

# Electromagnet

## 12V.DC.



### EM1820-001 U Core & Armature

#### Description:

This simple electromagnet consists of two 10mm diameter iron cores inserted into bobbins and wound with copper wire. Each iron core is welded to a yoke so that a 'U' shaped magnet is formed. Each side of the bobbins, 4mm socket head spin free terminals permit the connection of either wires or 4mm banana plugs. The two bobbin coils are connected in series with one another so that the current in one coil is the reverse direction to the other so that when DC current flows through the coils, one pole becomes a NORTH pole and the other becomes a SOUTH pole.

A flat iron 'Armature' is provided to close the magnetic circuit. The armature is held tightly to the poles by the magnetic field. The armature is provided with a hook so that weights may be hung to determine the holding force of the electromagnet.

#### Specifications:

Normal voltage to the terminals: up to 12V.DC

Coil Turns: 600 turns each. Coil Resistance: To be measured by student

Refer to text books, class notes or Instructor information for experiments relating to:

- Number of turns on a coil, the resistance of a coil, the heating in a coil, the iron circuit, magnetic pull, direction of current in a coil for North/South polarity in the iron. And so on.

Length: 205mm	Width: 75mm	Height: 70mm	Weight: 420g
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Designed and Manufactured in Australia

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