1. **#include<REGX52.h>**
2. **#define port P2**
3. **#define dataport P0**
4. **int** cms;
5. sbit trig=P3^5;
6. sbit rs=port^0;
7. sbit rw=port^1;
8. sbit e=port^2;
9. **void** delay(**unsigned** **int** msec)
10. {
11. **int** i,j;
12. for(i=0;i<msec;i++)
13. for(j=0;j<1275;j++);
14. }
15. **void** lcd\_cmd(**unsigned** **char** item) // Function to send command to LCD
16. {
17. dataport = item;
18. rs= 0;
19. rw=0;
20. e=1;
21. delay(1);
22. e=0;
23. **return**;
24. }
25. **void** lcd\_data(**unsigned** **char** item) // Function to send data to LCD
26. {
27. dataport = item;
28. rs= 1;
29. rw=0;
30. e=1;
31. delay(1);
32. e=0;
33. **return**;
34. }
35. **void** lcd\_data\_string(**unsigned** **char** \*str) // Function to send string to LCD
36. {
37. **int** i=0;
38. **while**(str[i]!='\0')
39. {
40. lcd\_data(str[i]);
41. i++;
42. delay(1);
43. }
44. **return**;
45. }
46. **void** send\_pulse(**void**)
47. {
48. TH0=0x00;TL0=0x00;
49. trig=1; //Sending trigger pulse
50. delay(5); //Wait for about 10us
51. trig=0; //Turn off trigger
52. }
53. **unsigned** **int** get\_range(**void**)
54. {
55. **long** **int** timer\_val;
56. send\_pulse();
57. while(!INT0); //Waiting until echo pulse is detected
58. **while**(INT0); //Waiting until echo pulse changes its state
59. timer\_val=(TH0<<8)+TL0;
60. lcd\_cmd(0x81);
61. lcd\_data\_string("output:");
62. lcd\_cmd(0x8a);
63. **if**(timer\_val<38000)
64. {
65. cms=timer\_val/59;
66. **if** (cms!=0)
67. {
68. lcd\_data(cms+48);
69. }
70. }
71. **else**
72. {
73. lcd\_cmd(0x06);
74. lcd\_data\_string("Object out of range");
75. }
76. **return** cms;
77. }
78. **void** main()
79. {
80. lcd\_cmd(0x38);
81. lcd\_cmd(0x0c);
82. delay(2);
83. lcd\_cmd(0x01);
84. delay(2);
85. lcd\_cmd(0x81);
86. delay(2);
87. lcd\_data\_string("start");
88. delay(20);
89. TMOD=0x09;//timer0 in 16 bit mode with gate enable
90. TR0=1;//timer run enabled
91. TH0=0x00;
92. TL0=0x00;
93. P3|=0x04;//setting pin P3.2
94. **while**(1)
95. {
96. get\_range();
97. delay(2);
98. }
99. }