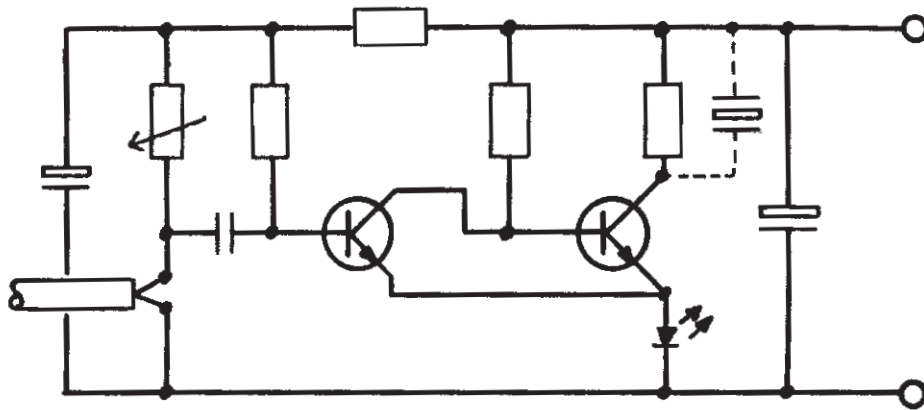


1 1 0 . 1 3 2

M o v e m e n t D e t e c t o r

“ C E R B E R U S ” A L A R M



Function:

This is a sensitive circuit which will detect movement and can be used to guard doors and rooms etc. The circuit works using a light detector which must be opposite a white wall or light source. The advantage is that it does not matter how strong this light source is. The sensitivity can be adjusted by using the 1 MOhm potentiometer. Any difference in the light falling on the sensor alters the current in the circuit and transfers this change via the tantalum capacitor $2.2 \mu\text{F}$ to the transistors which act as a Schmitt Trigger. This can either activate a light emitting diode or a Piezo buzzer.

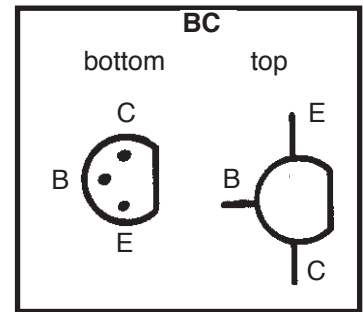
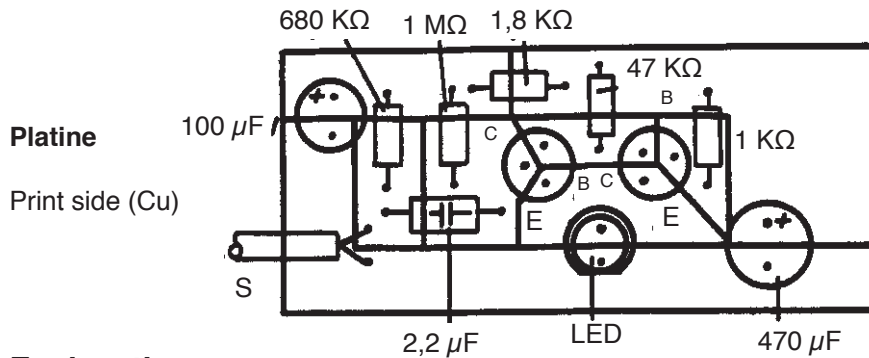
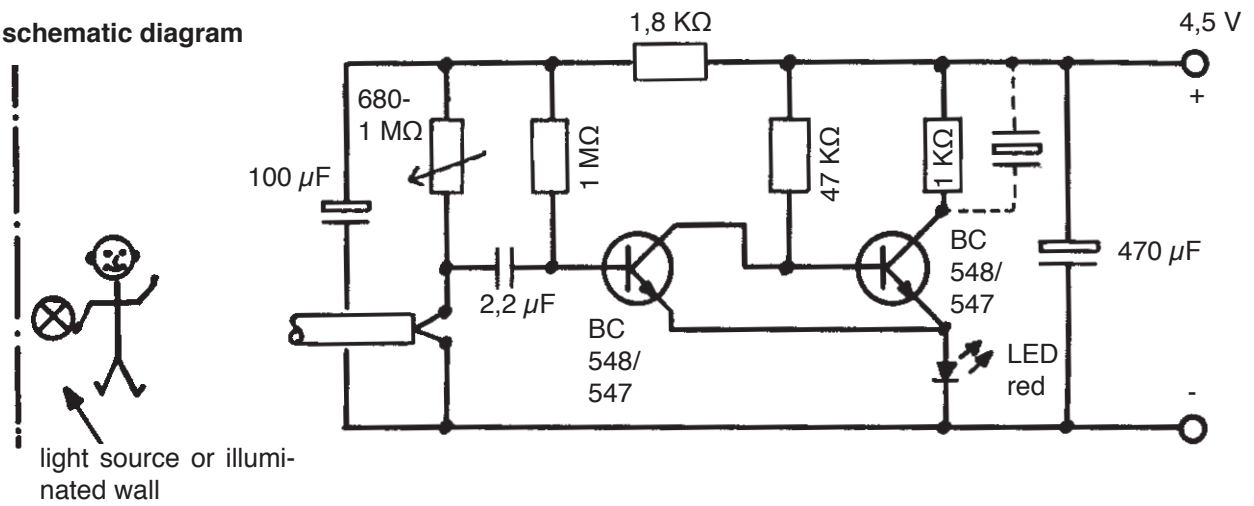
This circuit can be made in the following ways

1. Mounted on plywood
2. Mounted on strip board
3. A P.C.B. designed on photo sensitive board.

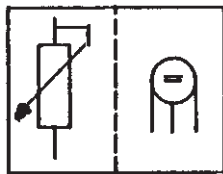
Please Note

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!

schematic diagram

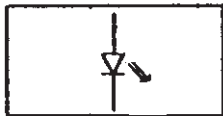


Explanation



Trimpoti

The 1 MOhm Trimmer controls the sensitivity of the circuit

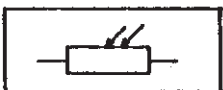


watch the polarity



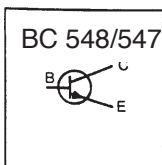
Piezo-Summer

Red cable denotes plus



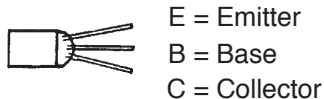
Sensor

Sensor is sensitive place in provide tube

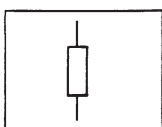


Transistor NPN

determination of E, B und C:

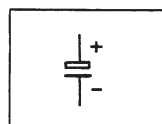


Transistors must be connected correctly, otherwise they will be damaged



Resistors

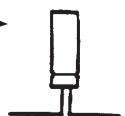
determination of resistors



ELKO



Both types are possible marked as 2,2 µF, 100 µF, 470 µF. plus and minus shown on side



wire
wire with connection
wire without connection