Updating USBasp by Arduino Uno R3 as ISP Programmer

Requirements
1. Arduino IDE 1.0 (IDE1.5.8 had problem with ATMEGA8 Series)
2. Usbasp and latest firmware here http://www.fischl.de/usbasp/

Drivers installation:
1. USBasp Driver installation and ensure USBasp device works
2. Arduino UNO R3 USB Install Driver, ensure Arduino Board works

Preparation:
Arduino UNO R3 as ISP Programmer
1. Run Open Arduion IDE 1.0
2. File>>Examples>>ArudinoISP
3. Tools>>Board>>Arduino UNO
4. Tools>>Port>>Com N
5. Upload this Sketch to Arduino UNO
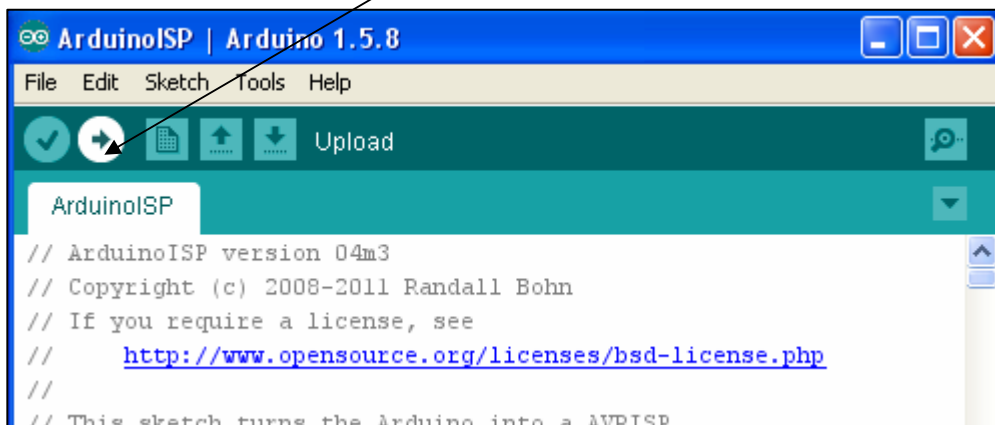
USBasp
1. Install JP2 and Close Jumper
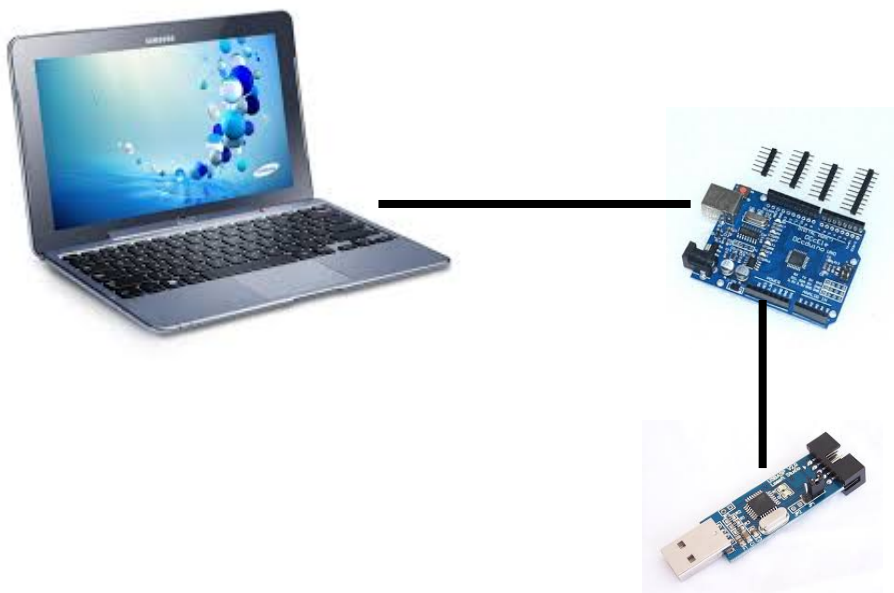2. Make Connection to Arduino Uno as below:

Arduino Uno	USBasp 10P Header	
Pin10---Pin5		RESET
Pin11---Pin1		MOSI
Pin12---Pin9		MISO
Pin13---Pin7		SCK
GND---Pin3/8/10		GND
VCC---Pin2		VCC

3. Extract : usbasp.2011-05-28.tar.gz and copy **usbasp.atmega8.2011-05-28.hex** to C:\..\hardware\tools\avr\bin

ARDUIO MACHINE

Chinese USBasp Schematic
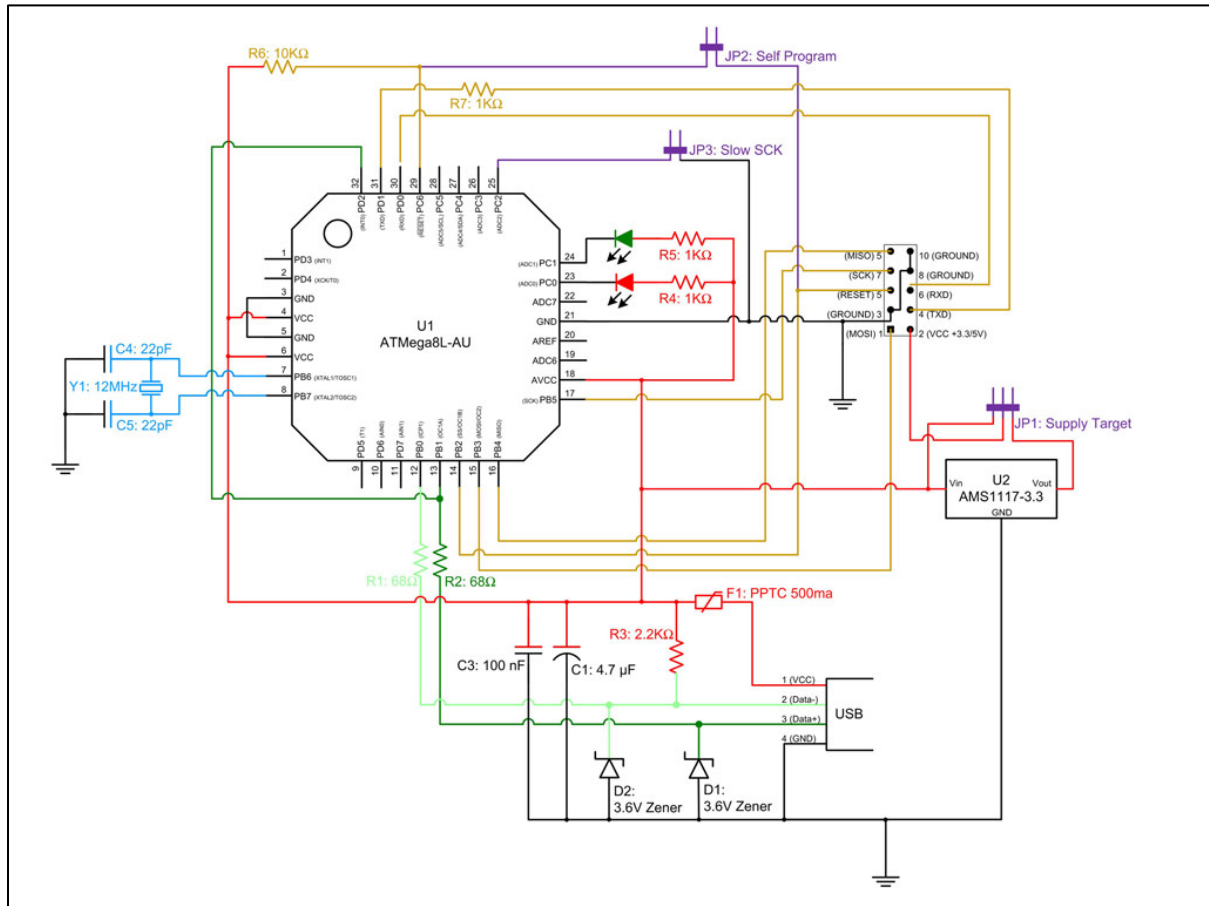
Connection

Updating Firmware

Prompt to directory that avrdude.exe existing normally **C:\Arduino-1.0\hardware\tools\avr\bin**
then run command as below change your COM number to match your comport that Arduino connected
notes: Ensure **usbasp.atmega8.2011-05-28.hex** put in above directory

1. Run this command to check Connection and Chip
avrdude –C ../etc/avrdude.conf –c avrisp –P COM3 –b 19200 –p m8 –v

Failure connection

Correct Connection

```
C:\WINDOWS\system32\cmd.exe                                    _ 日 ×

C:\arduino-1.0\hardware\tools\avr\bin>avrdude -C ../etc/avrdude.conf -c avrisp -
P COM3 -b 19200 -p M8 -v

avrdude: Version 5.11, compiled on Sep  2 2011 at 19:38:36
         Copyright (c) 2000-2005 Brian Dean, http://www.bdmicro.com/
         Copyright (c) 2007-2009 Joerg Wunsch

         System wide configuration file is "../etc/avrdude.conf"

         Using Port                    : COM3
         Using Programmer              : avrisp
         Overriding Baud Rate          : 19200
         AVR Part                      : ATMEGA8
         Chip Erase delay              : 10000 us
         PAGEL                         : PD7
         BS2                           : PC2
         RESET disposition             : dedicated
         RETRY pulse                   : SCK
         serial program mode           : yes
         parallel program mode         : yes
         Timeout                       : 200
         StabDelay                     : 100
         CmdexeDelay                   : 25
         SyncLoops                     : 32
         ByteDelay                     : 0
         PollIndex                     : 3
         PollValue                     : 0x53
         Memory Detail                 :

                                   Block Poll           Page        Polled
           Memory Type Mode Delay Size  Indx Paged  Size  Size #Pages MinW  MaxW  ReadBack
           ----------- ---- ----- ----- ---- ------ ----- ---- ------ ----- ---- -----------
           eeprom         4    20   128    0 no       512    4      0  9000   900 0xff 0xff
           flash         33    10    64    0 yes     8192   64    128  4500  4500 0xff 0x00
           lfuse          0     0     0    0 no         1    0      0  2000  2000 0x00 0x00
           hfuse          0     0     0    0 no         1    0      0  2000  2000 0x00 0x00
           lock           0     0     0    0 no         1    0      0  2000  2000 0x00 0x00
           calibration    0     0     0    0 no         4    0      0     0     0 0x00 0x00
           signature      0     0     0    0 no         3    0      0     0     0 0x00 0x00

         Programmer Type : STK500
         Description     : Atmel AVR ISP
         Hardware Version: 2
         Firmware Version: 1.18
         Topcard         : Unknown
         Vtarget         : 0.0 V
         Varef           : 0.0 V
         Oscillator      : Off
         SCK period      : 0.1 us

avrdude: AVR device initialized and ready to accept instructions

Reading | ################################################## | 100% 0.08s

avrdude: Device signature = 0x1e9307
avrdude: safemode: lfuse reads as EF
avrdude: safemode: hfuse reads as C9

avrdude: safemode: lfuse reads as EF
avrdude: safemode: hfuse reads as C9
avrdude: safemode: Fuses OK

avrdude done.  Thank you.


C:\arduino-1.0\hardware\tools\avr\bin>_
```

2. Run This command to flash MPU

avrdude –C ../etc/avrdude.conf –c avrisp –P COM3 –b 19200 –p m8 –U flash:w:usbasp.atmega8.2011-05-28.hex

3. Run this command to set fuse bit

avrdude –C ../etc/avrdude.conf –c avrisp –P COM3 –b 19200 –p m8 –U hfuse:w:0xC9:m –U lfuse:w:0xEF:m

4. Remove JP2 Jumper. Done updating firmware.