

GEOS 24705 / ENST 24705

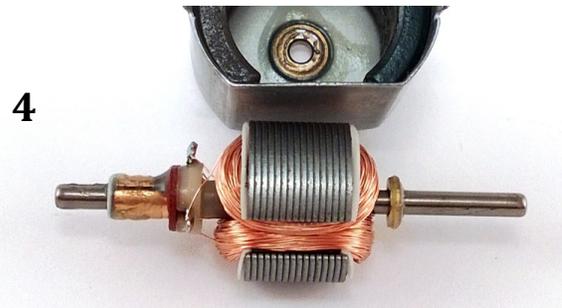
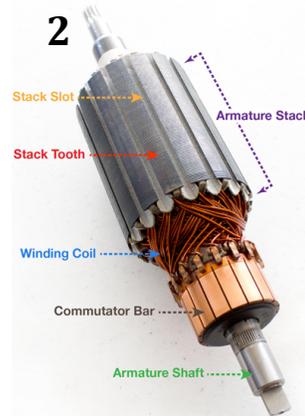
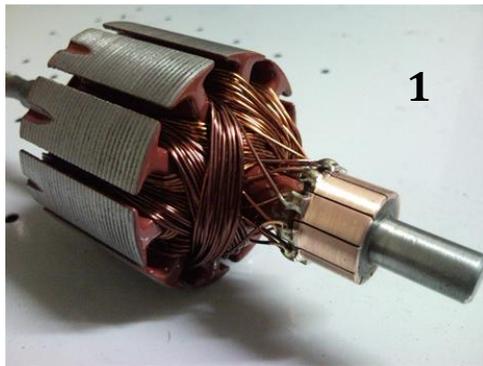
Problem set #11

Due: Thurs. May 6th

Problem 1: Simple DC motors.

I wasn't sure from the responses on PS10 that people really understood the DC motor commutator. So let's try again.

A. For the DC motors below, rank the motors by the smoothness of the force they produce. Discuss, explain.



- A.** Read the posted article about the Niagara hydropower transmission project. Describe the different proposed power transmission methods. (Note: you can skim much of the article but read carefully about the technology choices for power transmission.)
- B.** You'll note that many of the electrical transmission proposals involved DC power, even over 20+ miles. People were proposing workarounds for the line loss problem: they proposed transmitting DC at high voltage and then using either of two different "kludges" for stepping the voltage down again in Buffalo. **Describe the approaches; draw pictures of each.**