Voge’s 9th grade physics – electric house project

**Objective:**

You will demonstrate your knowledge of electric circuits by constructing a model house with a working electrical system.

**Due date:**

Thursday, March 7th in class.

**Materials:**

This is up to you… most people will use cardboard boxes to build the walls and roof, but you are welcome to use something else. Remember, you’ll have to bring this project to school so it has to be strong enough to survive a car ride. For the electrical components – you can spend money at Radio Shack or scavenge things for free. I can provide some Christmas lights, but batteries are up to you. I can also show you how to make cheap one-way switches out of paperclips and aluminum foil.

**Scoring:**

A complete model house with a switch that turns a light on and off: 30

CORRECT circuit diagram(s) with CORRECT VIRP table(s) describing your circuit(s) 30

At least one parallel and at least one series circuit 10

A master circuit-breaker switch that will turn off all circuits at once 10

A circuit with two switches where either can turn the light(s) on or off (like on a staircase) 10

Above and beyond awesomeness \*\* <20

\*\*You can earn up to 20 extra points for incorporating awesome elements to this project. Ideas can include but are not limited to: dimmer switches, timers, motion detectors, incredible house detail, etc. You can earn up to five points each for up to four awesome things. You must, however, clear your ideas with me prior to building the project.