IOT BASED SMART DUSTBIN

SIMULATION CODE

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```
#include<Servo.h>

Servo motor;

const int trigPin = D1;
const int echoPin = D2;

//define sound velocity in cm/uS
#define SOUND_VELOCITY 0.034

long duration;
float distanceCm;
float distanceInch;

void setup() {
  //Serial.begin(115200); // Starts the serial
communication
  pinMode(D0, OUTPUT);
  pinMode(trigPin, OUTPUT); // Sets the
trigPin as an Output
  pinMode(echoPin, INPUT); // Sets the
echoPin as an Input

  motor.attach(2);        // D4
  motor.write(0);
}

}---
```

```
void loop() {
  // Clears the trigPin
  digitalWrite(trigPin, LOW);
  delayMicroseconds(2);
  // Sets the trigPin on HIGH state for 10
micro seconds
  digitalWrite(trigPin, HIGH);
  delayMicroseconds(10);
  digitalWrite(trigPin, LOW);

  // Reads the echoPin, returns the sound
wave travel time in microseconds
  duration = pulseIn(echoPin, HIGH);

  // Calculate the distance
  distanceCm = duration *
SOUND_VELOCITY/2;

  // Prints the distance on the Serial
Monitor
  //Serial.print("Distance (cm): ");
  //Serial.println(distanceCm);
  if(distanceCm < 30)
{digitalWrite(D0,HIGH); motor.write(190);
delay(5000); }
  else  {digitalWrite(D0,LOW);
motor.write(0); }

}
```