

```
1  ORG 0
2  MOV P1,#0FFH    //SET P1 AS INPUT
3  START:
4  JB P1.0,SP1 //JUMP TO SPEED 1/5
5  JB P1.1,SP2 //JUMP TO SPEED 2/5
6  JB P1.2,SP3 //JUMP TO SPEED 3/5
7  JB P1.3,SP4 //JUMP TO SPEED 4/5
8  JB P1.4,SP5 //JUMP TO SPEED 5/5
9  SP0:
10
11     //MOTOR SPEED 0/5
12     CLR P2.0
13     SJMP START
14
15     //MOTOR SPEED 1/5
16     SP1:
17     MOV R0,#51
18     SJMP PWM
19
20     //MOTOR SPEED 2/5
21     SP2:
22     MOV R0,#102
23     SJMP PWM
24
25     //MOTOR SPEED 3/5
26     SP3:
27     MOV R0,#153
28     SJMP PWM
29
30     //MOTOR SPEED 4/5
31     SP4:
32     MOV R0,#204
33     SJMP PWM
34
35     //MOTOR SPEED 5/5
36     SP5:
37     SETB P2.0
38     SJMP START
39
40     PWM:
41     //R0 IS POSITIVE CYCLE DELAY
42     //R1 IS NEGATIVE CYCLE DELAY
43
44     MOV A,#0FFH //MOVES 255 INTO A
45     SUBB A,R0    //255 - R0
46     MOV R1,A     //GENERATE R1
47
48     //START POSITIVE CYCLE
49     SETB P2.0
50     HERE: DJNZ R0,HERE
51
52     //START NEGATIVE CYCLE
53     CLR P2.0
54     HERE2: DJNZ R1,HERE2
55     SJMP START
56     END
```