#include<Servo.h>

int trig=8;

int echo=9;

int dt=10;

int i=0;

Servo gate;

void setup()

{

pinMode(trig,OUTPUT);

pinMode(echo,INPUT);

Serial.begin(9600);

gate.attach(11);

}

void loop()

{

if (calc\_dis()<100)

{

gate.write(0);

Serial.println("The servo is at 0");

delay(1000);

gate.write(90);

Serial.println("The servo is at 90");

delay(1000);

gate.write(180);

Serial.println("The servo is at 180");

delay(1000);

gate.write(0);

Serial.println("The servo is at 0");

}

else

{

gate.write(0);

Serial.println("The Gate is opened");

delay(1000);

}

}

int calc\_dis()

{

int duration,distance;

digitalWrite(trig,HIGH);

delay(dt);

digitalWrite(trig,LOW);

duration=pulseIn(echo,HIGH);

distance = (duration/2) / 29.1;

Serial.print("The vehicle is at: ");

Serial.println(distance);

delay(1000);

return distance;

}