

CALIFORNIA STATE SCIENCE FAIR 2017 PROJECT SUMMARY

Name(s)

Preston D. Reynolds

Project Number

Project Title

Teenage Transportation: Can It Be Improved?

Objectives/Goals

Abstract

Can teenage transportation be improved? My engineering application project includes an original design and build of an electric powered skateboard that provides teenagers with a fun, efficient, low cost, environmentally friendly transportation solution.

Methods/Materials

Using the round trip between my house and Pasadena High school as a test loop, I compared the time, energy, cost and carbon footprint of six different transportation methods that a teenager could potentially use.

Results

Although, walking or riding a bicycle turned out to be the most energy efficient and low-cost teenage transportation, my electric skateboard is 68% faster than walking and 22% faster than riding a bicycle. The car, bus and ride sharing were by far the most expensive using \$.78 of gasoline for the car, \$1.75 for the bus fare and \$12 for Lyft.

Conclusions/Discussion

However, for a few pennies a day, my electric powered skateboard design can greatly reduce the time for short trips. When you consider how much more efficient it is to ride my electric powered skateboard, it is clearly the best choice for teenage transportation.

Summary Statement

My project is about finding a better soution for teenage transportation.

Help Received