Information about group members

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https://www.youtube.com/shorts/e8XS6y5qjBU

SOURCE CODE

```
loop:

        bis.b #10110110b,&P1DIR       ;  make P1.1 P1.2 P1.4 P1.5 P1.7  output
        bis.b #00000101b,&P2DIR       ;  make P2.0 P2.2 output

        bic.b #00001000b,&P1DIR       ; make P1.3 input

        bis.b #10110110b,&P1OUT       ; clear P1.1 P1.2 P1.4 P1.5 P1.7
        bis.b #00000101b,&P2OUT       ; clear P2.0 P2.2


        bic.b #10110110b,&P1OUT       ;  set P1.1 P1.2 P1.4 P1.5 P1.7 (for display 0)
        bic.b #00000001b,&P2OUT       ; set P2.0 (for display 0)
        mov.w #8,r5                   ; for delay execute r5 times(use in delay loop)
        call #delay                   ; call delay
        bis.b #10110110b,&P1OUT       ; clear P1.1 P1.2 P1.4 P1.5 P1.7
        bis.b #00000101b,&P2OUT       ; clear P2.0 P2.2


        bic.b #00010100b,P1OUT        ; set P1.2 P1.4  (for display 1)
        mov.w #8,r5                   ; for delay execute r5 times(use in delay loop)
        call #delay                   ; call delay
        bis.b #10110110b,&P1OUT       ; clear P1.1 P1.2 P1.4 P1.5 P1.7
        bis.b #00000101b,&P2OUT       ; clear P2.0 P2.2
```

```
bic.b #10100110b,P1OUT      ; set P1.1 P1.2 P1.5 P1.7 (for display 2)
bic.b #00000100b,&P2OUT     ; set P2.2 (for display 2)
mov.w #8,r5                 ; for delay execute r5 times(use in delay loop)
call #delay                 ; call delay
bis.b #10110110b,&P1OUT     ; clear P1.1 P1.2 P1.4 P1.5 P1.7
bis.b #00000101b,&P2OUT     ; clear P2.0 P2.2

bic.b #00110110b,P1OUT      ;  set P1.1 P1.2 P1.4 P1.5 (for display 3)
bic.b #00000100b,&P2OUT     ; set P2.2 (for display 3)
mov.w #8,r5                 ; for delay execute r5 times(use in delay loop)
call #delay                 ; call delay
bis.b #10110110b,P1OUT      ; clear P1.1 P1.2 P1.4 P1.5 P1.7
bis.b #00000101b,P2OUT      ; clear P2.0 P2.2

bic.b #00010100b,P1OUT      ;  set P1.2 P1.4 (for display 4)
bic.b #00000101b,P2OUT      ; set P2.0 P2.2(for display 4)
mov.w #8,r5                 ; for delay execute r5 times(use in delay loop)
call #delay                 ; call delay
bis.b #10110110b,P1OUT      ; clear P1.1 P1.2 P1.4 P1.5 P1.7
bis.b #00000101b,P2OUT      ; clear P2.0 P2.2

bic.b #00110010b,P1OUT      ;  set P1.1 P1.4 P1.5  (for display 5)
bic.b #00000101b,P2OUT      ; set P2.0 P2.2(for display 5)
mov.w #8,r5                 ; for delay execute r5 times(use in delay loop)
call #delay                 ; call delay
bis.b #10110110b,P1OUT      ; clear P1.1 P1.2 P1.4 P1.5 P1.7
bis.b #00000101b,&P2OUT     ; clear P2.0 P2.2
```

```
        bic.b #10110010b,P1OUT      ;  set P1.1 P1.4 P1.5 P1.7 (for display 6)
        bic.b #00000101b,&P2OUT     ; set P2.0 P2.2  (for display 6)
        mov.w #8,r5                 ; for delay execute r5 times(use in delay loop)
        call #delay                 ; call delay
        bis.b #10110110b,&P1OUT     ; clear P1.1 P1.2 P1.4 P1.5 P1.7
        bis.b #00000101b,&P2OUT     ; clear P2.0 P2.2

        bic.b #00010110b,P1OUT      ;  set P1.1 P1.2 P1.4 (for display 7)
        bic.b #00000000b,P2OUT      ; set (for display 7)
        mov.w #8,r5                 ; for delay execute r5 times(use in delay loop)
        call #delay                 ; call delay
        bis.b #10110110b,&P1OUT     ; clear P1.1 P1.2 P1.4 P1.5 P1.7
        bis.b #00000101b,&P2OUT     ; clear P2.0 P2.2

        bic.b #10110110b,P1OUT;8    ;  set P1.1 P1.2 P1.4 P1.5 P1.7 (for display 8)
        bic.b #00000101b,&P2OUT     ; set P2.0 P2.2  (for display 8)
        mov.w #8,r5                 ; for delay execute r5 times(use in delay loop)
        call #delay                 ; call delay
        bis.b #10110110b,&P1OUT     ; clear P1.1 P1.2 P1.4 P1.5 P1.7
        bis.b #00000101b,&P2OUT     ; clear P2.0 P2.2

        bic.b #00010110b,P1OUT      ;  set P1.1 P1.2 P1.4 (for display 9)
        bic.b #00000101b,&P2OUT     ; set P2.0 P2.2  (for display 9)
        mov.w #8,r5                 ; for delay execute r5 times(use in delay loop)
        call #delay                 ; call delay
        bis.b #10110110b,&P1OUT     ; clear P1.1 P1.2 P1.4 P1.5 P1.7
        bis.b #00000101b,&P2OUT     ; clear P2.0 P2.2
        call #loop                  ;go to loop
delay:
        bit.b #00001000b,P1IN        ; read switch at P1.3
        jne off                     ;if not press go off,else go on
```

```
on:
        mov.w #16000,r10;       ;for find 0.5s
        jmp decrease            ;jump decrease
off:
        mov.w #32000,r10;       ;for find 1s
decrease:
        sub #1,r10              ;r10 =r10-1  (1 cycle)
        cmp.w #0,r10            ; r10=0 ? (1 cycle)
        jne decrease            ;if not equal 0 jump decrease else go (2 cycle)
        dec.w r5                ; r5=r5-1 (This delay makes the process happen 5 times)
        jne delay               ;if not zero jump delay else go
        ret
```

Explanation

This code causes the numbers to flash sequentially. It has 1 and 0.5 seconds as time intervals.

If the button is pressed, it works for 0.5 seconds. If it is released, it works for 1 second.

Delay calculation :

For 0.5 s ;

İn decrease loop;

sub (1 cycle)

cmp(1 cycle)

jne(2 cycle)

1+1+2=4

16000* 4 =64000(because decrease loop excecute 16000 times)

Before ve call delay we do this;

mov.w #8,r5

this provide delay execute 8 times

64000*8=512000

512000/1000000=0.512s

For 1 s ;

İn decrease loop;

sub (1 cycle)

cmp(1 cycle)

jne(2 cycle)

1+1+2=4

32000* 4 =128000(because decrease loop excecute 16000 times)

Before ve call delay we do this;

mov.w #8,r5

this provide delay execute 8 times

128000*8=1024000

1024000/1000000=1.024s