







```

        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
;
;NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
;
;NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
;=====
;=== 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
;

```

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;=====
;=== 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 ==

```

```

;=====
gerakkan_org2an_dan_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 nyalakan_led_org2an
    call tarik_rumbay
    call gerakan_org2an
    call delay_1det
    call hentikan_rumbay
    call hentikan_org2an
    call matikan_led_rumbay
    call matikan_led_org2an
    setb TR1
    ret

;=====
;=SUB GERAKKAN ORG2AN DAN RUMBAY LAMA ==
;=====
gerakkan_org2an_dan_rumbay_lama:
    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 nyalakan_led_org2an
    call tarik_rumbay
    call gerakan_org2an
    call delay_5det
    call hentikan_rumbay
    call hentikan_org2an
    call matikan_led_rumbay
    call matikan_led_org2an
    setb TR1
    ret

;NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
;
;NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
;=====
;=== SUB TIMER TUNGGU SENSOR ===
;=====
;
timer_tunggu_sensor:
    clr sensor_id
    ;
    mov R2,#100

repeat_tts:
    mov TMOD,#01H
    mov TH0,#03CH
    mov TLO,#0B0H

```

```

;
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

```





```

;
;=====
;=== 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

```

