



**CALIFORNIA STATE SCIENCE FAIR
2014 PROJECT SUMMARY**

Name(s) Alessandro Panighetti	Project Number S0322
Project Title Rocket Fuel Grains	
Abstract Objectives/Goals the objective 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	