

Technology Electrical systems and control

Unit Three: Resistor Colour Codes

In science and in Grade 8, we learnt that the law of energy says that it cannot be made or destroyed, it can only be _____.

For example, sound energy can be _____ into _____.

Electrical energy can be transformed into _____.

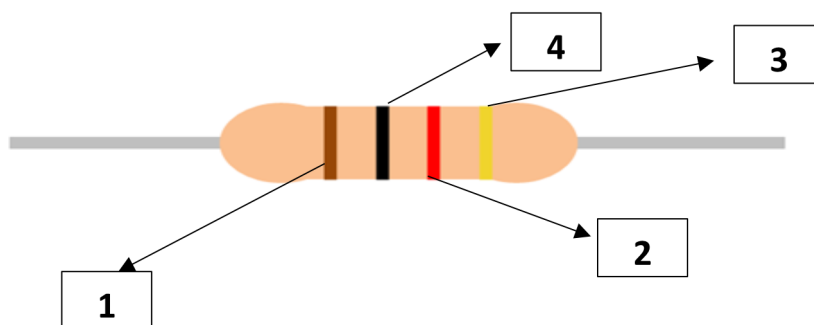
In the previous section, we were introduced to the idea of resistance. That resistor is used to control the current in a circuit so that other parts or components of the circuit do not get damaged if the current is too high.

Refer to your electrical component sheet and draw a symbol of a resistor below:

There are two types of resistors; fixed and variable resistors. A variable resistor allows you to change or adjust the resistance or the resistor whereas a fixed resistor has a set value that cannot be changed.

Resistors have bands on them, which allows us to interpret their colour codes. The colour band positions are important when interpreting the resistance value of a resistor.

Consider the resistor below:



Understanding each of the bands:

- Band 1, 2 and 3 give you the value of the resistor where band 1 would be the first number, band 2 the second number and band 3 the third number.
- Band 4 gives you the accuracy (tolerance) and this is written as a percentage, consider the table below: