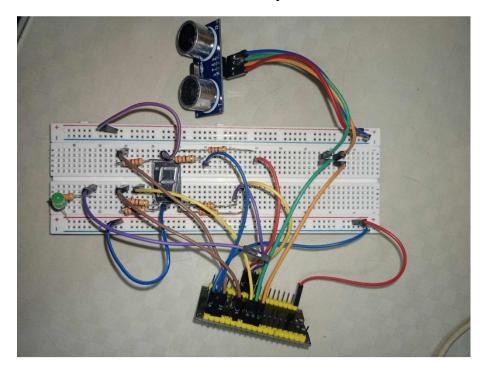
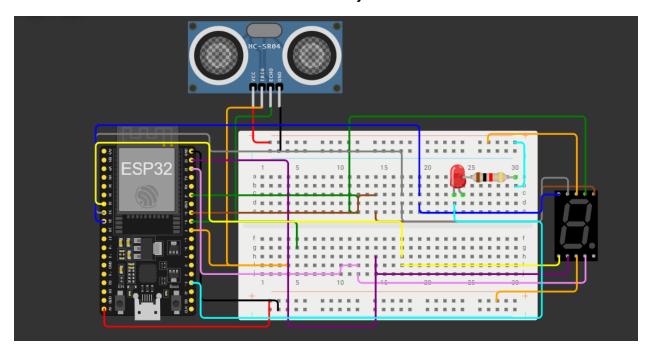
Smart Water Level Monitor

Actual IoT Project



Visual IoT Project



Components Used

Component	Description	Quantity
ESP32	Microcontroller board	1
HC-SR04 Ultrasonic Sensor	Distance sensor for level measurement	1
5161AS 7-Segment Display	Common Anode, 1-digit numeric display	1
LED	Warning indicator	1
Resistors (220 Ω –330 Ω)	Current limiting for segments and LED	8+
Breadboard & Jumper Wires	For prototyping	1 set

Pin Configuration

Component	ESP32 Pin
HC-SR04 Trig	GPIO5
HC-SR04 Echo	GPIO18
LED	GPIO15
Segment A	GPIO21
Segment B	GPIO19
Segment C	GPIO22
Segment D	GPIO23
Segment E	GPIO32
Segment F	GPIO33
Segment G	GPIO25
COM1/COM2 (Display)	GND or VCC depending on type (Common Anode = VCC)