OPTIKA®
SCIENCE
ITALY

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THE PRINCIPLE OF DIGITAL IMAGING

#5335

The principle of digital imaging

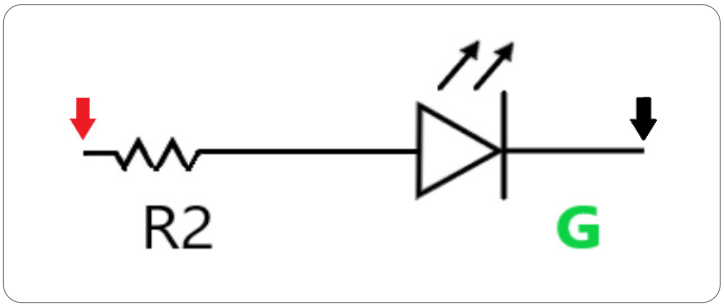
This instrument is thought for experimenting and carrying out measurements on what physically lies at the basis of the digital imaging.

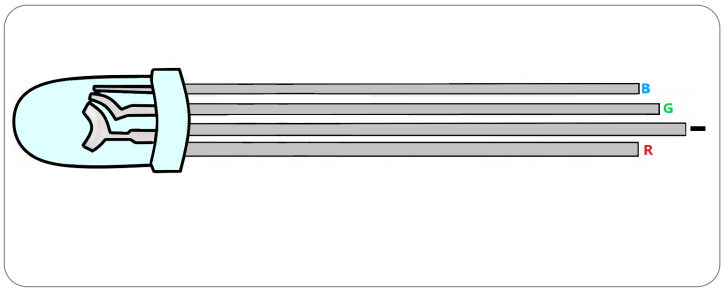
The main objective is to understand, also quantitatively, the connection between the digital features
and the physical quantities involved in the coloring menaging of a PIXEL, that is the unit of the digital imaging.

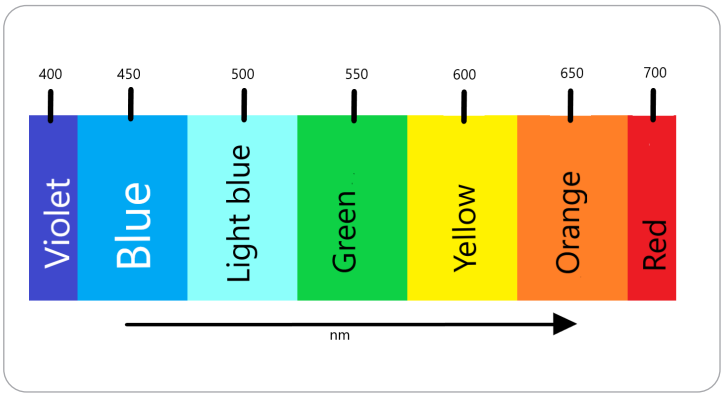
Dimensions:
188.5x133.5x76.5 cm

The instrument

There is one RGB LED whose colored LEDs (Red, Green, and Blue) can be individually adjusted in intensity by the action of three knob-potentiometers. Four bushing inserts allow measurement of the voltage values set for each LED-resistance pair by taking advantage of a multimeter (not supplied).







Topics:

1. **LIGHT.** Fundamental Properties
2. **ADDITIVE COLOR THEORY.** WHY and HOW?
3. **LEDs.** What are they? How do they work?
4. **RGB LANGUAGE.** Connection between Digital and Physical worlds
5. **ELECTRONICS.** What happens into the Circuit?
6. **PIXEL.** So simple now!

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