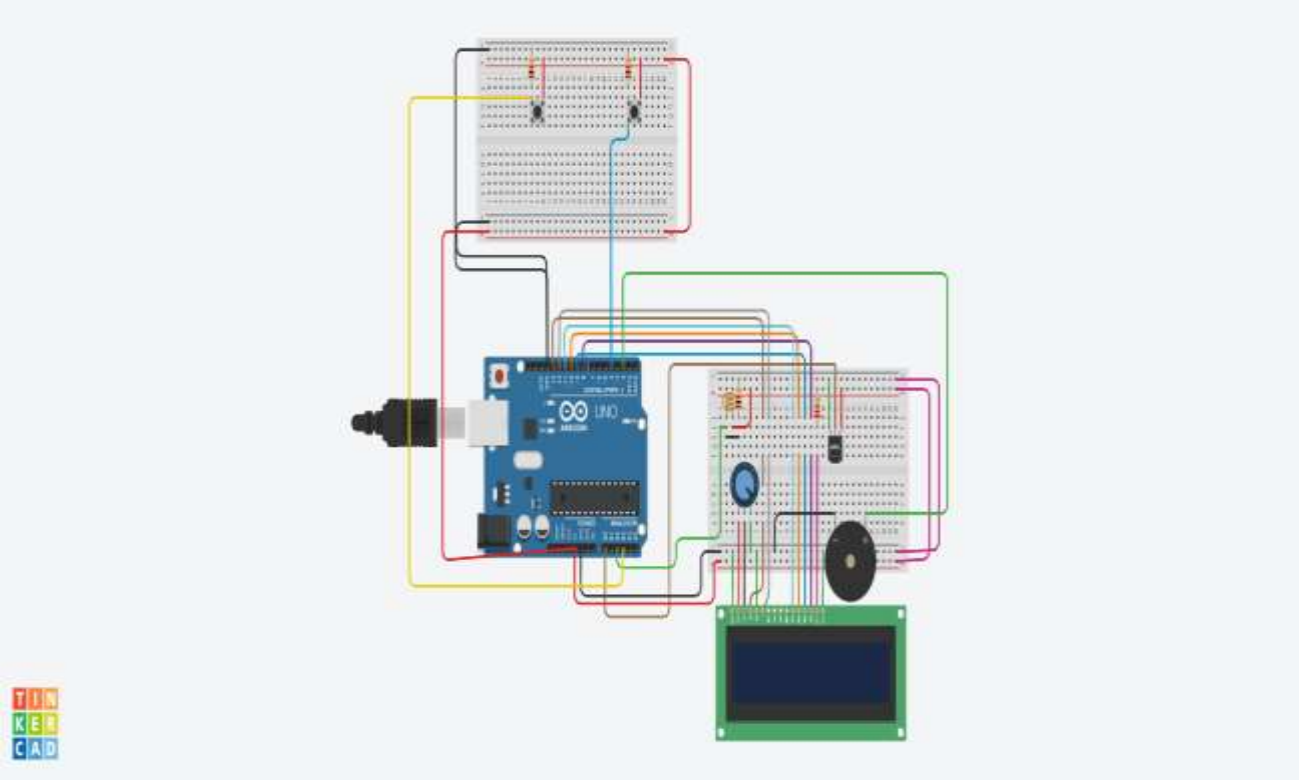
PERSONAL ASSISTANCE FOR SENIORS WHO ARE SELF RELIANT- MEDICAL REMAINDER

SIMULATION USING SENSORS IN ARDUINO WITH CODE

CIRCUIT DIAGRAM:



CODE:

// PRESS PUSH BUTTONS FOR TEMPERATURE AND MEDICINE TIME REMAINDER

```
#include <LiquidCrystal.h>
LiquidCrystal lcd(13, 12, 11, 10, 9, 8);
float voltage;
int celsius;
int valPulse;
int pulsePin = A2;
const int temperaturePin = A0;
String seconds;
long duration;
int buzzerpin = 2,button_1=A3,button_2 = 4;
void setup()
{
  pinMode(temperaturePin, INPUT);
  pinMode(button_1,INPUT);
  pinMode(button_2,INPUT);
  lcd.begin(16, 2);
  Serial.begin(9600);
  lcd.print("MEDICAL REMAINDER");
  delay(2000);
  lcd.clear();
```

```
  lcd.setCursor(0, 0);
  lcd.println("HEALTH MONITORING");
  lcd.setCursor(0, 2);
  lcd.print("SYSTEM");
  delay(3000);
  lcd.clear();
  pinMode(buzzerpin,OUTPUT);
}
void loop()
{
if(digitalRead(button_1)== HIGH)
{
  lcd.clear();
  lcd.print("Calculating....");
  delay(3000);
  voltage = analogRead(temperaturePin) * 0.004882814;
  celsius = (voltage - 0.5) * 100.0;
  lcd.clear();
  lcd.print("Body Temp. : ");
  lcd.print(celsius);
```

```
lcd.print("C");
delay(3000);
if(celsius>38)
{   lcd.clear();
    digitalWrite(buzzerpin, HIGH);
    lcd.print("High temp");
    delay(2000);
    lcd.clear();
    lcd.setCursor(0, 0);
    lcd.println("TAKE EMERGENCY");
    lcd.setCursor(0, 2);
    lcd.print("TIME MEDICINE");
    delay(3000);
    lcd.clear();
    digitalWrite(buzzerpin, LOW);
}
else
{
  lcd.clear();
  lcd.print("Normal Temp");
```

```
    delay(4000);
  }
  lcd.clear();
  lcd.print("Temperature:");
  lcd.print(celsius);
  lcd.print("C");
  lcd.setCursor(0,1);
  lcd.print("Pulse : ");
  lcd.print(valPulse);
  while(digitalRead(button_1)== 0);
  delay(250);
  lcd.clear();
}
if(digitalRead(button_2)== HIGH)
{
  while(1){
  Serial.println("(hours) : ");
  while (Serial.available()==0){}
  long int hours = Serial.parseInt();
  lcd.print(hours);
```

```
lcd.print(" : ");
Serial.println("(minutes) : ");
while (Serial.available()==0){}
long int mins = Serial.parseInt();
lcd.print(mins);
lcd.print(" : ");
Serial.println("(seconds) : ");
while (Serial.available()==0){}
long int seconds = Serial.parseInt();
lcd.print(seconds);
lcd.clear();
long int current_time =(hours*3600)+(mins*60)+(seconds);
    lcd.print(current_time);
    delay(3000);
    lcd.clear();
long int i;

for(i= current_time ; i< (current_time+(86400)); i++){
if(i == 28800){
digitalWrite(buzzerpin,HIGH);
```

```
tone(buzzerpin, 100 );
lcd.print("Medicine time");
delay(5000);
lcd.clear();
digitalWrite(buzzerpin,LOW);
}
else if(i == 72000){
digitalWrite(buzzerpin,HIGH);
tone(buzzerpin, 100);
lcd.print("Medicine time");
delay(5000);
lcd.clear();
digitalWrite(buzzerpin,LOW);
}
else{
  lcd.setCursor(0,0);

    lcd.print("Your medicine");
    lcd.setCursor(0,1);
    lcd.print("time is after :");
```

```
   delay(1000);
if(i<28800 ){
  lcd.clear();
   lcd.setCursor(0,0);
   lcd.print(28800-i );
   lcd.setCursor(0,1);
   lcd.print("seconds");
   delay(1000);
   lcd.clear();
   }
else if (i>28000 && i<72000){
 lcd.clear();
 lcd.setCursor(0,0);
 lcd.print( 72000-i);
 lcd.setCursor(0,1);
 lcd.print("seconds");
 delay(1000);
 lcd.clear();
}
 else if (i>72000){
```

```
      lcd.clear();
      lcd.setCursor(0,0);
      lcd.print( 86400-i + 28800);
      lcd.setCursor(0,1);
      lcd.print("seconds");
      delay(2000);
      lcd.clear();
    }
  }
   }
     }
  }
 }
```

REFERENCE LINK:

https://www.tinkercad.com/things/frv8zBOuSzP-copy-of-smart-health-monitoring-system-mandiproject/editel?tenant=circuits