

## Lampiran 1

```
;  
Relay          Bit      P3.2  
Sensor        Bit      P3.0  
lampu1        bit      P1.0  
lampu2        bit      P1.1  
lampu3        bit      P1.2  
lampu4        bit      P1.3  
;RXD          bit      P3.0  
hasil         equ      30H  
;  
              org      00h  
              jmp      start  
;  
;  
              org      100h  
start:  
main:  
              call     cek_data  
              clr      lampu1  
              clr      lampu2  
              clr      lampu3  
              clr      lampu4  
              call     delay_1s  
              call     delay_1s  
              call     delay_1s  
              call     delay_1s  
              call     delay_1s  
              setb     lampu1  
              setb     lampu2  
              setb     lampu3  
              setb     lampu4  
  
              call     cek_data  
              clr      lampu1  
              clr      lampu2  
              clr      lampu3  
              clr      lampu4  
              call     delay_1s  
              call     delay_1s  
              call     delay_1s  
              call     delay_1s  
              call     delay_1s  
              setb     lampu1  
              setb     lampu2  
              setb     lampu3  
              setb     lampu4  
;  
              jmp      main  
;=====
```

```

pintu:
    setb    solenoid
    call    delay_1s
    clr     solenoid
    ret

;
cek_data:
    mov     P2,#0FFh
    call    ambil_data
    mov     a,30h
    anl     a,#11111110b
    cjne    a,#10010100b,cek_data      ;1
    clr     P2.0

;
    call    ambil_data
    mov     a,30h
    anl     a,#11111110b
    cjne    a,#00010100b,cek_data      ;5
    clr     P2.1

;
    call    ambil_data
    mov     a,30h
    anl     a,#11111110b
    cjne    a,#10010100b,cek_data      ;9
    clr     P2.2

;
    call    ambil_data
    mov     a,30h
    anl     a,#11111110b
    cjne    a,#01101000b,cek_data      ;2
    clr     P2.3

;
    call    pintu
    ret

;
ambil_data:
    jb     sensor,$
    jnb    sensor,$

;
    mov     hasil,#0
    call    delay_1ms
;    call    delay_1ms
;    call    delay_1ms
;    call    delay_1ms
;    call    delay_1ms
;    call    delay_1ms
;    call    delay_1ms

    orl     hasil,#00000001b
    jb     sensor,cek0

```

```

cek0:    anl      hasil,#11111110b
         call    delay_1ms
         orl      hasil,#00000010b
         jb       sensor,cek1
         anl      hasil,#11111101b
cek1:    call    delay_1ms
         orl      hasil,#00000100b
         jb       sensor,cek2
         anl      hasil,#11111011b
cek2:    call    delay_1ms
         orl      hasil,#00001000b
         jb       sensor,cek3
         anl      hasil,#11110111b
cek3:    call    delay_1ms
         orl      hasil,#00010000b
         jb       sensor,cek4
         anl      hasil,#11101111b
cek4:    call    delay_1ms
         orl      hasil,#00100000b
         jb       sensor,cek5
         anl      hasil,#11011111b
cek5:    call    delay_1ms
         orl      hasil,#01000000b
         jb       sensor,cek6
         anl      hasil,#10111111b
cek6:    call    delay_1ms
         orl      hasil,#10000000b
         jb       sensor,cek7
         anl      hasil,#01111111b
cek7:    ;       mov      P2,30H
         call    delay_1s
         ret
;
delay_1ms:
delay1:  mov      R6,#2
delay:   mov      r7,#205
         djnz    r7,$
         djnz    r6,delay
         ret
;
delay_50ms:
         mov      r5,#20
delay_:  call    delay_1ms

```

```
        djnz    r5,delay_  
        ret  
;  
delay_1s:  
        mov     r5,#10  
delay1s_  
        mov     R6,#200  
delay1s__:  
        mov     r7,#205  
        djnz   r7,$  
        djnz   r6,delay1s__  
        djnz   r5,delay1s_  
        ret  
;  
end
```