



**CALIFORNIA SCIENCE & ENGINEERING FAIR  
2019 PROJECT SUMMARY**

<b>Name(s)</b> <b>Hayden Barrett; Andrew Gonzales; Logan Ryan</b>	<b>Project Number</b> <b>S1703</b>
<b>Project Title</b> <b>How Do Different Wavelengths of Light Affect the Energy Production Efficiency of a Solar Panel?</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives</b> We wanted to learn how to get the most efficiency out of the production of energy from the solar panel.</p> <p><b>Methods</b> We used clear, colored films to cover the solar panel. We used a lux meter to measure the amount of lux from the films and sun and we used a battery pack to measure the amount of energy produced by the solar panes.</p> <p><b>Results</b> The results of our experiment is the red panel used the energy it was given the most efficiently. For the colored filters, the yellow produced the most energy, but the regular sunlight (the control) produced the most energy overall.</p> <p><b>Conclusions</b> Our results were not supported by the hypothesis. This helps us expand our knowledge by learning that with limited light, the red filter had the best energy efficiency per lux.</p>	
<b>Summary Statement</b> This project showed how to produce the most electricity under all conditions of light by using different colored filters to test their energy outcome and energy efficiency.	
<b>Help Received</b>	