

Parking using Ultrasonic sensor

```
#include <WiFi.h>
#include "Ultrasonic.h"
//#include <ThingSpeak.h>
const char apiKey[] = "5V6Y05M7DJFR3SOD"; // write your "Write API key"
const char* ssid = "Wokwi-GUEST"; // write your "wifi name"
const char* password = ""; // write your "wifi password"
//const char* ssid = "mugil";
//const char* password = "12345678";

Ultrasonic u1(1,2);
Ultrasonic u2(4,5);
Ultrasonic u3(7,8);
const char* server = "api.thingspeak.com";
long myChannelNumber = 2457760;
int S1=0, S2=0, S3=0;
String d1;
String d2;
String d3;

int avail= 3;
int slot = 3;
int valSensor = 3;
WiFiClient client;
void setup()
{
  Serial.begin(9600);
  Serial.println("Serial Begin");

  WiFi.begin(ssid, password);
  Serial.println();
  Serial.println();
  Serial.print("Connecting to ");
  Serial.println(ssid);

  while (WiFi.status() != WL_CONNECTED)
  {
    delay(500);
    Serial.print(".");
  }
  Serial.println("");
  Serial.println("WiFi connected");
  //ThingSpeak.begin(client);
}

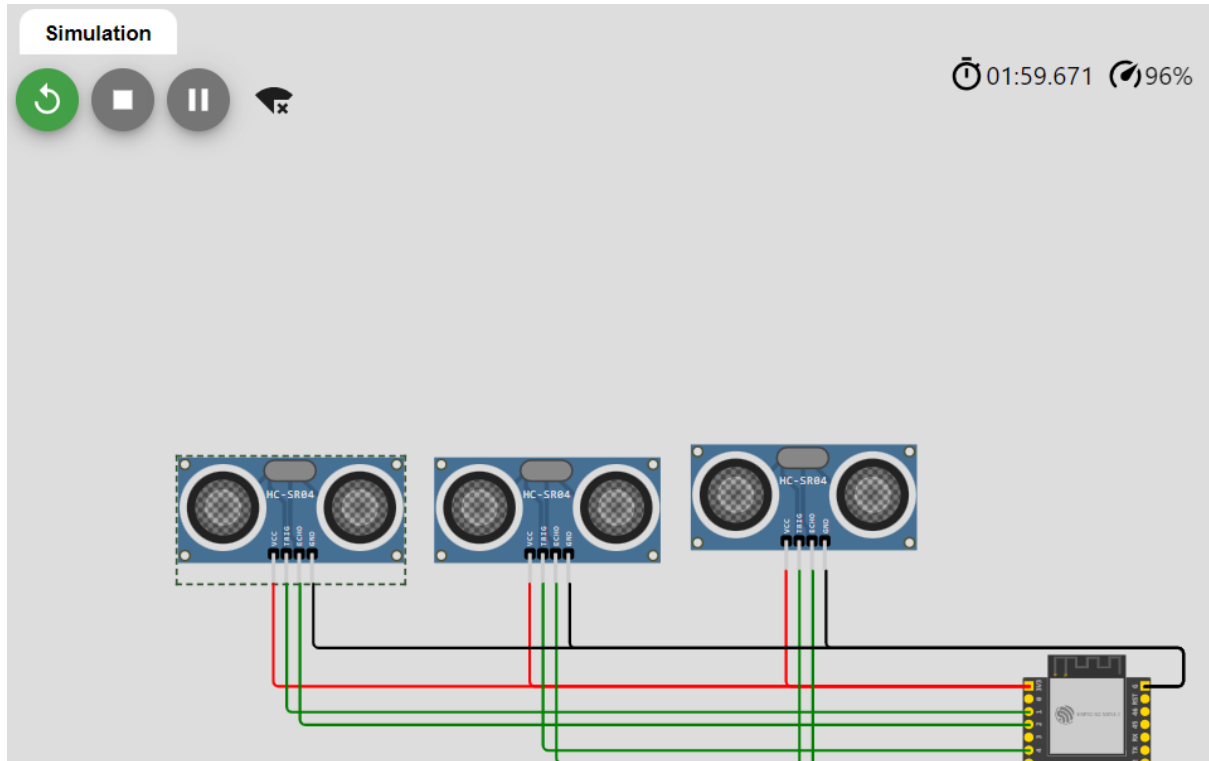
void loop() {
```

```
    valSensor = getSensorData();  
    Serial.print("Available Slots:");  
    Serial.println(valSensor);  
    //ThingSpeak.writeField(myChannelNumber, 1, Temp, apiKey);  
    //ThingSpeak.writeField(myChannelNumber, 2, Hum, apiKey);  
    //Serial.println("Waiting");  
    delay(1500);  
}
```

```
void Read_Sensor(){  
    S1=0, S2=0, S3=0;  
    if(u1.read(CM) != 0 && u1.read(CM) <50){  
        S1=1;  
    }  
    if(u2.read(CM) != 0 && u2.read(CM) <50){  
        S2=1;  
    }  
    if(u3.read(CM) != 0 && u3.read(CM) <50){  
        S3=1;  
    }  
}
```

```
int getSensorData(){  
    Read_Sensor();  
    if(S1==1)  
    {  
        Serial.print(" S1:occupied ");  
    }  
    else  
    {  
        Serial.print(" S1:Empty ");  
    }  
    if(S2==1)  
    {  
        Serial.print(" S2:occupied ");  
    }  
    else  
    {  
        Serial.print(" S2:Empty ");  
    }  
    if(S3==1)  
    {  
        Serial.print(" S3:occupied ");  
    }  
    else  
    {  
        Serial.print(" S3:Empty ");  
    }  
}
```

```
int total = S1+S2+S3;
slot = avail-total;
return slot;
}
```



```
ESP-ROM:esp32s2-rc4-20191025
Build:Oct 25 2019
rst:0x1 (POWERON),boot:0x8 (SPI_FAST_FLASH_BOOT)
Saved PC:0xffffffff
SPIWP:0xee
mode:DIO, clock div:1
load:0x3ffe6100,len:0x468
```

```
load:0x40050000,len:0x2140
entry 0x4004c168
Serial Begin
```

```
Connecting to Wokwi-GUEST
.....
```

```
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Saved PC:0xffffffff
SPIWP:0xee
mode:DIO, clock div:1
load:0x3ffe6100,len:0x468
load:0x4004c000,len:0x7e0
```

