

Abstract

Project Title: You Only Get One Brain

Project ID: 333

Abstract

A brief explanation of your project. Enables judges to receive a base understanding of your project and work.

Have you ever taken a bad fall while riding your bike and hurt your head? My experiment should take care of that. The goal of my experiment was to find out which bike helmet absorbed the most impact of a fall. My theory was that the Evo ETech helmet would absorb more of the impact than the rest of them. To test this, I secured a 10 pound weight on the end of a PVC pipe chained to the ceiling and swung it at the cantaloupe. The Evo ETech helmet absorbed the most of the impact, spiking on average at -214.7 meters per second, compared to others, while the cheap helmet from eBay performed the worst, spiking on average at -476.3 meters per second.

In my experiment, I found that the Evo E-Tec Hero Pro Helmet was the best of the three helmets I tested. The Unbranded Chinese helmet from eBay performed the worst and absorbed the least amount of the impact from the weight. The Evo E-Tec Hero Pro Helmet performed the best because it is a hardshell helmet that is made for BMX biking or commuting where a bad impact can be common. The Unbranded Chinese helmet from eBay performed the worst because it was a cheap, unbranded, and low-quality helmet.

Items to Include:

- **Introduction:** Why did you do this project and why is it important? How will this effect people and why is it needed. Inspire the reader to continue learning more about your research and read your report.
- **Problem Statement and Engineering Goal / Hypothesis:** What is the problem you were solving and what was your engineering goal or hypothesis.
- **Procedures:** How did you solve the problem and or test your hypothesis. Don't go into details, provide a broad, conceptual view of what you did. For engineering, what was your design criteria.
- **Results:** What was the outcome? Use your data and numbers to describe your result.
- **Conclusion:** Was your hypothesis supported or the engineering goal met?