



## Objectives

1. The student will produce electricity from dynamo.
2. The student will determine and understand energy transformation in Dynamo.

## Apparatus

- Experiments Board (Simple-2)
- Digital Multimeter
- Dynamo
- Jumpers
- LED

## Procedure & Conclusions

1. Build a simple circuit as shown in the photo.
2. Try to rotate the shaft of the motor by your fingers rapidly while watching the LED lighting.
3. **Note:** If the LED doesn't emit light, you need to either reverse it at the pair (D) and rotate the shaft with greater power.
- As you rotate the shaft of the dynamo, the LED ... emits / doesn't emit ... light.

4. Set the DMM to DCV mode (range 2000 mV), insert its probes at the pair (D) instead of the LED.
5. Try to rotate the shaft of the motor by your fingers rapidly while watching the Voltmeter reading.
  - This electric circuit is an example of transformation of ..... energy into .....

### Generating Electricity by Air:

6. Mount a fan on the shaft of the dynamo.
7. Try to blow air by your mouth towards the fan to rotate the shaft of the motor while watching the LED lighting.
  - As the shaft of the dynamo starts rotating, the LED ... emits / doesn't emit ... light.
  - The source that generates electricity from the dynamo is ... air / water ...

### Discussion

1. Discuss the benefits of producing energy and electricity from wind turbines.
2. Discuss energy transformation takes place in wind turbine.
3. Discuss different types of renewable energy sources.



**Wind Turbines for Generating Electricity**