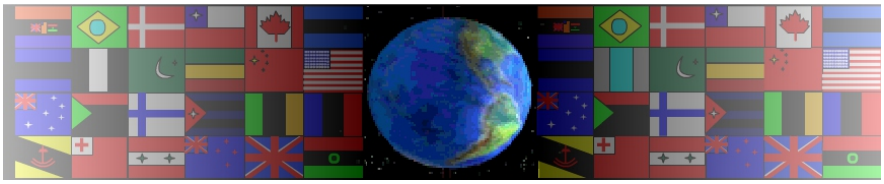
SYSTEMS DIAGRAM AND TEMPERATURE SENSOR

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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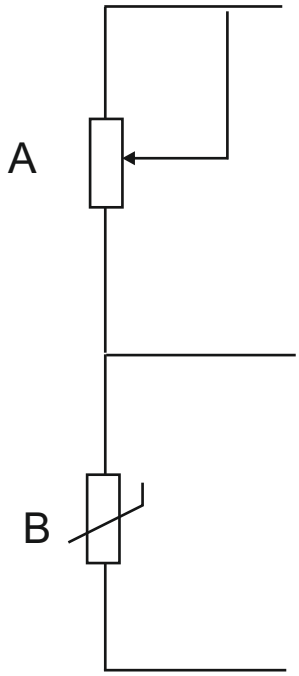
A roller coaster track has sets of points that allow carriages to transfer from one track to another (for routine maintenance). However, in winter points can freeze and this is extremely dangerous as a carriage can be easily derailed.
The block / systems diagram shows how a heating system works. This warms up points in freezing weather ensuring that they operate safely.

The ice sensing part of the circuit is shown below.



Which component acts as a sensor in this circuit ?

What does the component sense ?

Which component is used to adjust sensitivity of the circuit ?

The ice sensing circuit shown above can be altered to sense heat. In the summer the points can expand due to extreme heat. This can also be dangerous. To counter this problem a cooling unit is to be fitted to the points. Complete the next circuit by adding the heat sensor.

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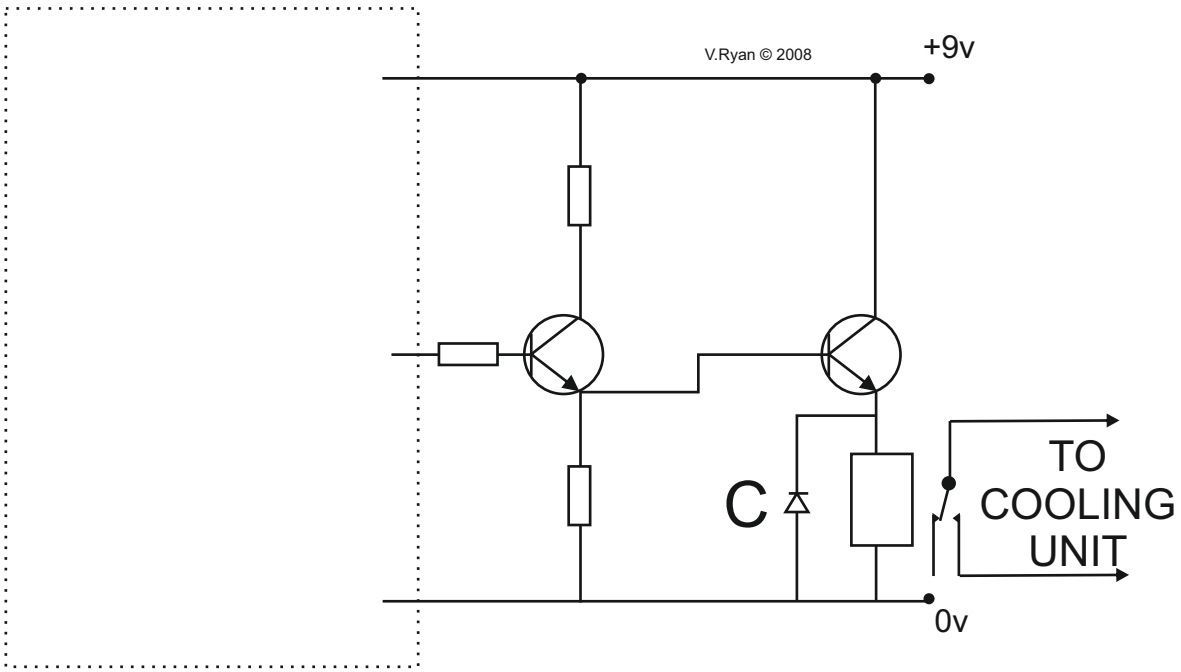

What is the name of component C shown in the heat sensing circuit above?

Name of component C: _____

What is its function ?

_____

_____

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