

CALIFORNIA STATE SCIENCE FAIR 2013 PROJECT SUMMARY

Name(s)

Liana M. Caroccio

Project Number

J1303

Project Title

A Blast of Color

Abstract

Objectives/Goals

My hypothesis stated that by changing the air pressure of a high performance paint gun will it make the color of paint change lighter or darker? To test this hypothesis I followed a long procedure. The first steps were of course to make the specific color paint I had picked out.

Methods/Materials

After a series of mixing different ingredients to make the paint it is then strained into a cup that will be attached to the appropriate spray gun. Meanwhile in the paint booth, there are two manual stands with the spray out cards attached to them. These stands give us the ability to measure your spray distance from the test panel. This is how I didn't get any type of variance of distance. The test panels are then sprayed with a slow right to left motion, giving the same equal layer of paint on the panel. Ten minutes drying time was given to each test panel which is sufficiant in a heated downdraft paint booth. The next morning I measured the RGB in the paint with a colorimeter and gathered the data for results.

Results

The primary colors and overall appearance of the color to the eye changed with different levels of the air pressure.

Conclusions/Discussion

Proven by reaseach and data the more pressure added the lighter the color. Proven my hypothesis incorrect.

Summary Statement

My project was to see if adding air pressure to paint would effect the change in color.

Help Received

My father supervised all my hands on processes with preparation of paint, workstation, and equiptment. He also supported the cost of the project.