rail (length 1 meter)	1
Carrier	2
White Screen	1
Plate with wire of Different Diameters	1
Single-Slit with Adjustable Width	1
Two-Axis Adjustable Laser Holder	1
Photoreceiver with Amplifier (light meter)	1 each
Transverse Measurement Holder	1



Intensity distribution of Fraunhofer diffraction at single slit

Fraunhofer diffraction of single slit

Note: above product information is subject to change without notice.

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