LAMPIRAN I

; = = = = = = = = = = = = = = = ;
; program scan api (lengkap) ;
; = = = = = = = = = = = = = = = ;

switch1 bit p0.4
switch2 bit p0.5
api bit p0.6
mata1 bit p2.0
mata2 bit p2.3
mata3 bit p2.1
mata4 bit p2.2
pompa1 bit p0.7
pompa2 bit p2.7
pompa3 bit p2.5
pompa4 bit p2.4
alarm bit p2.6
data_api bit p0.0

posisi_awal:
    clr pompa1
    clr pompa2
    clr pompa3
    clr pompa4
    clr alarm
    clr data_api
    call awal2
    call awal1

    mov a,#11h

cek_api:
    jb api,posisi_awal
    setb alarm
    setb data_api
    mov p1,a
    mov p3,a
    rr a
    call delay
    jb mata1,cek_mata2
    call mati_motor
    call tunda1
    setb pompa1
    call tunda1
    call tunda1

cek_mata2:
    jb mata2,cek_mata3
    call mati_motor
    call tunda1
    setb pompa2
    call tunda1
    call tunda1

cek_mata3:
    jb mata3,cek_mata4
    call mati_motor
    call tunda1
    setb pompa3
    call tunda1
call tunda1
call tunda1
call tunda1

cek_mata4:
    jb mata4,cek_api
    call mati_motor
call tunda1
setb pompa4
call tunda1
call tunda1
jmp cek_api

awal1:
  mov a,#11h
loop:
  mov p1,a
  rl a
  call delay
  jb switch2,loop
  mov p1,#0h
  ret

awal2:
  mov a,#11h
loop1:
  mov p3,a
  rl a
  call delay
  jb switch1,loop1
  mov p3,#0h
  ret

mati_motor:
  mov p1,#0h
  mov p3,#0h
  ret

hidup_pompa1:
  mov r3,#255
loop_pompa1:
  setb pompa1
djnz r3,$
  ret

tunda1:
  mov r7,#100
tnd1:
  mov r6,#100
td1:
  mov r5,#30
djnz r5,$
djnz r6,td1
djnz r7,tnd1
  ret

delay:
  mov r7,#200
dly:
  mov r6,#20
djnz r6,$
djnz r7,dly
  ret
tunda:
  mov r7,#255
tnd:
  mov r6,#255
djnz r6,$
djnz r7,tnd
ret
end

LAMPIRAN II

; = = = = = = = = = = = = = = = ;
; program running text ;
; = = = = = = = = = = = = = = = ;

paling_utama:
    acall pesan1
    jmp utama

utama:
    jnb p1.0,paling_utama
    acall pesan2
    acall delay
    sjmp utama

tunda:
    mov r7,#10

tnd:
    mov r6,#6
    djnz r6,$
    djnz r7,tnd
    ret

delay:
    mov r7,#100

dly:
    mov r6,#100
    djnz r6,$
    djnz r7,dly
    ret

pesan1:
    mov p0,#msg1
    mov 76h,#15
    loop1:
    mov a,#76h
    jalan1:
    mov p2,#15
    acall tunda
    scn11:
    dec a
    cjne a,#0,scn11
    ret

pesan2:
    mov p0,#msg2
    mov 76h,#15
    loop2:
    mov a,#76h
    jalan2:
    mov p2,#15
    acall tunda
    scn22:
    dec a
cjne a,#0,scn22
ret

msg1:
db 80h,80h,80h,80h,80h,80h,80h,80h
 80h,80h,80h,80h,80h,80h,80h,80h
  80h,01h,01h,7fh,01h,01h,80h
  80h,3fh,44h,44h,44h,38h,80h
  80h,7ch,08h,04h,04h,08h,80h
  80h,20h,54h,54h,54h,78h,80h
  80h,7ch,08h,04h,04h,78h,80h
  80h,08h,54h,54h,54h,3ch,80h
  80h,38h,54h,54h,54h,18h,80h
  80h,20h,54h,54h,54h,78h,80h
  80h,08h,54h,54h,54h,3ch,80h
  80h,38h,54h,54h,54h,18h,80h
  80h,20h,54h,54h,54h,78h,80h
  80h,7ch,08h,04h,04h,78h,80h

msg2:
db 80h,7fh,08h,08h,08h,7fh,80h
 80h,3fh,40h,40h,20h,7ch,80h
 80h,04h,3fh,44h,40h,20h,80h
 80h,7ch,08h,04h,04h,08h,80h
 80h,44h,7dh,40h,80h
 80h,7ch,08h,04h,04h,78h,80h
 80h,08h,54h,54h,54h,3ch,80h
 80h,20h,54h,54h,54h,78h,80h
 80h,08h,54h,54h,54h,3ch,80h
 80h,7fh,09h,09h,09h,7eh,80h
 80h,7fh,09h,09h,09h,7eh,80h
 80h,7fh,09h,19h,29h,46h,80h
 80h,08h,60h,60h,80h
  80h,60h,60h,80h
  80h,60h,60h,80h
  80h,60h,60h,80h
  80h,60h,60h,80h
  80h,60h,60h,80h
  80h,60h,60h,80h
  80h,7fh,08h,14h,22h,41h,80h
  80h,7fh,49h,49h,49h,41h,80h
  80h,7fh,49h,49h,49h,36h,80h
  80h,7eh,09h,09h,09h,7eh,80h
  80h,7fh,08h,14h,22h,41h,80h
  80h,7eh,09h,09h,09h,7eh,80h
  80h,7fh,09h,19h,29h,46h,80h
  80h,7eh,09h,09h,09h,7eh,80h
  80h,7fh,04h,08h,10h,7fh,80h
  80h
  80h,5fh,80h
  80h
db 80h,5fh,80h ;!
db 80h

db 80h,5fh,80h ;!
db 80h

db 80h,5fh,80h ;!
db 80h,80h,80h,80h,80h,80h,80h

db 0,0,0,0,0,0,0