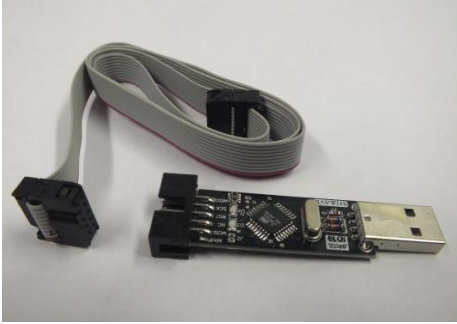# USBasp AVR In-Circuit Programmer.

The programmer will work under Linux, Mac OSX and Windows. No drivers are required for Linux or Mac. A Windows driver can be downloaded from http://www.fischl.de/usbasp/usbasp-windriver.2011-05-28.zip
The USBasp is supported by AVRDude from version 5.2 and BASCOM-AVR from version 1.11.9.6. Windows GUI programmers are available eg Khazama AVR Programmer and eXtreme Burner – AVR . A Linux IDE is available via Eclipse and its AVR plugin.

Supported microcontrollers include:
AT89S51,AT89S52
AT86RF401,AT90CAN32,AT90CAN64,AT90CAN128,
AT90PWM2,AT90PWM2B,AT90PWM3,AT90PWM3B,
AT90PWM81,AT90PWM216,AT90PWM316,AT90S1200,
AT90S2313,AT90S2323,AT90S2343,AT90S4414,AT90S4433,
AT90S4434,AT90S8515,AT90S8535,AT90SCR100H,AT90USB82,
AT90USB162,AT90USB646,AT90USB647,AT90USB1286,AT90USB1287,
ATmega8,ATmega8A,ATmega8U2,ATmega8HVA,ATmega16,ATmega16A,
ATmega16HVA,ATmega16HVB,ATmega16M1,ATmega16U2,ATmega16U4,
ATmega32,ATmega32A,ATmega32C1,ATmega32HVB,ATmega32M1,ATmega32U2,
ATmega32U4,ATmega32U6,ATmega48,ATmega48P,ATmega48PA,ATmega64,ATmega64A,
ATmega64C1,ATmega64M1,ATmega88,ATmega88P,ATmega88PA,ATmega103,ATmega128,
ATmega128A,ATmega128RFA1,ATmega161,ATmega162,ATmega163,ATmega164P,ATmega164PA,
ATmega165,ATmega165P,ATmega168,ATmega168P,ATmega168PA,ATmega169,ATmega169P,
ATmega323,ATmega324,ATmega324PA,ATmega325,ATmega325P,ATmega328P,ATmega329,
ATmega329P,ATmega406,ATmega640,ATmega644,ATmega644P,ATmega644PA,ATmega645,
ATmega649,ATmega1280,ATmega1281,ATmega1284P,ATmega2560,ATmega2561,ATmega3250,
ATmega3250P,ATmega3290,ATmega3290P,ATmega6450,ATmega6490,ATmega8515,ATmega8535,
ATtiny10,ATtiny11,ATtiny12,ATtiny13,ATtiny13A,ATtiny15,ATtiny22,ATtiny24,ATtiny24A,
ATtiny25,ATtiny26,ATtiny28,ATtiny43U,ATtiny44,ATtiny44A,ATtiny45,ATtiny48,ATtiny84,
ATtiny85,ATtiny88,ATtiny167,ATtiny261,ATtiny261A,ATtiny461,ATtiny861,ATtiny861A,ATtiny2313,ATtiny2313A

The **pin assignments** for the 10-way hardware connector (also shown on the programmer PCB) are as follows:

Pin	Signal
1	MOSI
2	Vcc
3	NC
4	Gnd
5	RST
6	Gnd
7	SCK
8	Gnd
9	MISO
10	Gnd

As delivered, the programmer assumes that the target board has its own 5V supply. To supply the target via the programmer make the link at J2.
Note: Later versions of the programmer supply the target directly and allow 3.3V or 5V selection via a switch.