SOURCE CODE FOR PROJECT (SMART DUSTBIN)

//define Pins

#include <Servo.h>

Servo servo;

int trigPin = 9;

int echoPin = 8;

// defines variables

long duration;

int distance;

void setup()

{

  servo.attach(7);

  servo.write(0);

 delay(2000);

// Sets the trigPin as an Output

pinMode(trigPin, OUTPUT);

// Sets the echoPin as an Input

pinMode(echoPin, INPUT);

// Starts the serial communication

Serial.begin(9600);

}

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);

// Calculating the distance

distance= duration\*0.034/2;

// Prints the distance on the Serial Monitor

Serial.print("Distance: ");

Serial.println(distance);

if ( distance <= 25   ) // Change Distance according to Ultrasonic Sensor Placement

 {

servo.write(0);

delay(3000);

 }

else

{

servo.write(90);

 }

}