Motor Types Mechatronics, Lecture 13

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CONTENT

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

AC Motor

AC Motor, 1

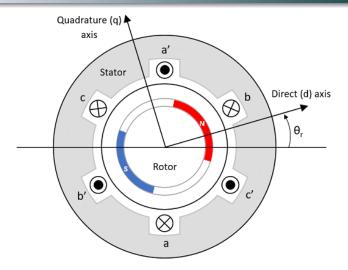


Figure 1: AC motor: permanent magnet type. Credit: www.mathworks.com/help/mcb/ref/surfacemountpmsm.html

AC Motor, 2

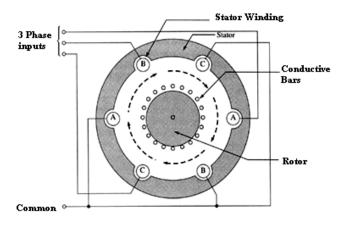


Figure 2: AC motor: asynchronous type, with a squirrel cage. Credit: www.elprocus.com/multiphase-induction-motor

Stepper Motor

STEPPER MOTOR, 1

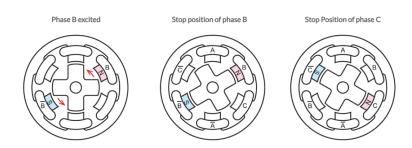


Figure 3: Stepper motor. Credit: blog.orientalmotor.com/stepper-motor-basics-pm-vs-vr-vs-hybrid

STEPPER MOTOR, 2

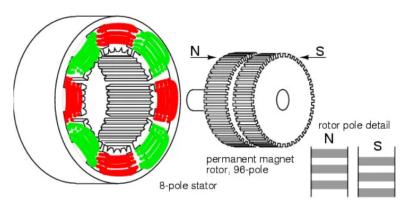


Figure 4: Stepper motor, Variable reluctance stepper. Credit: ibiblio.org/kuphaldt/electricCircuits/AC/AC_13.html

STEPPER MOTOR, 3

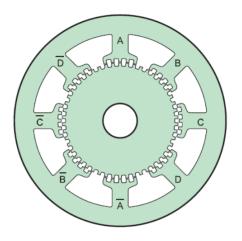


Figure 5: Stepper motor, hybrid type. Credit: ibiblio.org/kuphaldt/electricCircuits/AC/AC_13.html

Brushless (BLDC) Motor

BLDC Motor

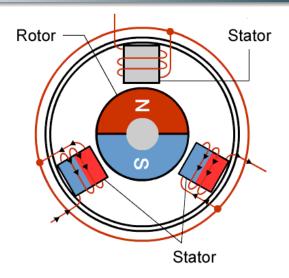


Figure 6: BLDC motor. Credit: elettroamici.org/en/nozioni-di-base-sui-motori-bldc

Lecture slides are available via Github, links are on Moodle

You can help improve these slides at: github.com/SergeiSa/Mechatronics-2023

