

Experiment n°3: WIND ENERGY How does a wind turbine work?

NAME

- Purpose: Use the equipment at your disposal to understand the operation of a wind turbine.
- Material: mini-wind turbine, power meter.
- Follow the instructions and answer the questions, use full sentences.



1. Using the mini-wind turbine; blow on the blades:
What do you notice?
2. What types of wind turbines produce energy?
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3. What must be present in order to produce energy?
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4. This mini-wind turbine has a miniature alternator: identify this part in the model.
What is the role of this element?
.....
5. Now connect the turbine to the LED output device. Blow on the blades hard.
What do you observe?
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6. Identify the parameters which influence the efficiency of production of electrical energy in a wind turbine system?
Describe how you would carry out such an investigation.
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7. What does MW stand for? Convert this unit into Watts.
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8. Investigation: Use the internet to review wind power generation in Germany, UK, France and Spain.