

Arduino Intervalometer

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What?



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...



Why?

- Fun!
- Learn! *and...*
- Kits?!

Why?



450\$

(75\$ = LCD backlight!)



305\$



150\$

WHAT!?!?

Beginnings: Specs!

- What do you want?
 - What *might* you want?
 - How *might* you pull it off?
-
- Sit down at a piece of paper and figure it out...
 - Sleep.
 - Repeat!
-
- Version control. Right. Now.

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Trigger through BIOS with ... or deactivate thing, with something reasonable (CPU, something)
in the BIOS, and some specific stuff in the other.

USB to storage, settings, battery status
Single history window for changing settings, will auto-lose to change between changing
external and internal drive (also to external only)
One button to activate menu, one button to start/stop everything
Menu entries: "Show other USB drives" (don't need to connect to USB), "Shutting down"
"Reset", and "USB or hard drive"
Internal trigger (from BIOS only, or otherwise if it works to send power ...)

External Hard
- adjustable time I need to, say, I need interval (00:00:01)

Long Hibernation Mode
- hold shorter time, from I need to, say, from

External Hard
- holds another open, repeatedly
- need to be able to switch independent for some reduction or get off repeatedly so,
even if I + multiple ...

Trigger Mode (from external trigger stand)
- adjustable delay, from instantly to seconds

URLs: http://www.usb77a.com/usb77a/usb77a.html (get new price list)
USB: http://www.usb77a.com/usb77a/usb77a.html
Battery: http://www.usb77a.com/usb77a/usb77a.html
External: http://www.usb77a.com/usb77a/usb77a.html
URL: http://www.usb77a.com/usb77a/usb77a.html
URL: http://www.usb77a.com/usb77a/usb77a.html
External: http://www.usb77a.com/usb77a/usb77a.html
Trigger: http://www.usb77a.com/usb77a/usb77a.html
Battery: http://www.usb77a.com/usb77a/usb77a.html
URL: http://www.usb77a.com/usb77a/usb77a.html

References:
http://www.usb77a.com/usb77a/usb77a.html
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Parts!

- Interface
 - Encoder
 - LCD
 - Buttons
 - 1/8" jacks
 - RGB Status LED
 - Supporting Logic
 - Shift Register
 - Digital Potentiometer
 - Trigger Timer
-
- Status LED
 - Timer duration
 - LCD Contrast

Parts!



~30\$

On to the 'how' ...

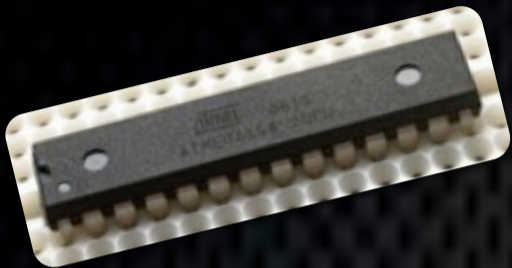
- Separate problem into segments, construct each segment individually:
 - Write the required code
 - Keep it small and reusable
 - Diagram the circuit (on paper!)





Arduino





ATmega168

- 20 I/O (6 PWM, 6 ADC)
- 16 KB program memory
- Free GCC backend
- 5 volts
- 16 MHz
- 4\$ apiece

EAGLE



