

Sprint 4:

Date	5-11-2022
Team ID	PNT2022TMID33439
Project Name	Personal Assistant For Seniors Who Are Self Reliant

```
###

#include <Wire.h>
#include<EEPROM.h>
#include <RTCLib.h>
#include <LiquidCrystal.h>

LiquidCrystal lcd(7, 6, 5, 4, 3, 2);
RTC_DS1307 RTC;
int temp,inc,hours1,minut,add=11;
int next=10;
int INC=9;
int set_mad=8;

#define buzzer 13

int HOUR,MINUT,SECOND;

void setup()
{
  Wire.begin();
```

```
RTC.begin();  
lcd.begin(16,2);  
pinMode(INC, INPUT);  
pinMode(next, INPUT);  
pinMode(set_mad, INPUT);  
pinMode(buzzer, OUTPUT);
```

```
    lcd.setCursor(0,0);  
    lcd.print("Medicin reminder");  
    lcd.setCursor(0,1);  
    lcd.print(" Using Arduino ");  
    delay(2000);  
    lcd.setCursor(0,0);  
    lcd.print("By Saddam khan ");  
    lcd.setCursor(0,1);  
    lcd.print("Engineers Garage");  
    delay(2000);
```

```
if(!RTC.isrunning())  
{  
    RTC.adjust(DateTime(__DATE__, __TIME__));  
}  
}
```

```
void loop()  
{  
    int temp=0,val=1,temp4;  
    DateTime now = RTC.now();  
    if(digitalRead(set_mad) == 0)        //set medicine time  
    {
```

```
    lcd.setCursor(0,0);
    lcd.print(" Set Medicine ");
    lcd.setCursor(0,1);
    lcd.print(" Reminder time ");
    delay(2000);
    lcd.clear();

    lcd.setCursor(0,0);
    lcd.print("Enter Time 1");
    default();
    time(1);
    delay(1000);
    lcd.clear();
    lcd.setCursor(0,0);
    lcd.print("Enter Time 2");
    default();
    delay(1000);
    time(2);
    lcd.clear();
    lcd.setCursor(0,0);
    lcd.print("Enter Time 3");
    default();
time(3);
    lcd.setCursor(0,0);
    lcd.print("Medicin reminder");
    lcd.setCursor(0,1);
    lcd.print(" time has set ");
    delay(2000);
}
lcd.clear();
lcd.setCursor(0,0);
```

```
lcd.print("Time:");
lcd.setCursor(6,0);
lcd.print(HOUR=now.hour(),DEC);
lcd.print(":");
lcd.print(MINUT=now.minute(),DEC);
lcd.print(":");
lcd.print(SECOND=now.second(),DEC);
lcd.setCursor(0,1);
lcd.print("Date: ");
lcd.print(now.day(),DEC);
lcd.print("/");
lcd.print(now.month(),DEC);
lcd.print("/");
lcd.print(now.year(),DEC);
match();
delay(200);
}
```

```
void defualt()
```

```
{
    lcd.setCursor(0,1);
    lcd.print(HOUR);
    lcd.print(":");
    lcd.print(MINUT);
    lcd.print(":");
    lcd.print(SECOND);
}
```

```
/*Function to set alarm time and feed time into Internal eeprom*/
```

```
void time(int x)
{
  int temp=1,minuts=0,hours=0,seconds=0;
  while(temp==1)
  {
    if(digitalRead(INC)==0)
    {
      HOUR++;
      if(HOUR==24)
      {
        HOUR=0;
      }
      while(digitalRead(INC)==0);
    }
  }
  lcd.clear();
  lcd.setCursor(0,0);
  lcd.print("Enter Time ");
  lcd.print(x);
  lcd.setCursor(0,1);
  lcd.print(HOUR);
  lcd.print(":");
  lcd.print(MINUT);
  lcd.print(":");
  lcd.print(SECOND);
  delay(100);
  if(digitalRead(next)==0)
  {
    hours1=HOUR;
    EEPROM.write(add++,hours1);
    temp=2;
  }
}
```

```

    while(digitalRead(next)==0);
}
}
while(temp==2)
{
if(digitalRead(INC)==0)
{
    MINUT++;
    if(MINUT==60)
    {MINUT=0;}
    while(digitalRead(INC)==0);
}
    lcd.clear();
    lcd.setCursor(0,0);
    lcd.print("Enter Time ");
    lcd.print(x);
    lcd.setCursor(0,1);
    lcd.print(HOUR);
    lcd.print(":");
    lcd.print(MINUT);
    lcd.print(":");
    lcd.print(SECOND);
    delay(100);
    if(digitalRead(next)==0)
    {
        minut=MINUT;
        EEPROM.write(add++, minut);
        temp=0;
        while(digitalRead(next)==0);
    }
}

```

```
    }  
    delay(1000);  
}  
  
/* Function to check medication time */  
  
void match()  
{  
    int tem[17];  
    for(int i=11;i<17;i++)  
    {  
        tem[i]=EEPROM.read(i);  
    }  
    if(HOUR == tem[11] && MINUT == tem[12])  
    {  
        beep();  
        beep();  
        beep();  
        beep();  
        lcd.setCursor(0,0);  
        lcd.print(" Take Group One ");  
        lcd.setCursor(0,1);  
        lcd.print("      Medicine      ");  
        beep();  
        beep();  
        beep();  
        beep();  
    }  
}
```

```
if(HOUR == tem[13] && MINUT == tem[14])
```

```
{
```

```
    beep();
```

```
beep();
```

```
beep();
```

```
beep();
```

```
    lcd.setCursor(0,0);
```

```
    lcd.print(" Take Group Two ");
```

```
    lcd.setCursor(0,1);
```

```
    lcd.print("      Medicine      ");
```

```
    beep();
```

```
beep();
```

```
beep();
```

```
beep();
```

```
}
```

```
if(HOUR == tem[15] && MINUT == tem[16] )
```

```
{
```

```
    beep();
```

```
beep();
```

```
beep();
```

```
beep();
```

```
    lcd.setCursor(0,0);
```

```
    lcd.print("Take Group Three ");
```

```
    lcd.setCursor(0,1);
```

```
    lcd.print("      Medicine      ");
```

```
beep();
```

```
beep();
```

```
beep();
```



```
    beep();  
  }  
}  
  
/* function to buzzer indication */  
  
void beep()  
{  
    digitalWrite(buzzer,HIGH);  
    delay(500);  
    digitalWrite(buzzer, LOW);  
    delay(500);  
}
```