CALIFORNIA STATE SCIENCE FAIR
2016 PROJECT SUMMARY

Name(s)

Gunner H. McCormick

Project Number

J0212

Project Title

Stomp: Building an Energy Floor in Search for More Renewable Energy Sources

Abstract

Objectives/Goals

The objective of this project was to build a working prototype of an energy floor. An energy floor is a type of pressure plate that generates energy when stepped on.

Methods/Materials

Wood, plexiglass, springs, gears from crank flashlights, wires, multimeter, and levers. Build energy floor, test 10 trials of amps and volt. Multiply them to get watts.

Results

I successfully built three working models of an energy floor. The amount of energy from them went up successively. My first model generated .011 watts, my second model generated .128 watts, my third model generated .214 watts.

Conclusions/Discussion

My prototypes generated enough energy to power a lightbulb. If I used resistors, and filtered the energy into a battery, I could power something larger. Energy floors would be useful to be put in high foot traffic areas.

Summary Statement

I built a working Energy Floor that generated electricity from footsteps.

Help Received

My science teacher LeighAnn helped to keep me on a timeline throughout the project. My father helped me put the floor together from my blueprints. My mother edited my writing, and helped me make my board. MS Builders helped to cut the wood and plexiglass.