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Stepper Motor

Stepper Motor

PortA Data 4 Stepper Motor

Stepper Motor PortA Data Motor

Stepper Motor Step Size

Stepper Motor

Step Size = $360 / 200 = 1.8$ degrees

200

```
$MODID51
$IC(MACROS51)
    MOV  A,    #66H
    SELECT  NONE
    MOV  R0, #200
BACK:
    MOV  DAT, A
    SELECT  PORTA
    RR    A
    DELAY  255
    DJNZ R0, BACK

END
```

2 Stepper Motor

```
$MODID51
$IC(MACROS51)
    MOV R0, #77H
    SELECT NONE
BACK:
    MOV DAT, R0
    SELECT PORTA
    MOV A, R0
    RR A
    MOV R0, A
    DELAY 255

    SJMP BACK

END
```

```
$MODID51
$IC(MACROS51)
    MOV R0, #66H
    MOV R1, #77H
    SELECT NONE
BACK:
    MOV DAT, R0
    SELECT PORTA
    MOV A, R0
    RR A
    MOV R0, A
    DELAY 255
    MOV DAT, R1
    SELECT PORTA
    MOV A, R1
    RR A
    MOV R1, A
    DELAY 255

    SJMP BACK

END
```

```

:
Stepper Motor Step
:
StepSizeDelay = 60 seconds / 200 steps = 0.3 seconds per step
0.3 Step

```

```

$MODID51
$IC(MACROS51)
    MOV R0, #66H
    MOV R1, #77H
    SELECT NONE
BACK:
    MOV DAT, R0
    SELECT PORTA
    MOV A, R0
    RR A
    MOV R0, A
    MOV DAT, R1
    SELECT PORTA
    MOV A, R1
    RR A
    MOV R1, A

    MOV R4, #4
LABEL1:
    DELAY 255
    DJNZ R4, LABEL1

    SJMP BACK

END

```

```

Step

```

```

Stepper Motor

```

.200	1	Step	9	1	:	—
			9	1		

;----- tb51 ver. 3 -----

\$MODID51

\$IC(MACROS51)

SELECT	NONE
COMMAND	#0FH
COMMAND	#38H
COMMAND	#01H
COMMAND	#80H

NOT_PRESSED0:

IFKBHIT	
JNC	NOT_PRESSED0
GETSCAN	A
MOV	DPTR, #KeyTable
MOVMEM	A, @A+DPTR
DISPCH	A
SUBB	A, #30H
MOV	R0, A

L0: IFKBHIT

JC	L0
----	----

NOT_PRESSED1:

IFKBHIT	
JNC	NOT_PRESSED1
GETSCAN	A
MOV	DPTR, #KeyTable
MOVMEM	A, @A+DPTR
DISPCH	A
SUBB	A, #30H
MOV	R1, A

L1: IFKBHIT

JC	L1
----	----

NOT_PRESSED2:

IFKBHIT	
JNC	NOT_PRESSED2
GETSCAN	A
MOV	DPTR, #KeyTable
MOVMEM	A, @A+DPTR
DISPCH	A
SUBB	A, #30H
MOV	R2, A

L2: IFKBHIT

```

        JC          L2
NOT_PRESSED3:
        IFKBHIT
        JNC          NOT_PRESSED3
        GETSCAN      A
        MOV          DPTR, #KeyTable
        MOVMEM       A, @A+DPTR
        DISPCH       A
        SUBB         A, #30H
        MOV          R3, A
L3:     IFKBHIT
        JC          L3

        MOV  A, R1
        MOV  B, #10
        MUL  AB

        ADD  A, R2
        MOV  B, #10
        MUL  AB

        ADD  A, R3
        MOV  R4, A

        MOV  A, #66H
        SELECT NONE
BACK:     MOV  DAT, A
        SELECT PORTA
        RR    A

        MOV  B, R0
LOOP2:    DELAY      255
        DJNZ B, LOOP2

        DJNZ R4, BACK

;-----
KeyTable: DB      '123P456U789DS0ME', 0

;-----
END

```
