

Busy waiting delays (εφαρμογή με δύο διαφορετικούς τρόπους)

;Led's On and Off with delay

.include "m32def.inc"

```
reset:                                ;Main program entry point on reset
    ldi R16, 0b11111111
    out DDRB, R16                      ;PA0,1,2,3,4,5,6,7 outputs (STK500 LEDs)
    out PORTB, R16                     ;write all STK500 LEDs OFF
```

```
loop:  ldi R17, 0b10101010
       out portb, r17
```

;1rst Delay_1sec:

```
    ldi r18,64
Delay1:
    ldi r19,125
Delay2:
    ldi r20,250

Delay3:
    dec r20                                ;(Block of 4 machine cycle delays) x (250) = 1000 delay cycles
    nop
    brne Delay3
;-----
    dec r19                                ;1000 x 125 = 125.000 delay cycles
    brne Delay2
;-----
    dec r18                                ;125.000 x 64 = 8.000.000 delay cycles in TOTAL
    brne Delay1
```

```
    ldi R21, 0b01010101
    out portb, r21
```

;2nd Delay_1sec:

```
;-----
    ldi r22, 41
    ldi r23, 150
    ldi r24, 128

L1: dec r24                                ; http://www.bretmulvey.com/avrdelay.html
    brne L1
    dec r23
    brne L1
    dec r22
    brne L1
;-----
```

```
rjmp loop
```