



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

Name(s) Blake B. Tickell	Project Number J0831
Project Title Rodent Recharge	
Abstract Objectives/Goals My objective was to get my hamster to generate electricity using his exercise wheel and to store that electricity in a rechargeable battery. Methods/Materials 4 nail generators were made by wrapping each nail with enamel coated wire and spinning a magnet in front of them. The size of the wire, nail, and the strength of the magnet were varied, but they did not work. Then several box generators were made. Each was made with cardboard, a nail, wire, and 4 strong magnets inside. This lit the light bulb brightly. The box generators were then tested by hooking them up directly to a small wheel that spun the magnets when driven by the hamster wheel. Results My hamster was easily able to light the bulb as he ran and to store electricity in a battery. As a result, my hamster was able to generate 1.6 volts of electricity. He was also able to store 51 seconds of electricity for every 5 minutes of constant running. Conclusions/Discussion My hypothesis was correct because I was able to generate electricity with my hamster. I feel that if we look for alternative ways of using electromagnets and electronics, we can save a great deal of energy and help the global environment.	
Summary Statement In my project I tried to save energy by getting my hamster to generate electricity using his hamster wheel.	
Help Received Mom helped by finding supplies and helping me to drill holes in the base so the wheel could be attached.	