

CALIFORNIA STATE SCIENCE FAIR 2003 PROJECT SUMMARY

Name(s)

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Project Number

J0309

Project Title

Color Fast or Color Slow: Which Color Is Best in Show?

Abstract

Objectives/Goals

My problem statement was: Does reaction time to a light stimulus depend on the color of the light? I tested to see if one specific color had a faster reaction time than another. I hypothesized that the reaction time will not be the same for all tested colors.

Methods/Materials

1 Photographic Color Enlarger, 1 Oscilloscope, 1 On Switch, 1 Off Switch, 1 White Box, 10 Data Sheets, Low Voltage Wire, 1 9V Battery, 1 9V Battery Connector, 9 Colors of Light, 10 Test Subjects, Sorce of AC Power, 2 Small Aluminium Boxes, 1 BNC Connector Wire, Chassis Punch, 1 CD Player, 1 Drill Press with drill bits, 1 T-Bevel, 1 Table Saw

Results

The color blue had the slowest reaction time. The color white had teh fastest reaction time, but magenta had the second fastest reaction time.

Conclusions/Discussion

From this experiment, I conclude that the subtractive colors of yellow, magenta, cyan and white have the fastest average reaction times.

Summary Statement

I tested the reaction time of people to ten different colors of light.

Help Received

My father helped me use the table saw, the drill press and the other tools. He helped me acuqire the oscilloscope and the color head.