


```

        clr STATUS
        setb BUZZER
        call delay_1det
        call delay_1det
        clr BUZZER
        call delay_1det
        call bunyikan_buzzer2x
        setb STATUS

        ret
;NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
;=====
;=== SUB GERAKKAN ORANG - ORANGAN =
;=====
gerakkan_org2an:
        clr ORG2AN
        ret
;
;=====
;=== SUB HENTIKAN ORANG - ORANGAN =
;=====
hentikan_org2an:
        setb ORG2AN
        ret
;=====
;=== SUB TARIK TALI RUMBAY =
;=====
tarik_rumbay:
        clr RUMBAY
        ret
;=====
;=== SUB HENTIKAN TALI RUMBAY =
;=====
hentikan_rumbay:
        setb RUMBAY
        ret
;=====
;=== SUB NYALAKAN LAMPU STATUS =
;=====
nyalakan_lampu_status:
        clr STATUS
        ret
;=====
;=== SUB MATIKAN LAMPU STATUS =
;=====
matikan_lampu_status:
        setb STATUS
        ret
;=====
;=== SUB NYALAKAN LED STATUS =
;=====
nyalakan_led_status:

```

```
        clr LED_STATUS
        ret
;=====
;=== MATIKAN LED STATUS =
;=====
matikan_led_status:
    setb LED_STATUS
    ret
;=====
;=== SUB NYALAKAN LED ORG2AN =
;=====
nyalakan_led_org2an:
    clr LED_ORG2AN
    ret
;=====
;=== MATIKAN LED ORG2AN =
;=====
matikan_led_org2an:
    setb LED_ORG2AN
    ret
;=====
;=== SUB NYALAKAN LED RUMBAY =
;=====
nyalakan_led_rumbay:
    clr LED_RUMBAY
    ret
;=====
;=== MATIKAN LED RUMBAY =
;=====
matikan_led_rumbay:
    setb LED_RUMBAY
    ret
;
;NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
;
;NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
;=====
;=== SUB GERAKKAN ORG2AN BENTAR =
;=====
gerakkan_org2an_bentar:
    clr TR1                                ;non-aktifkan timer1, agar tidak ada kelap kelip.
    call bunyikan_buzzer2x
    call delay_1det
    call nyalakan_led_status
    call nyalakan_lampu_status
    call nyalakan_led_org2an
    call gerakan_org2an
    call delay_1det
    call hentikan_org2an
    call matikan_led_org2an
    setb TR1
    ret
;
```

```

;=====
;=== SUB GERAKKAN ORG2AN LAMAAN      =
;=====
gerakkan_org2an_lamaan:
    clr TR1                ;non-aktifkan timer1, agar tidak ada kelap kelip.
    call bunyikan_buzzer2x
    call delay_1det
    call nyalakan_led_status
    call nyalakan_lampu_status
    call nyalakan_led_org2an
    call gerakkan_org2an
    call delay_5det
    call hentikan_org2an
    call matikan_led_org2an
    setb TR1
    ret

;=====
;=== SUB TARIK RUMBAY BENTAR        =
;=====
tarik_rumbay_bentar:
    clr TR1                ;non-aktifkan timer1, agar tidak ada kelap kelip.
    call bunyikan_buzzer2x
    call delay_1det
    call nyalakan_led_status
    call nyalakan_lampu_status
    call nyalakan_led_rumbay
    call tarik_rumbay
    call delay_1det
    call hentikan_rumbay
    call matikan_led_rumbay
    setb TR1
    ret

;
;=====
;=== SUB TARIK RUMBAY LAMAAN        =
;=====
tarik_rumbay_lamaan:
    clr TR1                ;non-aktifkan timer1, agar tidak ada kelap kelip.
    call bunyikan_buzzer2x
    call delay_1det
    call nyalakan_led_status
    call nyalakan_lampu_status
    call nyalakan_led_rumbay
    call tarik_rumbay
    call delay_5det
    call hentikan_rumbay
    call matikan_led_rumbay
    setb TR1
    ret
;
;=====
;=SUB GERAKKAN ORG2AN DAN RUMBAY BENTAR ==

```



```

;
setb TR0
check_sensor:
    jb sensor_pir,next
    jnb TF0, check_sensor
    clr TF0
    djnz R2,repeat_tts
    clr sensor_id
    ret
;
;
next:
    setb sensor_id
    clr TF0
    ret
;

;=====
;== SUB BUZZER PENDEK =====
;=====
buzzer_pendek:
    setb BUZZER
    call delay_50mdet
    clr BUZZER
    call delay_50mdet
    ret
;

;=====
;== SUB BUNYIKAN BUZZER LAMAAA ==
;=====
bunyikan_buzzer_lamaaa:
    setb BUZZER
    call delay_2det
    clr BUZZER
    call delay_50mdet
    ret

;=====
;== SUB BUNYIKAN BUZZER 2X ===
;=====
bunyikan_buzzer2x:
    call buzzer_pendek
    call buzzer_pendek
    ret

;=====
;== SUB INTERRUPT TIMER1 =====
;=====
;
interrupt_T1:

    clr TF1
    djnz r5,lsg ;apakah sudah 200x?
;
    cpl LED_STATUS
    cpl STATUS

```

```

        ;
        mov r5,#200      ;r5--> pengali 200 agar dpt 1det
        ;
lsg:   mov TH1,#03CH      ;setting reg timer utk 50mdetik
        mov TL1,#0B0H
        ;
        RET

;
;NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
;
;NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
;=====
;=== SUB ROUTIN DELAY 20 MILIDETIK =
;=====
;
delay_20mdet:
        mov TMOD,#01H      ; timer0 mode 1
        mov TH0,#0FCH      ; nilai THTL untuk 20mdet
        mov TLO,#18H
        setb TR0

Wait_Delay_20mdet:   jnb TF0,Wait_Delay_20mdet
                    clr TF0
                    ;
                    ret
                    ;

;=====
;=== sub rutin delay 50 mili detik    =
;=====
;
delay_50mdet:
        mov TMOD,#01H      ; timer0 mode 1
        mov TH0,#03CH      ; nilai THTL untuk 50mdet
        mov TLO,#0B0H
        setb TR0

Wait_Delay_50mdet:   jnb TF0,Wait_Delay_50mdet
                    clr TF0
                    ;
                    ret
                    ;

;=====
;=== SUB ROUTIN DELAY 200 MILIDETIK =
;=====
;
delay_200mdet:
        mov R1,#04          ; faktor pengali 4
        mov TMOD,#01H      ; timer0 mode 1

R_Delay_200mdet:     mov TH0,#03CH      ; nilai THTL0 untuk 50mdet
                    mov TLO,#0B0H
                    setb TR0

Wait_Delay_200mdet:   jnb TF0,Wait_Delay_200mdet
                    clr TF0
                    djnz R1,R_Delay_200mdet
                    ret

```

```

;
;=====
;=== SUB ROUTIN DELAY 500 MILIDETIK =
;=====
delay_500mdet:
                mov R1,#10                ; faktor pengali 10
                mov TMOD,#01H            ; timer0 mode 1
R_Delay_500mdet: mov TH0,#03CH            ; nilai THTL untuk 50mdet
                mov TLO,#0B0H
                setb TR0
Wait_Delay_500mdet: jnb TF0,Wait_Delay_500mdet
                clr TF0
                djnz R1,R_Delay_500mdet
                ret
                ;
;=====
;=== SUB ROUTIN DELAY 1DETIK =
;=====
                ;
delay_1det:
                mov R1,#20                ; faktor pengali 20
                mov TMOD,#01H            ; timer0 mode 1
R_Delay_1det:   mov TH0,#03CH            ; nilai THTL untuk 50mdet
                mov TLO,#0B0H
                setb TR0
Wait_Delay_1det: jnb TF0,Wait_Delay_1det
                clr TF0
                djnz R1,R_Delay_1det
                ret
                ;
;=====
;=== SUB ROUTIN DELAY 2DETIK =
;=====
                ;
delay_2det:
                mov R1,#40                ; faktor pengali 40 ( 40 x 50mdet=2det)
                mov TMOD,#01H            ; timer0 mode 1
R_Delay_2det:   mov TH0,#03CH            ; nilai THTL untuk 50mdet
                mov TLO,#0B0H
                setb TR0
Wait_Delay_2det: jnb TF0,Wait_Delay_2det
                clr TF0
                djnz R1,R_Delay_2det
                ret
;=====
;=== SUB ROUTIN DELAY 5 DETIK =
;=====
                ;
delay_5det:
                mov R1,#100               ; faktor pengali 100

```

