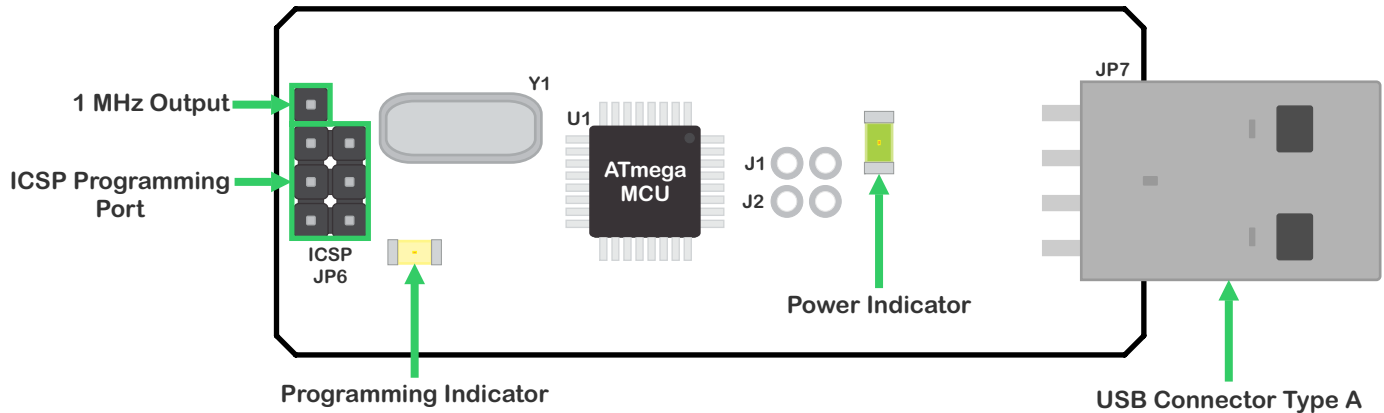# USBasp Clone | e ⌁

Hardware Reference Manual

Low cost USB programmer for ATMEL AVR microcontrollers with ISP features based on Thomas Fischl USBasp and METALAB AVRProg. This clone implements the AVRProg version that has a 1MHz clock source that users can use to recover chips with wrong clock fuse settings.

Supported by the following programming softwares:

- AVRDUDE version 5.2 and up. AVRDUDE is the programming
  software used by the WinAVR development suite.
- BASCOM-AVR version 1.11.9.6 and up
- Khazama AVR Programmer
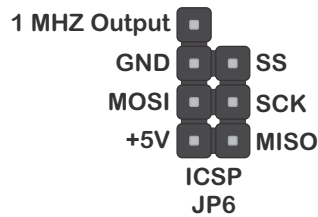- eXtreme Burner-AVR
- Arduino IDE 1.0 and up.

Table 1. ICSP Port (JP6)

Pin I.D.	IC Pin	IC Pin Function
1 MHZ Out	8 & 7	XTAL1 & XTAL2
MISO	16	(MISO)PB4
+5V	18	AVCC
SCK	17	(SCK)PB5
MOSI	15	(MOSI)PB3
SS	14	(SS)PB2
GND	21	AGND