CALIFORNIA STATE SCIENCE FAIR
2014 PROJECT SUMMARY

Name(s)
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Project Number
J0921

Project Title
Knock Knock, Who's There?

Abstract

Objectives/Goals
Objective: To replicate, then modify an engineering project found online using the Arduino microcontroller.

Methods/Materials
Materials: Arduino Microcontroller, 9v battery, 3 LEDs, Rectifier Diode, Transistor, Wire, Pushbutton, Casing, piezo sensor, a motor, a buzzer, and any tools necessary.

Methods:
1. Program the Arduino
2. Set up the circuit
3. Test the circuit
4. Continual Modifications due to numerous challenges
5. Hardware Setup
6. Continual Modifications due to numerous challenges

Results
The end result was a device completely different from the original design, resulting in an unmotorized project providing increased security, aural and visual alarms, and a cleaner look.

Conclusions/Discussion
This was a far more challenging project than I ever expected, and I had to address a variety of challenges. But I am very pleased with the end result and that the modifications were successful and produced a unique and helpful device.

Summary Statement
The transformation of an Arduino circuit and language from an original design to a new one.

Help Received
Father helped in using drill.