SPRINT 2

Date	16 November 2022
Team ID	PNT2022TMID12805
Project Name	Project - Personal Assistance For Seniors Who Are Self-Reliant

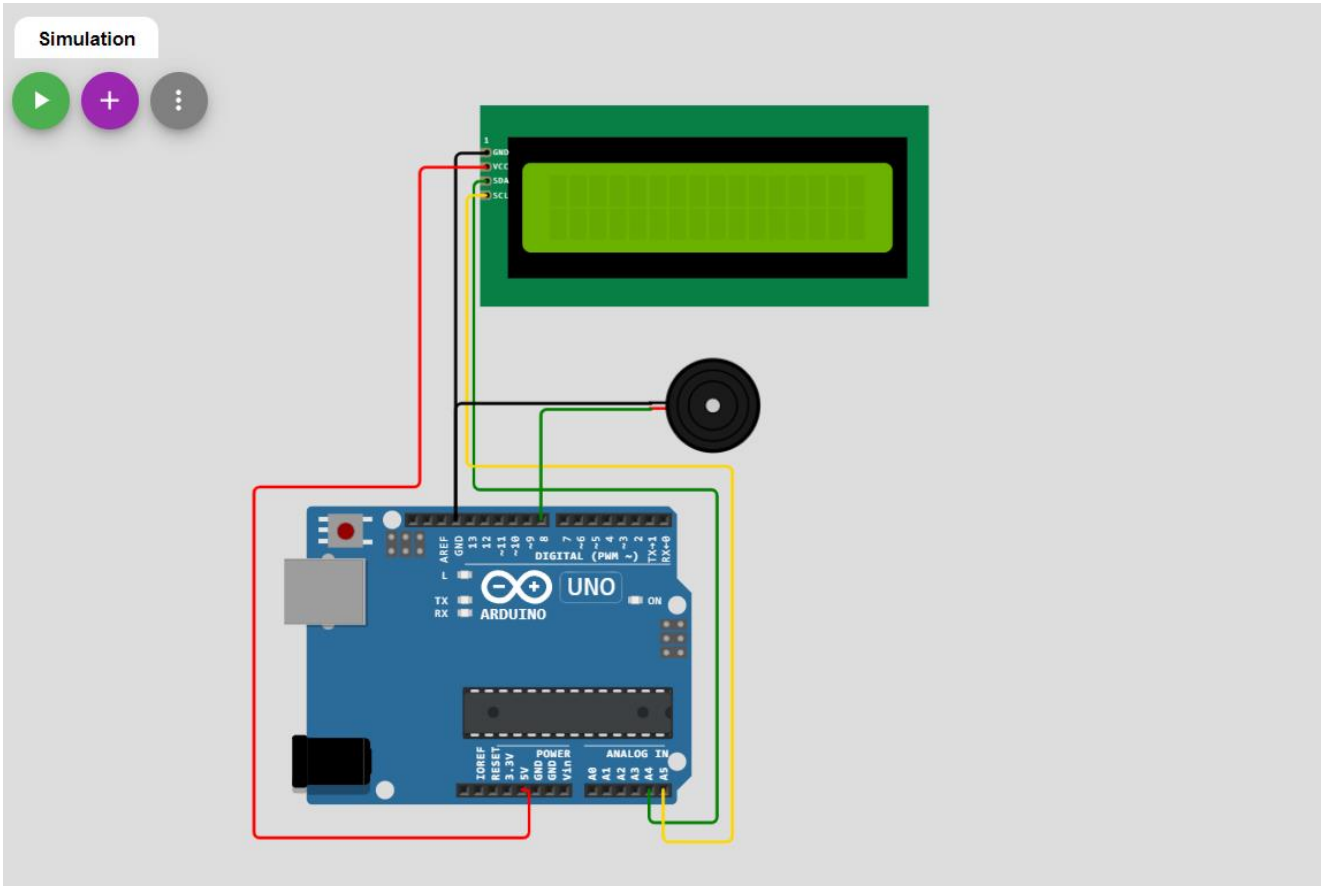
Hardware Implementation:

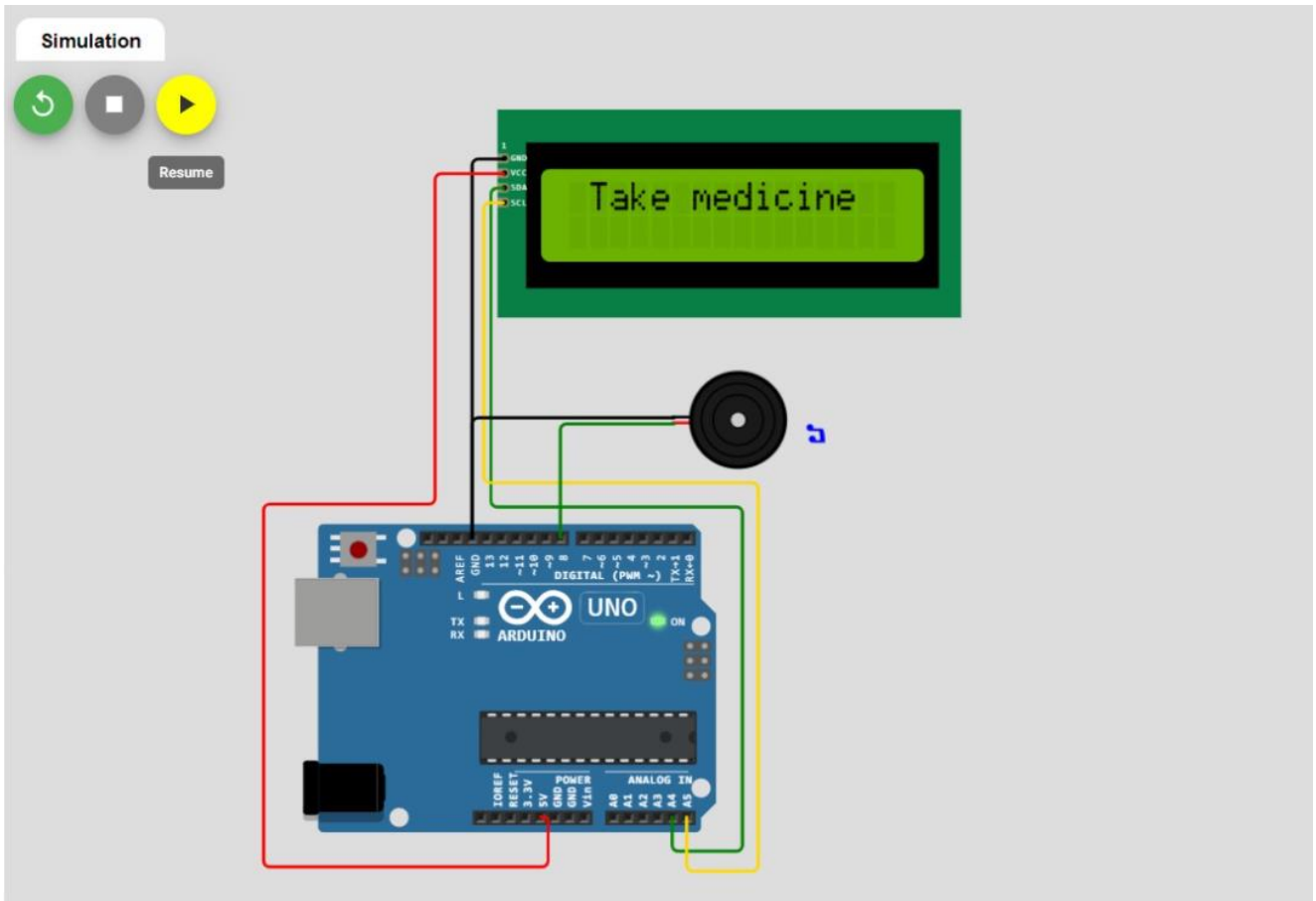
To create hardware that acts as a reminder to senior people.

Implementation is done using **wokwi**.

The system is built using Arduino UNO, LCD 16x2 and a buzzer.(RTC).

This system reminds them to take the tablets at that correct time which is indicated through a buzzer and the number of tablets is displayed in LCD display.


Simulation
GND
VCC
SDA
SCL
DIGITAL (PWM ~)
UNO
ARDUINO
TX
RX
ON
POWER
ANALOG IN


Simulation
Resume
Take medicine
GND
VCC
SDA
SCL
DIGITAL (PWM ~)
UNO
ARDUINO
TX
RX
ON
POWER
ANALOG IN

```
#include <LiquidCrystal.h>
#include <Wire.h>
#include <RTClib.h>

RTC_DS3231 rtc;
const int rs = 12, en = 11, d4 = 5, d5 = 4, d6 = 3, d7 = 2; // lcd
pins
LiquidCrystal lcd(rs, en, d4, d5, d6, d7);
#define getWellsoon 0
#define HELP_SCREEN 1
#define TIME_SCREEN 2

int Signal = 0;
int buzz = 13;
long previousMillis = 0;
long interval = 500; // buzzing interval
unsigned long currentMillis;
long previousMillisLCD = 0; // for LCD screen update
long intervalLCD = 2000; // Screen cycling interval
unsigned long currentMillisLCD;
// Set Reminder Change Time
int buzz8amHH = 8; // HH - hours ##Set these for reminder time in
24hr Format
int buzz9pmHH = 20; // HH - hours
int buzz9pmMM = 00; // MM - Minute
int buzz9pmSS = 00; // SS - Seconds
int nowHr, nowMin, nowSec; // to show current mm,hh,ss


void timeScreen() { // function to display Date and time in LCD screen
DateTime now = rtc.now(); // take rtc time and print in display
lcd.clear();
lcd.setCursor(0, 0);
lcd.print("Time:");
lcd.setCursor(6, 0);
```

```
lcd.print(nowHr = now.hour(), DEC);
lcd.print(":");
lcd.print(nowMin = now.minute(), DEC);
lcd.print(":");
lcd.print(nowSec = 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);

void at9pm() { // function to start buzzing at 9pm
DateTime now = rtc.now();
if (int(now.hour()) >= buzz8pmHH) {
if (int(now.minute()) >= buzz8pmMM) {
if (int(now.second()) > buzz8pmSS)
startBuzz();
break;
}
LiquidCrystal_I2C lcd(0x27, 16, 2);
const float BETA = 3950;
//LiquidCrystal_I2C lcd(0x27, 16, 4);

int buzzerPin = 8;
void setup() {
  Serial.begin(9600);
  pinMode(buzzerPin, OUTPUT);

}

void loop() {
  int analogValue = analogRead(A0);
  float c = 1 / (log(1 / (1023. / analogValue - 1)) / BETA + 1.0 / 298.15) - 273.15;
```

```
  lcd.begin(16,2);
  lcd.backlight();
  lcd.setCursor(0, 0);
  lcd.print(" Take medicine");
  lcd.setCursor(6, 0);
  lcd.setCursor(8, 0);
  tone(buzzerPin, 100, 1000);
  delay(1000);
}
```