

- Build a smart home in wokwi with minimum 2 sensors, led, buzzer

```
const int buzzerPin = 2;
const int ledPin1 = 3;
const int ledPin2 = 4;
const int ledPin3 = 5;

int menuSelection = 0;
int ledSpeed = 500;
int ledBrightness = 128;
int selection = 0;
int buzzerState = LOW;

void setup() {
    Serial.begin(9600);

    pinMode(buzzerPin, OUTPUT);
    pinMode(ledPin1, OUTPUT);
    pinMode(ledPin2, OUTPUT);
    pinMode(ledPin3, OUTPUT);

    digitalWrite(buzzerPin, LOW);
    digitalWrite(ledPin1, LOW);
    digitalWrite(ledPin2, LOW);
    digitalWrite(ledPin3, LOW);
    Serial.println("MENU:");
    Serial.println("1. Toggle buzzer on/off");
    Serial.println("2. Increase LED 2 speed");
    Serial.println("3. Decrease LED 2 speed");
    Serial.println("4. Toggle LED 3 brightness");
    Serial.println();
    Serial.print("Selection: ");
}

void loop() {
    int buzzerPinStateLast = digitalRead(buzzerPin);
    if (Serial.available()) {
        int inputChar = Serial.parseInt();

        switch (inputChar) {
            case 1:
                //Serial.println ("1");
                //digitalWrite(buzzerPin, !digitalRead(buzzerPin));
                ToggleBuzzer();
                selection = 0;
            default:
                break;
        }
    }
}
```

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        break;
    case 2:
        Serial.println("case 2");
        ledSpeed -= 50;
        if (ledSpeed < 50) {
            ledSpeed = 50;
        }
        break;
    case 3:
        Serial.println("case 3");
        ledSpeed += 50;
        if (ledSpeed > 1000) {
            ledSpeed = 1000;
        }
        break;
    case 4:
        Serial.println("case 4");
        if (ledBrightness == 0) {
            ledBrightness = 128;
        } else {
            ledBrightness = 0;
        }
        break;
    default:
        break;
}
}

digitalWrite(ledPin1, !digitalRead(ledPin1));
delay(500);

static unsigned long lastBlinkTime = 0;
if (millis() - lastBlinkTime > ledSpeed) {
    digitalWrite(ledPin2, !digitalRead(ledPin2));
    lastBlinkTime = millis();
}

analogWrite(ledPin3, ledBrightness);
//Serial.println("MENU:");
//Serial.println("1. Toggle buzzer on/off");
//Serial.println("2. Increase LED 2 speed");
//Serial.println("3. Decrease LED 2 speed");
//Serial.println("4. Toggle LED 3 brightness");
//Serial.println();
//Serial.print("Selection: ");
//delay (5000)
}

```

```

void ToggleBuzzer ()
{
    buzzerState= (buzzerState) ? LOW : HIGH;
    digitalWrite(buzzerPin, buzzerState);
    //int a = digitalWrite(buzzerPin, LOW);
    //if (a == 1)
    //{
        //digitalWrite(buzzerPin, HIGH);
        //digitalWrite(buzzerPin HIGH); attempt no. 3 failed with multiple errors
    // } else
    // {
        // digitalWrite(buzzerPin, LOW);
    // }
}

```

```

{
    "version": 1,
    "author": "Anonymous maker",
    "editor": "wokwi",
    "parts": [
        { "type": "wokwi-arduino-mega", "id": "mega", "top": 0, "left": 0,
"attrs": {} },
        {
            "type": "wokwi-resistor",
            "id": "r1",
            "top": -50.47,
            "left": 195.18,
            "rotate": 90,
            "attrs": { "value": "1000" }
        },
        {
            "type": "wokwi-led",
            "id": "led1",
            "top": -152.35,
            "left": 170.65,
            "attrs": { "color": "red" }
        },
        {
            "type": "wokwi-led",
            "id": "led2",

```

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    "top": -152.51,
    "left": 195.35,
    "attrs": { "color": "red" }
  },
  {
    "type": "wokwi-led",
    "id": "led3",
    "top": -153.03,
    "left": 219.3,
    "attrs": { "color": "red" }
  },
  {
    "type": "wokwi-resistor",
    "id": "r2",
    "top": -49.91,
    "left": 173.85,
    "rotate": 90,
    "attrs": { "value": "1000" }
  },
  {
    "type": "wokwi-resistor",
    "id": "r3",
    "top": -54.07,
    "left": 217.58,
    "rotate": 90,
    "attrs": { "value": "1000" }
  },
  {
    "type": "wokwi-buzzer",
    "id": "bz1",
    "top": -152.47,
    "left": 262.08,
    "attrs": { "volume": "0.1" }
  }
],
"connections": [
  [ "led1:C", "mega:GND.1", "green", [ "v25.32", "h-36.29" ] ],
  [ "led2:C", "mega:GND.1", "green", [ "v28.6", "h-76.08" ] ],
  [ "led3:C", "mega:GND.1", "green", [ "v28.6", "h-114.1" ] ],
  [ "r2:1", "led1:A", "green", [ "h0" ] ],
  [ "led2:A", "r1:1", "green", [ "v0" ] ],
  [ "r3:1", "led3:A", "green", [ "h0" ] ],
  [ "bz1:1", "mega:GND.1", "green", [ "v0.1", "h-169.92" ] ],
  [ "mega:3", "r3:2", "green", [ "v-15.1", "h14.17" ] ],
  [ "mega:4", "r1:2", "green", [ "v0" ] ],
  [ "mega:5", "r2:2", "green", [ "v0" ] ],
  [ "mega:2", "bz1:2", "green", [ "v-22.43", "h60.67" ] ]
],

```

```
"dependencies": {}  
}
```

