Sprint 4:

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| Team ID | **PNT2022TMID10261** |
| 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"); defualt();

time(1); delay(1000); lcd.clear(); lcd.setCursor(0,0);

lcd.print("Enter Time 2"); defualt();

delay(1000); time(2);

lcd.clear(); lcd.setCursor(0,0); lcd.print("Enter Time 3"); defualt();

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 chack 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);

}