

CALIFORNIA STATE SCIENCE FAIR 2014 PROJECT SUMMARY

Name(s)

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Project Number

J0726

Project Title

Influence of Environmental Light on Reaction Time

Abstract

Objectives/Goals

Daytime driving is generally safer than driving at night due to an abundance of light. The purpose of this project is to test if there is a relationship between the intensity of light and the reaction time of drivers.

Methods/Materials

- 1. 1 meter stick
- 2. Lux meter
- 3. Night light
- 4. Volunteers
- 5. Notebook 6. Computer
- 7. Pencil

Results

Based on the graph, fifty-five percent had faster reaction time in sunlight and thirty-five percent had faster reaction time in dim light. Meanwhile, the intensity of light did not affect the reaction time for ten percent of the subjects.

Conclusions/Discussion

My hypothesis was correct. I was not surprised that fifty-five percent of my test subjects had faster reaction time in sunlight. Due to the lack of visibility, the test subjects had a slower reaction in dim light then sunlight. Based on the results, it would be advisable for car manufacturers to consider the findings of this project to modify existing headlights.

Summary Statement

The purpose of this project is to test if there is a relationship between the intensity of light and the reaction time of drivers.

Help Received

School allowed me to use their equipment and field