

## 1. Lascells Planck's Constant Apparatus

Modern LEDs (light emitting diodes) cover the range from deep blue to infrared. By monitoring the voltage at which each LED just begins to emit light a graph of energy input as a function of light emitted frequency can be plotted and an approximate value of Planck's constant deduced.

The system is an excellent illustration of modern electronics and gives a good investigation into a difficult topic in post-16 physics. The LEDs are mounted in a self-contained box with voltage control and monitoring points for current and voltage. A protection resistor is included to prevent damage to the LEDs.

Complete with viewing tube but without power supply which should be approximately 5V D.C. from any laboratory source.

Code	Pack	Price
PY3118	Each	£89.10

## 2. Colour Mixing Apparatus

The kit comprises, a robust, upright case containing three, high power, accurately colour matched LEDs, each of which has infinitely adjustable brightness. Also supplied is a large, free standing, primary colour shadow mask, a hand held secondary colour mask and a 12V plug top power supply.

The system allows the teacher to project large primary and secondary colour mixing discs onto any vertical surface and to adjust the colour saturation to mix virtually any colour.

The unit is extremely easy to use, is easily transportable and comes with full instructions. The only other requirements are a white wall and a darkened/blacked out room.

The system may be used to demonstrate both secondary and primary colour mixing, colour shadows and colour reflection/absorption.

Code	Pack	Price
SEOP7000	Each	£82.85

## 3. Colour Mixer

Investigate colour vision and mixing. Demonstrate the nature of primary and secondary colour. Explore additive and subtractive colour mixing. A great alternative to the traditional ray box and filters approach. Ultra bright LEDs prevent the need for full blackout. Create your own desired colour by varying the intensity proportion. Explore the complete colour wheel.

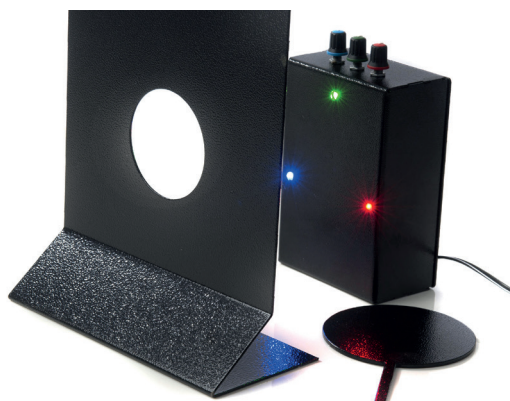
The apparatus consists of six LEDs. Both three inner LEDs (red, green and blue) and three outer LEDs (also red, green & blue) are placed in a circular frame at 120 degree separation having equidistance from the centre. The radius of curvature for outer three LEDs lying at the same point from the centre of the frame so that mixing of the colours are in equal proportion.

The control box is able to operate LEDs in inner or outer mode, varying the intensity of each LED from 0 - 100%. This kit is supplied with a U channel bench, a black aperture screen, a translucent screen and a control box. The kit includes a circular aperture and a translucent screen, so the effect is visible from two sides for both additive and subtractive colour mixing.

Code	Pack	Price
SEP4374	Each	£117.51



2



ECONOMY

3

