CALIFORNIA STATE SCIENCE FAIR
2014 PROJECT SUMMARY

Name(s)
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Project Number
34237

Project Title
Rocket Fuel Grains

Abstract

Objectives/Goals
the objectinve of my experiment was to determine the effects of the rocket fuel grain on the thrust provided over time

Methods/Materials
For the experiment I used a hybrid rocket which consumed polyvinyl chloride and oxygen as fuel. To measure the force provided I allowed the rocket to push against an electronic scale and recorded the results.

Results
In my experiment I tested 4 fuel patterns the single and double port fuel grains began with little power and slowly built up to a more powerful burn the other two fuel grains did not fire properly

Conclusions/Discussion
In conclusion in my experiment I have determined the burn pattern of two fuel grain types and also determined that the other two cores tested began with enough force to stop the flow of oxidizer due to the back pressure

Summary Statement
the focus was to determine the effects of the rocket fuel grain on the thrust provided over time

Help Received
metal donated by frc robotics team 3925