SPRINT 2

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

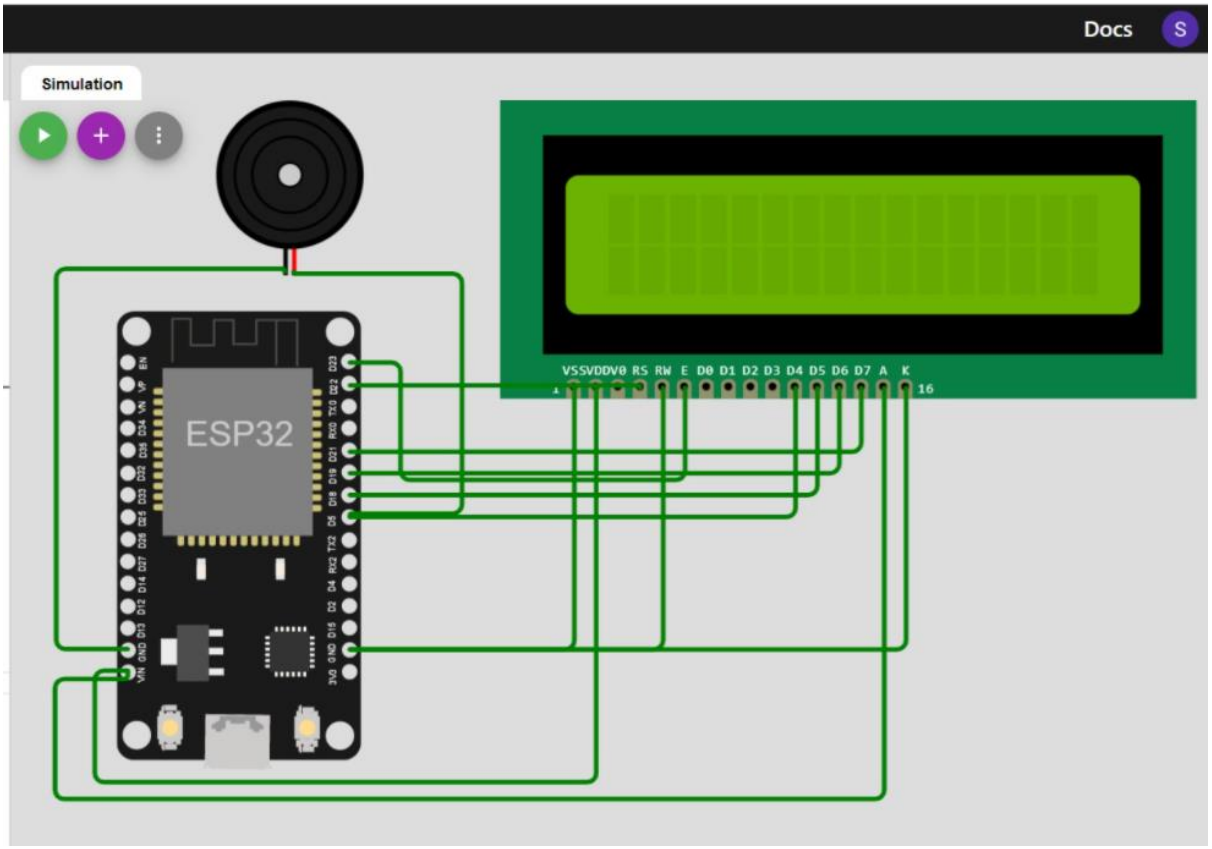
Hardware Implementation:

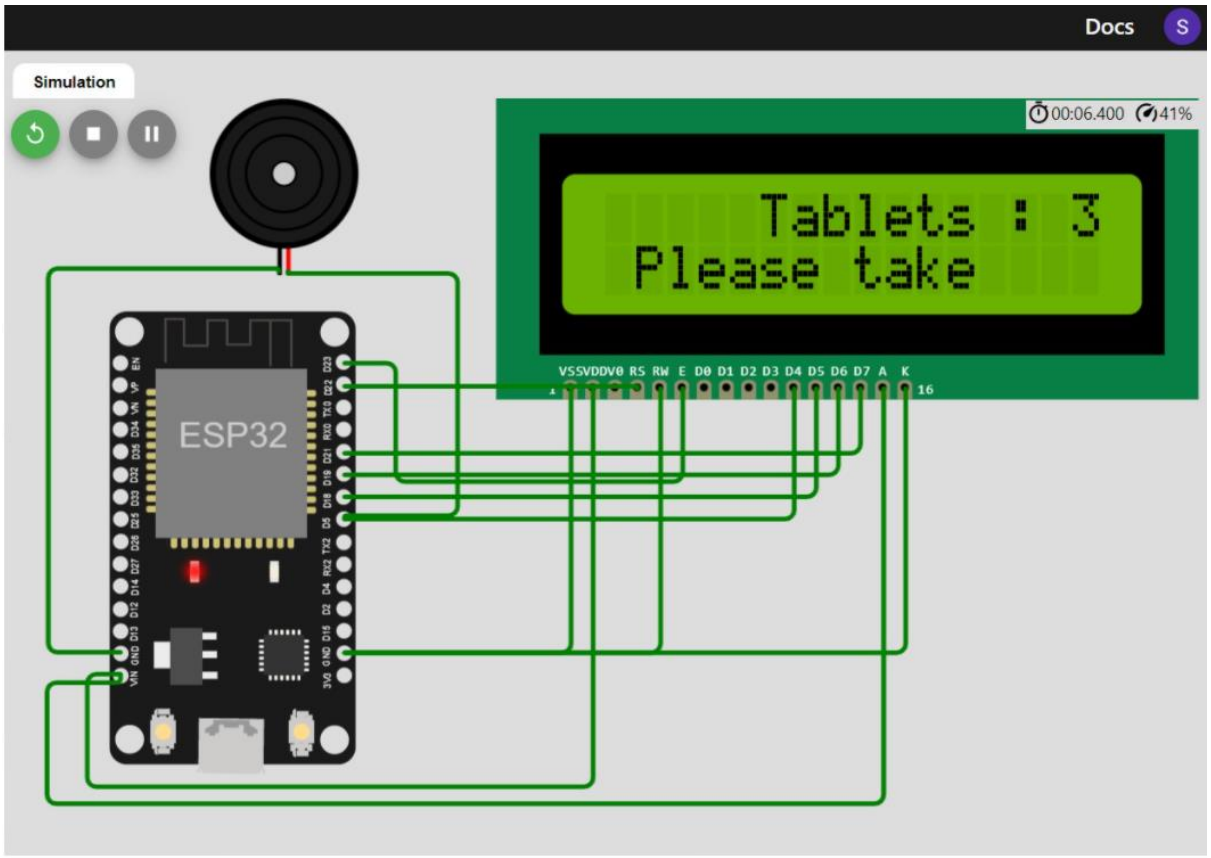
To create hardware that acts as a reminder to senior people.

Implementation is done using **wokwi**.

The system is built using ESP32, LCD 16x2 and a buzzer.

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.


Docs
Simulation
ESP32
VSSVDDV0 RS RW E D0 D1 D2 D3 D4 D5 D6 D7 A K
16


Docs
Simulation
00:06.400
41%
Tablets : 3
Please take
ESP32
VSSVDDV0 RS RW E D0 D1 D2 D3 D4 D5 D6 D7 A K
16

```
#include <WiFi.h>//library for wifi
#include <PubSubClient.h>//library for MQtt
#include <LiquidCrystal_I2C.h>

#define Buzzer 2

void callback(char* subscribetopic, byte* payload, unsigned int payloadLength);



//-------credentials of IBM Accounts------


#define ORG "z7lryv"//IBM ORGANITION ID
#define DEVICE_TYPE "NodeMCU"//Device type mentioned in ibm watson IOT Platform
#define DEVICE_ID "12345"//Device ID mentioned in ibm watson IOT Platform
#define TOKEN “1234567890"                    //Token
String data3="";
char server[] = ORG ".messaging.internetofthings.ibmcloud.com";//
publishTopic[] = "iot-2/evt/Data/fmt/json"; i
char subscribetopic[] = "iot-2/cmd/command/fmt/String";
char authMethod[] = "use-token-auth";// authentication method char
token[] = TOKEN;
char clientId[] = "d:" ORG ":" DEVICE_TYPE ":" DEVICE_ID;//client id LiquidCrystal_I2C
lcd(0x27,16,2);

WiFiClient wifiClient; // creating the instance for wificlient
PubSubClient client(server, 1883, callback ,wifiClient); //calling the predefined client id by passing parameter like server id,portand wificredential void setup()// configureing the ESP32
{
  Serial.begin(115200); dht.begin();
pinMode(Buzzer,OUTPUT);
delay(10); Serial.println();
wificonnect();
mqttconnect();
}

void loop()// Recursive Function
{    if
(!client.loop()) {
```

```
mqttconnect();
  } }
void PublishData(float temp, float humid) {
mqttconnect();//function call for connecting to ibm

}
{
  Serial.println("Tablets: "+ data3);
  Serial.println(“Please take”);
  if(data3!= "")
  }
  {     lcd.init();     lcd.print(data3);
digitalWrite(Buzzer,HIGH);
delay(20000);
digitalWrite(Buzzer,LOW);
  }  else
  {
digitalWrite(Buzzer,LOW);
  }
data3="";
}
```