



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

<b>Name(s)</b> Alexa G. Rodriguez	<b>Project Number</b> <b>J0220</b>
<b>Project Title</b> <b>How Can I Charge or Power My Cell Phone without an Outlet?</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> I'm camping and there is no electricity or an outlet. I need to charge my phone but I don't have an outlet so the objective of my project is, "How Can I Charge or Power my Cellphone Without an Outlet?"</p> <p><b>Methods/Materials</b> I drilled ten solar panels into a board and connected the wires all around. And once I got to the end I connected that long wire to the USB charger. And drilled in a on and off switch to board and also connected it to the USB charger with a Soldering Iron. And attach triangles to the side so it can stand up.</p> <p><b>Results</b> It was successful. It charged my phone outside and it charged 14% in half an hour.</p> <p><b>Conclusions/Discussion</b> I learned that I can save energy through solar panels and create electricity. A way that I can make this better was by adding more solar panel, to produce more electricity.</p>	
<b>Summary Statement</b> My project is about making solar energy and using that energy to charge my phone.	
<b>Help Received</b> My dad helped me drill the holes and used the Soldering Iron.	