

SMART SOLUTIONS FOR RAILWAYS:

IBM ASSIGNMENT -4:

ASSIGNMENT QUESTION:-

Write a code and connections in wokwi for ultrasonic sensor. Whenever distance is less than 100cms send “alert” to ibm cloud and display in device recent events.

ANSWER:

CODE:

```
#define ECHO_PIN 2

#define TRIG_PIN 3

void setup()

{

Serial.begin(9600);

pinMode(LED_BUILTIN, OUTPUT);

pinMode(TRIG_PIN, OUTPUT);

pinMode(ECHO_PIN, INPUT);

}

float readDistanceCM()

{

digitalWrite(TRIG_PIN, LOW);

delayMicroseconds(2);

digitalWrite(TRIG_PIN, HIGH);

delayMicroseconds(10);

digitalWrite(TRIG_PIN, LOW);

int duration = pulseIn(ECHO_PIN, HIGH);

return duration * 0.034 / 2;

}

void loop()

{

float distance = readDistanceCM();

bool isNearby = distance < 100;
```

OUTPUT:

