| 1. | Derive a Stepper Motor interface to rotate the motor in |
|-------------------------------|---|
| | Anti-Clockwise by N steps. Introduce suitable delay between |
| | successive steps |
| | |
| | #include (Stdio.h) |
| | # include (reg 51. h) |
| | char xdata port-at-oxe803; and librarios damage |
| | char xdata forta-at 0x c800; |
| | charidataace_at_0x30 |
| | delay () |
| | ? int j; |
| | for (j=0; j<800; j++) |
| | 1 1 |
| | 3 |
| | void main () |
| | 3 (340 = 5-1) |
| | bort = 0×80; |
| | while (1) |
| 7- 14-7 7- 14-7 7- 14-7 | 1 , which |
| | acc = 0x11 |
| | boyla = acc; |
| | |
| | delay (); |
| <u>.</u> | borta = acc; |
| | |
| | delay (); |
| | ACC = 0×44; |
| | porta = acc; |
| | delay (); |
| | acc = 0x88; |
| | porta = acc delay(); |
| | delay (); |
| | |
| | |

Table Trans

| | Drive a Stepper Molor in | tesface to rotate the motor in clockwise suitable delay between successive |
|---|---------------------------|--|
| | by N steps - Introduce | suitable delay between successive |
| | steps. | |
| | · | |
| | #include (statio h> | Charles Mr. Market |
| | # include < reg 51 h > | Colonia de La Co |
| | charndata port-at-On | (803;) |
| | charndata borta-at-0 | |
| | charidatance - at - On30; | : : 625 |
| | chelay () | · · · · · · · · · · · · · · · · · · · |
| | int; | time to the second of the seco |
| | for (j=0, j<800; | j++1) - (|
| | £3 / 3 | |
| | 3 | |
| | void main () | Lawren Dire |
| | [port = 0 n 80; | |
| | while (1) | 46 8 J. 3 7 B. 3 |
| | { | O. Friedon |
| | porta = acc; | |
| | olelay (); | |
| | acc = 0x44; | San - Som |
| | porta = acc; | VIII was that's |
| | delay (); | |
| | all = 0x22; | |
| | porta = acc; | 1 Complete |
| F | delay(); | (MR* () U. |
| | Acc = 0x11; | 21 () 12 () d |
| | porta = acc; | 11 mains |
| | delay (); | |
| | 3 | |
| - | 3 | 16 1 A 4 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| | | |

| Trisha 18M19CSZI4 |
|--|
| Display messages FIRE and HELP alternatively with flickering effects on a I-segment display interface for a suitable period of time. Ensure a farhing rate that makes it easy to read both the messages. |
| 7425164 7425164 7425164 7425164 |
| #include (statio.h) # include (reg51.h) |
| CharxdataCommW_at-Oxe803; CharxdataportB_at-Oxe801; charxdataportC_at-Oxe802; |
| Char port [20] = { 0x8e, 0x19, 0xde, 0x86, 0x11, 0x11, 0x13, 0x11, 0x13, 0x11, 0x13, 0x11, 0x13, 0x11, 0x13, 0x11, 0x13, 0x11, 0x11, 0x13, 0x11, |
| long u; for (u=0; u(8000; u++); |
| void main () i int d, b, j, m; unsigned char k, CommW = 0x80; |
| |

| clo t |
|---|
| i= 0; |
| for (d= 0; d(3; d+1) for (b=0; b(4; b+1) |
| 1 for (b=0; 524) |
| |
| R = port(1++1) |
| $f_{ov}(j=0;j<8;j++)$ |
| { m = k; |
| k = h & On80; |
| |
| y (k==00) |
| port B = 0200; |
| else |
| bort B = On Ol; |
| 3 |
| port c = onoi; |
| bort c = Ox 00; |
| k= m |
| k <<=1; |
| 1 |
| |
| An and a second |
| delay (); |
| j |
| |
| while (1); |
| 1 (100 0000 0000 0000000 |
| |
| |
| |
| |
| |
| |
| |

| 2 1 | 18M19CS214 |
|---------------|--|
| | Display message BANGALORE in rolling Rolling |
| | Display message BANGALORE in rolling Joshion on a 7-segment display interface for a suitable period of time. |
| | The pool of time. |
| = | #include < Stelio h> |
| | H include (Reg 51 h > |
| | char xdata CommW at-0x803; |
| | char xdala portb_at_0xc801, |
| | Char xdata porte-at-Oxe 802; |
| 1100 | Char port [20] - { 0x11, 0x11, 0x11, 0x11, 0x83, 0x88, 0x68, 0x82, |
| | 0x11, 0x11, 0x11, 0x11, 0x83, 0x88, 0x68, 0x62, |
| - 4 | 0x88, 0xC7, 0xC0, 0xAF, 0x86], i, |
| | { long u; |
| | for (u=0; u(4000; u++), |
| | 3 |
| | void main () |
| 1 27 | { int d, b, j, m; |
| | |
| | CommW = 0x80; |
| | clo |
| | i 1=0; |
| | for (d=0; d(1; d++) |
| | 1 |
| | for (b=13; b>0; b) |
| | |
| - | 2 delay (); |
| ` | R= fort li+1; |
| | for (j=0; j<8; j++) |
| | m = k |
| | h = k & ()×80; |
| | l if (k==00) |
| 471 | bort6 = Ox00; |
| ALL THEF WALL | else |

| , , | port B = 0x01) | 1 |
|-----|--|---|
| | | 1 |
| | Borl C = 0 × 01; | 1 |
| | port c = 0x00; | 1 |
| | k= m | 1 |
| | k <<=1, | 松 |
| | | _ |
| | 3 | _ |
| | delay (); | _ |
| | 3 | _ |
| | | _ |
| | while (1); | _ |
| | <u> </u> | _ |
| | | _ |
| | | _ |
| | the second of th | _ |
| | A will promise | _ |
| | Country Const | _ |
| - | C/1 | |
| | | |
| | 1 120 120 0 0 100 100 100 100 100 100 10 | |
| | | |
| | | |
| | in Carrington of | _ |
| | (La | _ |
| | | _ |
| | | _ |
| | | |
| | St. 10 Page 1 | |

| 1 | IBM(4C>ZIA |
|---|--|
| | Program to demo the elevator interface |
| | O |
| - | #include (stdio. h > |
| | # include (reg 51. h > |
| | |
| | unsigned char xdata Command Word - at - 0 x e 803; |
| | uniqued char xdata PostA-at-0xc800; |
| | unrigned char xdata PoetB_at - 0xc801; |
| | uniqued char xdata Present Floor, Requested Floor, Step = 0xfo |
| | unsigned long xdata Count, i; |
| | - 1.42 - A 1.0t |
| | Delay () |
| | 1 for (Count = 0; count <= 4500; count ++); |
| | <u> </u> |
| | , Herry C |
| 1 | leset () |
| | 1 Step= Step & Oxof; |
| | Port A = Step; |
| | Step = Step 1 0xf0; |
| | Port A = Step; (sould designed) delivery |
| | 3 (1/2) < 1 We I world : non a room I. |
| | Goup () |
| | { Switch (Requested Floor) |
| | { case 0x0d: while (Step (0xf3) |
| | l step++; |
| | Port A = Step; |
| | Delay ('), |
| | 3 |
| | Resul(); |
| - | break; |

| | Case Oxob: while (Stefe (Ox 16) |
|-------|--|
| | Case Oxob: whele (step ? |
| | |
| | Port A. Stef. |
| | Delay (); |
| | 3 |
| | Resel (); |
| | break |
| | the state of the s |
| 7 : 1 | Cyc 0x07: While (Step < 0xf9) |
| | { Step ++) |
| | Port A = Step; |
| | Delay (); |
| | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| | Reset (); |
| | break; |
| | 3 |
| | 3 |
| | |
| | GoDen () |
| | GoDown () 3 switch (Requested Floor) |
| | 2 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| | i case 0x0d: while (step > 0xf3) |
| | å Step ; |
| | Port A = Sab, |
| | (13) file i state (Pelay (); |
| | 3. |
| | Resct (); |
| | break; |
| | |
| | Care Drop & while (otal > -) |
| | Case 0x0b: while (step > 0xf6) 2 Step ; |
| | L Steb, |
| | Post A = Step; |

| Delay () |
|--|
| 3 |
| Reset (); |
| break; |
| Care a contract of the contrac |
| Cose Ox Oe: while (slep > 0x fo) |
| 8 Step , |
| Port A = Step; |
| Delay(); 3 Reset (); |
| brok. |
| <u>'</u> |
| j |
| Void main () |
| [Common Word = 0x82; |
| Port A = 0 × fo; |
| Present Floor = 0 x 0e, |
| while (1) f |
| Requested Floor = Brt B; |
| Requested Floor = Requested Floor & Oxof; |
| M (Requested Floor! = 0x0f 28 Requested Floor! = Present Floor) f |
| y (Requested Floor < Present Floor) |
| GoUp(); |
| else |
| GoDown (); |
| Presentfloor = Requested floor; |
| 3 |
| Requested Floor: Port B, |
| 3 . |
| |
| |
| |