# ASSIGNMENT - 4
CONNECTION IN WOKWI FOR ULTRASONIC SENSOR

LINK FOR WOKWI

https://wokwi.com/projects/346869818209600084
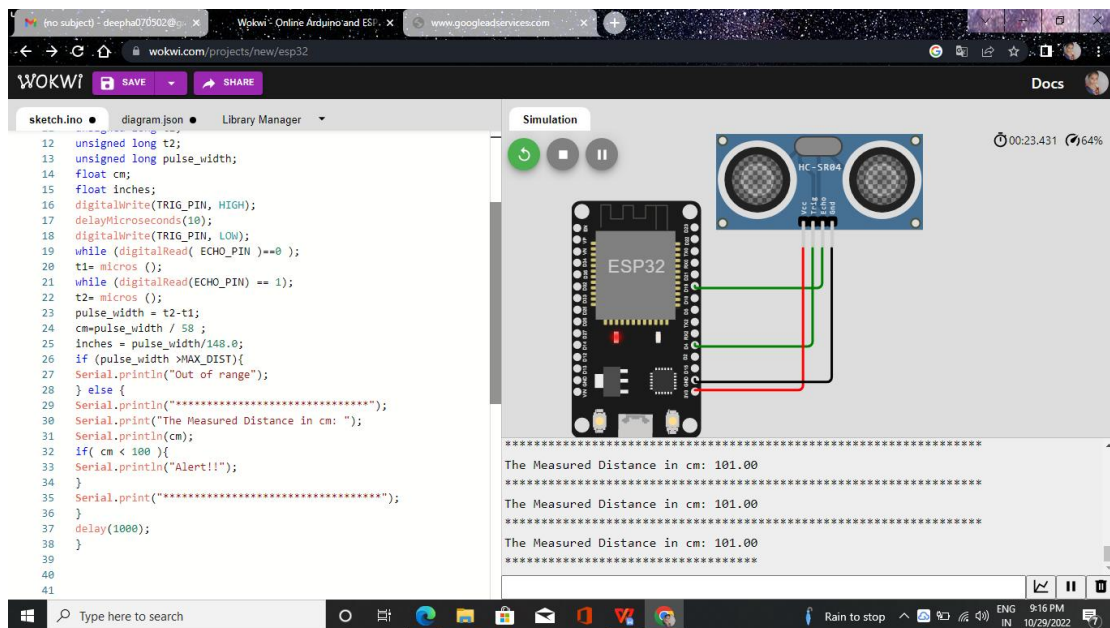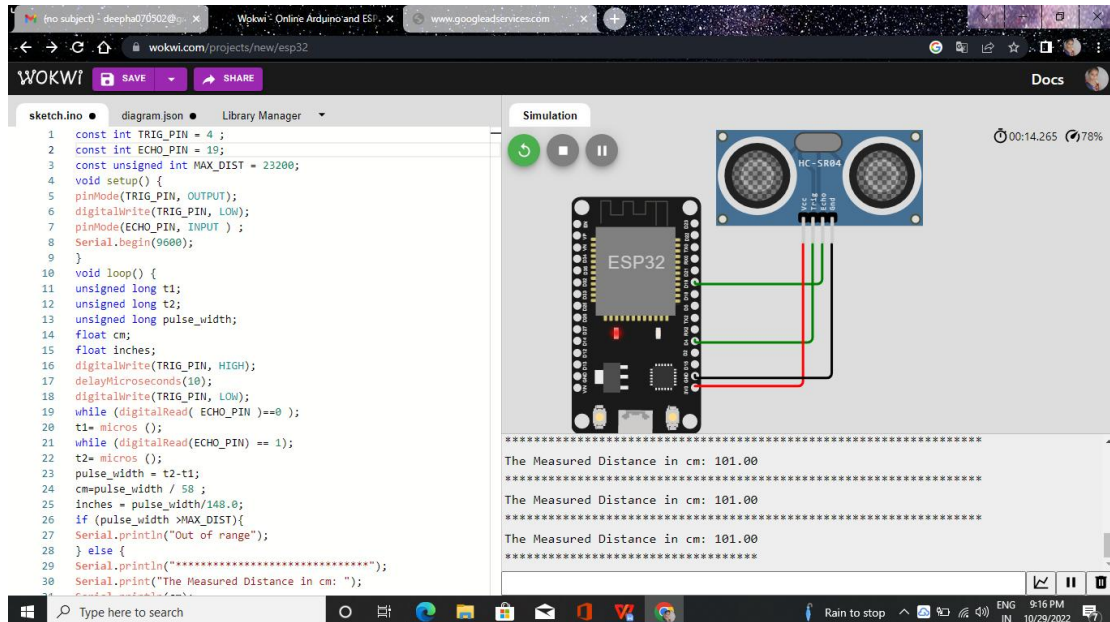
CODE FOR ASSIGNMENT

```cpp
const int TRIG_PIN = 4 ;
const int ECHO_PIN = 19;
const unsigned int MAX_DIST = 23200;
void setup() {
pinMode(TRIG_PIN, OUTPUT);
digitalWrite(TRIG_PIN, LOW);
pinMode(ECHO_PIN, INPUT ) ;
Serial.begin(9600);
}
void loop() {
unsigned long t1;
unsigned long t2;
unsigned long pulse_width;
float cm;
float inches;
digitalWrite(TRIG_PIN, HIGH);
delayMicroseconds(10);
digitalWrite(TRIG_PIN, LOW);
while (digitalRead( ECHO_PIN )==0 );
t1= micros ();
while (digitalRead(ECHO_PIN) == 1);
t2= micros ();
pulse_width = t2-t1;
cm=pulse_width / 58 ;
inches = pulse_width/148.0;
if (pulse_width >MAX_DIST){
Serial.println("Out of range");
} else {
Serial.println("*****************************");
Serial.print("The Measured Distance in cm: ");
Serial.println(cm);
if( cm < 100 ){
Serial.println("Alert!!");
}
Serial.print("*******************************");
}
delay(1000);
}
```

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