



**CALIFORNIA SCIENCE & ENGINEERING FAIR  
2018 PROJECT SUMMARY**

<b>Name(s)</b> <b>Farid A. Manshahi</b>	<b>Project Number</b> <b>S1010</b>
<b>Project Title</b> <b>Harnessing Energy Out of Thin Air</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The objective of this experiment is to find a cleaner source of energy which would have no harmful by-products and an efficiency rating of approximately 98.9%. <b>Methods/Materials</b> In this experiment, I required a circuit board, ceramic capacitors, electrolytic capacitors, Germanium crystal diodes, Tesla capacitors, neon sign transformer, solder, soldering iron, computer fan, gallium, indium, isopropyl alcohol, glass tubes, liquid cooling system, momentary switch, and 10-18-gauge copper wire. <b>Results</b> The experiment resulted in the accumulation and conversion of energy by utilizing Tesla capacitors and a crystal energy receiver. This resulted in a cleaner form of energy which would not have any byproducts. The crystal energy receiver I designed is capable of accumulating electromagnetic energy from $10^{24}$ hertz to $10^5$ hertz. This sanctions it to absorb solar radiation and with the avail of Tesla capacitors, it is capable to absorb a more sizably voluminous quantity at a given time. This fortifies my hypothesis and ergo has proven it right. <b>Conclusions/Discussion</b> I have concluded that when utilizing a crystal energy receiver and Tesla capacitors, I can engender an unsullied source of energy. This would sanction people to have a cleaner source of energy. With this technology, people can live in a wireless world as envisioned by Nikola Tesla.	
<b>Summary Statement</b> In my experiment, I was capable of modifying the design of a crystal energy receiver to harness energy throughout the entire electromagnetic spectrum and then converted the energy with Tesla capacitors so it would be safe for humans.	
<b>Help Received</b> I built this reactor through the inspiration of my AP Chemistry and Honors Biology teacher. I consulted them extensively in the materials required to complete the project and create an insulated chamber to hold the electromagnetic energy. I also collaborated with the Northrop Grumman FAB LAB to create a shell	