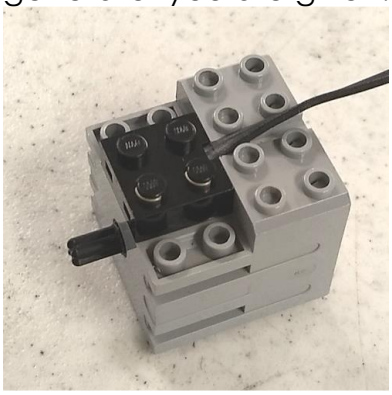
**WIND TURBINE CONTEST**

**Objective:** Build a wind turbine that can generate the most energy in 30 seconds.

**Rules:**

- Work in teams of 2 students.
- Your wind turbine must be homemade – you may not use any parts from a real or toy fan or windmill. Your turbine may be made of any other materials.
- Your turbine must be less than 24 inches in diameter.
- You will be given a gear and generator to use with your wind turbine. The gear should be glued at the center of your turbine. The generator should NOT be glued to your turbine – it fits in the gear and will be held to the turbine by friction. You must use the generator you are given.



- Your turbine should be able to spin freely when it is attached to the generator and held by the generator.
- Wind turbines that do not generate any voltage will receive less than a 70% grade.
- Turbines will be impounded at the start of class – you may not work on them during class!

**Scoring:**

**Score = Average Voltage**

The generator will be connected to a circuit with a voltmeter. Your turbine will be held in the wind from a large fan and allowed to get up to full speed. The voltage will then be measured once each second for 30 seconds. Your turbine must function properly for the full 30 seconds in order to get a score.

You will be allowed a second trial if there is enough time during class, but your score will be the average of your two trials.