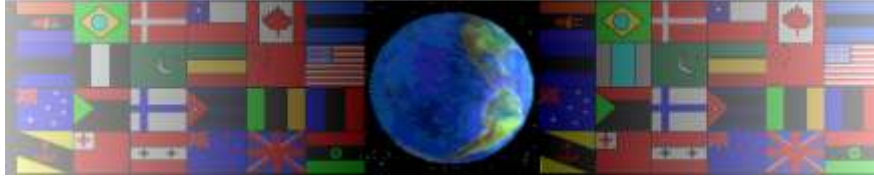


DUAL TRANSISTOR MULTIVIBRATOR CIRCUIT

V.Ryan © 2000 - 2009

On behalf of The World Association of Technology Teachers

W.A.T.T.



World Association of Technology Teachers

This exercise can be printed and used by teachers and students. It is recommended that you view the website (www.technologystudent.com) before attempting the design sheet .

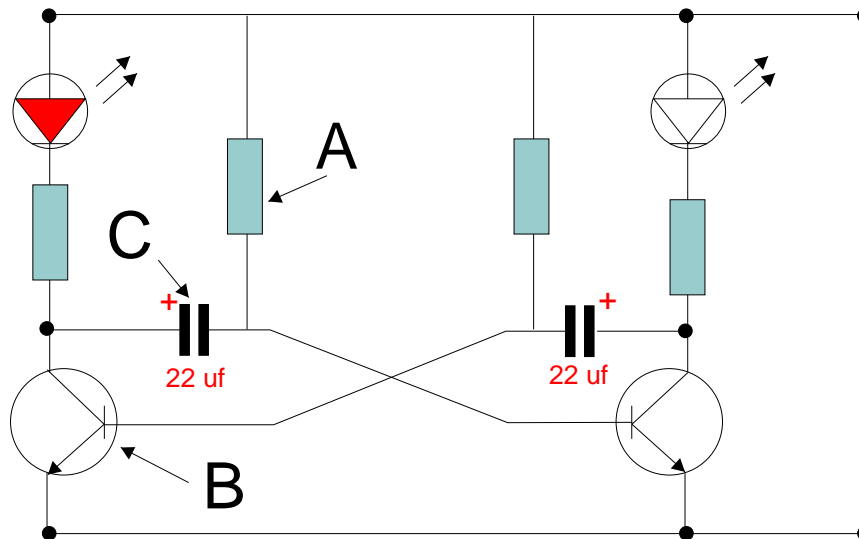
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DUAL TRANSISTOR MULTIVIBRATOR CIRCUIT - EXAM QUESTION

V.Ryan © 2009 World Association of Technology Teachers

A local garage has started selling a small electronic device. The device has two LEDs that flash alternately and the entire circuit is housed in a small moulded case. It is to be placed on the 'dashboard of a car so that it looks as if an expensive alarm has been fitted.

The circuit diagram is shown below.



Three of the important components have been labelled A, B and C. Name each component and explain the function of each in the circuit.

COMPONENT A: _____

FUNCTION IN CIRCUIT: _____

COMPONENT B: _____

FUNCTION IN CIRCUIT: _____

COMPONENT C: _____

FUNCTION IN CIRCUIT: _____

Ring the names of two components that work together to produce the flashing of the LEDs.

TRANSISTOR

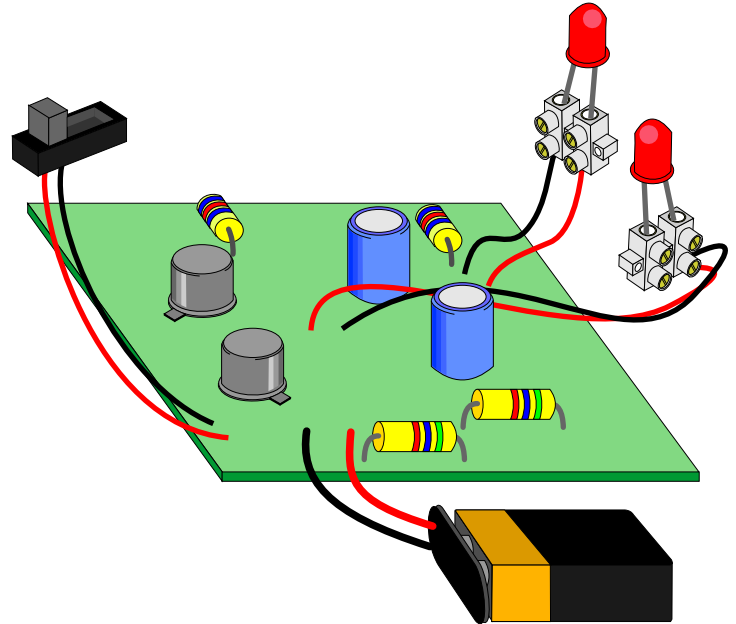
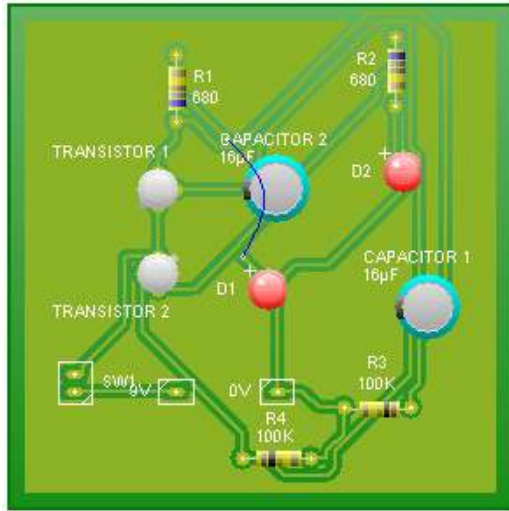
CAPACITOR

RESISTOR

DUAL TRANSISTOR MULTIVIBRATOR CIRCUIT - EXAM QUESTION

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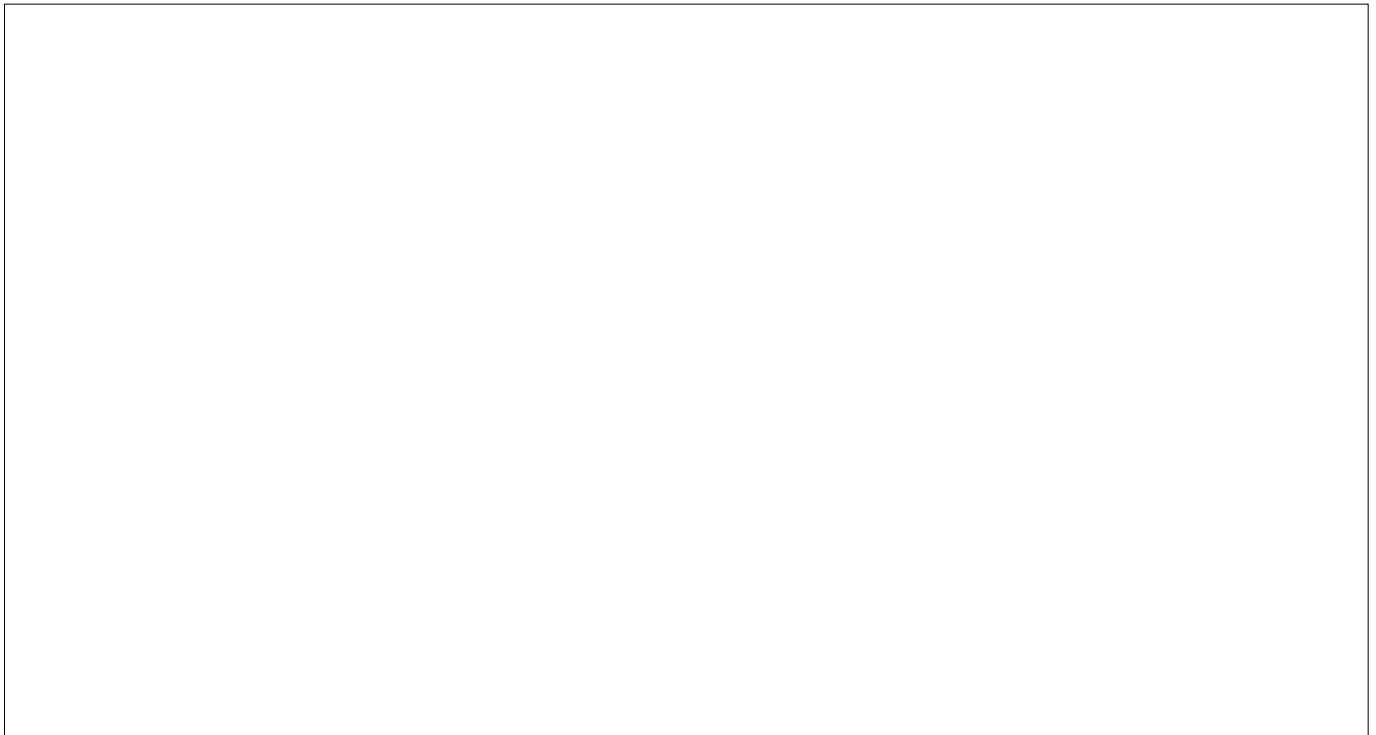
The Printed Circuit Board (PCB) for the dual transistor, multivibrator circuit is shown below. All the components and their position on the PCB can be seen. The garage owners have decided to manufacture a small moulded case for the circuit to fit inside. The LEDs and the switch must protrude through the moulded box so that they can be seen.



Name a suitable material for producing the moulded case. _____

Name a suitable manufacturing process for producing the moulded case. _____

Sketch a suitable design for the moulded case, include detailed notes.

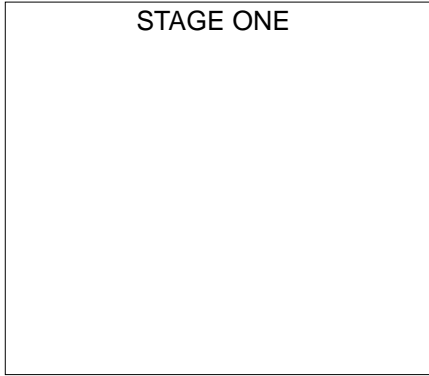


DUAL TRANSISTOR MULTIVIBRATOR CIRCUIT - EXAM QUESTION

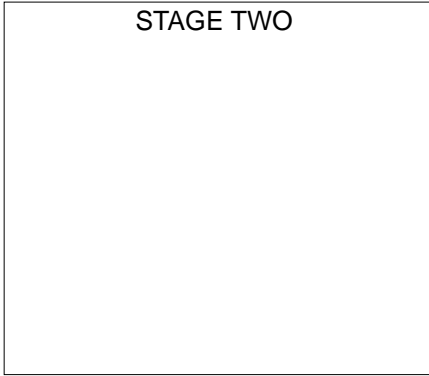
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Using the boxes below, draw a sketch in each that represents a stage of manufacturing the moulded case, using the process you have named.

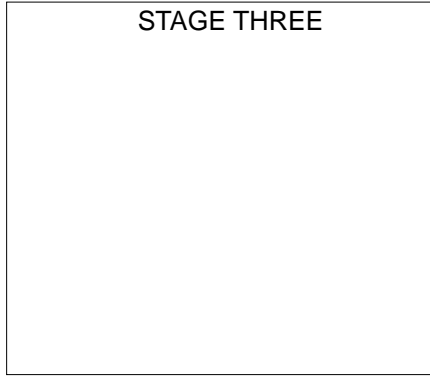
STAGE ONE



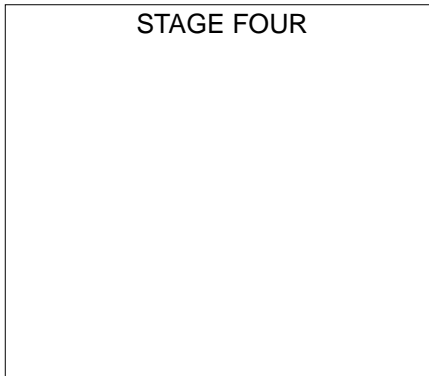
STAGE TWO



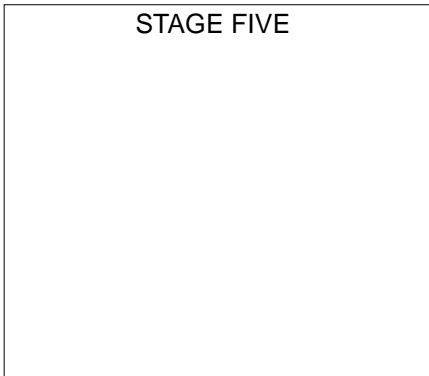
STAGE THREE



STAGE FOUR



STAGE FIVE



STAGE SIX

