; Purpose: To demonstrate the blink sketch using pure assembly  
; Reference: <http://rwf.co/dokuwiki/doku.php?id=smallcpus>  
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; Date: 2016 12 18  
; Status: Working  
**#include "avr/io.h"  
.global setup**  
setup:  
 sbi \_SFR\_IO\_ADDR(DDRB), DDB5 ; pinMode(13,OUTPUT)  
 ret

**.global loop**loop:  
 sbi \_SFR\_IO\_ADDR(PORTB), PB5 ; digitalWrite(13,HIGH)  
 rcall delay1 ; delay(1000)  
 cbi \_SFR\_IO\_ADDR(PORTB), PB5 ; digitalWrite (13,LOW)  
 rcall delay1 ; delay(1000);  
 ret

delay1:  
; Generated by delay loop calculator at <http://www.bretmulvey.com/avrdelay.html>  
; Delay 16 000 000 cycles: 1s at 16 MHz  
 ldi r18, 82  
 ldi r19, 43  
 ldi r20, 0  
L1: dec r20  
 brne L1  
 dec r19  
 brne L1  
 dec r18  
 brne L1  
 lpm  
 nop  
 ret