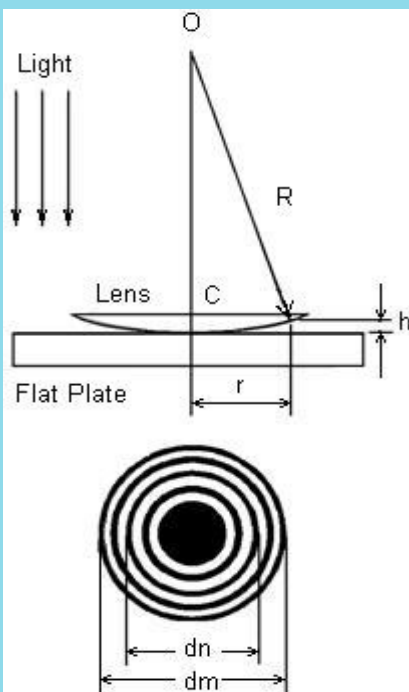


## LEOK-31 Newton's Ring Apparatus - Enhanced Model

- Microscopic CMOS color camera with displacement cursor
- Newton's ring pattern displayed on VGA color monitor
- Direct measurement using keypad controlled cursor on LCD color monitor
- Camera and Sodium lamp available for other applications



The phenomenon of Newton's rings, named after Isaac Newton, is an interference pattern caused by the reflection of light between two surfaces - a spherical surface and an adjacent flat surface. When viewed with monochromatic light, it appears as a series of concentric, alternating light and dark rings centered at the point of contact between the two surfaces.

This apparatus uses an area VGA output color camera with microscopic lens to acquire the Newton's ring pattern. The acquired pattern can be measured directly using a set of electronic cursors on the LCD monitor. Using this apparatus, students can observe the phenomenon of equal-thickness interference. By measuring interference fringe separation, the radius of curvature of the spherical surface can be calculated.

## Specifications

Light Source	low pressure sodium lamp, 20 W
Newton's Ring Device	radius of curvature: ~868.5 mm; diameter: 32 mm; transmissive
Electronic Scale	resolution: 0.01 mm; viewing field: ~ 10 mm
CMOS Color Camera	sensor size: 1/4"
	resolution: 1280 × 1024
	pixel size: 2.8 μm x 2.8 μm
	bit: 8
	output format: VGA
	frame rate: 15 Hz
	optical mount: C/CS
	function setting: via keypad and menu menu: brightness, contrast, saturation, sharpness, tone, cursor, length
Camera Lens	focal length: 25 mm

## Part List

Sodium lamp with housing and power supply	1 set
CMOS color camera with AC adapter	1 set
Camera lens with extension ring	1
Newton's ring assembly	1
Beam splitter with mount and post	1 set
Camera stand with focusing knob	1 set
Keypad	1
VGA flat panel monitor (optional)	1

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