

Four Banger Shopping List

This controller will use an Arduino UNO with the Atmel AT328p processor. Configuration options and sequence data will be stored using the AT328p's onboard 1k eeprom. The controller will be programmable using either manual a button board (button banging), or via a custom PC-based programming application. We suggest using the Arduino Uno if you are new to this.

Shopping List (note that these prices fluctuate on Ebay):

- **Arduino UNO AT328p** **\$3.39**
- **4 Relay Module** **\$3.20**
- **PIR Sensor** **\$1.11**
- **Serial MP3 Module by Catalex** **\$4.49**
- **1gb SD Micro Card** **\$3.19**
- **5v/12v Power Adapter** **\$2.18**

TOTAL----- About 20 bucks. Shop around and watch for good deals. You can also save a few bucks if you buy parts in multiples.

If you are an Arduino newbie, you should probably stick with an UNO.



[NEW UNO R3 ATmega328P CH340 Mini USB Board for Compatible-Arduino](#)

\$3.39

From China

Was: ~~\$5.65~~

Buy It Now

Free shipping

These relay modules are very convenient- buy more than you think you need! The original version of this document suggested the 5v type. I have built tons of controllers using this one successfully:



[5V Four 4 Channel Relay Module w/ optocoupler for PIC AVR DSP ARM Arduino 8051](#)

\$2.33

From China

Was: ~~\$2.45~~

Buy It Now

Free shipping

5% off

[See more like this](#)

Some folks are suggesting 12v relay modules. If you do get a 12v version, make sure that it may be toggled using TTL level signals (5v). The 12v rating is for the relay coils themselves. This can offer benefits by easing the power load on the Arduino's 5v regulator and it can offer some isolation too. I have seen people get talked into the 12v modules only to have no idea how to wire it, or they bought an incompatible one etc... If you are building one of these for the first time and want to start simple, the 5v version pictured above along with an Arduino Uno will work for probably 90% of typical props.



NewAdjust IR Pyroelectric Infrared IR PIR Motion Sensor Detector Module HC-SR501

\$1.11
Trending at \$1.51
Buy It Now
Free shipping
1707 sold

From China



1GB Micro SD Memory Card Mixed Brands Used Free Shipping

\$3.19
Was: \$3.99
Buy It Now
Free shipping
20% off

FAST 'N FREE
Get it on or before Tue, Mar. 31



YX5300 UART Control Serial MP3 Music Player Module For Arduino/AVR/ARM/PIC GM

\$4.49
Buy It Now
Free shipping
84 sold

From China

The power adapter you use may vary based on your needs, but this is a typical example.



LE 24W Power Supply Adapter 12V 2A 3528/5050 LED 100-240VAC to 12VDC Transformer

\$0.94 to \$3.52
Buy It Now
Free shipping
33+ sold

From Hong Kong

These little jumper cables are great for connecting modules to an Arduino. Buy a bunch to keep on hand- you can never have too many of these! Also, get some of the ones that have a male pin on one end.



1 Set 40PCS Dupont Wire Color Jumper Cable 2.54mm 1P-1P Female to Female 20cm MN

\$1.15

Buy It Now

Free shipping

784 sold

From Hong Kong



ONE New Plastic Electronic Project Box Enclosure Instrument case DIY 121x94x34mm

HAMMOND MANUFACTURING 1591GFLBK W/ HARDWARE

\$5.99

Buy It Now

+\$2.49 shipping

Keep an eye out on Ebay for nice enclosures such as this:

Here are a few pics of the first prototype installed in a Hammond enclosure.

