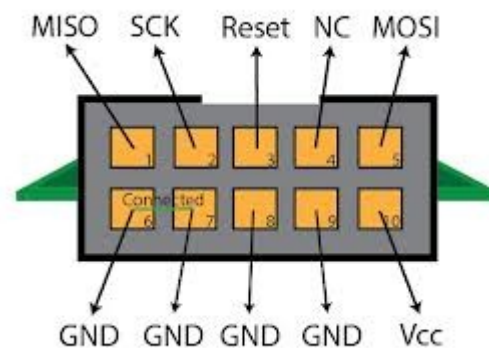


## MEMTYPE FLASHING GUIDE

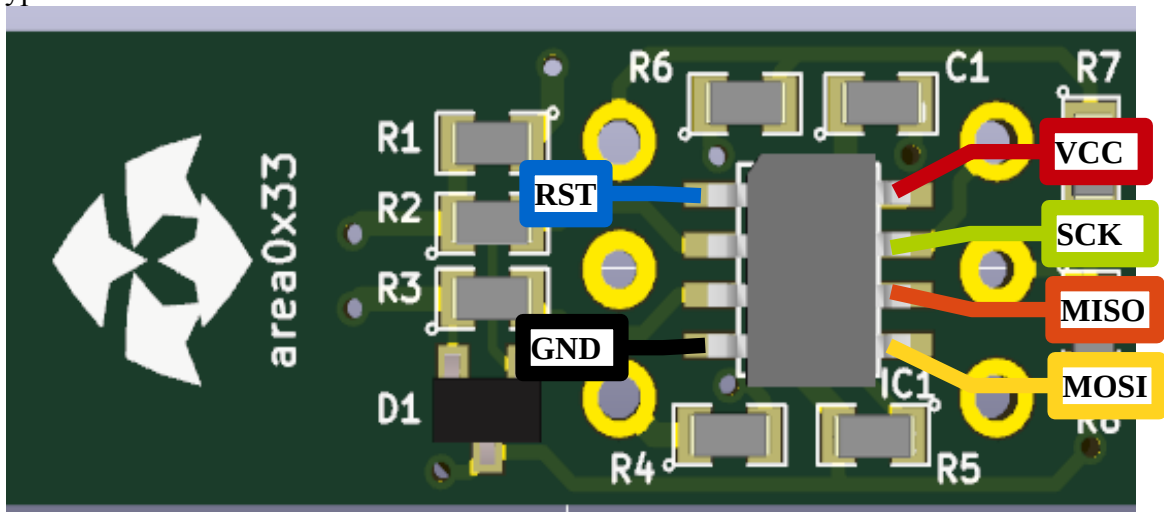
Programmer: USBasp



Pinout description:



Memtype connections:



### FLASHING COMMANDS

1- **GEN HEX:** make clean && make hex

2- **FUSES & FIRMWARE:** avrdude -c usbasp -p attiny85 -U lfuse:w:0xe1:m -U hfuse:w:0xdd:m -U efuse:w:0xfe:m -U flash:w:main.hex:i

All should be working fine !

### FUSE BYTES (explanation)

## Fuse low byte

Fuse Low Byte	Bit	Description	Default Value (62h)	MemType Value (E1h)
CKDIV8	7	Clock divided by 8	0 (programmed)	1 (unprogrammed)
CKOUT	6	Clock output enabled	1 (unprogrammed)	1 (unprogrammed)
SUT1	5	Start-up time setting	1 (unprogrammed)	1 (unprogrammed)
SUT0	4	Start-up time setting	0 (programmed)	0 (unprogrammed)
CKSEL3	3	Clock source setting	0 (programmed)	0 (programmed)
CKSEL2	2	Clock source setting	0 (programmed)	0 (programmed)
CKSEL1	1	Clock source setting	1 (unprogrammed)	0 (programmed)
CKSEL0	0	Clock source setting	0 (programmed)	1 (unprogrammed)

### MemType Value = E1h

**CKDIV8:** disabled  
**CKOUT:** disabled  
**Start-up time setting:** 14ck+1024ck+64ms  
**Clock source setting:** High Frequency PLL Clock (16Mhz)

## Fuse high byte

Fuse High Byte	Bit	Description	Default Value (DFh)	MemType Value (DDh)
RSTDISBL	7	External reset disabled	1 (unprogrammed)	1 (unprogrammed)
DWEN	6	DebugWIRE enabled	1 (unprogrammed)	1 (unprogrammed)
SPIEN	5	Serial program and data download enabled	0 (programmed)	0 (programmed)
WDTON	4	Watchdog timer always on	1 (unprogrammed)	1 (unprogrammed)
EESAVE	3	EEPROM preserves chip erase	1 (unprogrammed)	1 (unprogrammed)
BODLEVEL2	2	Brown-out Detector trigger level	1 (unprogrammed)	1 (unprogrammed)
BODLEVEL1	1	Brown-out Detector trigger level	1 (unprogrammed)	0 (unprogrammed)
BODLEVEL0	0	Brown-out Detector trigger level	1 (unprogrammed)	1 (unprogrammed)

### MemType Value = DDh

**External Reset:** enabled  
**Debug Wire:** disabled  
**Serial Programming:** enabled  
**Watchdog timer always on:** disabled  
**Erase eeprom on chip erase:** enabled  
**Brown-out Detector trigger level:** 2.5V(min) 2.7V(typ) 2.9V(max)

## Fuse extended byte

Fuse Extended Byte	Bit	Description	Default Value (FFh)	MemType Value (FEh)
	7		1 (unprogrammed)	1 (unprogrammed)
	6		1 (unprogrammed)	1 (unprogrammed)
	5		1 (unprogrammed)	1 (unprogrammed)
	4		1 (unprogrammed)	1 (unprogrammed)
	3		1 (unprogrammed)	1 (unprogrammed)
	2		1 (unprogrammed)	1 (unprogrammed)
	1		1 (unprogrammed)	1 (unprogrammed)
SELFPRGEN	0	Self-programming enabled	1 (unprogrammed)	0 (unprogrammed)

**MemType Value = FEh**  
**Self-programming:** enabled