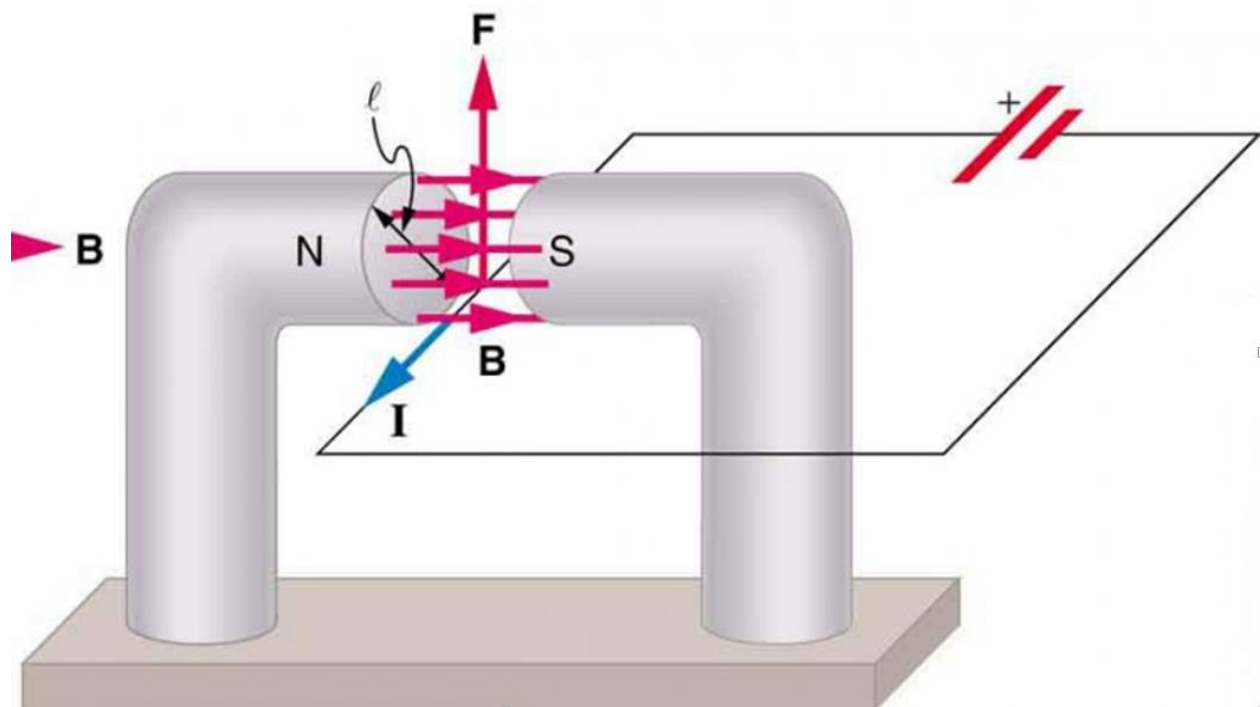
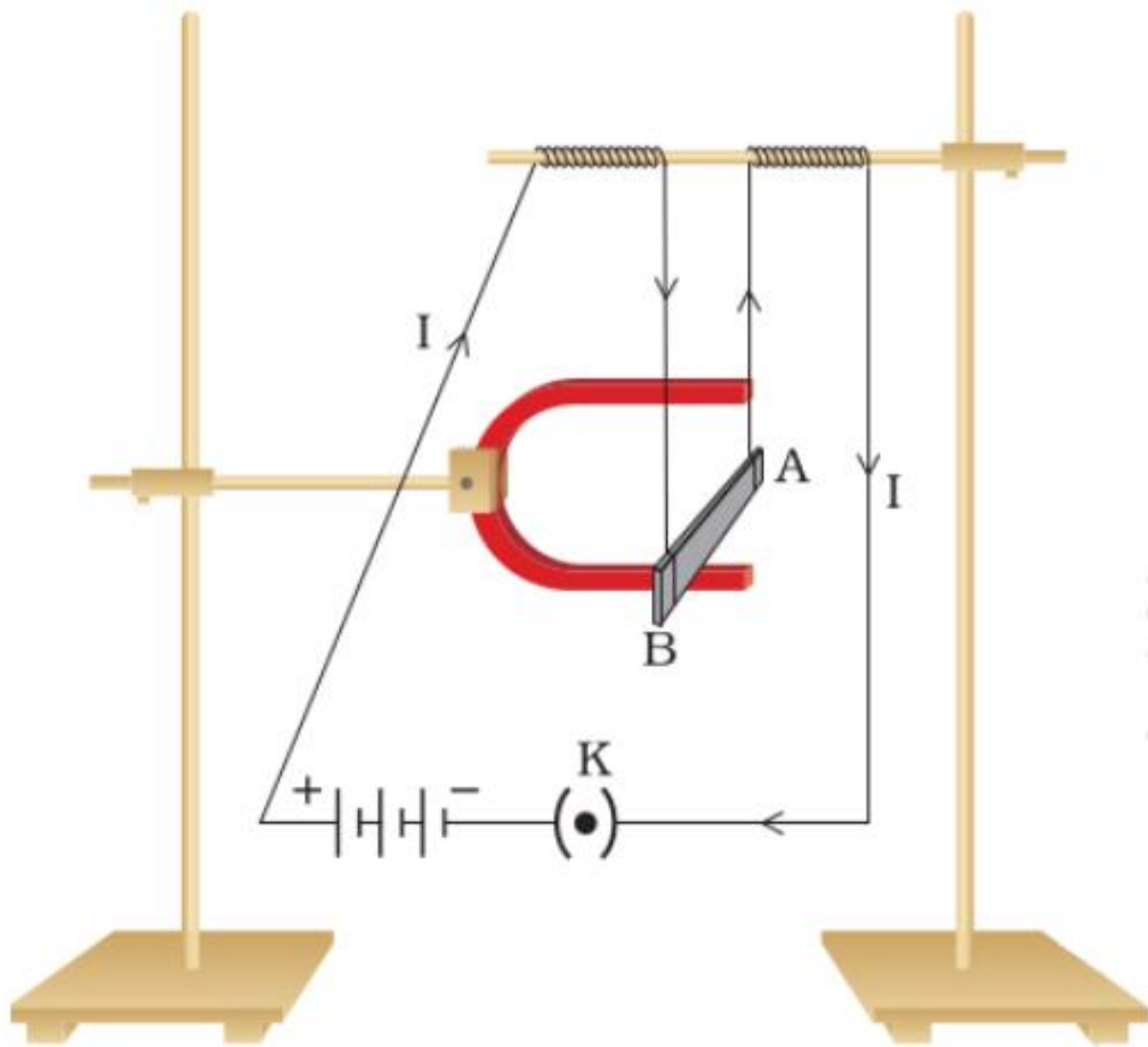


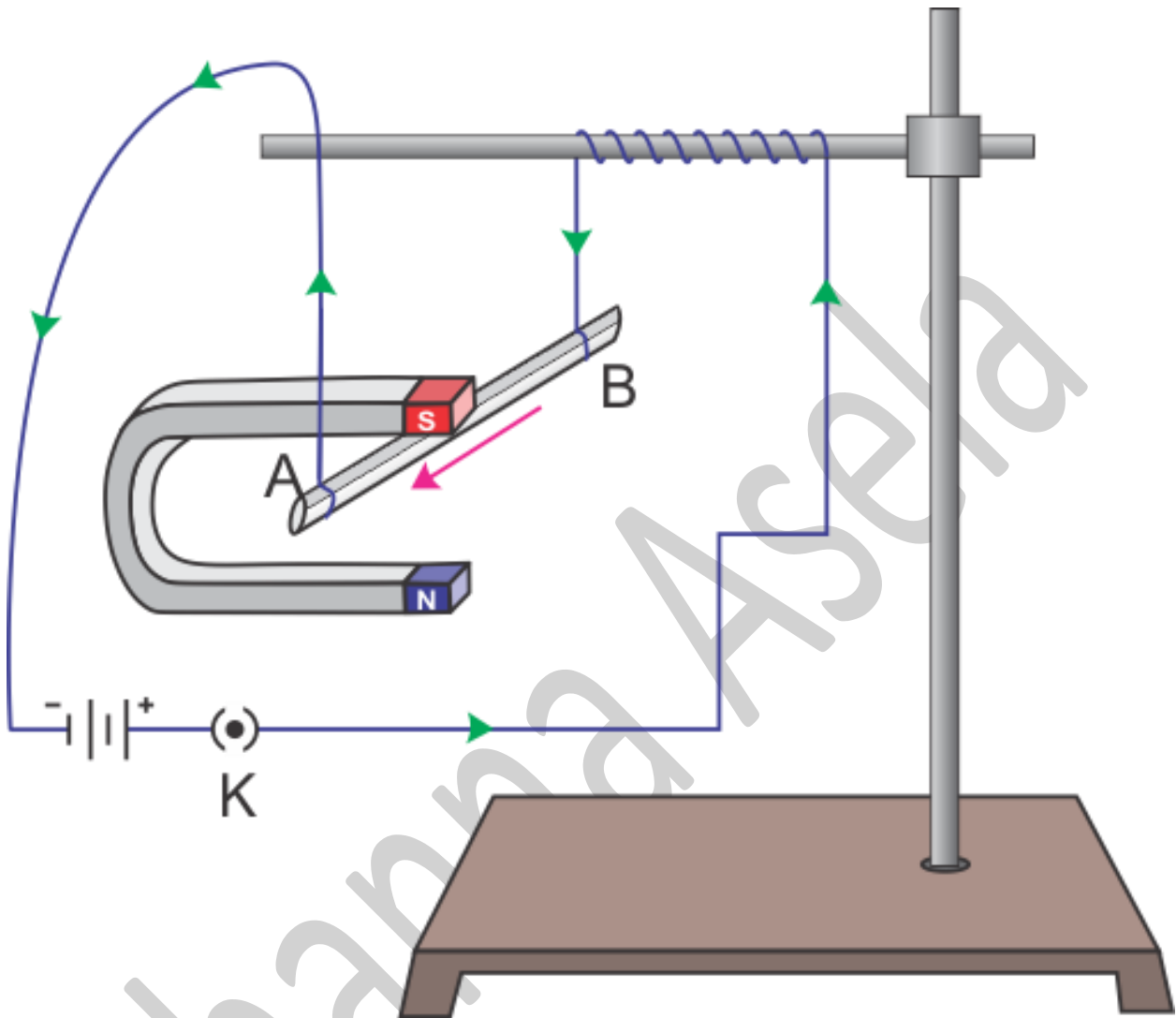
Force acting on a ..... carrying conductor placed in a .....

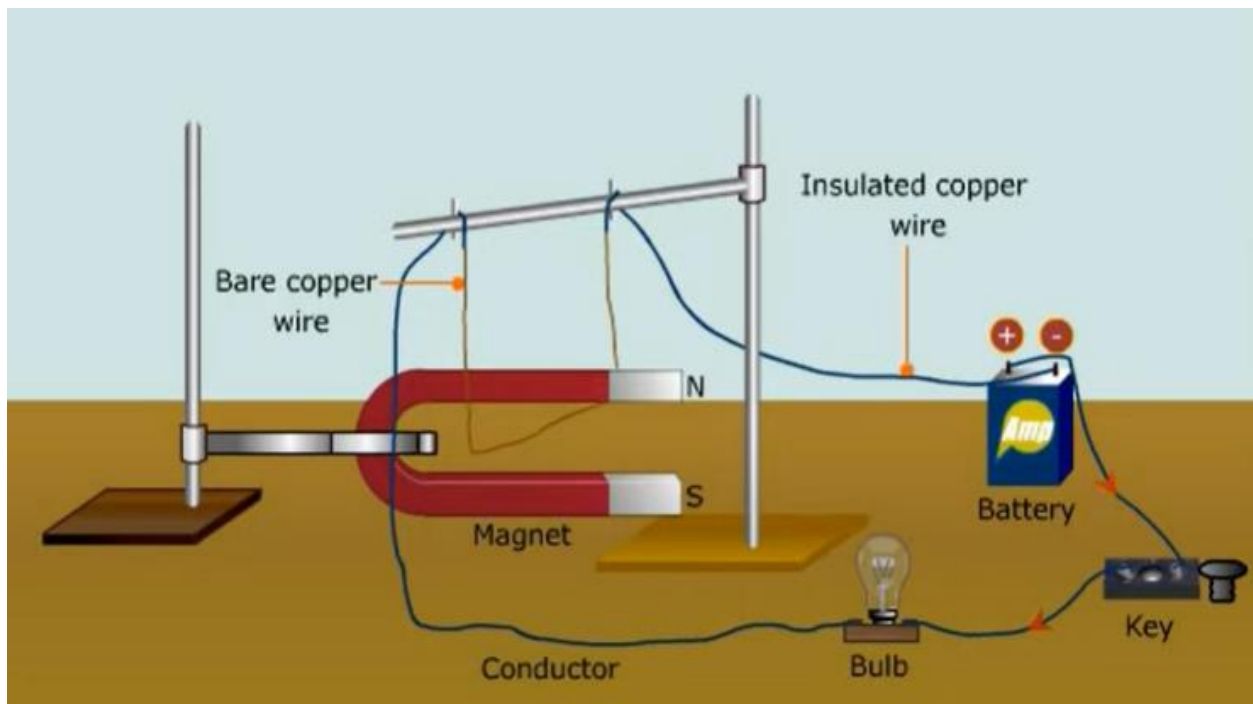
- 1) When a ..... carrying conductor is kept in a ....., a ..... will be applied on the conductor.
  - 2) The ..... applied on the conductor will be
    - (i) ..... to the direction of the ..... and also
    - (ii) ..... to the direction of the .....
  - 3) When a ..... carrying conductor is placed in a ....., the wire experiences a ..... due to the interaction between
    - (i) the ..... of the permanent ..... and
    - (ii) the ..... produced by the ..... carrying conductor.
  - 4) The ..... carrying conductor generates its own ..... around it.
  - 5) This interacts with the external ..... of the permanent magnet.
  - 6) When two ..... interact there will be an ..... or ..... between them.
  - 7) This is based on
    - (i) the direction of the external ..... of the permanent magnet and
    - (ii) the direction of the ..... produced by the ..... carrying conductor.
  - 8) That is why the conductor experiences a .....
- \* This phenomenon is used in - Electric ....., ....., ....., ....., .....



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### Magnitude of the force

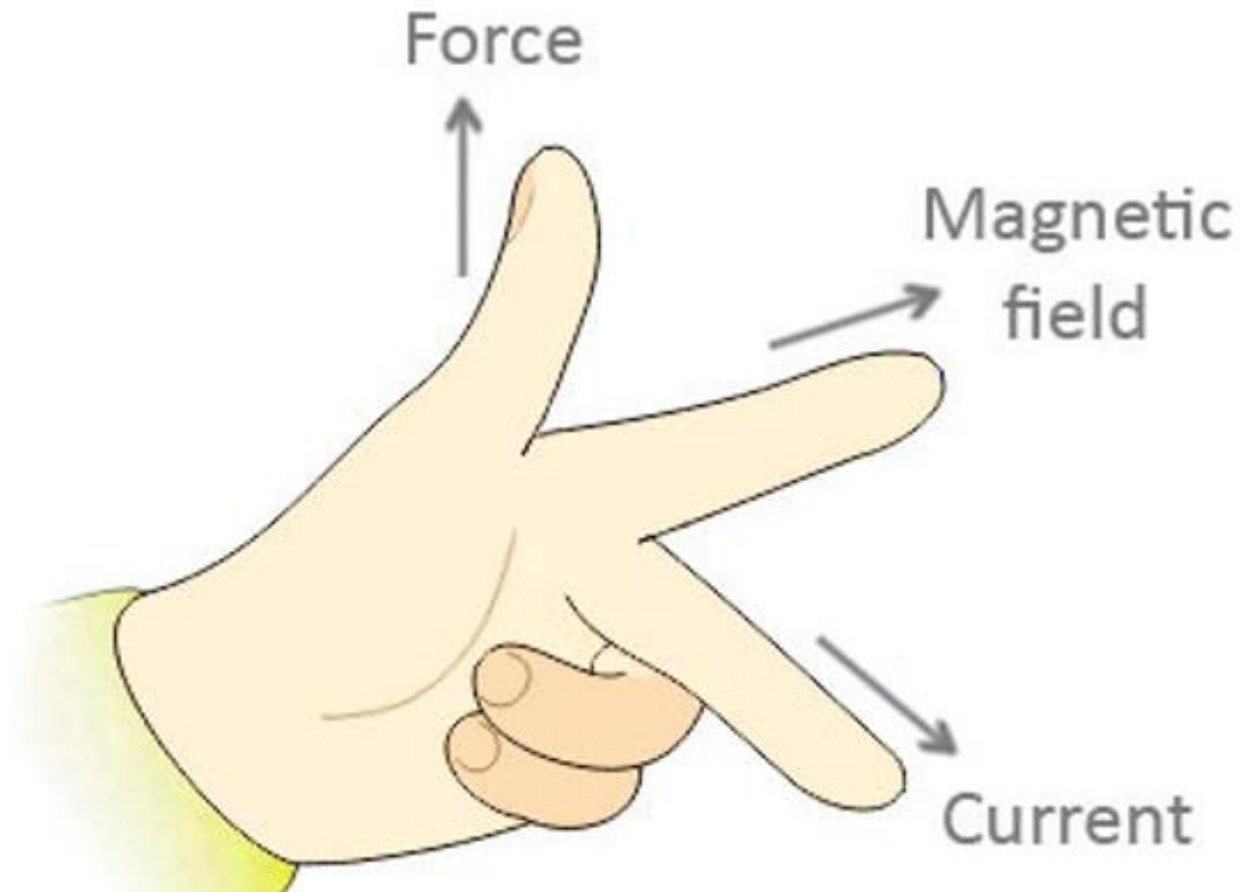
- 1) When a ..... carrying conductor is kept in a ....., a ..... will be applied on the conductor.
- 2) The magnitude of the ..... can be increased by
  - (i) Increasing the .....
  - (ii) Increasing the ..... of the conductor kept in the .....
  - (iii) Increasing the strength of the permanent .....

How to find the direction of the ....., applied on the ..... carrying conductor which is kept in a .....

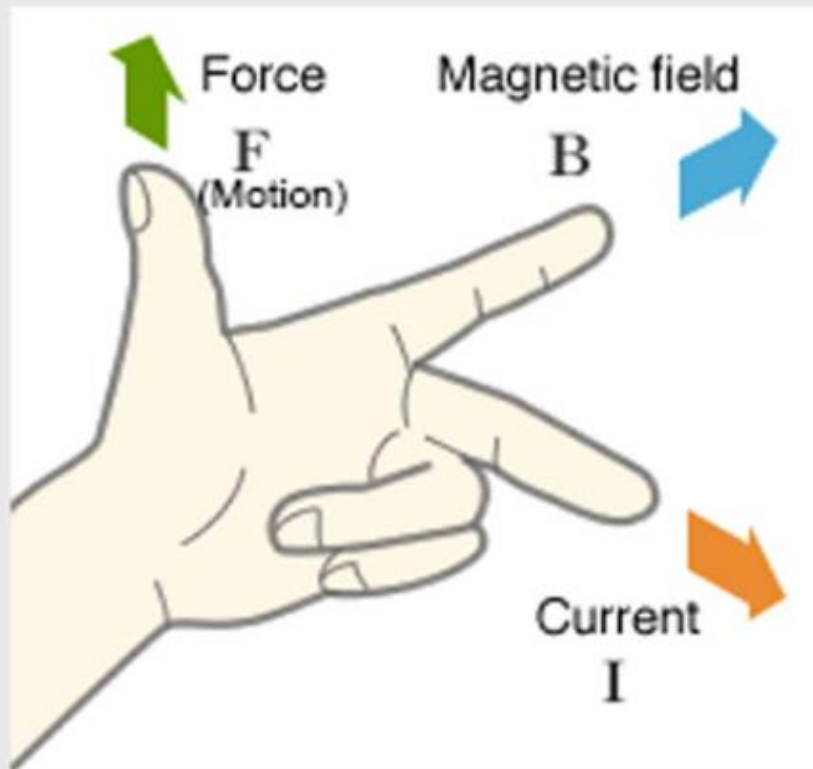
Use Fleming's ..... hand law.

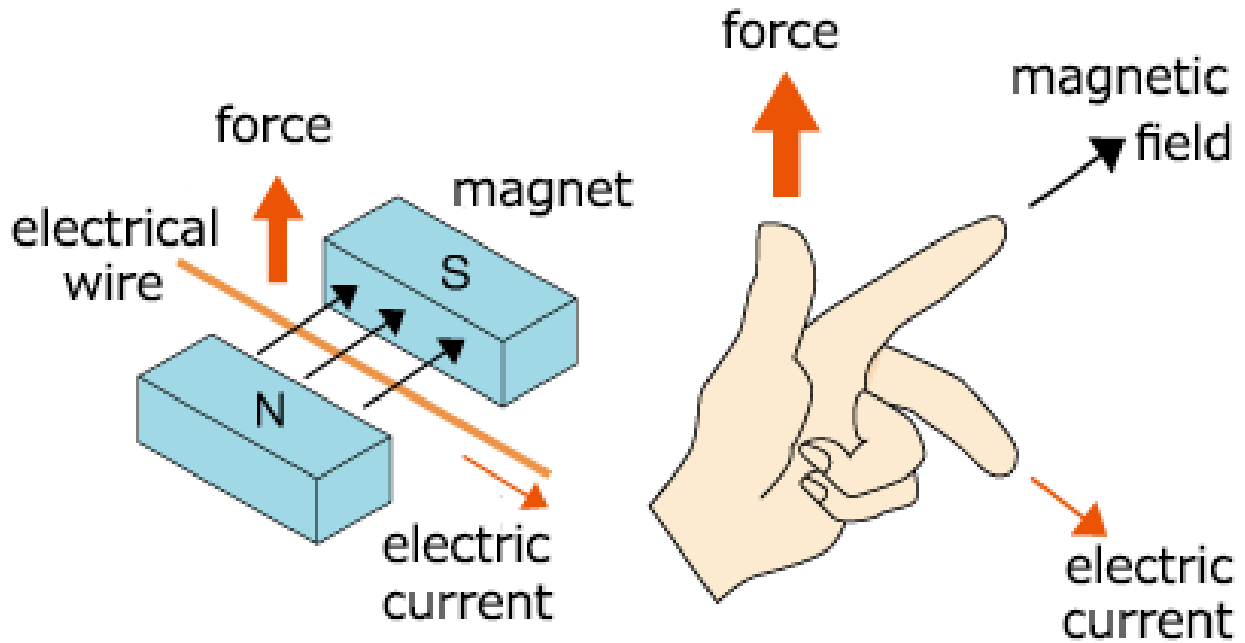
Fleming's ..... hand law.

- 1) Use the ..... hand.
- 2) Keep the ....., ..... and the ....., ..... angled to each other.
- 3) Direct the ..... (.....) to the direction of the ..... (..... →.....).
- 4) Direct the ..... (.....) to the direction of the .....
- 5) The ..... (.....) will be directed to the direction of the ..... applied on the conductor.



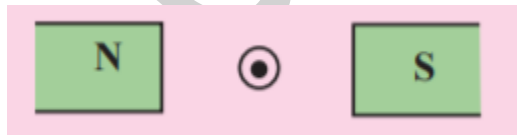
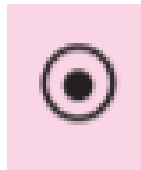
Fleming's left hand rule states that, when u keep the thumb, index finger and middle finger of the left hand right angle to each other, if the middle finger shows the direction of current, index finger shows the direction of magnetic field, then the thumb will show the direction of motion. This law explains the working of a DC motor.



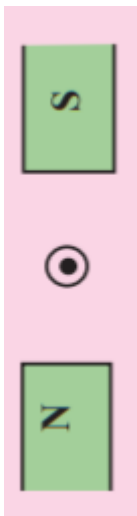
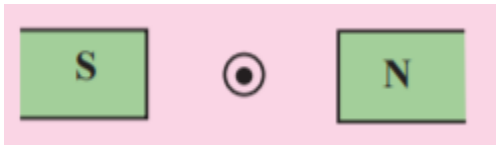


### Fleming's left hand rule

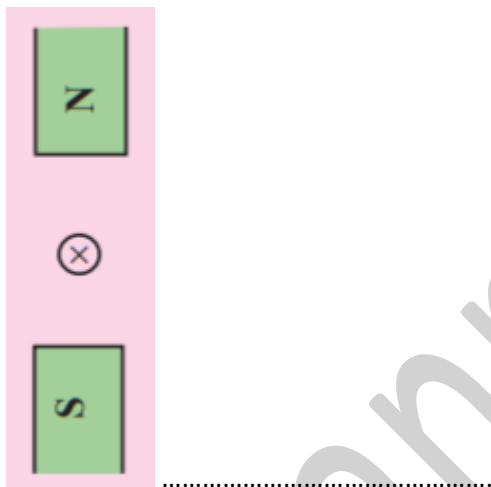
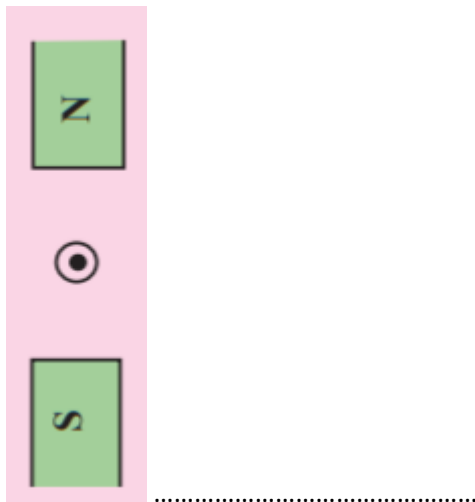
Find the direction of the ..... applied on the ..... carrying conductor which is kept in a .....





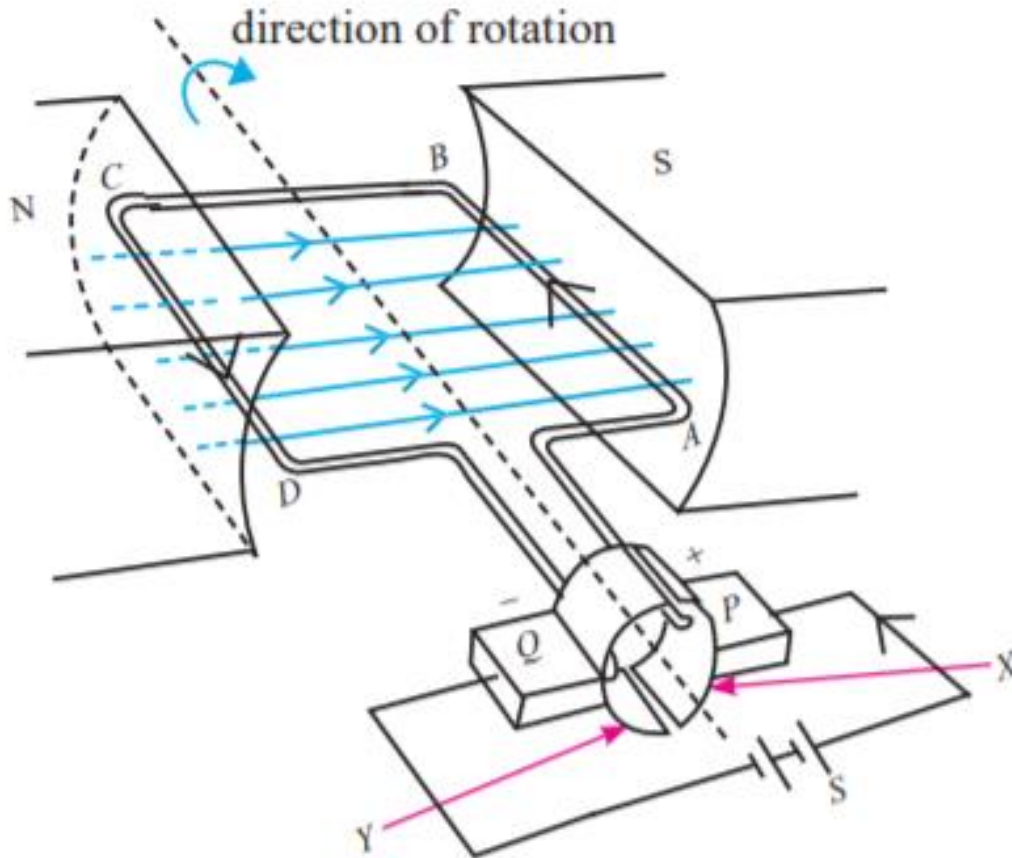


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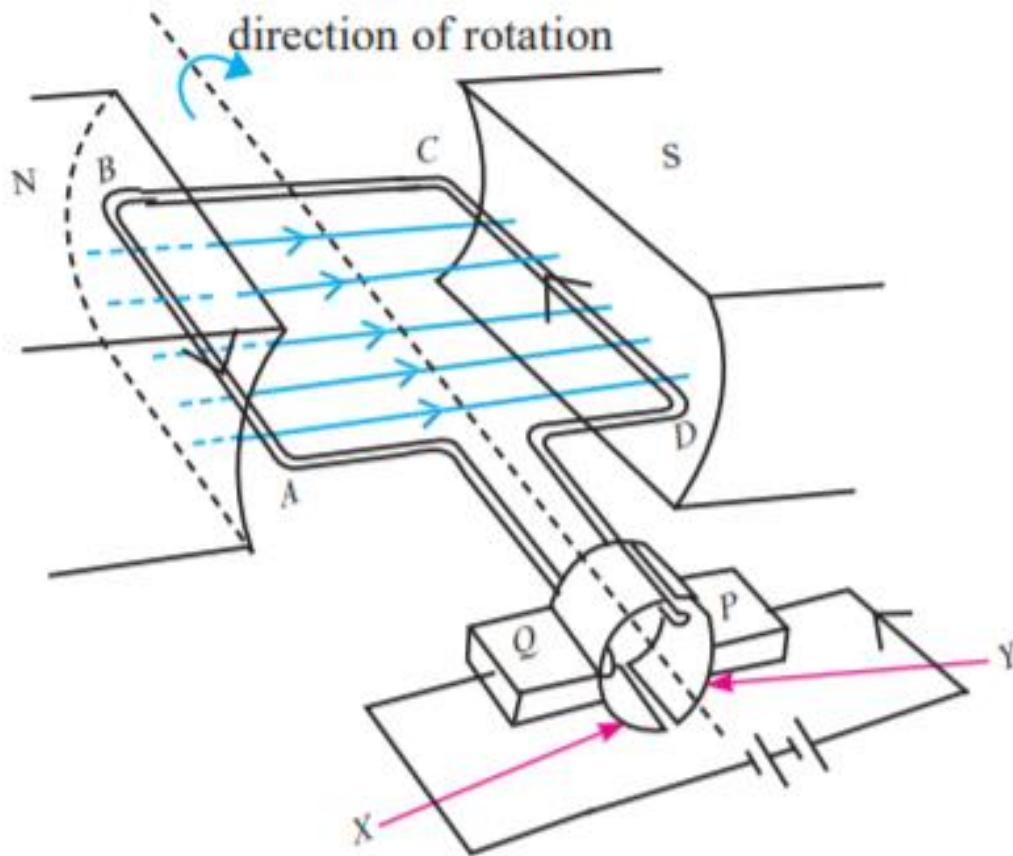


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D. C. Motor



- 1) ..... flows from the (....) terminal of the battery → ..... contact brush → ..... split ring → ..... → ..... → ..... → ..... → ..... split ring → ..... contact brush → (..) terminal of the battery.
- 2) A ..... force will be exerted on the ..... wire.
- 3) An ..... force will be exerted on the ..... wire.
- 4) Therefore the ..... will rotate ....., ..... wise.
- 5) Therefore the ..... wire will come to ..... position.
- 6) The ..... wire will come to ..... position.
- 7) With the ..... wire, the ..... split ring will come to ..... position
- 8) With the ..... wire, the ..... split ring will come to ..... position



9) Now current flows from the (.....) terminal of the battery → ..... contact brush → ..... split ring → ..... → ..... → ..... → ..... split ring → ..... contact brush → (.....) terminal of the battery.

10) A ..... force will be exerted on the ..... wire.

11) An ..... force will be exerted on the ..... wire.

12) Therefore the ..... will rotate ....., ..... wise.

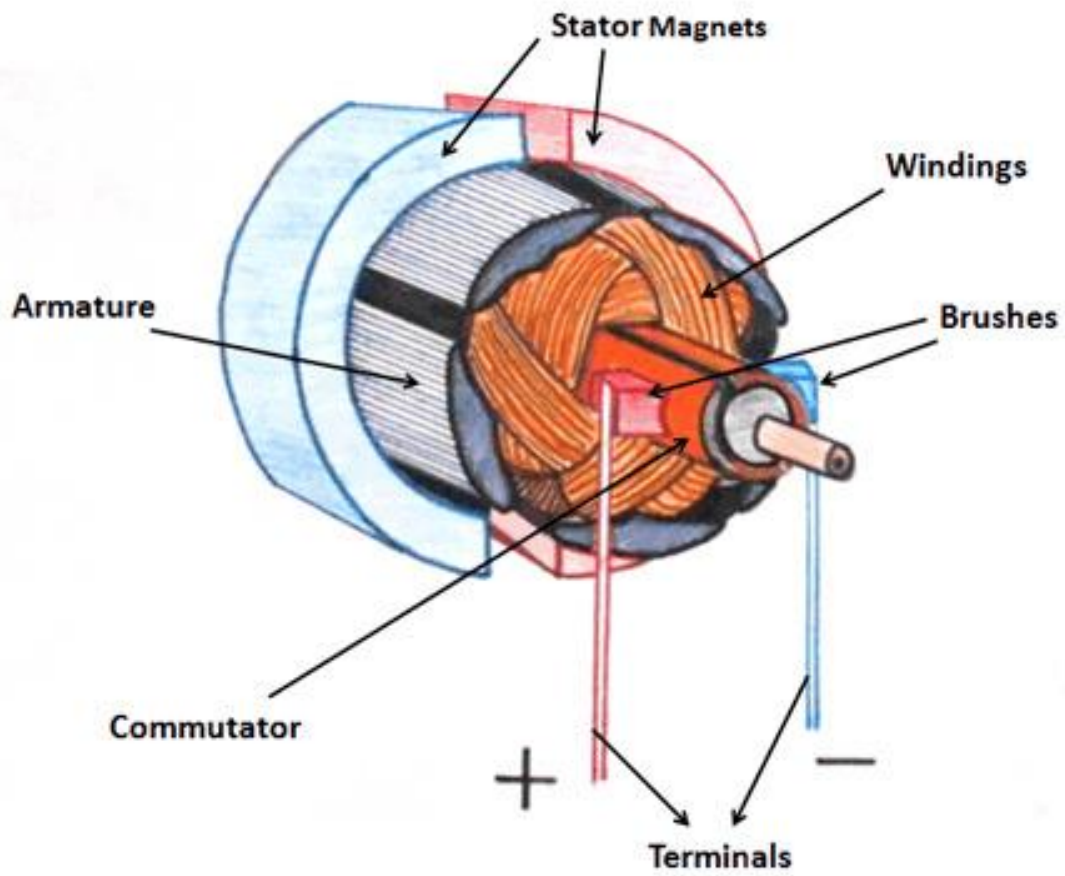
13) Therefore the ..... wire will come to ..... position.

14) ..... wire will come to ..... position.

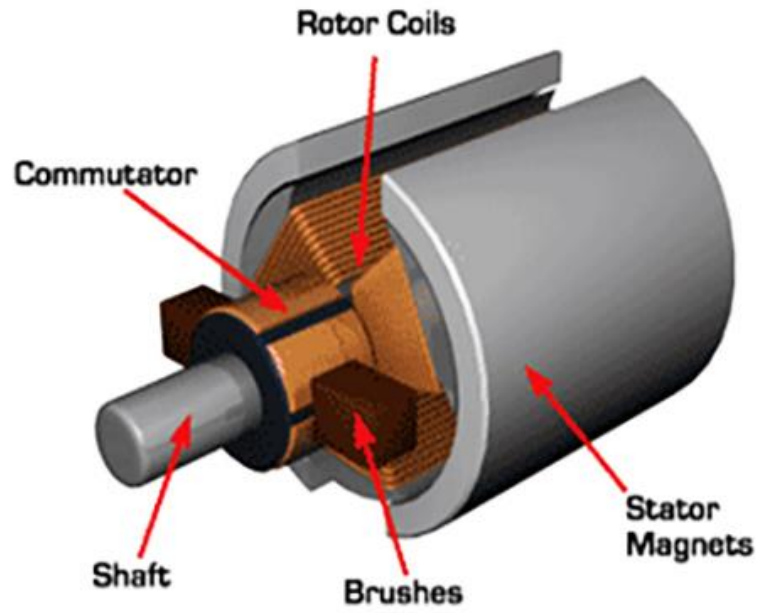
15) With the ..... wire, the ..... split ring will come to ..... position

16) With the ..... wire, the ..... split ring will come to ..... position

The energy transformation in a DC motore is ..... energy → ..... energy



Channa



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