Potential design changes:
- Use a lower cost Wi-Fi module
- Use a transformerless power supply
- Add a current sensor
- Add EMI filters
- Add RF shielding
- Add safety features (e.g. fuses)

Wi-Fi Module
Roving Networks
RN-171
3.3VDC

VCC/GND **TX** **RX** **Reset/
Bootloader Activate
(for OTA Firmware updates)**

Main Voltage
120VAC

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Switch Mode
Power Supply
120VAC -> 3.3VDC
500mA

GND

VCC

Micro-controller
PIC/ATmega/
ARM Cortex M0
3.3VDC

**Manual Reset
Button**

Status LED

GND **Zero-Cross
Interrupt** **TRIAC
Control** **VCC**

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TRIAC Circuit
(Zero-cross detector
+ TRIAC)
3.3VDC

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Light
60W incandescent
lightbulb