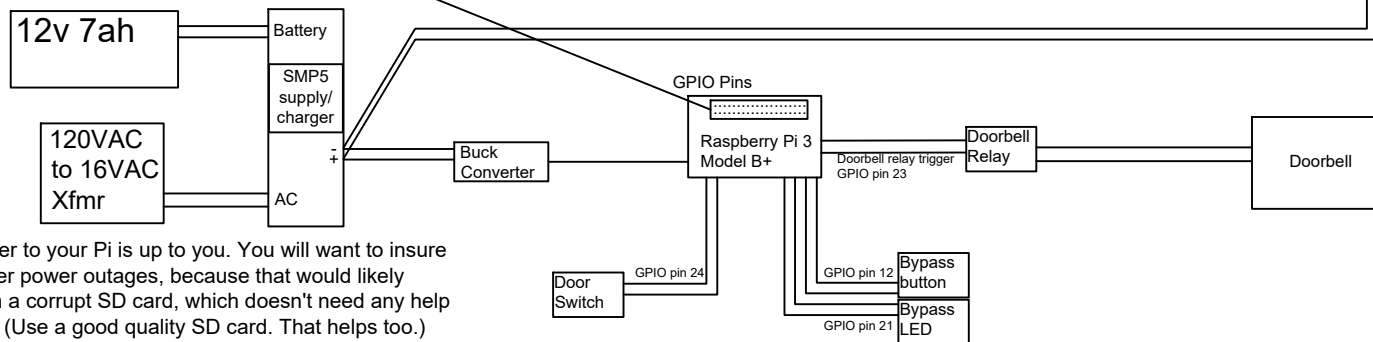


Schematic Diagram
Functional Diagram

Schematic Diagram
Functional Diagram

Schematic Diagram
Functional Diagram



How you provide power to your Pi is up to you. You will want to insure the Pi doesn't suffer power outages, because that would likely eventually result in a corrupt SD card, which doesn't need any help getting corrupted. (Use a good quality SD card. That helps too.)

I built a home-brew UPS battery backup from a salvaged Altronix SMP5 12VDC power supply/battery charger tied to a 7ah sealed battery. This supplies 12V to the Bosch motion detector as well as the DROK buck converter.

The buck converter regulates it down to 5VDC with enough amperage to supply a Pi 4 Mod B.

This arrangement (with some modification) has been running flawlessly for over four years. So far, no corrupt SD card.