**IIOT\_4 WAP for implementing IIOT enabled robotics and automation solution**

int buzzPin = 7; // Buzzer connected to digital pin 7

int trigPin = 6; // Trigger pin for ultrasonic sensor

int echoPin = A0; // Echo pin for ultrasonic sensor

int IRPin = A1; // IR sensor connected to analog pin A1

int IRV; // Variable to store IR sensor value

int duration, distance; // Variables for distance measurement

void setup()

{

pinMode(trigPin, OUTPUT); // Set trigPin as an OUTPUT

pinMode(buzzPin, OUTPUT); // Set buzzPin as an OUTPUT

pinMode(echoPin, INPUT); // Set echoPin as an INPUT

pinMode(IRPin, INPUT); // Set IRPin as an INPUT

Serial.begin(9600); // Start serial communication at 9600 baud rate

}

void loop()

{

// Measure distance using ultrasonic sensor

digitalWrite(trigPin, LOW);

delayMicroseconds(2);

digitalWrite(trigPin, HIGH);

delayMicroseconds(10);

digitalWrite(trigPin, LOW);

duration = pulseIn(echoPin, HIGH); // Read the pulse duration

distance = duration \* 0.034 / 2; // Calculate distance in cm

Serial.print("Distance in CM is: ");

Serial.println(distance);

// Check if an obstacle is detected

if (distance < 20) {

digitalWrite(buzzPin, HIGH); // Turn on the buzzer

Serial.println("Obstacle detected");

} else {

digitalWrite(buzzPin, LOW); // Turn off the buzzer

Serial.println("Obstacle not detected");

}

delay(100); // Wait for 100 ms before the next measurement

// Read the value from the IR sensor

IRV = digitalRead(IRPin);

Serial.print("IR Sensor Value: ");

Serial.println(IRV);

delay(1000); // Wait for 1 second before the next loop

}

