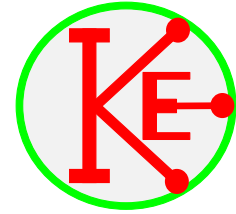


## Investigation of a potentiometer.



A potentiometer is a device that is often used as a variable control.

- (a) Connect the crocodile clip leads of Squeekie across the two outer connections of the potentiometer. Use COMMON and CONTINUITY.

Note the pitch of the tone from Squeekie .....

Swap over the connections from Squeekie.

Does the pitch of the tone from Squeekie change? .....

- (b) Connect the crocodile clip leads of Squeekie to one of the end connections and the middle connection.

Describe what happens to the pitch of the tone from Squeekie as you rotate the potentiometer control.

.....  
.....

How does the resistance between the two potentiometer connections change as you rotate the potentiometer control?

.....

- (c) Move the crocodile clip connection from the one end terminal of the potentiometer to the other end connection.

Describe what happens to the pitch of the tone from Squeekie as you rotate the potentiometer control.

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.....

How does this differ from your answer to part (b)?  
(If necessary, swap back and check)

.....  
.....

How does the resistance between the two potentiometer connections change as you rotate the potentiometer control?

.....

- (d) Draw a diagram to show how the resistance between the centre connection of the potentiometer and the end connections are arranged.

**Further investigations.**

- (e) By using books or the Internet for research:-

- (i) Draw the electrical symbol for a potentiometer in the space below. Remember to state where you found the information.

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- (ii) Name the materials that is used to make potentiometers. Remember to state where you found the information.

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- (f) Describe how you could use a potentiometer to form a variable resistor.

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