



**CALIFORNIA STATE SCIENCE FAIR
2003 PROJECT SUMMARY**

Name(s) Roy B. Flake	Project Number J0711
Project Title What Is the Optimum Power of a Solenoid?	
Abstract Objectives/Goals The objective is to find the optimum solenoid that will be more powerful and last just as long as the ordinary solenoid. Methods/Materials I took 10 feet each trial of the solenoid then put it into the ramp and tested it to see if it decreased or increased the power of the solenoid. Materials- solenoids, pinballs, wood, plexy glass, wire (hot, common, ground) Results The optimum power was trial #13. 130 feet was removed from the solenoid. Conclusions/Discussion The trials went very smooth. Trials 15-23 kept on going up and down for a while, but on trial 23, it burned out.	
Summary Statement My project is to amplify a solenoid so that it is strong and can last long.	
Help Received My Dad guided me when I built the ramp.	