



Alpha Clock Five - RED - From Evil Mad Scientist Labs!

PRODUCT ID: 620

9 IN STOCK

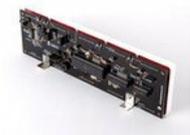
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DESCRIPTION

TECHNICAL DETAILS



DESCRIPTION

Evil Mad Scientist Labs never disappoints with their fantastic kits and clocks. The Alpha Clock Five is no exception: An awesome alarm clock soldering kit-- featuring five crazy-bright, crazy

Downloaded from Arrow.com. ----- www.evilmadscientist.com Chronodot RTC (for precise quartz timing,

complete with battery backup) and a handsome laser-cut acrylic case.

These big 18-segment alphanumeric LED displays are notoriously difficult to drive-- there are 54 LED elements inside each LED character and the different segments take different amounts of current. We've now made it easy to drive five at a time, and wrapped it all up in neat package with classic alarm-clock styling.

Standard Features of Alpha Clock Five:

- Extremely wide display brightness range. All the way from very dim (for dark bedrooms) all the way up to annoyingly bright
- Huge 2.3" (5.8 cm) tall digits are easy to see, *even if you normally wear glasses*
- Alarm on-off indicator
- Four standard alarm tones
- Snooze function
- 12-hour (AM/PM) and 24-hour clock modes
- Rear-panel white LED nightlight; can be turned on or off from the options menu
- Sturdy acrylic case features subtle, laser-engraved button labels
- Transparent rear panel lets you show off your handiwork
- Comes complete with plug-in power supply and backup battery
- Microcontroller comes pre-programmed; no programming is required

Hacker-friendly Design:

- Open source hardware design-- easy to hack!
- Open source software design-- easy to reprogram (if you want to)!
- Upgradeable firmware
- Based on the ATmega644A microcontroller with 64 kB of flash, with plenty of room to grow.
- Comes pre-flashed with Sanguino bootloader; can be programmed through Arduino IDE (with extensions).
- 6-pin TTL-serial connector, can be used to display data or time sent from computer
- Unused I/O pins are broken out from the microcontroller, including one ADC and 5+ GPIO
- Open-frame case design gives easy access to serial connector and reset button

Alpha Clock Five kit configurations:

The full (non-basic) Alpha Clock Five kit-- available on this page --comes complete with the beautifully made Alpha Clock circuit board, the five alphanumeric LED displays (ultrabright red, 2.3" character height, with upper and lower decimal points), machine pin sockets for those displays, pre-programmed ATmega644A microcontroller with Sanguino bootloader, 5 tactile button switches, 20 ppm quartz crystal, universal-input plug-in power supply, stainless mounting hardware, alarm buzzer, all of the the LED driver chips, transistors, resistors, capacitors and other little parts needed to build the kit, plus a Chronodot real-time-clock module and a handsome laser-cut acrylic case.

The Alpha Clock circuit board is 9.430 X 2.736" in overall size, and extra stiff at 0.094" thick. It has a black soldermask and gold plated finish. Once assembled with its case, Alpha Clock Five is approximately 9.44" wide, 3.78" tall, and 2.80" deep.

ChronoDot

Alpha Clock Five comes complete with a [Chronodot](#) real-time clock module. It provides your clock kit with (1) a higher accuracy quartz crystal oscillator, (2) a backup battery, and (3) extra geek cred for having a TCXO-based RTC. The included battery is estimated to last for 7 years.

USB-TTL Cable

You may be interested to add an optional FTDI [USB-TTL](#) converter cable, which provides an optional interface between your computer and your clock. It can be used (1) to sync the clock's time to the time on your PC, (2) to reprogram the clock through (a modified version of) the Arduino IDE, or (3) to send serial data to display on the five-character LED display. Note, however, that these are entirely optional operations-- no programming is needed to build or use an Alpha Clock Five clock kit!

Power supply

The Alpha Clock Five kit includes a universal-input power supply that will work with worldwide voltages. The plug is a power-strip-friendly US type, so you may need an inexpensive "grocery store" plug adapter to fit the wall socket in your country.

If you need to provide power from an alternate source, Alpha Clock Five requires (and provides hookup locations for) a regulated 5 V dc power supply with 1 A capacity

TECHNICAL DETAILS

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"Somewhere, something incredible is waiting to be known" - Carl Sagan

ENGINEERED IN NYC Adafruit®



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