LAMPIRAN B

LISTING PROGRAM

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$mod51

org 00h

start: mov p0,#00h
       mov p1,#00h
       mov p2,#00h
       mov p3,#00h

       mov r2,#02h
mulai: lcall cek
       mov r1,#03h
jalan:  mov p2,#0c4h
       lcall delay2
       mov p2,#00h
       lcall cek
       djnz r1,jalan

kanan: mov p2,#84h
       lcall delay3
       mov p2,#0c4h
       lcall delay4
       mov p2,#00h
       lcall cek
       mov p2,#84h
       lcall delay3

       mov r1,#03h
jalan1: mov p2,#0c4h
       lcall delay2
       mov p2,#00h
       lcall cek
       djnz r1,jalan1

kiri:   mov p2,#44h
       lcall delay3
       mov p2,#0c4h
       lcall delay4
       mov p2,#00h
       lcall cek
       mov p2,#44h
       lcall delay3
       mov p2,#00h

       djnz r2,mulai
berhenti: mov p2,#01h
       sjmp berhenti
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cek:    mov p1,#20h
        lcall delay5
        mov p1,#00h

        mov p2,#10h
        mov r0,#8
puter1: jb p3.6,berhenti
        lcall delay1
        djnz r0,puter1
        jb p3.7,kiri2
        mov p2,#20h
        mov r0,#12
puter2: jb p3.6,berhenti
        lcall delay1
        cjne r0,#06,cek2
back:   djnz r0,puter2
        jb p3.7,kanan2
        mov p2,#10h
        mov r0,#4
puter3: jb p3.6,berhenti
        lcall delay1
        djnz r0,puter3
        mov p2,#00h

        mov p1,#04h
        lcall delay5
        mov p1,#00h
ret

cek2:   jb p3.7,maju
        ajmp back


kiri2:  mov p2,#44h
        lcall delay3
        mov r7,#06h
go:     mov p2,#0c4h
        lcall delay4
        mov p2,#00h
        lcall cek1
        djnz r7,go
        ajmp berhenti

kanan2: mov p2,#84h
        lcall delay3
        mov r7,#06h
gogo:   mov p2,#0c4h
        lcall delay4
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        mov p2,#00h
        lcall cek1
        djnz r7,gogo
        ajmp berhenti


maju: mov r7,#06h
gogogo:         mov p2,#0c4h
        lcall delay4
        mov p2,#00h
        lcall cek1
        djnz r7,gogogo
        ajmp berhenti


cek1: mov p1,#20h
        lcall delay5
        mov p1,#00h

        mov p2,#10h
        mov r0,#8
puter11: jb p3.6,berhenti1
        lcall delay1
        djnz r0,puter11
        mov p2,#20h
        mov r0,#12
puter21: jb p3.6,berhenti1
        lcall delay1
        djnz r0,puter21
        mov p2,#10h
        mov r0,#4
puter31: jb p3.6,berhenti1
        lcall delay1
        djnz r0,puter31
        mov p2,#00h

        mov p1,#04h
        lcall delay5
        mov p1,#00h
ret

berhenti1: mov p2,#01h
        sjmp berhenti1

DELAY1:
        MOV R4, #3   ;xx X 0.1s
DLY1a:        MOV R5, #200 ; 0.1s
DLY1b:        MOV R6, #250 ; 0.5ms
        DJNZ R6, $
        DJNZ R5,DLY1b
        DJNZ R4,DLY1a
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        RET
ret

delay2:
        MOV R4, #92 ;xx X 0.1s
DLY2a:        MOV R5, #200 ; 0.1s
DLY2b:        MOV R6, #250 ; 0.5ms
        DJNZ R6, $
        DJNZ R5,DLY2b
        DJNZ R4,DLY2a
        RET

DELAY3:
        MOV R4, #58 ;xx X 0.1s
DLY3a:        MOV R5, #200 ; 0.1s
DLY3b:        MOV R6, #250 ; 0.5ms
        DJNZ R6, $
        DJNZ R5,DLY3b
        DJNZ R4,DLY3a
        RET

DELAY4:
        MOV R4, #55 ;xx X 0.1s
DLY4a:        MOV R5, #200 ; 0.1s
DLY4b:        MOV R6, #250 ; 0.5ms
        DJNZ R6, $
        DJNZ R5,DLY4b
        DJNZ R4,DLY4a
        RET

DELAY5:
        MOV R4, #18 ;xx X 0.1s
DLY5a:        MOV R5, #200 ; 0.1s
DLY5b:        MOV R6, #250 ; 0.5ms
        DJNZ R6, $
        DJNZ R5,DLY5b
        DJNZ R4,DLY5a
        RET
end
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