Wireless Power

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Abstract

The question for this project was is wireless power viable without posing a risk to humans. The hypothesis for this project was that wireless power would be viable and it wouldn't harm a human who used it. For this experiment two coils of speaker wire, fifty turns each, were created that were then wired so that they were bifilar. These two coils originally had a diameter of four and one-half inches but they were later rewired to a six inch size. A power source was then created that connected to the transmitting coil by attaching a wall plug that had an end with open wires to a CFL that was in a socket. From this bulb I ran wires to my transmitting coil to bring power to it. The CFL had been split open to connect the wires to the inside and by doing this an electrical ballast was created that helped regulate the power flow in the coil. The receiving coil was then wired so that it connected to an LED light bulb with a capacitor connected on each end to regulate the power. It succeeded in lighting a 3-volt LED bulb, a 12-volt LED bulb, and also succeeded in turning a 12-V fan and was able to run multiple bulbs at once using a third, smaller coil with wireless power that was transmitted through the first coil and into the second.