



<http://www.hauntedillinois.com/motion.php>

Motion Sensor

This is a great and inexpensive way to automatically activate haunted effects (pneumatic cylinders, lighting, sound effects, etc.). All you have to do is buy a motion sensor floodlight from your local hardware store for under \$20.00 and a couple of adapters. The adapters you need will convert from a screw in light bulb base to a two or three prong plug-in socket (see first two pictures below). Screw the adapters into the motion sensor where you would put the floodlights and plug your accessories into the sockets.



Motion Sensor



Socket Adapter

With this set-up you can control low-current 120VAC accessories. For example, the motion sensor shown below will handle (2) 150 Watt light bulbs (or two 1.25 Amp accessories). If only the wattage is listed, it is easy to figure out the maximum current draw allowed:

$$\text{Current (in Amperes)} = \frac{\text{Maximum Wattage Listed on Motion Sensor}}{\text{Voltage (120 Volts)}}$$

However, if the current draw of the accessory is greater than the listed capacity of the motion sensor, an external 120VAC relay must be used (see first schematic below). Check to make sure the coil of the relay operates on 120VAC and the contacts of the relay have sufficient voltage and current ratings to handle your accessories.

To control an accessory that doesn't run on 120VAC, just hook up the contacts of the relay to the accessory like you were hooking up a toggle switch (see second schematic below).

Examples of usage for schematic #1:

- Aux. lighting
- Jacob's Ladder
- Solenoid to activate pneumatic props
- Any other prop that uses 120VAC.

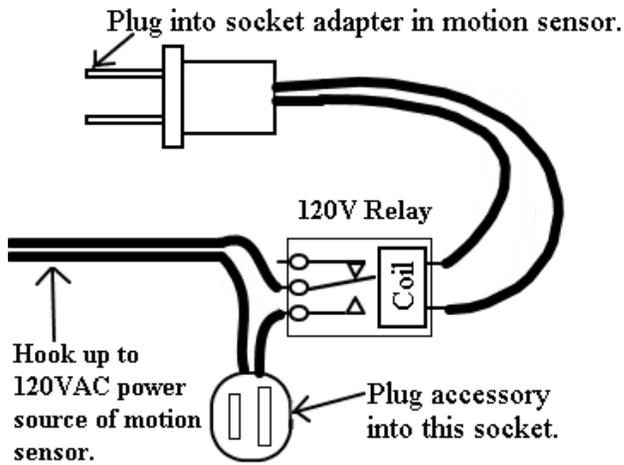
Examples of usage for schematic #2:

- Activate a smoke machine
- Activate a digital sound recorder for sound effects playback
- ANY battery operated prop
- Use in place of a mat switch

Note: Most motion sensors have different time delay settings. The one shown above keeps floodlights (or your accessories) on for 1, 5 or 10 minutes. To avoid having your effect activated for such a long period of time, turn the timer switch to the 'TEST' position. This setting will cause your effect to turn on when a person is 'seen' by the sensor and it will automatically turn off when the sensor doesn't see any movement.

Control a 120VAC accessory

Use this schematic to control any 120VAC accessory.



Control other accessories

Use this schematic to control any accessory you could control with a toggle switch.

