

```
1  #include <Wire.h>
2  #include <EEPROM.h>
3  #include <RTCLib.h>
4  #include <LiquidCrystal.h>
5
6  LiquidCrystal lcd(3,4,5,6,7,8);
7  RTC_DS1307 RTC;
8  int temp, inc, hours1, minut, add = 11;
9  int next = A0;
10 int INC = A1;
11 int set_mad = A2;
12
13 #define buzzer A6
14
15 int HOUR, MINUT, SECOND;
16
17 void setup() {
18   Wire.begin();
19   RTC.begin();
20   lcd.begin(16, 2);
21   pinMode(INC, INPUT);
22   pinMode(next, INPUT);
23   pinMode(set_mad, INPUT);
24   pinMode(buzzer, OUTPUT);
25
26   lcd.setCursor(0, 0);
27   lcd.print("Medicin reminder");
28   lcd.setCursor(0, 1);
29   lcd.print(" Using Arduino ");
30   delay(2000);
31   if (!RTC.isrunning()) {
32     RTC.adjust(DateTime(__DATE__, __TIME__));
33   }
34 }
35
36 void loop() {
37   int temp = 0, val = 1, temp4;
38   DateTime now = RTC.now();
39   if (digitalRead(set_mad) == 0)
40   {
41     lcd.setCursor(0, 0);
42     lcd.print(" Set Medicine ");
43     lcd.setCursor(0, 1);
44     lcd.print(" Reminder time ");
45     delay(2000);
46     lcd.clear();
47     lcd.setCursor(0, 0);
48     lcd.print("Enter Time 1");
49     default();
50     time(1);
51     delay(1000);
52     lcd.clear();
53     lcd.setCursor(0, 0);
54     lcd.print("Enter Time 2");
55     default();
56     delay(1000);
57     time(2);
58     lcd.clear();
59     lcd.setCursor(0, 0);
60     lcd.print("Enter Time 3");
61     default();
62     time(3);
63     lcd.setCursor(0, 0);
64     lcd.print("Medicin reminder");
65     lcd.setCursor(0, 1);
66     lcd.print(" time has set ");
67     delay(2000);
68   }
69   lcd.clear();
```

```
70  lcd.setCursor(0, 0);
71  lcd.print("Time:");
72  lcd.setCursor(6, 0);
73  lcd.print(HOUR = now.hour(), DEC);
74  lcd.print(":");
75  lcd.print(MINUT = now.minute(), DEC);
76  lcd.print(":");
77  lcd.print(SECOND = now.second(), DEC);
78  lcd.setCursor(0, 1);
79  lcd.print("Date: ");
80  lcd.print(now.day(), DEC);
81  lcd.print("/");
82  lcd.print(now.month(), DEC);
83  lcd.print("/");
84  lcd.print(now.year(), DEC);
85  match();
86  delay(200);
87  }
88
89  void default() {
90  lcd.setCursor(0, 1);
91  lcd.print(HOUR);
92  lcd.print(":");
93  lcd.print(MINUT);
94  lcd.print(":");
95  lcd.print(SECOND);
96  }
97  void time(int x) {
98  int temp = 1, minuts = 0, hours = 0, seconds = 0;
99  while (temp == 1) {
100    if (digitalRead(INC) == 0) {
101      HOUR++;
102      if (HOUR == 24) {
103        HOUR = 0;
104      }
105      while (digitalRead(INC) == 0)
106        ;
107    }
108    lcd.clear();
109    lcd.setCursor(0, 0);
110    lcd.print("Enter Time ");
111    lcd.print(x);
112    lcd.setCursor(0, 1);
113    lcd.print(HOUR);
114    lcd.print(":");
115    lcd.print(MINUT);
116    lcd.print(":");
117    lcd.print(SECOND);
118    delay(100);
119    if (digitalRead(next) == 0) {
120      hours1 = HOUR;
121      EEPROM.write(add++, hours1);
122      temp = 2;
123      while (digitalRead(next) == 0)
124        ;
125    }
126  }
127  while (temp == 2) {
128    if (digitalRead(INC) == 0) {
129      MINUT++;
130      if (MINUT == 60) { MINUT = 0; }
131      while (digitalRead(INC) == 0)
132        ;
133    }
134    lcd.clear();
135    lcd.setCursor(0, 0);
136    lcd.print("Enter Time ");
137    lcd.print(x);
138    lcd.setCursor(0, 1);
```

```
139     lcd.print(HOUR);
140     lcd.print(":");
141     lcd.print(MINUT);
142     lcd.print(":");
143     lcd.print(SECOND);
144     delay(100);
145     if (digitalRead(next) == 0) {
146         minut = MINUT;
147         EEPROM.write(add++, minut);
148         temp = 0;
149         while (digitalRead(next) == 0)
150             ;
151     }
152 }
153 delay(1000);
154 }
155 void match() {
156     int tem[17];
157     for (int i = 11; i < 17; i++) {
158         tem[i] = EEPROM.read(i);
159     }
160     if (HOUR == tem[11] && MINUT == tem[12]) {
161         beep();
162         beep();
163         beep();
164         beep();
165         lcd.setCursor(0, 0);
166         lcd.print("  Take Group One  ");
167         lcd.setCursor(0, 1);
168         lcd.print("      Medicine      ");
169         beep();
170         beep();
171         beep();
172         beep();
173     }
174
175     if (HOUR == tem[13] && MINUT == tem[14]) {
176         beep();
177         beep();
178         beep();
179         beep();
180         lcd.setCursor(0, 0);
181         lcd.print("  Take Group Two  ");
182         lcd.setCursor(0, 1);
183         lcd.print("      Medicine      ");
184         beep();
185         beep();
186         beep();
187         beep();
188     }
189
190
191     if (HOUR == tem[15] && MINUT == tem[16]) {
192         beep();
193         beep();
194         beep();
195         beep();
196         lcd.setCursor(0, 0);
197         lcd.print("Take Group Three ");
198         lcd.setCursor(0, 1);
199         lcd.print("      Medicine      ");
200         beep();
201         beep();
202         beep();
203         beep();
204     }
205 }
206
207 void beep() {
```

```
208 digitalWrite(buzzer, HIGH);  
209 delay(500);  
210 digitalWrite(buzzer, LOW);  
211 delay(500);  
212 }
```