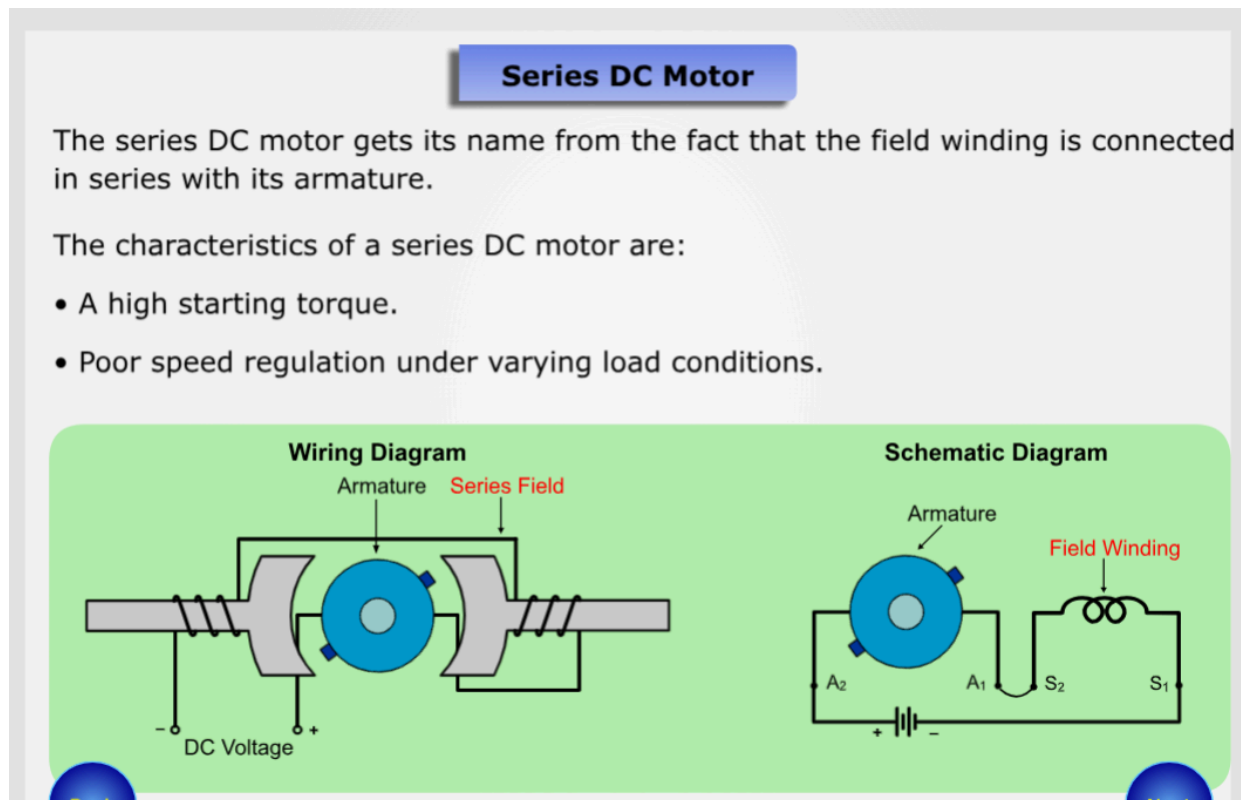


## Dc motor:

<https://www.wisc-online.com/learn/manufacturing-engineering/man-eng-electronics/iau11508/the-dc-motor>

<https://youtu.be/WzhMzIYHsiw?si=CKtHT7qE5sgQH7x>

<https://www.wisc-online.com/learn/manufacturing-engineering/man-eng-electronics/iau9508/basic-dc-electrical-motor-construction>



## DC motor principle:

[https://youtu.be/j\\_F4limaHYI?si=EvvcycuqveMjrCAw](https://youtu.be/j_F4limaHYI?si=EvvcycuqveMjrCAw)

## DC Shunt motor:

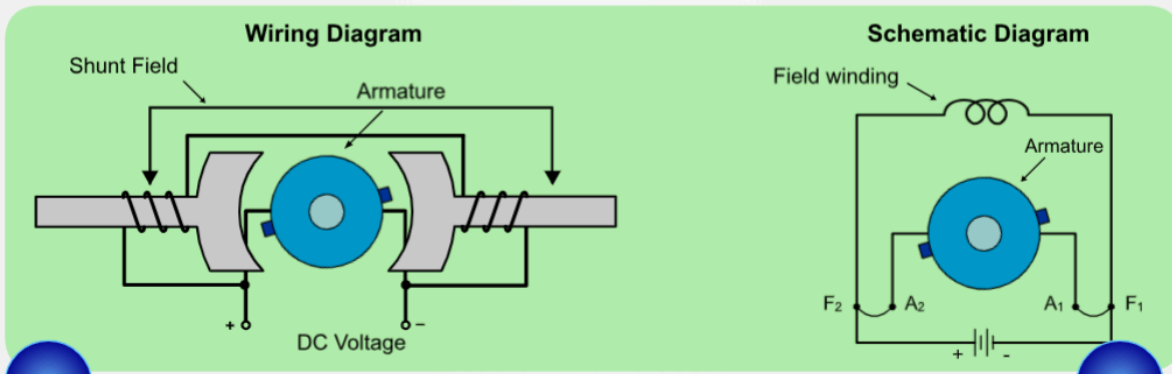
<https://www.wisc-online.com/learn/manufacturing-engineering/man-eng-electronics/iau13708/the-dc-shunt-motor>

## Shunt DC Motor

The shunt DC motor gets its name from the fact that the field winding is connected in parallel (shunt) with its armature.

The characteristics of a shunt DC motor are:

- A relatively low starting torque.
- Constant speed maintained under varying load conditions.



## Fundamentals of DC motor:

<https://www.wisc-online.com/learn/manufacturing-engineering/man-eng-electronics/dce17115/fundamentals-of-a-dc-motor>

## DC compound motor:

<https://www.wisc-online.com/learn/manufacturing-engineering/man-eng-inustrial-automation/iau13908/dc-compound-motors>

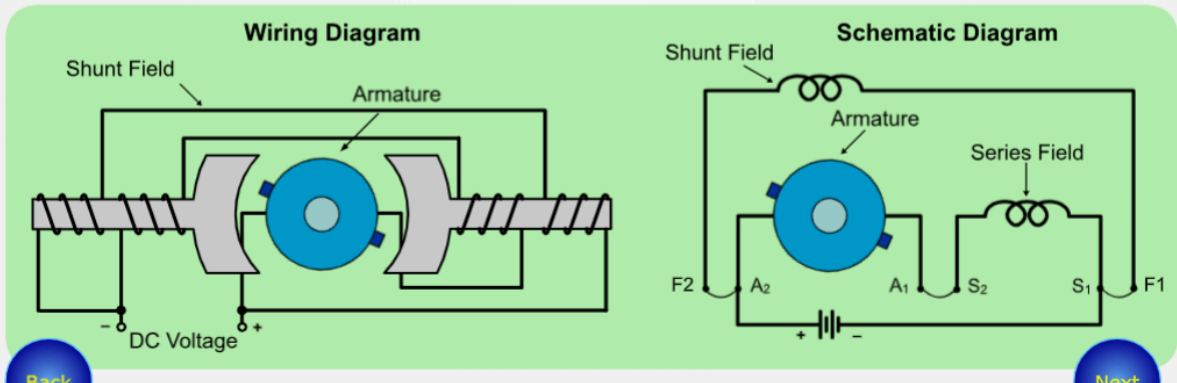
[https://www.youtube.com/watch?v=rLXyNxF36\\_U](https://www.youtube.com/watch?v=rLXyNxF36_U)

## Compound DC Motor

The compound motor consists of two field coils: one connected in series with the armature, and the other field coil in parallel with the armature.

The characteristics of a compound DC motor are:

- A high starting torque, but not as high as a series DC motor.
- Constant speed regulation, but not as constant as a shunt DC motor.



## AC motor:

<https://www.wisc-online.com/learn/manufacturing-engineering/man-eng-inustrial-automation/iau13408/armature-action-of-ac-motors>

## Induction motor:

<https://www.wisc-online.com/learn/manufacturing-engineering/man-eng-electronics/ace13615/the-torque-of-an-induction-motor>

<https://www.wisc-online.com/learn/manufacturing-engineering/man-eng-inustrial-automation/iau16112/motor-control-circuits>

<https://www.wisc-online.com/learn/manufacturing-engineering/man-eng-inustrial-automation/iau11808/the-three-phase-motor-stator-field>

## Torque-speed characteristics:

<https://old.amu.ac.in/emp/studym/6481.pdf>

**nptel course:**

<https://archive.nptel.ac.in/courses/108/102/108102146/>

**Theory:**

<https://robu.in/working-principle-of-dc-motor/>