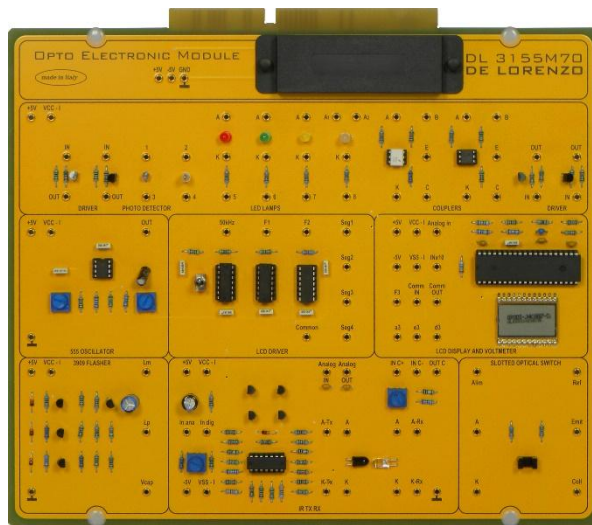




## OPTO ELECTRONICS



**DL 3155M70**

The design and construction of electronic circuits to solve practical problems is an essential technique in the fields of electronic engineering and computer engineering.

With this board the students can study the luminescent characteristics of the colors by analyzing factors such as change in color and intensity of light. To fully understand these concepts tools as LED, photo detectors, LCD display, infrared detector and optical switches are used.

### THEORETICAL TOPICS

- Concepts of physics on light and colours
- Light radiation
- The vision of colour
- Light bulb operation
- LEDs
- LEDs technical features
- Concepts of Liquid Crystal Display
- LCD types
- Light sensors
- Photodiodes
- Photoresistors
- Infrared radiation
- Opto-isolators

### CIRCUIT BLOCKS

- Photo detector
- LEDs
- Couplers
- Light drivers
- 555 Oscillator
- LCD driver
- LCD display and voltmeter
- 3909 Flasher
- Infrared Transmitter/Receiver
- Slotted optical switch

Complete with theoretical and practical manual.

Dimensions of the board: 297x260mm

**CAI SOFTWARE:**

Each board of the TIME system can be supplied complete with a Student Navigator software that allows students to perform their learning activities through a Personal Computer, without the need for any other documentation.

**Ordering code:** please add SW after the code of the board (i.e. DL 3155M70SW)

**Required:****POWER SUPPLY NOT INCLUDED**

Base frame with power supply (completed with connecting cables):

- **DL 3155AL3** - Base frame with power supply and interface to pc and virtual instrumentation
- **DL 3155AL2** - Base frame with power supply and interface to pc

Basic power supply (connecting cables not included):

- **DL 2555ALF** - DC power supply  $\pm 5 \pm 15$   $0 \pm 15$  Vdc, 1A
- **TL 3155AL2** - Connecting cables

Choosing this power supply, for the execution of the experiments, it is normally required the use of an oscilloscope and two multimeters.

