



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

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Project Title Living on the Cutting Edge: Analysis of Different Power Sources Used to Run a Lawn Edger	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals Our experiment was to determine what power source, other than gasoline, would best run a lawn edger. We thought that the solar panels would be the best power source.</p> <p>Methods/Materials The only variable in our experiment was the type of power source. We used an electrical cord, solar panels, solar panels with magnifying glasses, wheelchair battery, and rechargeable battery. Each power source was tested four (4) times, for a total of twenty (20) experiments. We timed how long it took to edge my yard. We controlled: days between edging, outside temperature, and area to be edged. Each experiment was done under the same conditions and controls.</p> <p>Results The five (5) power sources that we used in our experiment, in the final ranking order were: (1st) Rechargeable battery, (2nd) Solar panels with Magnifying glasses, (3rd) Wheelchair battery, (4th) Electrical cord, and (5th) Solar panels. The solar panels didn't have a lot of power.</p> <p>Conclusions/Discussion Our hypothesis was that the solar panels would be the best power source for running a lawn edger. We were wrong, it was the worst. The rechargeable battery was the best power source to run a lawn edger. It did not have a power cord to drag around and get in the way. It was lighter and easier to push around than the others. It had a lot of power. We then, designed our own lawn edger with a NiCd rechargeable battery and have a patent pending.</p>	
Summary Statement Our project was to find the best power source (not gasoline) to run a lawn edger.	
Help Received Our Mothers took us to the library and helped with the cost of our project. Mr. Ken Fortney made the final blueprints from our drawings. Mr. Broc Whitehead is our Patent Lawyer.	