

## Assignment-2

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**Develop an "Automatic garage door opening system". Use an Ultrasonic sensor to detect if there is a vehicle in front of the garage. if any vehicle is detected open the garage door (rotate the servo motor) for some time and close it.**

### CODE:

```
#include<Servo.h>

Servo s;

void setup()
{
  s.attach(7);
  pinMode(2, OUTPUT);
  pinMode(3, INPUT);
  Serial.begin(9600);
}

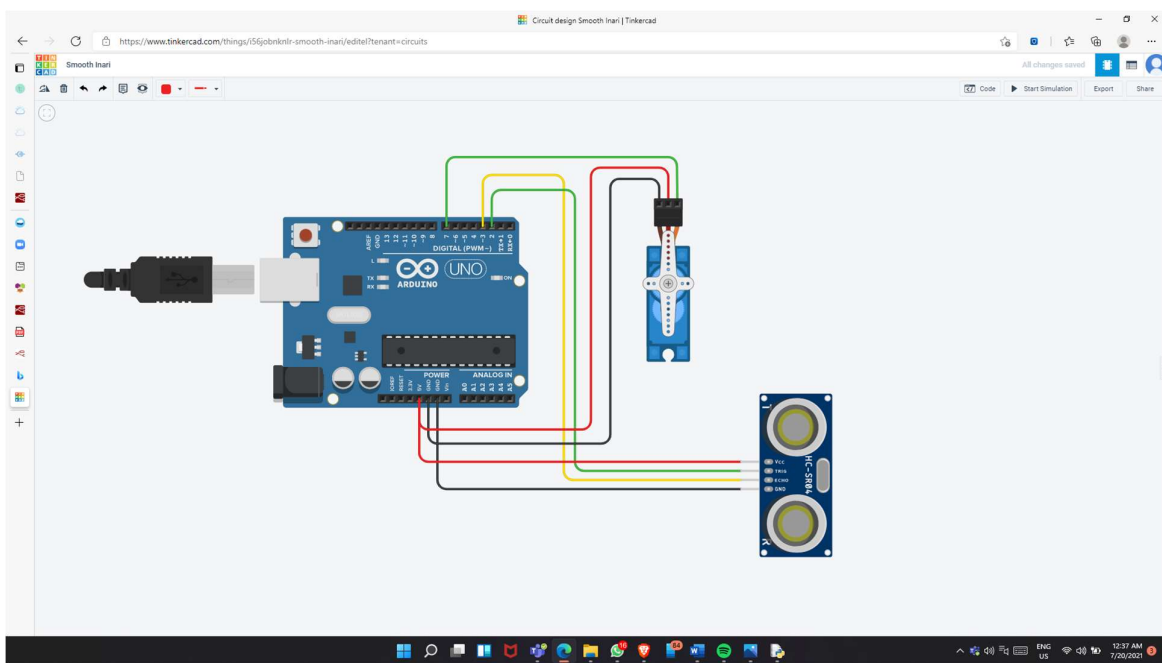
void loop()
{
  digitalWrite(2, LOW);
  digitalWrite(2, HIGH);
  delayMicroseconds(10);
  digitalWrite(2, LOW);
  float dur = pulseIn(3, HIGH);
  float dis = (dur * 0.0343)/2;
  Serial.print("Distance in cm: ");
  Serial.println(dis);
  if(dis<100)
  {
```

```

s.write(90);
delay(1000);
}
else
{
s.write(0);
delay(1000);
}
}

```

**Before simulation:**



After simulation:

