



**CALIFORNIA STATE SCIENCE FAIR
2005 PROJECT SUMMARY**

Name(s) Chris J. Davis	Project Number J0207
Project Title SPLAT! The Effect of Barrel Lengths on Paintball Accuracy	
Abstract	
Objectives/Goals My objective was to find out how different barrel lengths will effect the accuracy of different types of paintballs.	
Methods/Materials Materials: 1 paintball marker 3 barrels(8,12,16-inch) filled CO2 or compressed air tank 40 each of most expensive (Marbilizer), medium priced (All-Stars) and cheap (Stingers)paintballs 9 paper targets (disposable) paper and writing utensil to record data 60 feet of flat, clear, open area to test tripod measuring tape witness	
Results When I tested the 8-inch barrel for accuracy, the Stingers paintballs came in first, by far, with an average of 4.425 inches from the center of the target. The Stingers paintballs were also the only ones that had a bulls eye. When I tested the 12-inch barrel for accuracy, I found that the Stingers came in first again with an average of 4.725 inches from the bulls eye. The 16-inch barrel test was a whole different story. The All-Stars paintballs were first with an average of 2.7 inches away from the bulls eye. After calculating the averages of the three barrel lengths, I found that the 12-inch barrel had the best overall accuracy with an average of 5.45 inches from the bulls eye. I found that the All-Stars paintballs were the most accurate overall with an average distance of 4.92 inches away from the bulls eye.	
Conclusions/Discussion Although my hypothesis was incorrect, I was still able to reach my objective. I have learned that the All-star paintballs were the most accurate. They were the most accurate with the 12-inch barrel installed onto the paintball gun. I also learned that the Marbilizer paintballs were the least accurate. This tells us that if you are going to go play paintball, that you should buy the medium priced paintballs which are the All-Stars.	
Summary Statement Testing the accuracy of different types of paintballs shot from various lengths of gun barrels.	
Help Received Mom helped with the layout of the project board; Dad helped test the project.	