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=============================
LED's ON 0-1-2-3-4-5-6 PROGRAM
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.include "m32def.inc"



        ldi r16, low(RAMEND)    ;set stack start @ RAMEND
        out SPL, r16

        ldi r16, high(RAMEND)
        out SPH, r16

reset:
        ldi r20, 0b11111111     ;set PORTB as output and connect the stk500 LED's
        out ddrb, r20

        ldi r20, 0b11111111     ;make sure that the stk500 LED's are OFF
        out portb, r20

        ldi r20, 0b01111111     ;LED 0 ON and call delay
        out portb, r20
        rcall delay

        ldi r20, 0b10111111     ;LED 1 ON and call delay
        out portb, r20
        rcall delay

        ldi r20, 0b11011111     ;LED 2 ON and call delay
        out portb, r20
        rcall delay

        ldi r20, 0b11101111     ;LED 3 ON and call delay
        out portb, r20
        rcall delay

        ldi r20, 0b11110111     ;LED 4 ON and call delay
        out portb, r20
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        rcall delay

        ldi r20, 0b11111011      ;LED 5 ON and call delay
        out portb, r20
        rcall delay

        ldi r20, 0b11111101      ;LED 6 ON and call delay
        out portb, r20
        rcall delay

        rjmp reset


;===============DELAY SUBROUTINE======================

delay:
        ldi r21, 100             ;load a value (in this case 100) for delay
        ldi r22, 100
loop1:  dec r21                  ;decrease r21 one
        brne loop1               ;branch if not equal (to zero) to loop1
loop2:  dec r22                  ;decrease r22 one
        brne loop2               ;branch if not equal (to zero) to loop2
        ret                      ;return to the main program
```