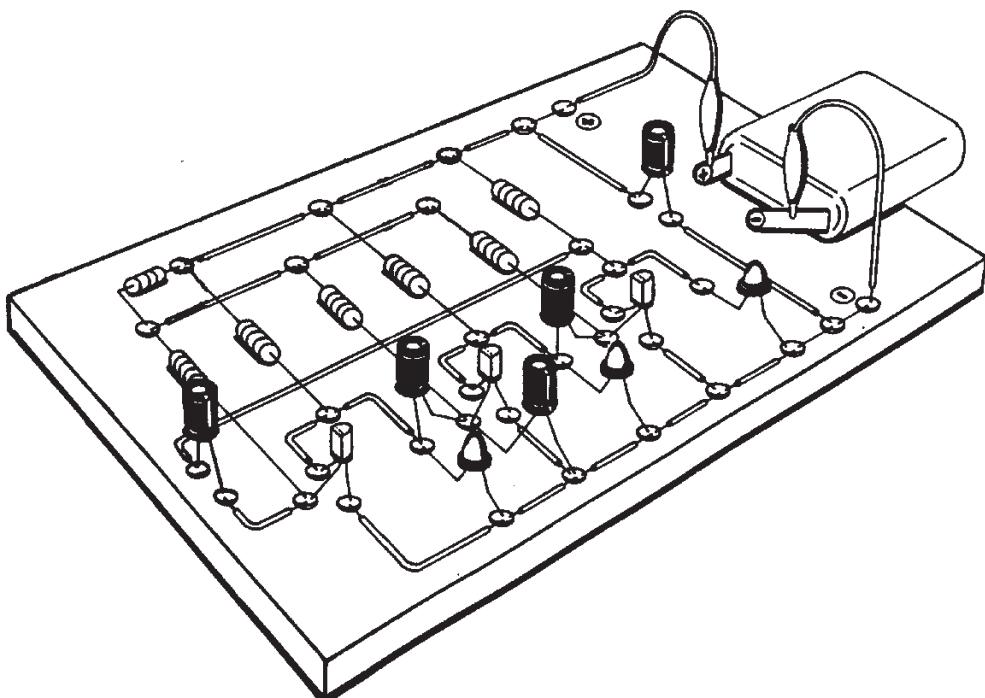


110.110

LED TRAFFIC LIGHTS



Please Note

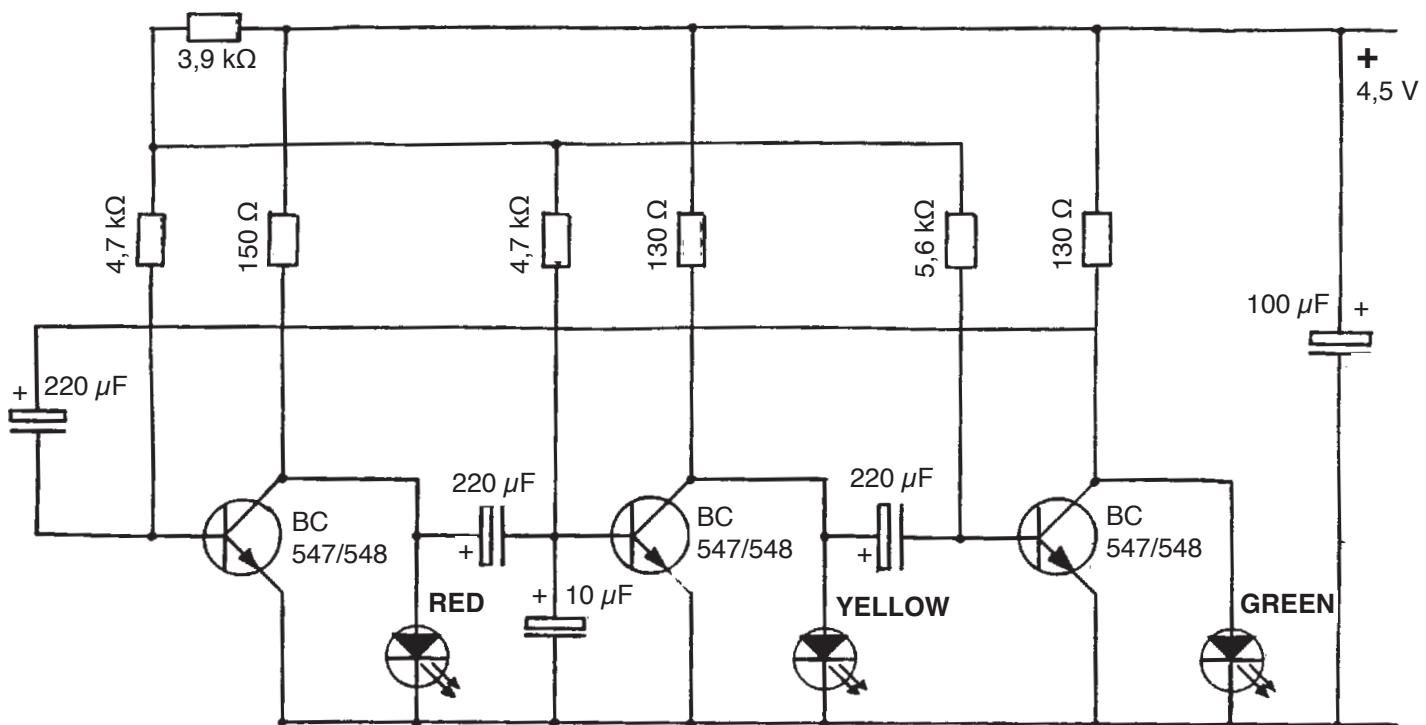
The OPITEC range of projects is not intended as play toys for young children. They are teaching aids for young people learning the skills of Craft, Design and Technology. These projects should only be undertaken and tested with the guidance of a fully qualified adult. The finished projects are not suitable to give to children under 3 years old. Some parts can be swallowed. Danger of suffocation!

General Notes

To construct this circuit we recommend using the following methods.

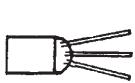
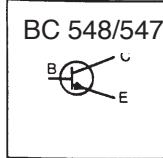
1. Mounting the components on plaster board (N° 873017) using drawing pin heads to solder the components on. (the pins are easily inserted by hand)
2. Mounting the components on strip type circuit board. N° 873017
3. Mounting on copper coated circuit board. N° 241207 / 241171

Schaltbild



Transistor NPN

Layout of leads E, B, and C:



E = Emitter
B = Base
C = Collector

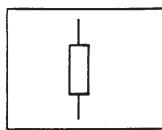
Transistors are easily damaged if connected incorrectly.

Wire

Wire with joint (Connection)

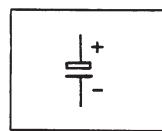
Crossed wires (no connection) Wires must be insulated at the crossing point

Determination of resistors



| | 150 Ω | 130 Ω | 3,9 kΩ | 4,7 kΩ | 5,6 kΩ |
|--|--|---|---------------------------------------|--|-------------------------------------|
| | brown green brown silver/gold | brown orange brown silver/gold | orange white red silver/gold | yellow violet red silver/gold | green blue red silver/gold |

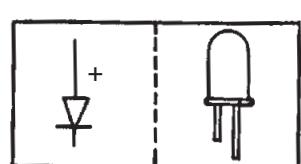
ELKO



Both types are possible.
Marked as 10 μF, 100 μF, 220 μF.
Look for **plus** or **minus**



LED



MINUS = short lead

PLUS = long lead