**Assignment 2: Make a model of an automated garage using servo and ultrasonic distance sensor using Tinkercad.**

**Code:**

#include<Servo.h>

Servo valliservo;

int trigpin=7;

int echopin=5;

void setup()

{

pinMode(trigpin,OUTPUT);

pinMode(echopin,INPUT);

Serial.begin(9600);

valliservo.attach(2);

}

void loop()

{

digitalWrite(trigpin,HIGH);

delay(1000);

digitalWrite(trigpin,LOW);

int duration=pulseIn(echopin,HIGH);

Serial.print("the duration is ");

Serial.println(duration);

int distance=(duration\*0.034)/2;

Serial.print("the distance is");

Serial.println(distance);

if (distance<50){

valliservo.write(90);

Serial.println("Person is in: open the gate");

delay(5000);

valliservo.write(0);

Serial.println("Back to initial state");

}

delay(1000);

}

**Circuit**

