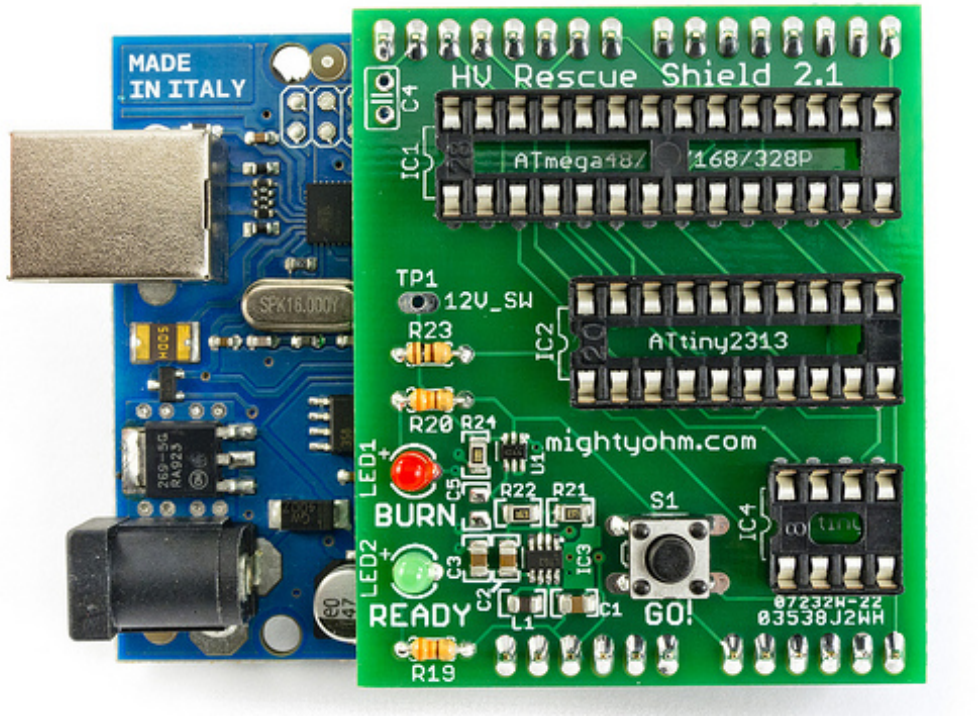
MightyOhm

Join the resistance.

HV Rescue Shield 2

Introducing the AVR HV Rescue Shield 2



The HV Rescue Shield 2 is a high voltage parallel mode fuse programmer for Atmel AVR microcontrollers.

It currently supports a wide variety of AVR chips, including the 28-pin ATmega48/88/168/328 series, the 20-pin ATtiny2313, and many 8-pin ATtiny devices (such as the ATtiny25/45/85 and ATtiny13A). A list of supported devices is in progress, but the Rescue Shield supports many more devices than those listed on the wiki.

Update Feb 2011: Version 2.1 is in stock and shipping now!

- Assembly Instructions
- Arduino Sketch Download
- Usage Instructions
- Schematics, layout, and bill of materials
- Compatible Devices
- Support

Features:

- Version 2.1 introduces a new and improved 12V switching circuit

- Completely open source. Source code, schematics, layout, BOM are available.
- Custom 2-layer PCB with silkscreen and soldermask. No more hacking and modifying perfboards to fit Arduino's nonstandard pin spacing!
- Onboard 12V DC-DC boost converter eliminates the need for an external 12V power supply.
- Support for many common families of AVR microcontrollers in DIP packages.
- Support for programming the extended fuse (EFUSE) byte.
- An interactive mode, where desired fuses can be entered using the Arduino's serial port.
- Separate Ready and Burn indicators.
- Works with the original Arduino (NG, Duemilanove, Uno) and the Arduino Mega.

New in release 2.0:

- Support for 8-pin ATtiny devices that use High Voltage Serial Programming (HVSP) mode!
- Mode selection at startup so you don't have to recompile the Arduino sketch to change parts.
- More reliable HFUSE burning on all HVPP targets.
- Numerous minor bug fixes and speed improvements to the code.

Requirements:

- A working Arduino (tested with Arduino Uno, Duemilanove and Arduino NG)
- A computer with USB and the Arduino IDE installed (tested with Arduino 0021)
- A soldering iron and basic electronics assembly skills

What you get:

- A high quality printed circuit board with the DC-DC converter preassembled, as shown below.
- All other components needed to build the kit
- An Arduino sketch, assembly instructions, Eagle schematics and layout files.

What the HV Rescue Shield is not:

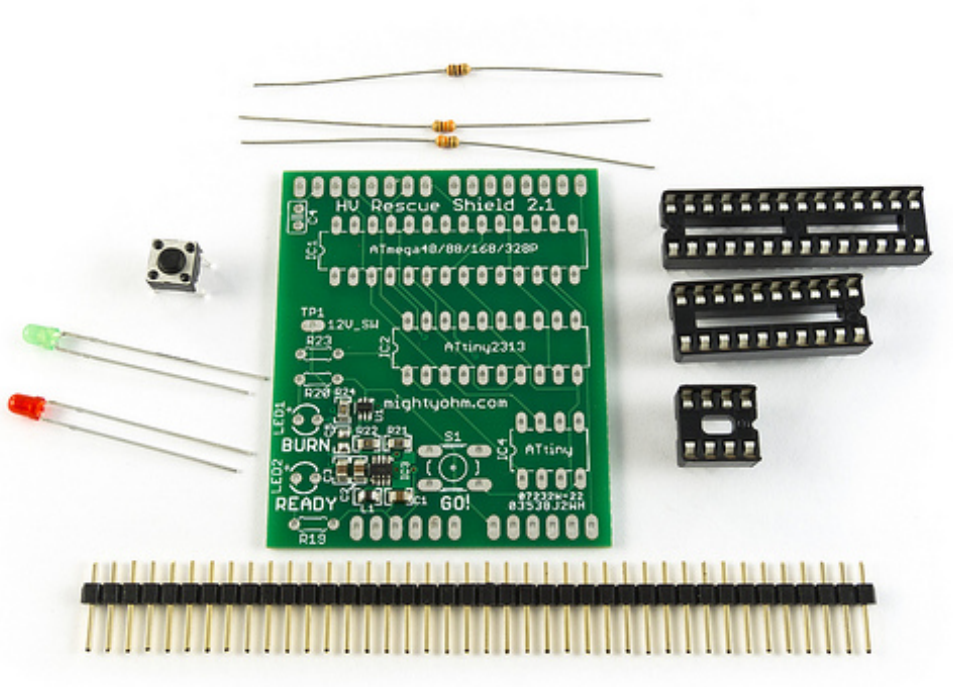
The HV Rescue Shield is not a general purpose AVR microcontroller programmer. That is, it can't be used to perform a chip erase or program flash memory. It is intended only for programming the AVR's configuration fuses: HFUSE, LFUSE, and EFUSE (where applicable).

The hardware implements all of the control lines to support flash programming, but the code just isn't there. If anyone would like to volunteer to rewrite the code to support more features, such as general flash programming, please post in the support forum!

The HV Rescue Shield is 100% open source (hardware and software). OSHW rules!

Kits!

Here is a snapshot of the components included with the kit.



Support:

For assembly questions, troubleshooting and other support, go to the AVR Rescue Shield Forum.

How to order:

To purchase kits or bare PCBs, use the links below.

HV Rescue Shield 2 Kit - $19.95

Includes a high quality PCB with pre-assembled DC-DC converter and all components required to build the kit.

Note: Arduino and target AVR not included.

Add to Cart

Bare PCB Only – $6

Get a head start in building your own programmer from scratch!

Note: DC-DC Converter is not included. Components not included.

Add to Cart

Shipping is via USPS Priority Mail. Allow 1-2 weeks for order processing and delivery.

To review the contents of your shopping cart, click the View Cart button below.

View Cart

This entry was posted on Monday, December 13th, 2010 at 1:24 pm. You can follow any responses to this entry through the RSS 2.0 feed. Both comments and pings are currently closed.

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Jeff says…

Have you seen the forums?

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- # Recent Posts

  - Jootmine On Imelihtne (Soldering is Easy: Estonian Translation)
  - And we're back!
  - Thinking about buying a Geiger Kit? Order now or wait 2 weeks!
  - Geiger Counter Kits are (finally) in stock!
  - See you at the Open Hardware Summit & NY Maker Faire!

- # Recent Comments

  - Alexander Shabarshin on DIY Integrated Circuit Design with MOSIS
  - Rafi on I was not prepared for this.
  - Jeff on Geiger Kit Demo
  - Nick on Geiger Kit Demo
  - Kevin Groce on Video: Staver Electromechanical Vane Display

- # Recent Forum Topics

  - Atmega 168 only? *petr farnik*
  - Re: Looking for feedback... *jox*
  - Re: alternatives to the WL-520gU *gerben*
  - Re: Serial processing code? Patchube? *peterloron*
  - Re: Why the preference of the SBM-20? *mightyohm*

- # Electronics Blogs

  - Adafruit Industries
  - Chris Gammell's Analog Life
  - Circuits@Home
  - DadHacker
  - EEVblog
  - EEWeb
  - etotheipiplusone
  - Evil Mad Scientist Labs
  - Hack a Day
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- The Smell of Molten Projects in the Morning
- Tinkerlog

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- Arduino-based AVR High Voltage Programmer
- Bluetooth Handset
- DIY Light Tent
- DIY PID Controlled Soldering Hotplate
- PIC RGB Video Generation
- PID Controlled Solder Paste Fridge
- Wifi Radio Project

The MightyOhm Universe

- Discussion Forums
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Vendors

- Mouser Electronics
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I support the Open Source Hardware Definition v1.0

@mightyohm's Tweets

- Sporting my new Solder:Time watch kit from SpikenzieLabs: http://t.co/C8CA63xM 1 hour ago
- Pic. http://t.co/C3xS32bP 1 hour ago
- So, what is this green stretchy fabric thing I got from @seeedstudio at @ohsummit supposed to be? A laptop cozy? 1 hour ago
- Argh, stupid TweetDeck! Anyway, my mini ITX Atom server is still going strong. Pics of the build last year: http://t.co/DUQ01Ebe 2 hours ago
- I can't believe it's been a year since I built my mini-ITX Intel Atom server, it's still the perfect machin… (cont) http://t.co/bl0yzpTf 2 hours ago

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