

ASSIGNMENT-2

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TINKERCAD CODE:

```
#include<Servo.h>

Servo myservo;

const int trigPin=3;

const int echoPin=5;

long timeduration;

int distance;

void setup() {

  myservo.attach(9);

  pinMode(trigPin,OUTPUT);

  pinMode(echoPin,INPUT);

  Serial.begin(9600);

}

void loop() {

  digitalWrite(trigPin,LOW);

  delayMicroseconds(2);

  digitalWrite(trigPin,HIGH);

  delayMicroseconds(10);

  digitalWrite(trigPin,LOW);timeduration=pulseIn(echoPin,HIGH);

  distance=(0.034*timeduration)/2;

  if(distance<=250){

    myservo.write(90);
```

```

}

else{

myservo.write(0);

}

Serial.print("distance:");

Serial.println(distance);

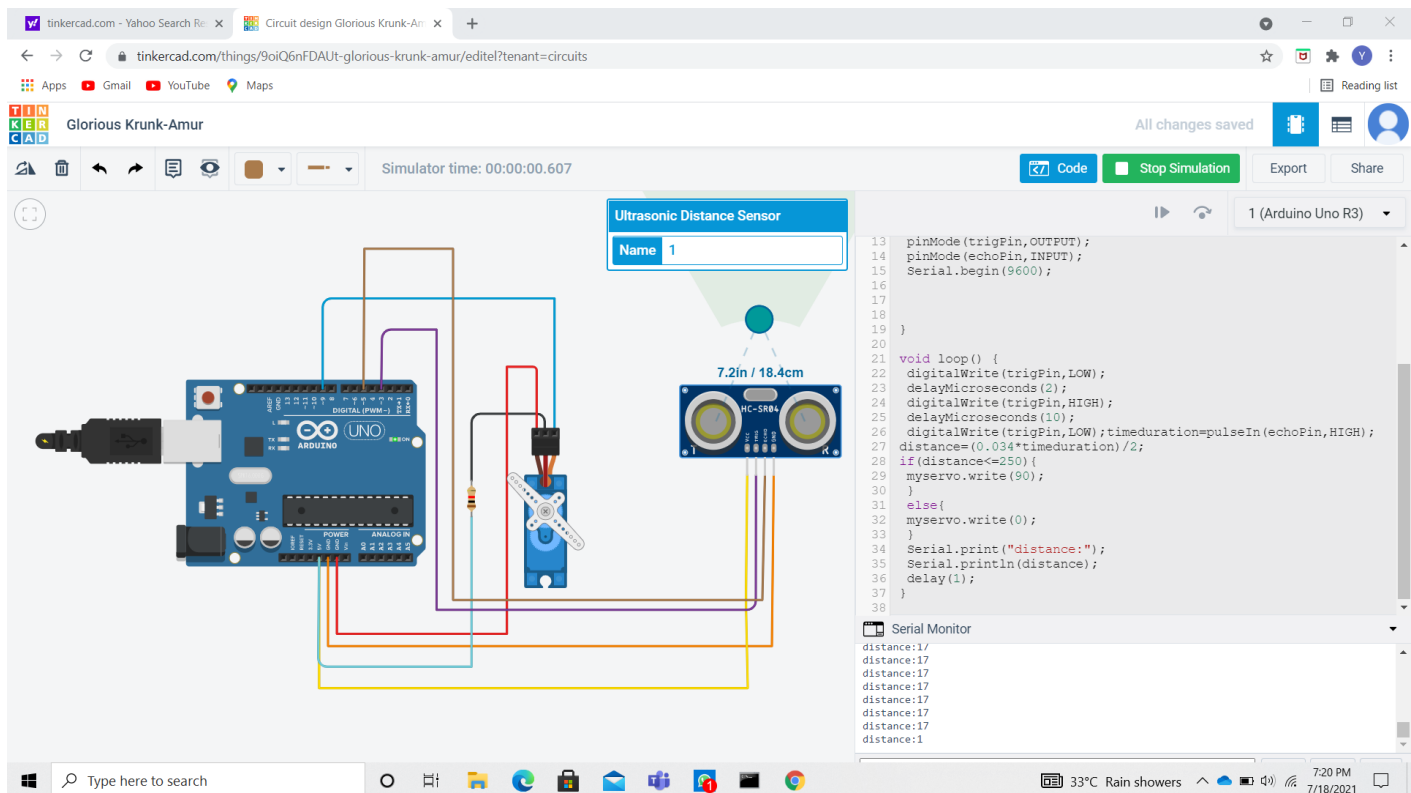
delay(1);

}

```

Server motor when the Vehical approaches i.e., in range of Ultrasonic sensor.

(opening):



Server motor after the car entering the garage i.e. not in Ultrasonic range (Closing):

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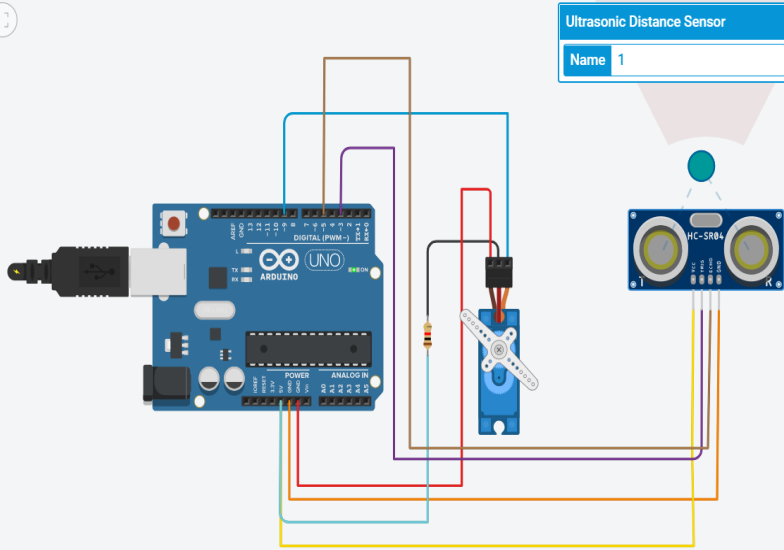
Glorious KrunK-Amur

All changes saved

Simulator time: 00:00:02.104

Code Stop Simulation Export Share

1 (Arduino Uno R3)



Ultrasonic Distance Sensor

Name 1

```
13 pinMode(trigPin, OUTPUT);
14 pinMode(echoPin, INPUT);
15 Serial.begin(9600);
16
17
18
19 }
20
21 void loop() {
22   digitalWrite(trigPin, LOW);
23   delayMicroseconds(2);
24   digitalWrite(trigPin, HIGH);
25   delayMicroseconds(10);
26   digitalWrite(trigPin, LOW);
27   timeduration=pulseIn(echoPin, HIGH);
28   distance=(0.034*timeduration)/2;
29   if (distance<=250) {
30     myservo.write(90);
31   }
32   else {
33     myservo.write(0);
34   }
35   Serial.print("distance:");
36   Serial.println(distance);
37   delay(1);
38 }
```

Serial Monitor

distance:32/
distance:327
distance:327
distance:327
distance:327
distance:327
distance:327

Type here to search

33°C Rain showers 7:24 PM 7/18/2021