<u>GNG1103</u>

Engineering Design

Deliverable G

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Prototype II and Customer Feedback

Prototype plan

For this prototype, we attached a wire to the AC outlet and put it in its case/metal box. Based off of our prototype sketch, we took into account how long the wire needed to be and accommodate our next prototype accordingly. Our previous prototype was just a sketch with calculations of voltage and current. However, since we have constructed a physical prototype, we are able to test out our calculations and make any required adjustments.



Objectives

The objective of this prototype is to put our concepts into physical objects and to start testing its capacities and functionality. Through the assembly of this prototype, we were able to verify that our theoretical calculations and planning would actually work. We can use this wiring system to run the necessary voltage and current with negligible resistance. Now we have the knowledge we need to assemble the parts and create our third prototype.

Testing Plan

For this prototype, we tested for faulty wiring, as well as ensuring that there was no resistance in our prototype. We used a DC power supply to provide power to our outlet for preliminary testing. The stopping criteria for this prototype was to ensure that each separate part was working before we moved on to the assembly portion of our project, which is in our next prototype.



Client Feedback

The client informed us to avoid putting an outlet on the wall where the window was to be placed. Other than that, the client was in full support of our design ideas.

The professor mentioned that the connectors that we will be using do not meet proper safety standards in a regular home, however, we were given the approval to use them anyways.

We can use this feedback to adjust our design measures and use it as a guideline for the next prototype to improve the safety of the wire setup.