

# CALIFORNIA STATE SCIENCE FAIR

## 2001 PROJECT SUMMARY



**Your Name** (List all student names if multiple authors.)

**Scott D. Jordan**

**Science Fair Use Only**

**S1407**

**Project Title** (Limit: 120 characters. Those beyond 120 will be ignored. See pg. 9)

**Acceleration by Magnetism**

**Division**

Junior (6-8)  Senior (9-12)

**Preferred Category** (See page 5 for descriptions.)

**14 - Physics & Astronomy**

**Abstract** (Include Objective, Methods, Results, Conclusion. See samples on page 14.)

Use no attachments. Only text inside these boxes will be used for category assignment or given to your judges.

**1) PROBLEM STATEMENT** - Can the force of magnets affect the acceleration of a moving car?

**2) HYPOTHESIS** - I believe that the "push" - "pull" forces from the magnets will increase the acceleration of the moving car.

**3) MATERIALS** - 1 frictionless track, 1 magnets track, 11 neodymium magnets, 1 car, 1 photogate timer, 1 block of styrofoam, 1 knife, 1 role of masking tape, 1 meter stick, 1 spring launcher

**4) PROCEDURE** -

A) Construct a magnet track to suspend magnets (by velcro) above the frictionless track

B) Place one magnets under the car and suspend the rest of the magnets (number depends on trial) above the track

C) Time the car's initial and final velocity with various numbers of magnets

D) Time the car with out magnets as a control

E) Compare the results

**5) RESULTS** - For every magnet added to the track the car became increasingly slower.

**6) CONCLUSION** - The magnets decrease the acceleration of the car.

**Summary Statement** (In one sentence, state what your project is about.)

I attempted to increase the acceleration of a moving car with the use of Neodymium magnets.

**Help Received in Doing Project** (e.g. Mother helped type report; Neighbor helped wire board; Used lab equipment at university X under the supervision of Dr. Y; Participant in NSF Young Scholars Program) See Display Regulation #8 on page 4.

I would like to thank Mrs. Judy Fusco for lending me her lab equipment.