

Assignment - 1

Build a smart home in Tinkercad with 2 sensors, an Led, buzzer and submit it.

```
/*
  Ultrasonic sensor Pins:
  VCC: +5VDC
  Trig : Trigger (INPUT) - Pin 11
  Echo: Echo (OUTPUT) - Pin 11
  GND: GND
*/

long duration, cm, inches;

void setup() {
  Serial.begin (9600);
  pinMode(9,OUTPUT);
}

void loop()
{

  pinMode(11, OUTPUT);
  digitalWrite(11, LOW);
  delayMicroseconds(5);
  digitalWrite(11, HIGH);
  delayMicroseconds(10);
  digitalWrite(11, LOW);

  // Read the signal from the sensor:
  pinMode(11, INPUT);
  duration = pulseIn(11, HIGH);
  Serial.println(duration);
  // convert the time into a distance
  cm = (duration/2) / 29.1;
  inches = (duration/2) / 74;

  if(inches > 57){                                //tank size 5 feet = 60 inch,
    digitalWrite(9, HIGH);                        // start if 57 inch empty
  }else if(inches < 5)                             // stop if 5 inch to fill
    digitalWrite(9, LOW);

  Serial.print(inches);
  Serial.print("in, ");
  Serial.print(cm);
```

```
Serial.print("cm");  
Serial.println();
```

```
delay(250);  
}
```

