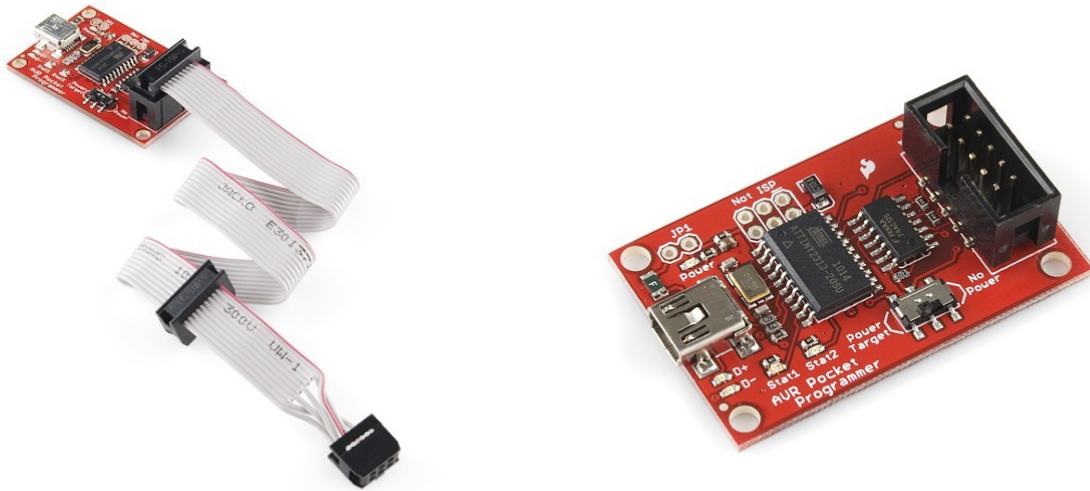


SparkFun

Pocket AVR Programmer

sku: PGM-09825



Description: This new version uses an SMD 5x2 header. This is a simple to use USB AVR programmer. It is low cost, easy to use, works great with [AVRDude](#), and is tested extensively on a Windows desktop. Based on Dick Steffland's [USBtiny](#) and Limor Fried's [USBtinyISP](#).

We've gotten a big response (see comments and forum posts below) from Mac and Linux users having problems. We use this programmer extensively on a Windows box and love it. However, this is a low-cost programmer designed for those on a tight budget. For out-of-the-box compatibility with other operating systems and machines, checkout the [AVR ISP2](#) USB programmer from Digikey.

This programmer works really well for ATmega168 and ATmega328 and should work with all the AVR micros supported by AVRDUDE. We've played a bit with the ATtinys but we cannot guarantee that this board will be compatible with anything but ATmega168/328.

This board is buffered and power protected so that you can do some really evil things to the programmer without killing it. It is fast! Comparable speed to the [AVR ISP2](#) USB programmer from Digikey. One of the greatest features of this board is the ability to power the target (up to 500mA) from the programmer.

To use this programmer, attach to a Windows machine and install the drivers listed below. Open a command prompt. Assuming [WinAVR](#) (and therefore AVRDUDE) have been installed, type:

```
avrdude -c usbtiny -B 1 -patmega328 -U flash:w:main.hex
```

Be sure to include the "-B 1" flag as this will significantly increase the programming speed! You may need to change -p flag to your appropriate microcontroller. You can setup a tool and hotkey in Programmers Notepad to do this automatically.

Features:

- Standard AVR ISP programmer
- ATtiny2313 with USBtiny firmware preloaded
- Buffered output
- PTC fuse protected power
- Programmer can power target
- Supports ATmega168/328 and many others
- Two status LEDs
- Both 10-pin and 6-pin targets supported (cable included)

Documents:

- [Schematic](#)
- [Windows Driver](#)

Open Source Hardware: We like to share. The original engineering files are available for mass hackery.

- [Firmware](#) based on USBtiny (type 'make all' in the *spi* directory). I've found that the compile only works with older versions of WinAVR (20080430).
- [Eagle Files](#) (Licensed under [CC v3.0 Share-Alike](#))