Project Information

The rubrics for grading the motor-generator project are reproduced below. This project consists of three parts: (1) construction of a motor-generator set; (2) description of your motor-generator set; (3) evaluation of the motor-generator sets that have been created by others.

Project/Writing Assignment 2: (100 points)

- Technical Elements (60 points)
  - Construction of the motor-generator set (30 points) [20 points if you build your own and it works]
  - Discussion of the motor-generator history (5 points) and how it is important to society (5 points).
  - An accurate discussion of how the motor-generator works with appropriate figures (20 points)
- Other Elements (20 points)
  - Clarity of presentation (10 points). This includes good organization and use of figures.
  - Good research and references (10 points). The references should be cited in-line. Archival references are better than non-archival references. There should be several references that indicate that real research was done.
- Other Project Evaluations (20 points)
  - Completeness of the evaluation (10 points). Did you note the rubric features in the work of others?
  - Accuracy of the evaluation (10 points). Is your evaluation of these features accurate?

Students are expected to form teams of 2–4 students for construction of the motor-generator sets. Each student must turn in his or her own description of how his or her team's motor-generator set work. A maximum of 16 teams will be allowed; if more teams form, we will combine teams, starting with teams of 2 students. The descriptions of the motor-generator set are due on May 13, which is the last day of class.

Presentations of the motor-generator projects will held during the discussion sections on April 15, April 22, April 29, and May 6. Presentations will last 10 minutes, and there will be four presentations in each discussion section. Students may request a date (first-come, first-serve).

Send your team composition to Pat Sykes, along with any date requests, before March 24. After that date, we will put together teams randomly in groups of four and assign dates.

See the next page for the evaluation sheet:

MOTOR-GENERATOR PROJECT EVALUATION SHEET

Team number and member names:

Did the project work?

Was the design original or did they use a kit?

Is the design robust? Do the motor and generator work when they are shaken?

Is the design reciprocal? Do the motor and generator use the same coils? fundamentally the same design? completely different designs?