



# Brushless Motors(BLDC):

## Explained In Simple Words.



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Visualize Electronics



# This Motor Type Powers:

**your drone, your laptop  
fan, even EV cars**

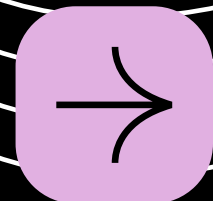
01

**Silently...**



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# Why the world is switching to brushless motors?

02

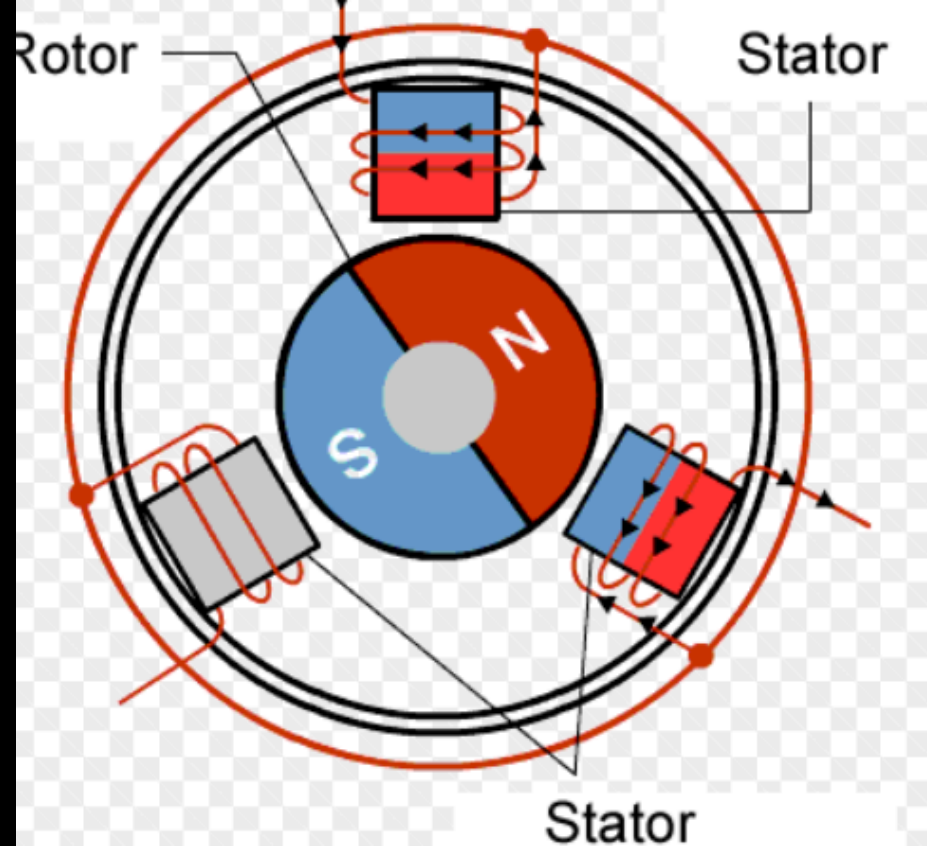
- The brushes are gone.
- They are faster.
- They work longer.
- They provide higher efficiency.



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# What is a Brushless Motor?



A BLDC motor is an electric motor where

- Magnets are on the rotor
- Coils are on the stator
- Switching is done electronically

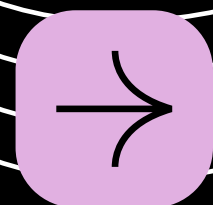
03

No brushes, no wear & tear



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# How They Work..?

-They convert electrical energy to mechanical energy.

04 -We use this mechanical energy to **spin and rotate** fan blades.



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# Brushed vs BLDC Motor Working

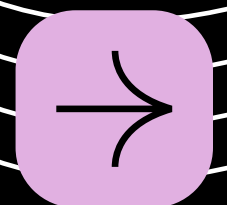
- Connect **two** wires of standard motor to power supply & motor rotates

- 05
- BLDC has **three** wires connected to a speed controller(ESC) to operate.



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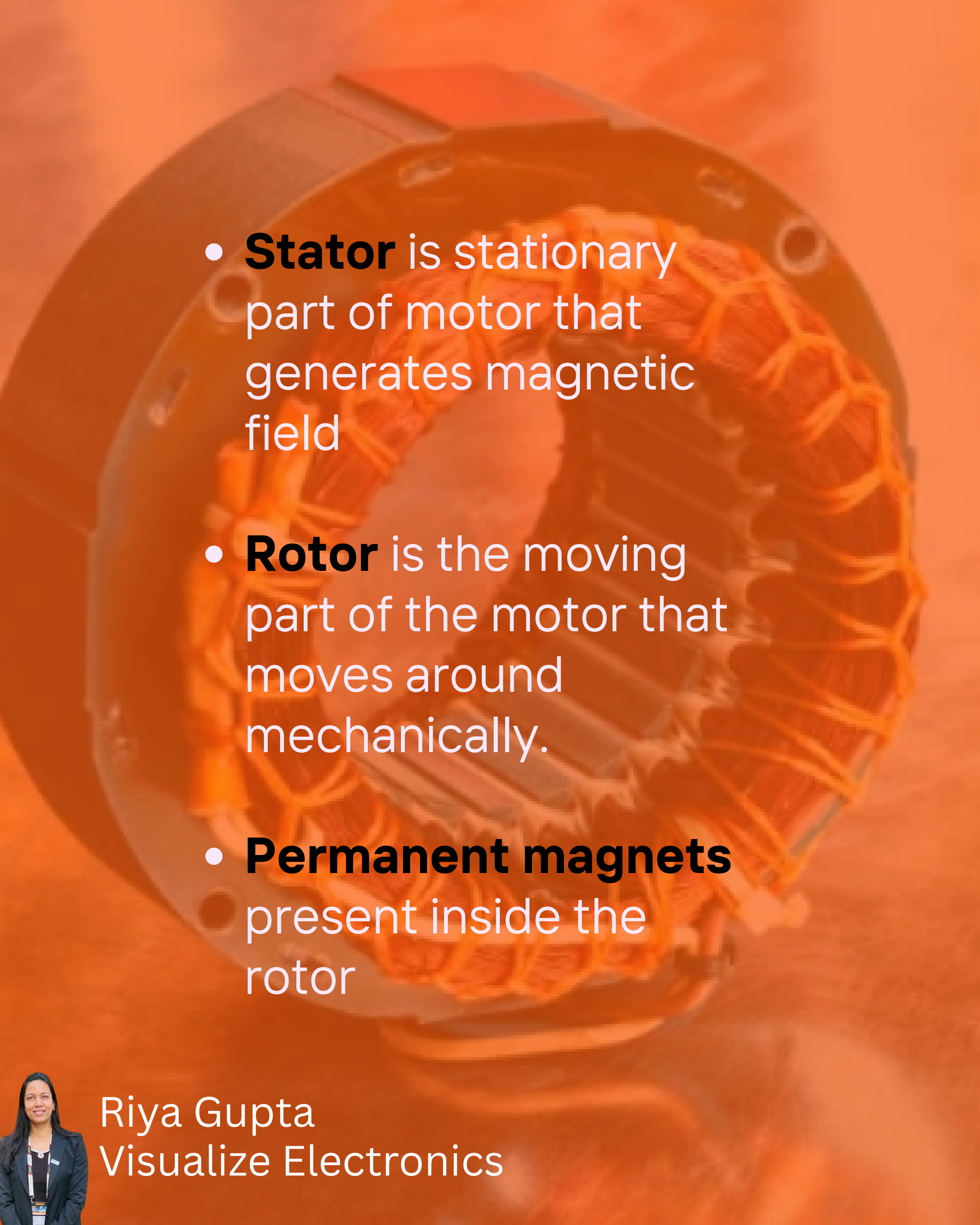
# BLDC Motor Structure

- **Three wires**  
representing three phase of motor
- **Shaft** is a long rod that goes from base to outside of motor.
- **Clip** is an attachment to hold the shaft in position



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- 
- **Stator** is stationary part of motor that generates magnetic field
  - **Rotor** is the moving part of the motor that moves around mechanically.
  - **Permanent magnets** present inside the rotor



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ENGINEERS LOVE BLDC  
MOTOR BECAUSE THEY  
ARE EASY TO CONTROL  
WITH ELECTRONICS.

**REPOST & SAVE**

