

## USBASP AVR Programmer



These AVR programmers are based on [Thomas Fischl's](#) USBasp design and connect to your computer's USB port. Not only are they quite compact (70x20mm), but the design is really elegant. The USB interface is achieved by using an atmega8 processor and the rest is done in firmware.

Being an Open source hardware (OSHW) project, released under the GNU General Public License, you are free to download the schematic and firmware from Thomas's website, but then you have a chicken and egg problem. In order to load the USBASP firmware onto the atmega8 on the programmer, yes you guessed it, you need an AVR programmer. Much easier to buy one fully built and programmed.

Some of the features include:

- Allows you to read or write the microcontroller EEPROM, firmware, fuse bits and lock bits
- Support for Windows, Mac OS X and Linux (will work on Windows 8.1)
- 5 KB/sec maximum write speed
- Software controlled SCK option to support targets with low clock speed (< 1.5MHz)
- 10 pin ISP interface (conforms to standard ISP 10-pin pinout)

The latest [Window Drivers](#) are fully signed, so you can use them on Windows Vista and above without any issues. The driver will work on both 32 and 64 bit platforms. On Linux And Mac OS X no kernel driver is required, just use AVRdude and specify the correct port.

The programmer will work with a wide variety of Atmel AVR microcontrollers including the [Atmega8a](#) and [Atmega168a](#). A full list is available on the specifications tab. The programmer will also work with a variety of software including

- [AVRdude](#) - Version 5.2 or later. AVRdude is available for many platforms.
- [Khazama AVR Programmer](#) - An AVRdude GUI for MS Windows

- [BASCOS-AVR](#) - Version 1.11.9.6 or later
- [eXtreme Burner](#) - An easy to use GUI application for MS Windows.

Included with the programmer is a 10 pin ISP cable, as shown in the main photo. The programmer is ideal for use with our [AVR development board and kits](#).

At Protostack we like to eat our own dogfood, so we use the USBASP programmers extensively. Every one of our AVR tutorials was done using a USBASP programmer. We really like them and hope you will too.

## Specifications

Size: 70 x 20 x 9mm

Supported Software: AVRDUDE 5.2 or higher

Supported Microcontrollers:	<u>Mega Series</u>				
	ATmega8	ATmega8A	ATmega48	ATmega48A	ATmega48P
	ATmega48PA	ATmega88	ATmega88A	ATmega88P	ATmega88PA
	ATmega168	ATmega168A	ATmega168P	ATmega168PA	ATmega328
	ATmega328P	ATmega103	ATmega128	ATmega128P	ATmega1280
	ATmega1281	ATmega16	ATmega16A	ATmega161	ATmega162
	ATmega163	ATmega164	ATmega164A	ATmega164P	ATmega164PA
	ATmega169	ATmega169A	ATmega169P	ATmega169PA	ATmega2560
	ATmega2561	ATmega32	ATmega32A	ATmega324	ATmega324A
	ATmega324P	ATmega324PA	ATmega329	ATmega329A	ATmega329P
	ATmega329PA	ATmega3290	ATmega3290A	ATmega3290P	ATmega64
	ATmega64A	ATmega640	ATmega644	ATmega644A	ATmega644P
	ATmega644PA	ATmega649	ATmega649A	ATmega649P	ATmega6490
	ATmega6490A	ATmega6490P	ATmega8515	ATmega8535	
	<u>Tiny Series</u>				
	ATtiny12	ATtiny13	ATtiny13A	ATtiny15	ATtiny25
	ATtiny26	ATtiny45	ATtiny85	ATtiny2313	ATtiny2313A
	<u>Classic Series</u>				
	AT90S1200	AT90S2313	AT90S2333	AT90S2343	AT90S4414
	AT90S4433	AT90S4434	AT90S8515		
	AT90S8535				
	<u>CAN Series</u>				
	AT90CAN128				
	<u>PWM Series</u>				
	AT90PWM2	AT90PWM3			