

Experiment 2

The candidates will be expected to investigate the striking voltages of different coloured LED's.

Test 1

Apparatus required:

Potentiometer labelled **X**, e.g. 0-10 k Ω

1 k Ω protective resistor

Push to make switch

Power supply 6 V, with positive terminal clearly marked

Voltmeter ± 0.01 V [e.g. a multimeter set to an appropriate voltage range]

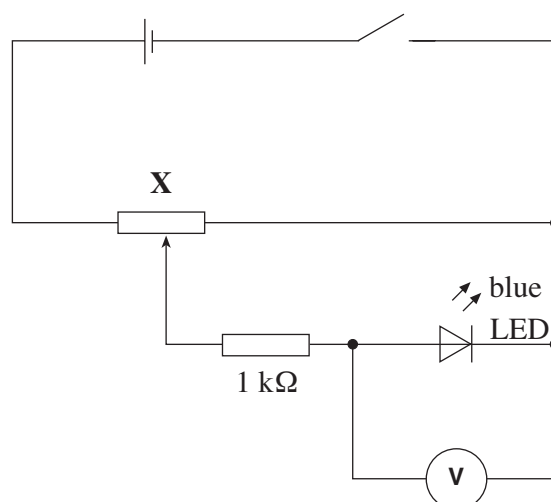
Leads to make up the circuit, including two with crocodile clips.

LEDs [available from Rapid Electronics - prices and order codes correct at time of printing]

Order code	Colour	Wavelength	Price per unit
55 – 0133	Red	660 nm	£0.20
55 – 1530	Yellow	589 nm	£0.20
55 – 0135	Green	518 nm	£0.12
55 – 1810	Blue	470 nm	£0.34

N.B. It is advisable to have spare LEDs available to replace any which are connected up incorrectly during the course of the experiment. Colour-impaired candidates may be informed of the colours of the LEDs.

The following circuit is to be set up for the candidates. The LED should be connected in using the leads with crocodile clips. The candidates will be expected to draw the circuit.



Test 2

The apparatus is as for test 1.