

# ZMHW Uno Modector

Steak Electronics

## 1 Goal

ZoneMinder is a GNU/Linux FOSS CCTV program, and it has the ability to interface with external hardware sensors. I wanted to build a simple, but functional, and practical board to use as a hardware motion detector. Onboard software motion detecting is faulty, and spotty. Transitions from IR to Non-IR, leaves blowing in the wind, bright lights - all these things can cause false alarms. Hardware motion sensors have the potential to mitigate hopefully 100 percent of false alarms, and give the user a reliable alarm and camera monitoring system.

## 2 Revision One

It was decided to create the hardware motion detector or modector in a frugal manner, for the average hobbyist, or homeowner to be able to build it. ENC28J60 was used for internet (thus a wired connection), UIPEthernet will be the Arduino Ethernet library (available from library manager), and a 5GHz microware motion detector was used. <sup>1</sup>

---

<sup>1</sup>the HFS-DC06H, which is similar in function to the HB100 board, but includes the circuitry needed to give a digital logic high, when motion is detected. Other options are PIR (prone to faulty alarms in sunlight, but works well in dark areas. Additional software programming needed, or a light sensor), Ultrasonic (possibly damaging to animals...), and laser or actually infrared diode sensors such as the Sick sensor (these work well, but can be stepped over), among others.

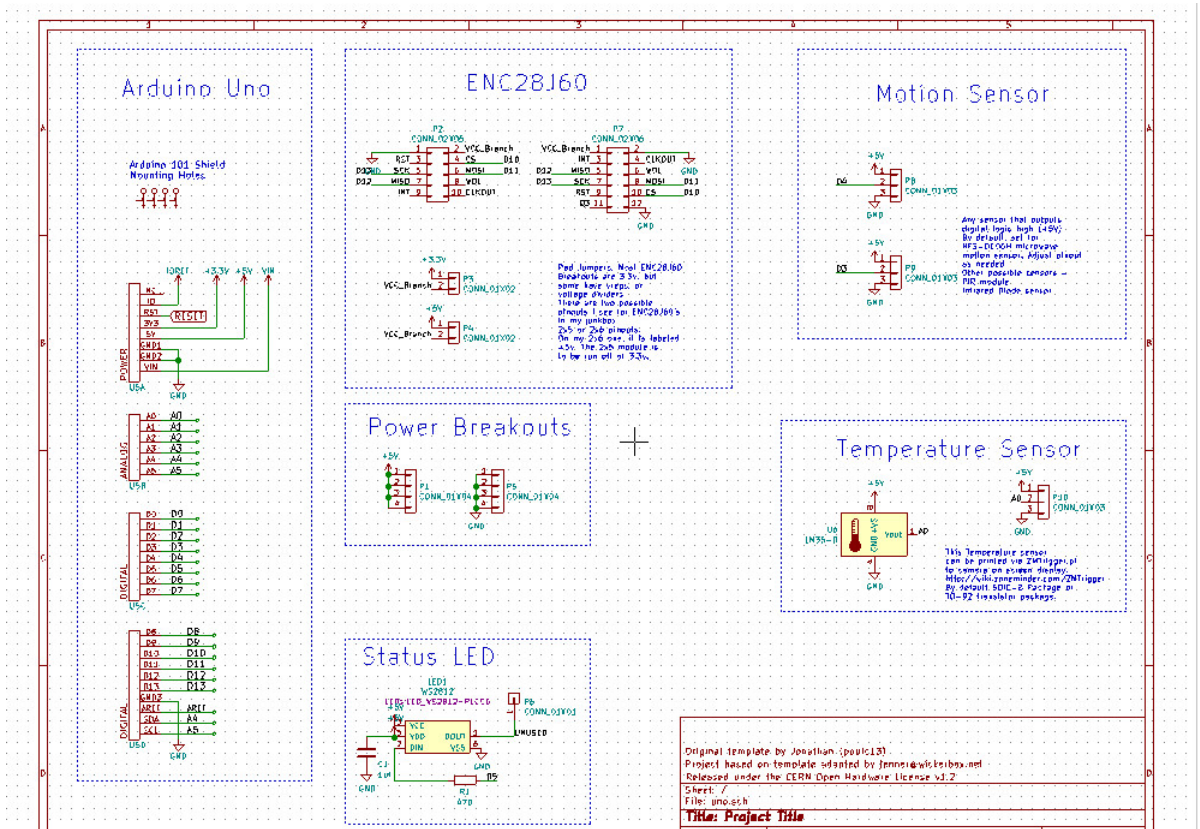


Figure 1: Revision 1 schematic