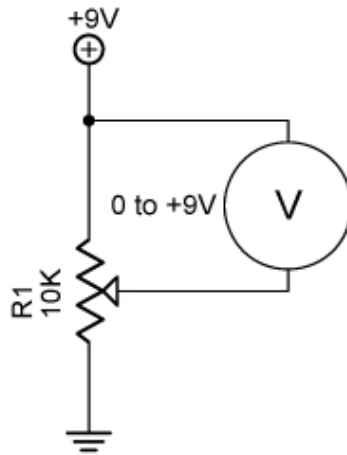


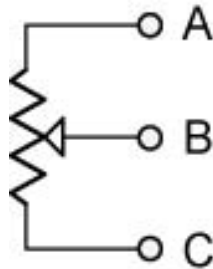
Potentiometer Voltage Divider



Potentiometer Voltage Divider

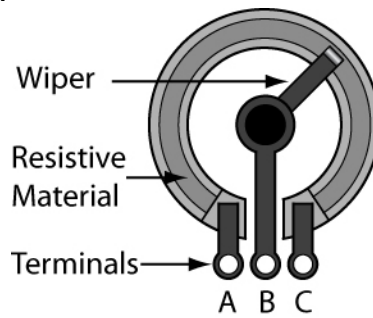
Explanation:

- **Potentiometers:** A potentiometer is a type of variable resistor that is used in circuits having low power. They are used to divide voltage and they come with three terminals.
- Symbol:



- The resistance between A and C is constant and the value of the potentiometer.
- The resistance between A and B & B and C changes according to the position of the wiper.

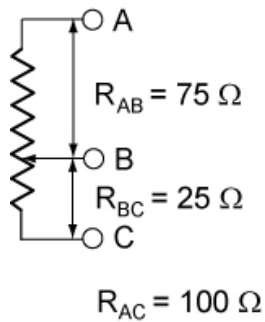
- Construction:



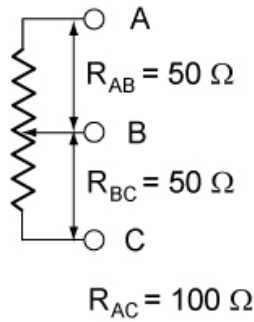
Basic Potentiometer Construction

- Moving the wiper of a potentiometer:

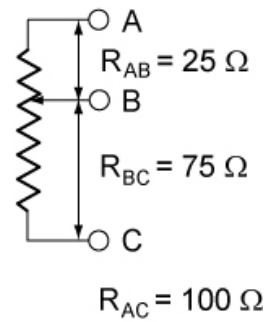
In the figures below, the resistance R_{AC} remains $100\ \Omega$ in all three cases. R_{AB} and R_{BC} change as the wiper rotates.



1/4 Turn

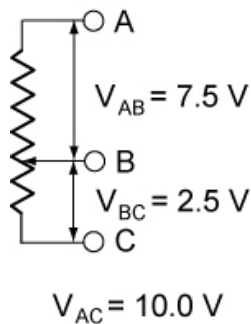


1/2 Turn

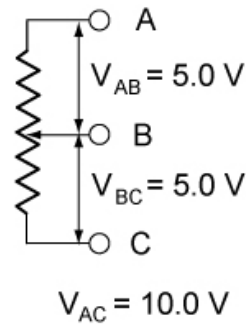


3/4 Turn

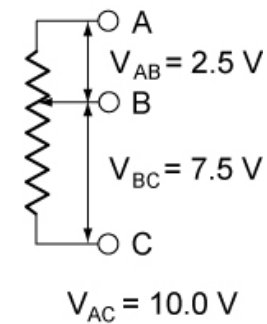
If 10.0 volts is applied to the two end terminals A and C, the voltage on terminal B varies from 0 to 10.0 volts.



1/4 Turn



1/2 Turn



3/4 Turn

Related Lesson:

http://cornerstonerobotics.org/curriculum/lessons_year1/ER%20Week9,%20Potentiometers.pdf