Summer Trainng presentation

Presented by Abdullah ghazal

Introduction

a system that allows you to monitor liquid levels in real-time all from a distance.

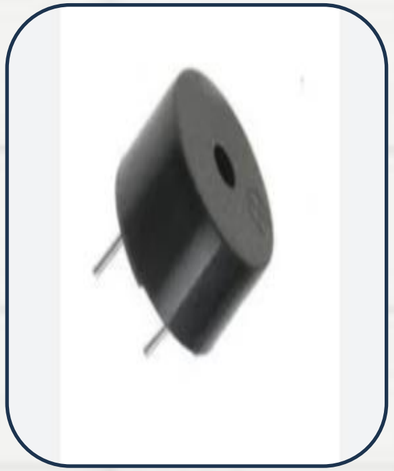
❖ Components:-

ESP32-WROOM

UltraSonic Sensor

Green LED

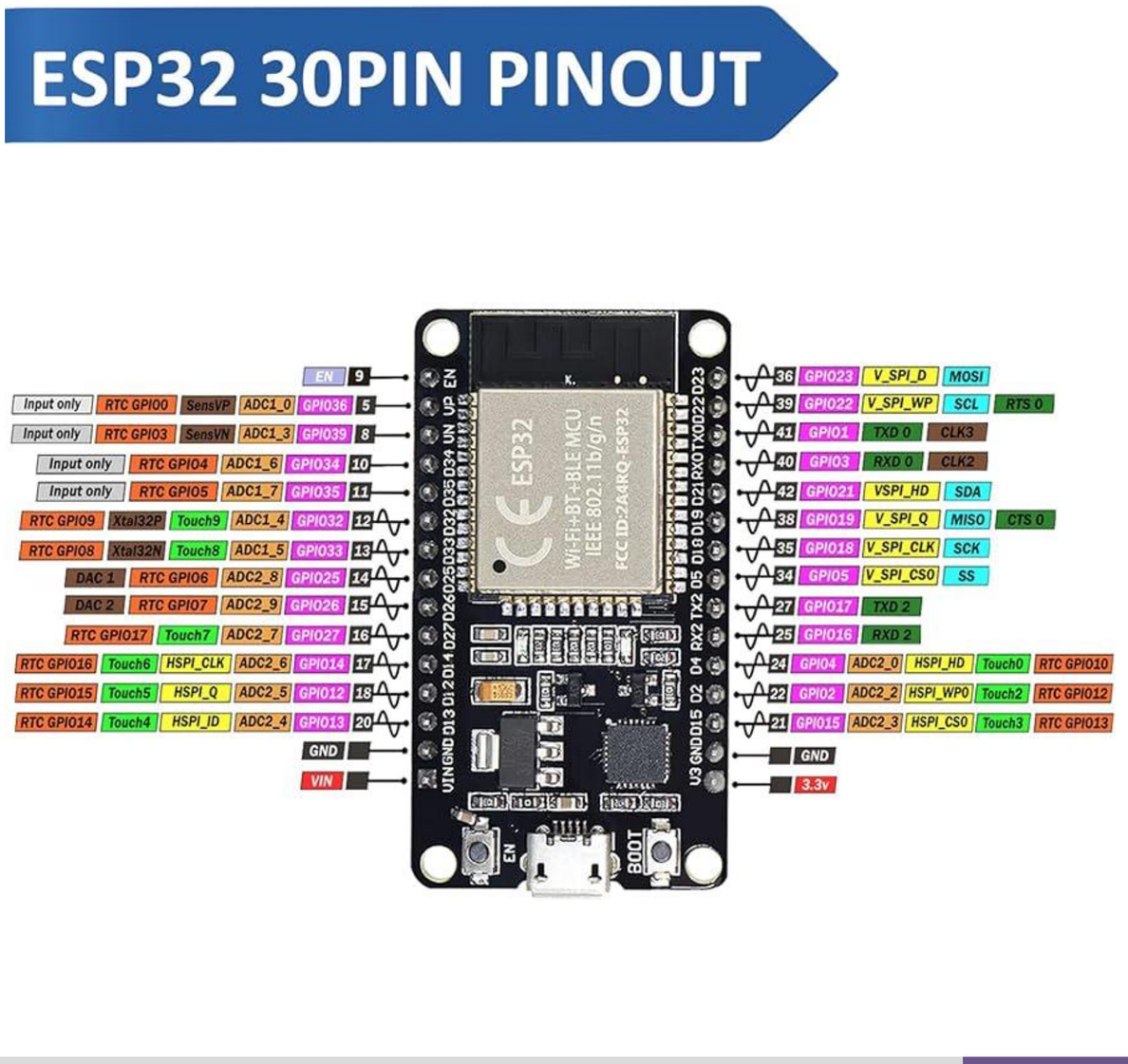
220 Ω Resistor

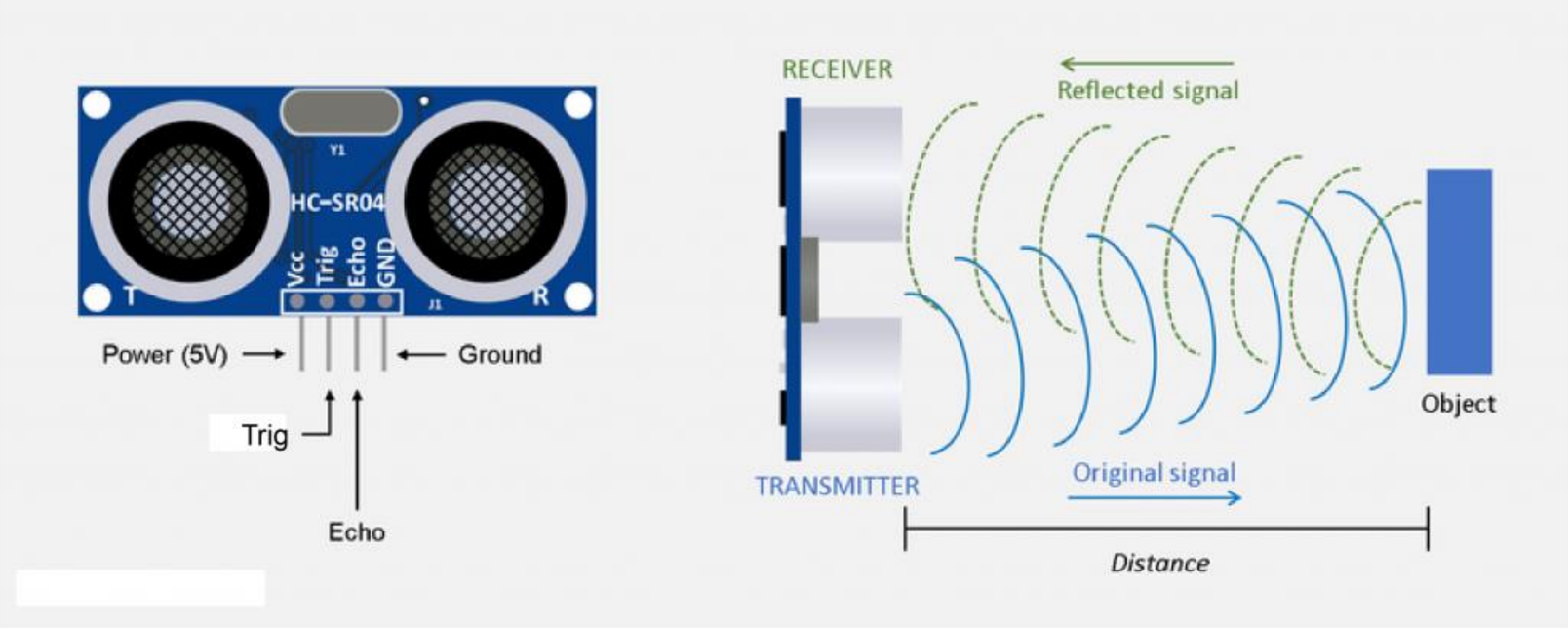


Buzzer

ESP32–WROOM:-

The heart of our project, handling the data processing and wireless capabilities.





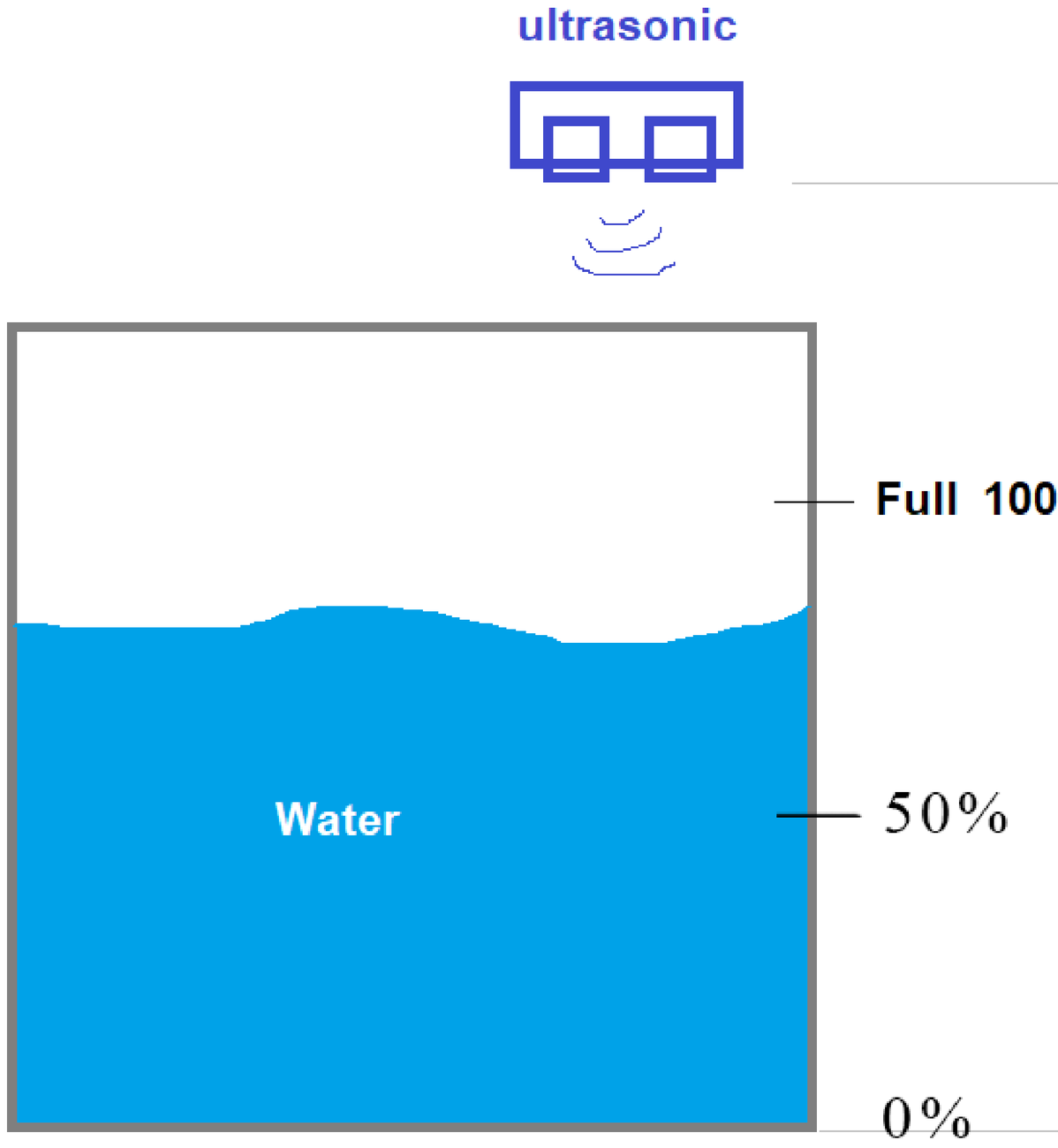
UlrtaSonic Sensor:-

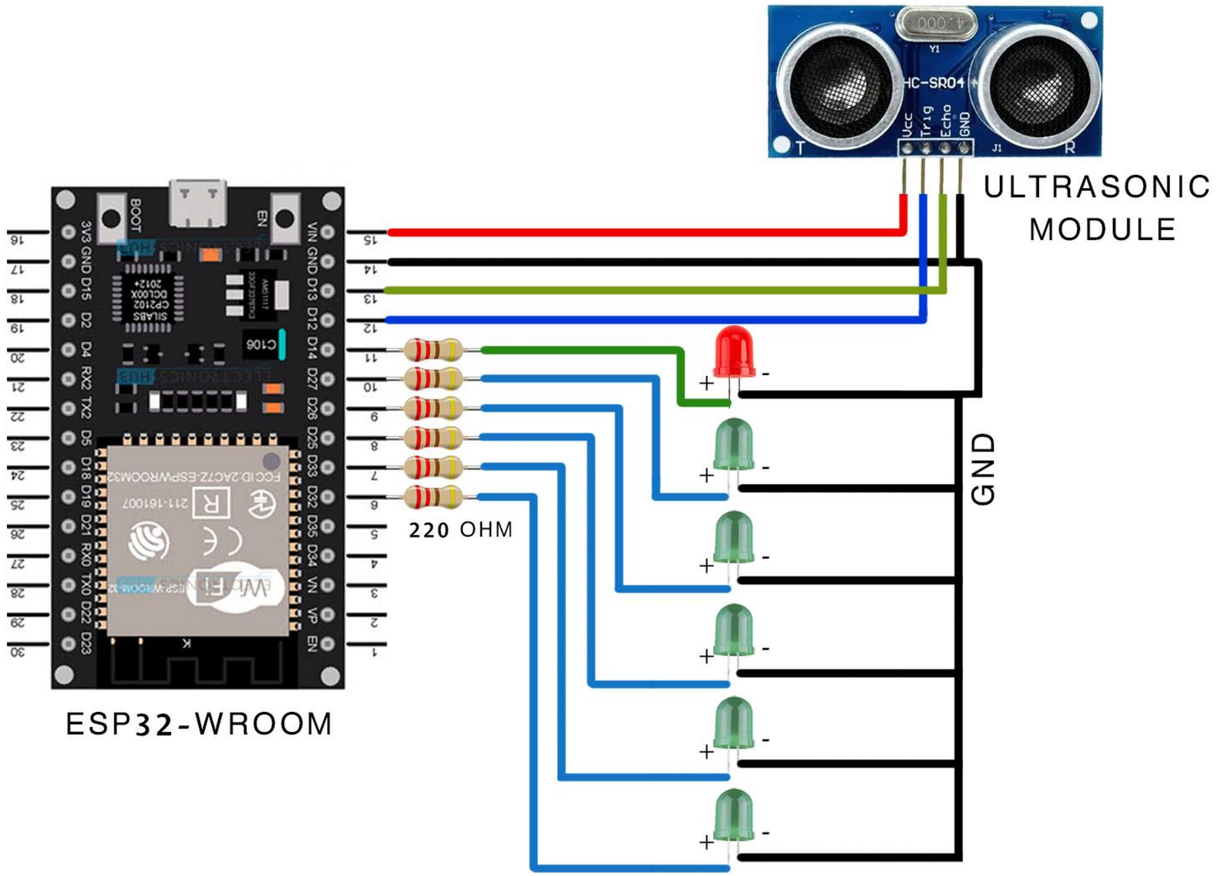
is a device that can measure the distance to an object by using sound waves.
By recording the elapsed time between the sound wave being generated and the sound wave bouncing back, it is possible to calculate the distance between the sonar sensor and the object.

1 Ultrasonic sensor measures distance.

2. ESP32 processes data to calculate liquid level.

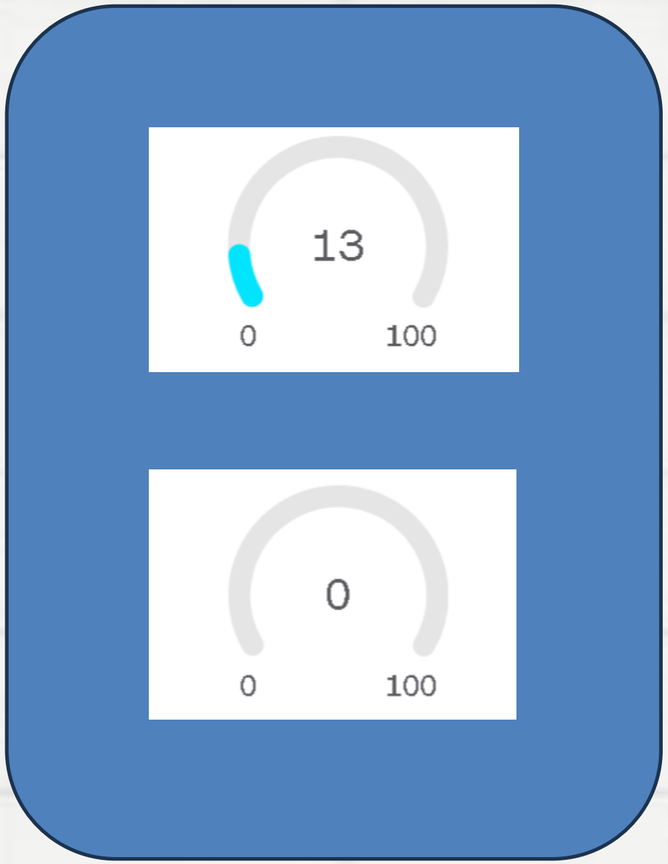
3. LEDs indicate levels; buzzer alerts for low levels.



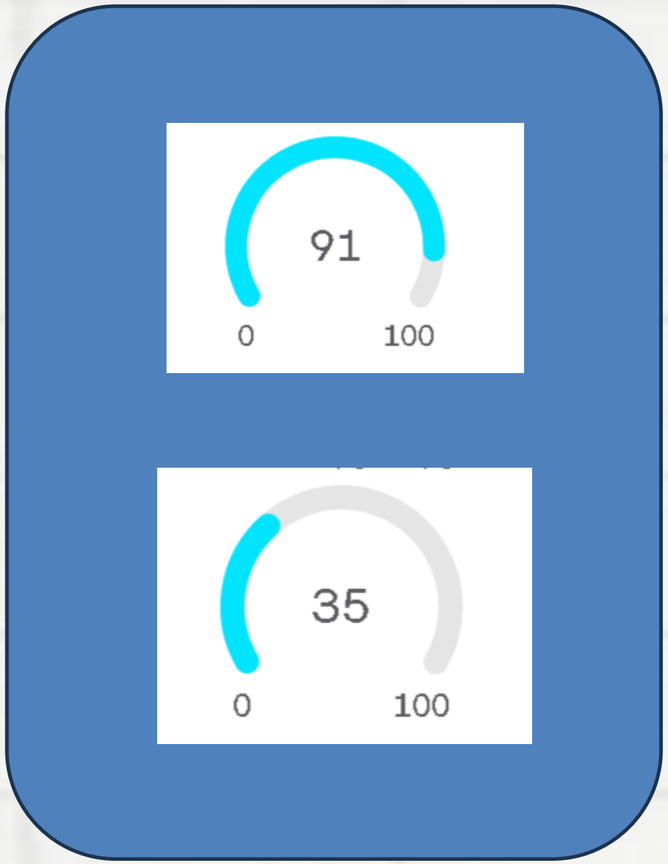


Schematic Diagram:

Web Dashboard:



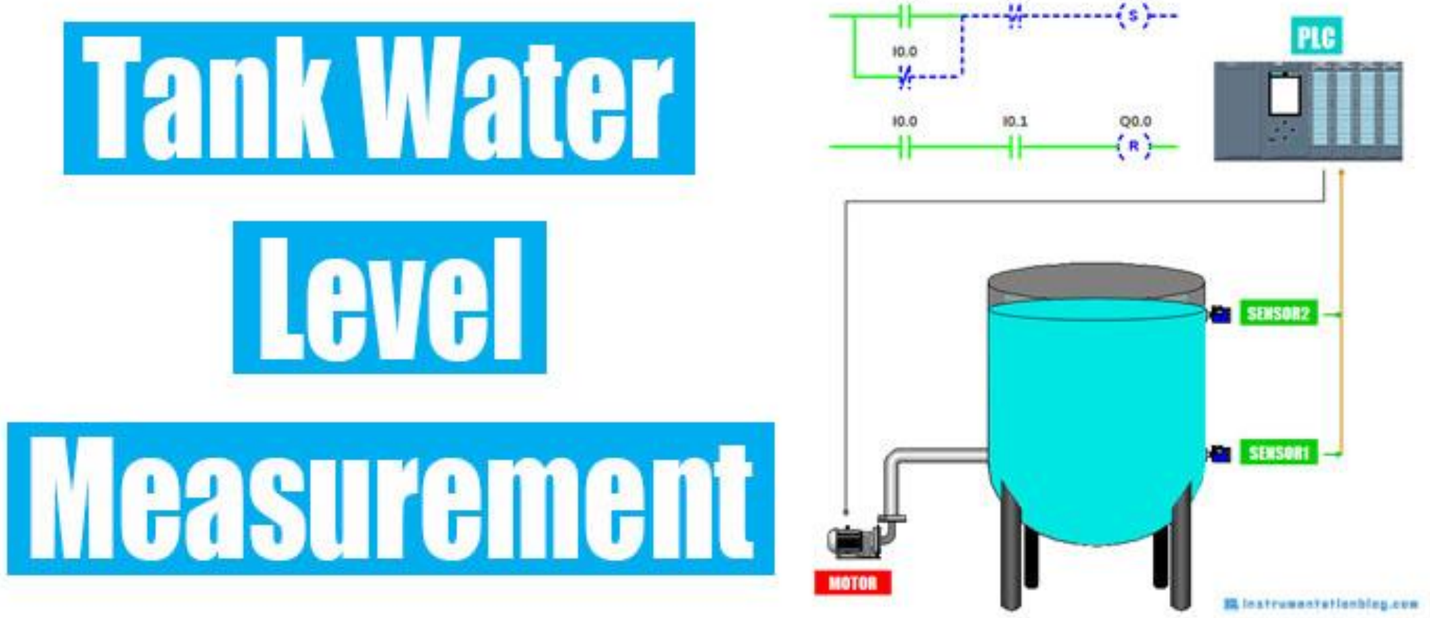
Water LeveL is LOW



Water LeveL is HIGH

Conclusion

- "In essence, the Liquid Level Meter is a prime example of how IoT devices like the ESP32 can be utilized to create smart, automated solutions that solve real-world problems. By incorporating simple components like ultrasonic sensors, LEDs, and buzzers, we create a seamless, user-friendly experience that empowers users to take control of liquid monitoring."



Thank you