

# THE THYRISTOR - REVISION CARD

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On behalf of The World Association of Technology Teachers

## W.A.T.T.



World Association of Technology Teachers

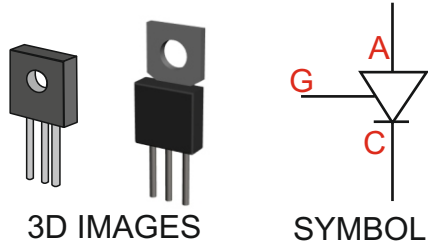
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### THE THYRISTOR



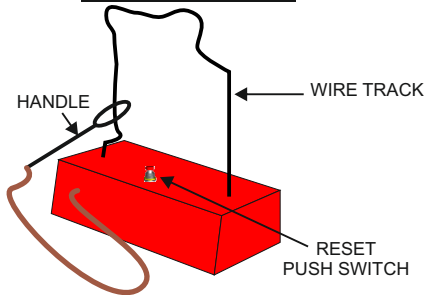
3D IMAGES

SYMBOL

Thyristor (silicon controlled rectifier or SCR). When a small current flows into the GATE (G), the thyristor is switched on. This allows a larger current to flow from the ANODE (A) to the CATHODE (C). Even when the current into the gate stops, the thyristor continues to allow current to flow from anode to cathode. It 'latches' on.

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### THE THYRISTOR - PRACTICAL APPLICATION



HANDLE

WIRE TRACK

RESET PUSH SWITCH

A thyristor is used in a steady hand game. The aim of the game is to move the wire handle around the wire track without them touching. If they touch, a thyristor in the circuit is activated. This allows current (electricity) to flow through the other components in the circuit, sounding a buzzer or illuminating an LED. The circuit latches ON. The LED / buzzer cannot be switched off.

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1. What is an alternative name for a thyristor? \_\_\_\_\_ 2 marks

2. Name the three important 'parts' of a thyristor.

\_\_\_\_\_ 1 mark \_\_\_\_\_ 1 mark \_\_\_\_\_ 1 mark

3. What is the sequence of events that leads to the thyristor switching on / latching on? 3 marks

\_\_\_\_\_  
\_\_\_\_\_

3. Describe a practical application of a thyristor circuit. 3 marks

\_\_\_\_\_  
\_\_\_\_\_