



**CALIFORNIA STATE SCIENCE FAIR
2010 PROJECT SUMMARY**

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| Name(s) Brian M. Sussex | Project Number J1918 |
| Project Title What Are You Following? Will Following a Car with LED Brake Lights Attract the Attention of a Following Driver Quicker? | |
| Abstract Objectives/Goals Can a car equipped with quicker illuminating LED brake lights, as opposed to incandescent brake lights, attract the attention of a following driver quicker thus reducing the stopping distance in an emergency breaking situation? Methods/Materials An electronic apparatus was constructed to test how quickly people react to the illumination of LED and incandescent lights. Several people were tested and the reaction times were compared. Results The test subjects reacted an average of .067 seconds quicker to the LED light as opposed to the incandescent light. This translates to 6.89 feet in stopping distance traveling at 70mph. Conclusions/Discussion One could conclude that drivers do react quicker to LED brake lights as opposed to incandescent brake lights, therefore making the LED lights safer. | |
| Summary Statement LED brake lights on cars attract the attention of a following driver quicker than incandescent brake lights. | |
| Help Received Dad helped with overall project; Dr. Dunn (teacher) gave me advice about how to do the project. | |