MitchElectronics Ltd.

TRAFFIC LIGHTS

Electronic Kit | Data Sheet

PRODUCT IMAGE	SCAN FOR INSTRUCTIONS PAGE	SCAN FOR RESOURCE PAGE
		

MANUFACTURER	MitchElectronics
COUNTRY OF ORIGIN	United Kingdom
ROHS / REACH COMPLIANT	Yes
PRODUCT DESCRIPTION	The faithful traffic light is something that has been around since the first cars after drivers had difficulty in deciding who had right of way at a junction. The modern traffic light found in the UK is often connected to an intelligent network of controllers and logic to try and keep traffic moving as efficiently as possible. While this project is far more trivial, you will learn how to build a traffic light that uses the correct colour sequence found on many UK traffic lights! This circuit is based around a 555 astable oscillator as a clock source, a 4017 IC as the counter stage, and a diode matrix for creating the light patterns.

PRODUCT SPECIFICATION:

- Component Count: 53
- Battery Powered?: Yes, 9V PP3
- Operating Voltage: 3V to 16V
- Operating Frequency: N/A
- Dimensions (PCB) : 59mm x 43mm
- Mounting Holes: Yes
- Prebuilt: No – Kit form
- Batteries Not Included

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PARTS INCLUDED:

- 1 x 16 DIP Socket
- 1 x 8 DIP Socket
- 1 x 4017
- 1 x 555
- 1 x 10K Resistor
- 1 x 22K Resistor
- 2 x 100nF Capacitors
- 1 x 100uF Capacitor
- 9 x 1N4148
- 1 x 4 Way Pin Socket
- 1 x PP3 Connector
- 1 x Controller PCB
- 3 x 680R Resistors
- 1 x Red LED
- 1 x Yellow LED
- 1 x Green LED
- 1 x 4 Way Pin Header
- 1 x Light PCB

APPLICATIONS

The Traffic Light is an ideal kit for scale models such as train sets, diorama, and table-top wargaming. The kit is also ideal for teaching students about the 4017 counter and how its multiple outputs can be combined to create specific patterns that repeat continuously. As the kit can be constructed in under an hour, the Traffic Light is ideal for training students on how to solder, and the LED nature of the kit can help inspire completion of the project.

KIT INSTRUCTIONS

https://mitchelectronics.co.uk/resources/temp-sense-kit-instructions/

ELECTRONICS CONSTRUCTION MANUAL

https://www.mitchelectronics.co.uk/documents/electronicsConstructionManual.pdf

NOTES

Note that product specifics such as output frequency depend on the tolerance of the components. The numbers provided here are an approximation only. Also take note that the estimated delivery is not guaranteed (unless special delivery is chosen) and free delivery has a maximum waiting time of two weeks. Any product that is returned which is built using lead solder is ineligible for a refund.

All parts sold by MitchElectronics are compliant with RoHS and REACH directives which ensure that they can be used in commercial environments as well as complying with environmental laws.