

```
1  GPIO_PORTB_DIR      EQU 0x40005400
2  GPIO_PORTB_AFSEL    EQU 0x40005420
3  GPIO_PORTB_DEN      EQU 0x4000551C
4  SYSCTL_RCGCGPIO     EQU 0x400FE608
5
6  ;PORTS ARE CONNECTED AS
7  ;IN1 =>pb0 , IN2 =>pb1 , IN3 =>pb2 , IN4 =>pb3
8  ;S1 => pb4, S2=> pb5
9
10         AREA          main, READONLY, CODE
11         THUMB
12         EXPORT        portb_init
13
14 portb_init PROC;
15         PUSH          {R0,R1}
16 Start    LDR          R1,=SYSCTL_RCGCGPIO
17         LDR          R0,[R1]
18         ORR          R0,R0,#0x2F
19         STR          R0,[R1]
20         NOP
21         NOP
22         LDR          R1,=GPIO_PORTB_DIR
23         LDR          R0,[R1]
24         MOV          R0,#0x0F
25         STR          R0,[R1]
26         LDR          R1,=GPIO_PORTB_AFSEL
27         LDR          R0,[R1]
28         BIC          R0,#0xFF
29         STR          R0,[R1]
30         LDR          R1,=GPIO_PORTB_DEN
31         LDR          R0,[R1]
32         ORR          R0,#0xFF
33         STR          R0,[R1]
34         POP          {R0,R1}
35         BX           LR
```