

## Oersted's Law apparatus

Oersted's Law Apparatus: Examine magnetic effect of electric current flowing in a wire. Our 15 cm long The permanent magnetic needle rotates freely inside the metal frame that allows current to flow over or under the needle in either direction

### 3. Operation

Connect a dry cell battery (6V, capable of high current output) to the binding posts and observe the deflection, or dip, of the magnetic needle with respect to the direction of the current.

Move the magnetic needle to various positions and continue to observe the deflection.

Reverse the direction of the current passing through the frame and again observe the deflection of the needle at different positions.

From the observations, it is possible to determine the direction of the magnetic field around a current-carrying conductor and to formulate a rule for the relationship between the direction of the current and the direction of the resulting magnetic field.

