Wireless Power Transfer

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TOOLS:
- Solder (1)
- Soldering iron (1)

PARTS:
- Copper wire (1)
- LED (1)
- 20nf capacitor (1)
- 16v ac power source (1)

Step 1 — Wireless Power Transfer

The first thing is to make the big coil. You can do this by putting four nails into a board and wrapping the copper wire around them.
**Step 2**

- Then you have to make the smaller coil. It has to be about half the size of the bigger one. You need to put an LED/bulb and a capacitor on the output. I put 2 because I didn't have one that had the right value. You could also put a bridge rectifier on it to turn the AC into DC.

**Step 3**

- Connect the power to the big coil and put the small one in the middle and the LED should light up.
Step 4

- I tested different gauge wire and the maximum efficiency I got was 42.2%.