

## CALIFORNIA STATE SCIENCE FAIR 2007 PROJECT SUMMARY

Name(s)

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**Project Number** 

**S0207** 

### **Project Title**

# A Study into the Consistency in Mass and Accuracy of Airsoft BB's

### **Abstract**

## **Objectives/Goals**

This project was designed to find out which airsoft BB brand is most accurate and also if mass will affect accuracy.

#### Methods/Materials

CYMA CM.28 airsoft gun, 4 selected BB brands, gun stand, target, scale, paper, and ruler

- 1. Mass 25 BB's of each brand (store in each order).
- 2. Shoot them at the target/target paper, 25 feet away.
- 3. Measure distance from center.
- 4. Repeat steps 2-3, 2 more times; 3 times at 50 feet and 3 times for 75 feet.

#### Results

Excell was the lightest BB, 0.1937g average mass, as well as the one with the most accuracy. It's standard deviation from the average distance from center of the target was lowest. It was also the most consistent in mass, +/-0.00196g.

#### **Conclusions/Discussion**

Excell was most accurate and had the lowest average density meaning that mass/density affects accuracy.

## **Summary Statement**

This experiment was preformed to find out if mass of the BB affects accuracy.

#### Help Received

Dad funded; Used scale at Santiago Canyon College under supervision of Mrs. Hale; Neighbor helped base for gun stand.