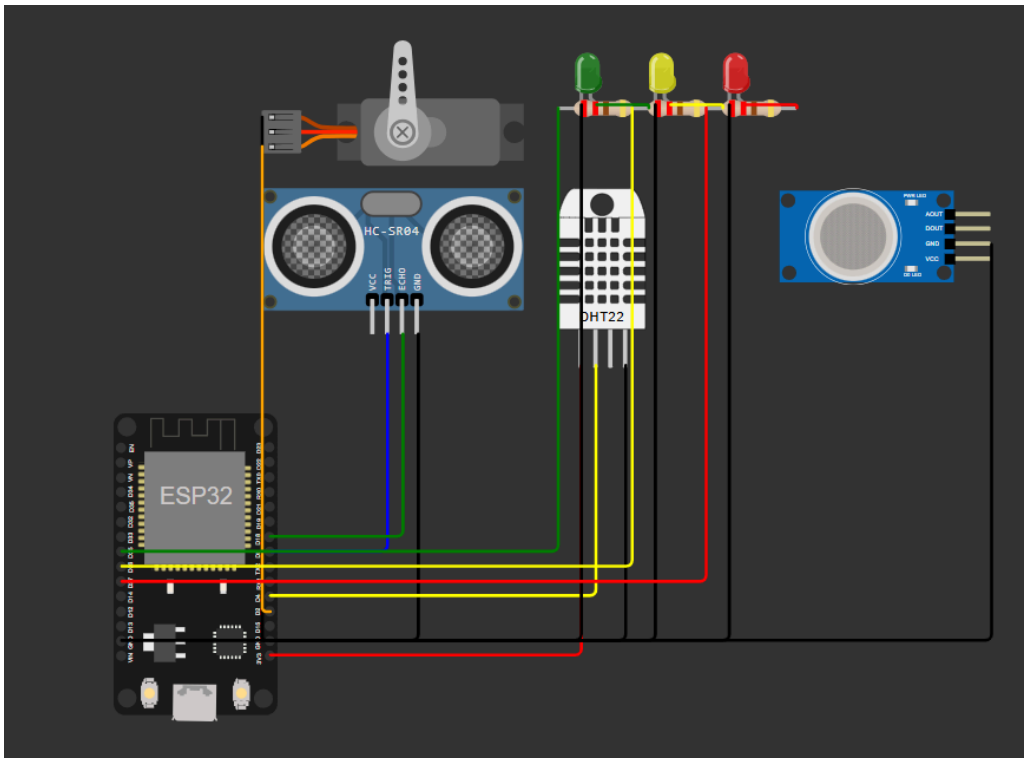
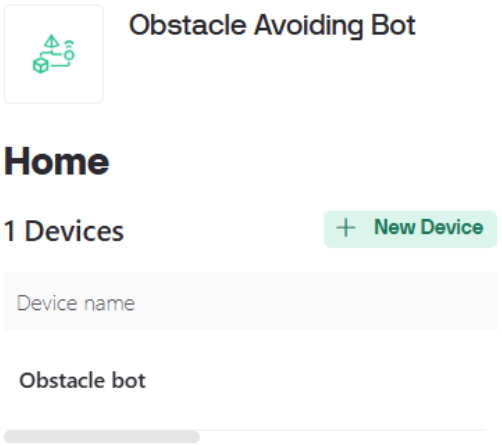
Autonomous Obstacle Avoiding robot using Wokwi and Blynk

1. The circuit



2. Blynk Board



3. System Initialization

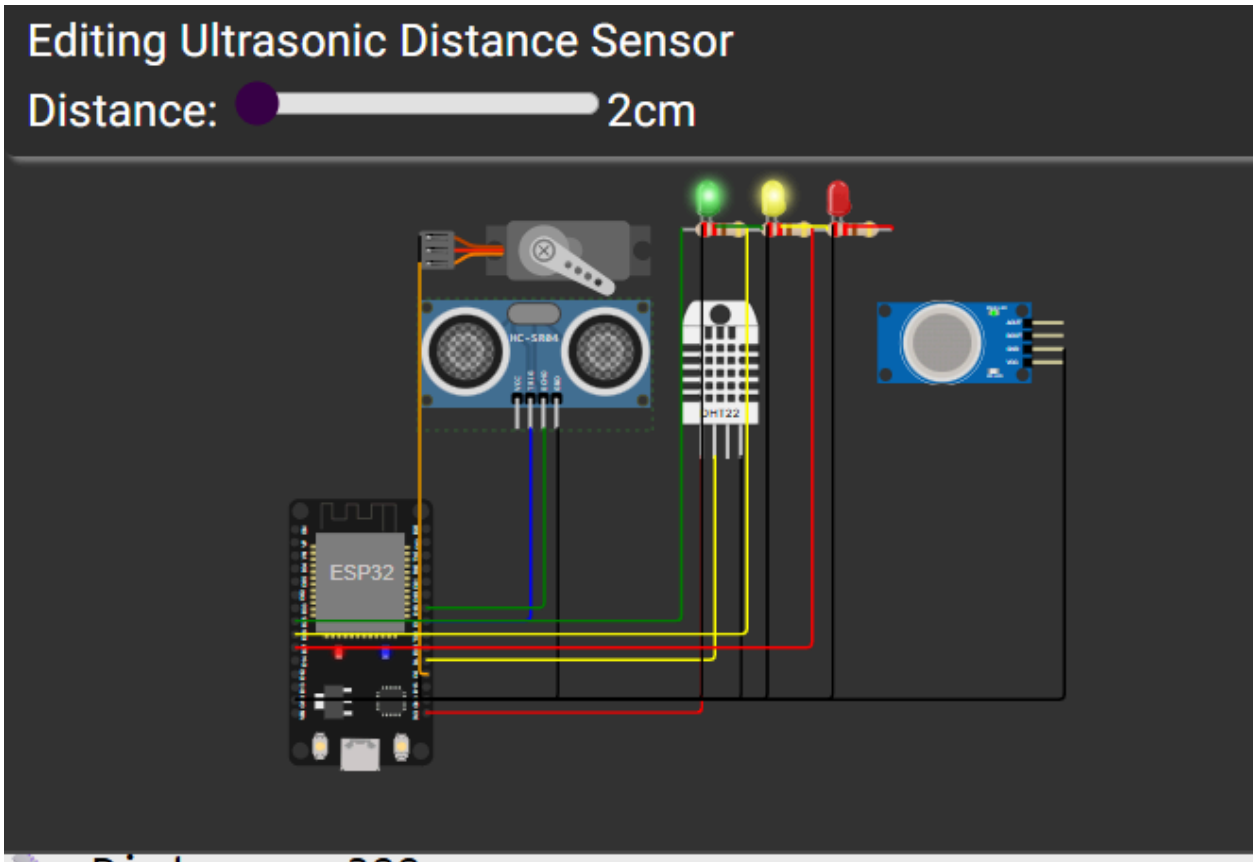
```
[7835] Connecting to blynk.cloud:80
[8484] Redirecting to blr1.blynk.cloud:80
[8486] Connecting to blr1.blynk.cloud:80
[9182] Ready (ping: 113ms).
🌐 Connected to Blynk Cloud!
```

```
🤖 OBSTACLE AVOIDING ROBOT WITH TELEMATICS 🤖
==============================================
✅ System Initialized Successfully!
📡 Sensors: Ultrasonic, DHT22, MQ135
🚗 Motors: Direct ESP32 Control
🌐 Blynk: Connected for Remote Monitoring
🎯 Mission: Autonomous Navigation Started
```

4. Initial movements

```
📊 ===== SENSOR DATA SENT TO BLYNK =====
🌡️  Temperature: 24.0°C
💧 Humidity: 40.0%
🌪️  Air Quality: 261 PPM
📏 Distance: 399 cm
🚨 Obstacle: ✅ NO
🤖 Status: 🚀 Moving Forward
========================================
```

5. Object Detected




```
📏 Distance: 399 cm
🚨 Obstacle: ✅ NO
🤖 Status: 🚀 Moving Forward
========================================


⚠️  OBSTACLE! Distance: 1cm
🔍 Scanning...
```

```
⚠️  OBSTACLE! Distance: 1cm
🔍 Scanning...
📊 Left: 1cm | Right: 1cm
🔄 Reversing

📊 ===== SENSOR DATA SENT TO BLYNK =====
🌡️  Temperature: 24.0°C
💧 Humidity: 40.0%
🌪️  Air Quality: 238 PPM
📏 Distance: 1 cm
🚨 Obstacle: ⚠️ YES
🤖 Status: 🔄 Reversing
========================================
```

7. Editable temperature, humidity and gas options