

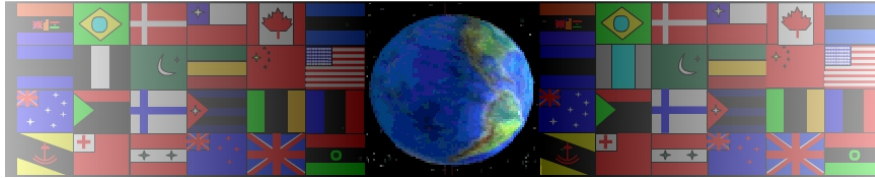
THERMISTOR AND DIODE EXAMINATION QUESTION

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On behalf of The World Association of Technology Teachers

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THERMISTOR AND DIODE EXAMINATION QUESTION

A railway track has sets of points that allow trains to transfer from one track to another. This allows them to change direction. However, in winter points can freeze and this is extremely dangerous as a train 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.

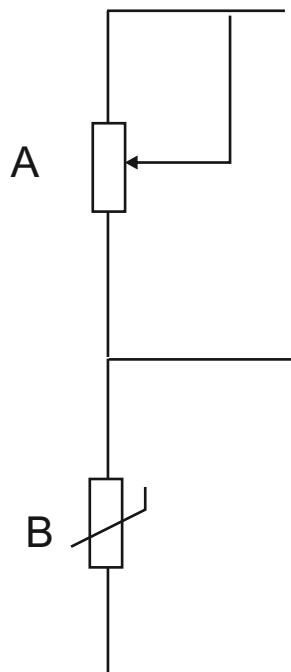
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The ice sensing part of the circuit is shown below.

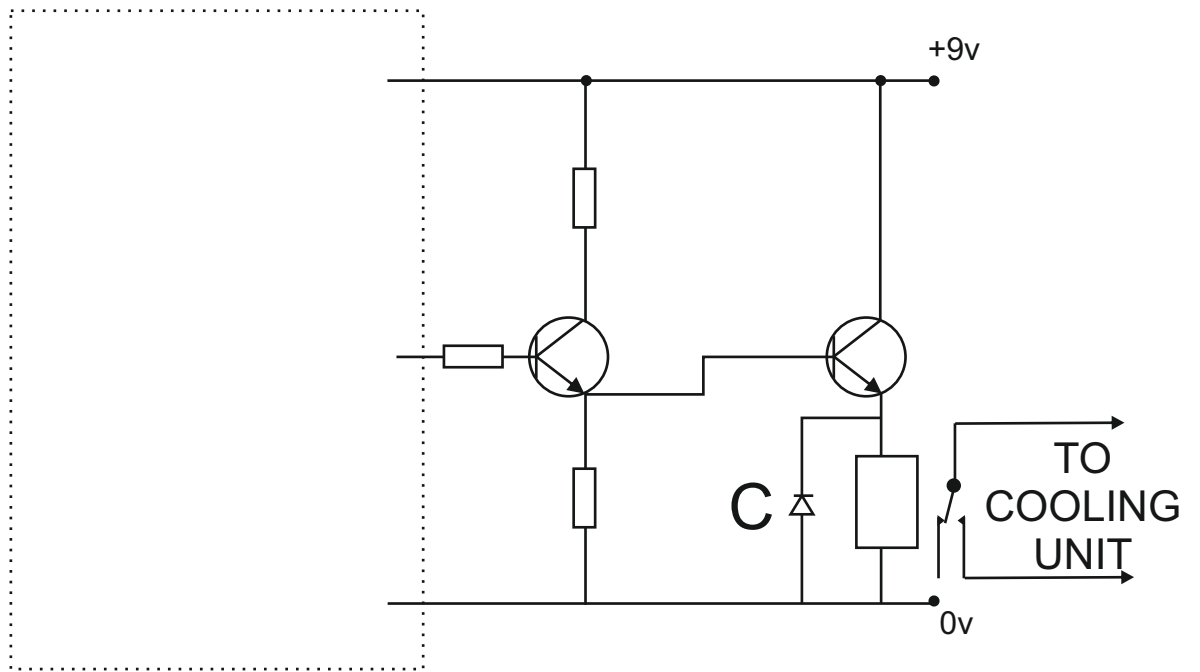


Which component acts as a sensor in this circuit ?

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.



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

Name of component C: _____

What is its function ?
