CALIFORNIA STATE SCIENCE FAIR
2017 PROJECT SUMMARY

Name(s)
Sarah Ertl

Project Number
J1007

Project Title
Creek Power

Abstract

Objectives/Goals
My objectives were to see how much emissions-free electricity I could generate from the creek which is in my backyard with a homemade generator.

Methods/Materials
In essence I created a generator that uses magnetic induction to create a current of free electrons. This required two main parts: creating a stator and a rotor. The stator was made with copper coils and the rotor was made with neodymium magnets.

Results
The result was that I created electricity; albeit not as much as I had hoped. I generated about .023 kwh.

Conclusions/Discussion
In conclusion, I gained a lot of knowledge about how generators work and I have formulated hypothesis about how to increase the energy output of the generator that I made. Emission-free energy is crucial step to reducing the effects of climate change on our planet.

Summary Statement
I created a hydroelectric generator and used it in a creek to generate emission-free electricity

Help Received
My science teacher Amy Schwedtfeger and my dad Jeremy Ertl