

- Make sure to cut the wires about  $\frac{1}{4}$ " from the circuit so that you have lots of wire to work with for your panel
  - Strip the plastic coating from the ends of each wire to expose by about  $\frac{1}{2}$ "
1. Connect your solar panel to the multimeter
    - Connect one end of each of your alligator clips to your stripped wires
    - Connect the other ends of your alligator clips to your multimeter
    - Set the multimeter to 2000m direct current voltage.
    - Is your reading negative or positive? If it is negative, switch the alligator clips connected to the multimeter.
    - If your reading is in the thousands, switch your multimeter to 20m direct current voltage.
  2. Test the electromotive output of your fan
    - Use your different light sources (such as natural from a window, lamps, and flashlights) to see how your voltage reading changes.
    - Does your reading change if you cover the panel with your hand? What if you only cover half of it?
  3. Find light sources with different wattages
    - Check each lightbulb in your house to see if the wattage is written on the bulb.
    - Does the wattage change the electromotive output? What might this tell you about the light source?
  4. Disconnect your multimeter and connect your solar panel to a diode instead
    - Connect the alligator clips from your solar panel to each prong on a diode.
    - Can you find a light source powerful enough to light the diode?

