

```

1  GPIO_PORTB_DATA EQU    0x400053FC
2  NVIC_ST_RELOAD  EQU    0xE000E014
3
4  AREA            main, READONLY, CODE
5  THUMB
6  EXTERN          delay
7  EXPORT          stepper
8
9  stepper PROC
10     LDR          R1,=GPIO_PORTB_DATA
11     LDR          R1,[R1]
12     AND          R0,R1,#0xF0
13     LDR          R5,=0x20000400
14     LDRB         R2,[R5]
15     CMP          R2,#1
16     BEQ          clockw
17     LDRB         R2,[R5]
18     CMP          R2,#2
19     BEQ          counterw
20     BX           LR
21
22 clockw          CMP          R0,#0x00
23                MOVEQ        R0,#0x10
24                BEQ          finish
25                CMP          R0,#0x80
26                MOVEQ        R0,#0x10
27                BEQ          finish
28                CMP          R0,#0x10
29                MOVEQ        R0,#0x20
30                BEQ          finish
31                CMP          R0,#0x20
32                MOVEQ        R0,#0x40
33                BEQ          finish
34                CMP          R0,#0x40
35                MOVEQ        R0,#0x80
36                BEQ          finish
37
38 counterw        CMP          R0,#0x80
39                MOVEQ        R0,#0x40
40                BEQ          finish
41                CMP          R0,#0x40
42                MOVEQ        R0,#0x20
43                BEQ          finish
44                CMP          R0,#0x20
45                MOVEQ        R0,#0x10
46                BEQ          finish
47                CMP          R0,#0x10
48                MOVEQ        R0,#0x80
49                BEQ          finish
50
51 finish          BFC          R1,#4,#4
52                ORR          R1,R1,R0
53                LDR          R12,=GPIO_PORTB_DATA
54                STR          R1,[R12]
55
56                LDR          R0,=NVIC_ST_RELOAD
57                LDR          R12,[R0]
58
59                LDR          R5,=0x20000400
60                LDRB         R2,[R5,#1]!
61
62 fast            CMP          R2,#3
63                BNE          slow
64                CMP          R12,#0x1000
65                BEQ          slow
66                LSR          R12,R12,#1
67
68 slow            CMP          R2,#4
69                BNE          devam
70                CMP          R12,#0x100000
71                BEQ          devam
72                LSL          R12,R12,#1
73
74 devam            STR          R12,[R0]
75
76                LDR          R1,=0x20000401
77                MOV          R0,#0

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```
78          STRB    R0, [R1]
79
80          BX      LR
81      ENDP
82      ALIGN
83      END
```