

# Motor Types

## Mechatronics, Lecture 13

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- AC Motor
- Stepper Motor
- Brushless (BLDC) Motor

# AC Motor

# AC MOTOR, 1

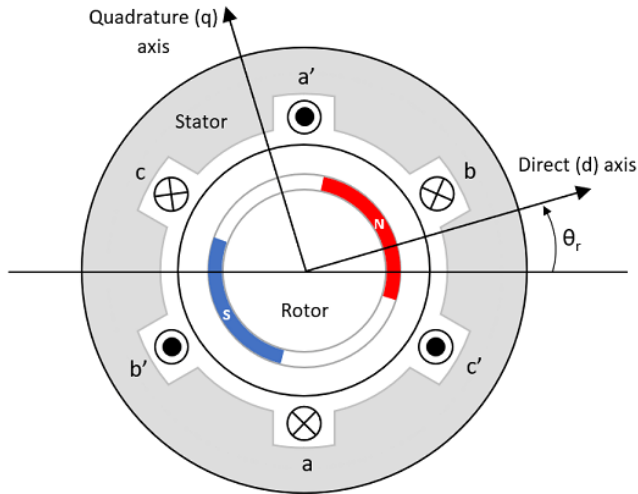


Figure 1: AC motor: permanent magnet type. Credit:  
[www.mathworks.com/help/mcb/ref/surfacemountpmsm.html](http://www.mathworks.com/help/mcb/ref/surfacemountpmsm.html)

# AC MOTOR, 2

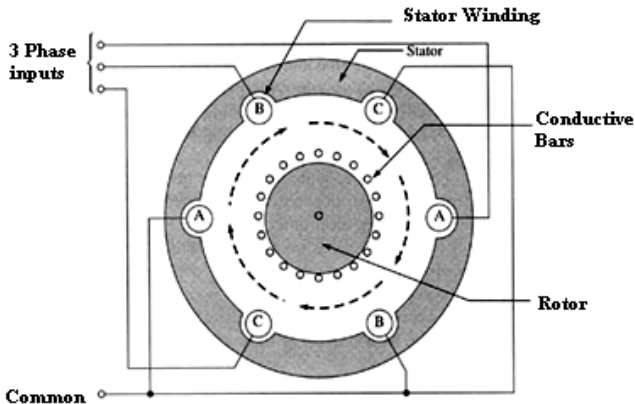


Figure 2: AC motor: asynchronous type, with a squirrel cage. Credit: [www.elprocus.com/multiphase-induction-motor](http://www.elprocus.com/multiphase-induction-motor)

# Stepper Motor

# STEPPER MOTOR, 1

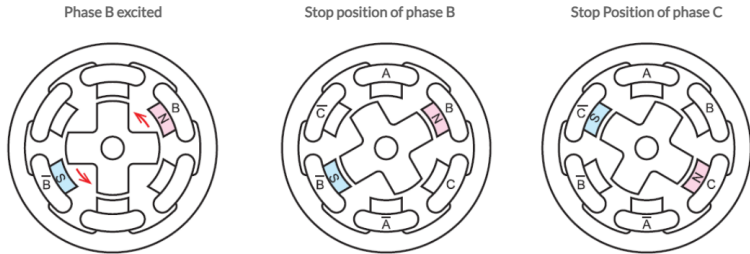


Figure 3: Stepper motor. Credit:  
[blog.orientalmotor.com/stepper-motor-basics-pm-vs-vr-vs-hybrid](http://blog.orientalmotor.com/stepper-motor-basics-pm-vs-vr-vs-hybrid)

# STEPPER MOTOR, 2

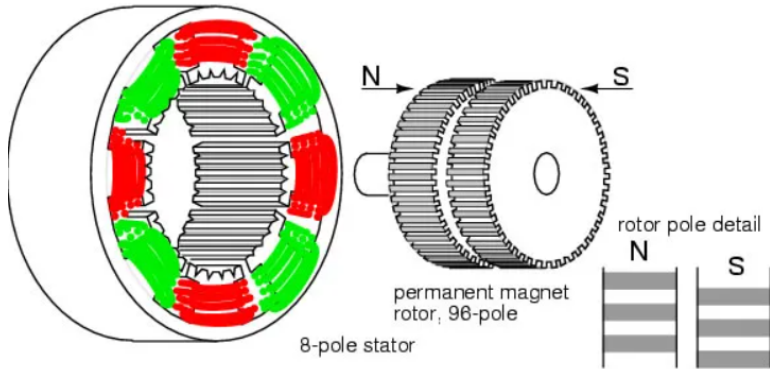


Figure 4: Stepper motor, Variable reluctance stepper. Credit: [ibiblio.org/kuphaldt/electricCircuits/AC/AC\\_13.html](http://ibiblio.org/kuphaldt/electricCircuits/AC/AC_13.html)



# STEPPER MOTOR, 3

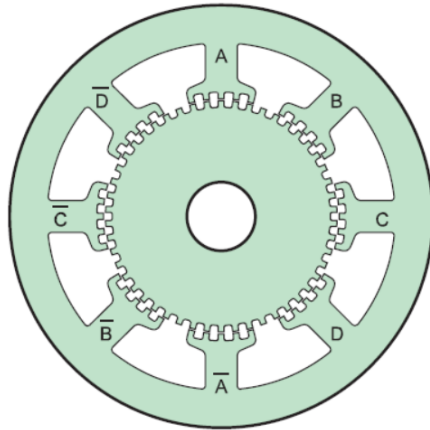


Figure 5: Stepper motor, hybrid type. Credit:  
[ibiblio.org/kuphaldt/electricCircuits/AC/AC\\_13.html](http://ibiblio.org/kuphaldt/electricCircuits/AC/AC_13.html)

# Brushless (BLDC) Motor

# BLDC MOTOR

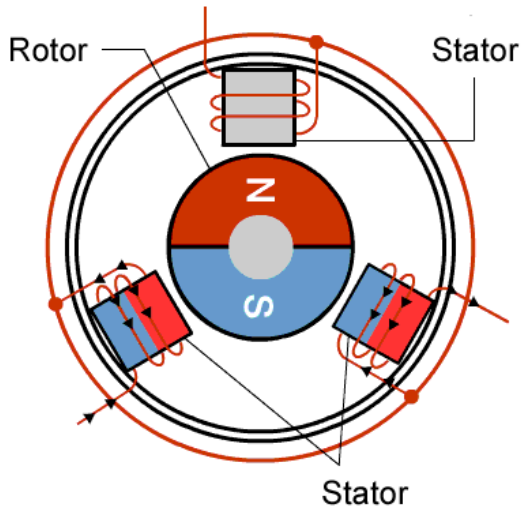


Figure 6: BLDC motor. Credit:  
[elettroamici.org/en/nozioni-di-base-sui-motori-blcd](http://elettroamici.org/en/nozioni-di-base-sui-motori-blcd)

Lecture slides are available via Github, links are on Moodle

You can help improve these slides at:  
[github.com/SergeiSa/Mechatronics-2023](https://github.com/SergeiSa/Mechatronics-2023)

