Assignment 2

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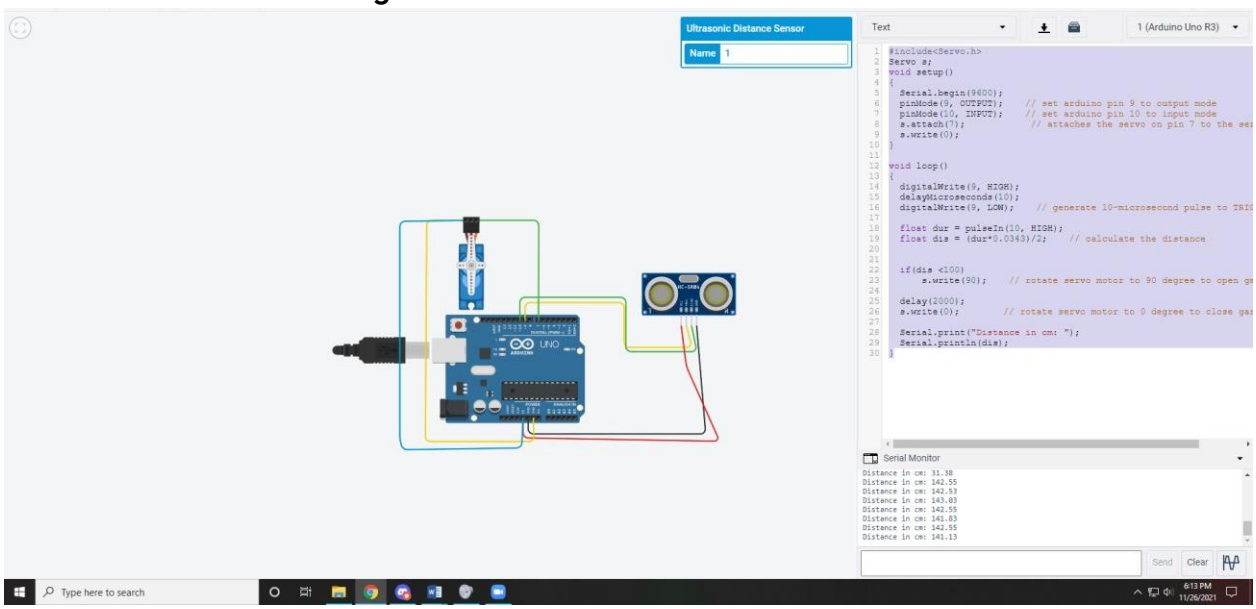
Code-

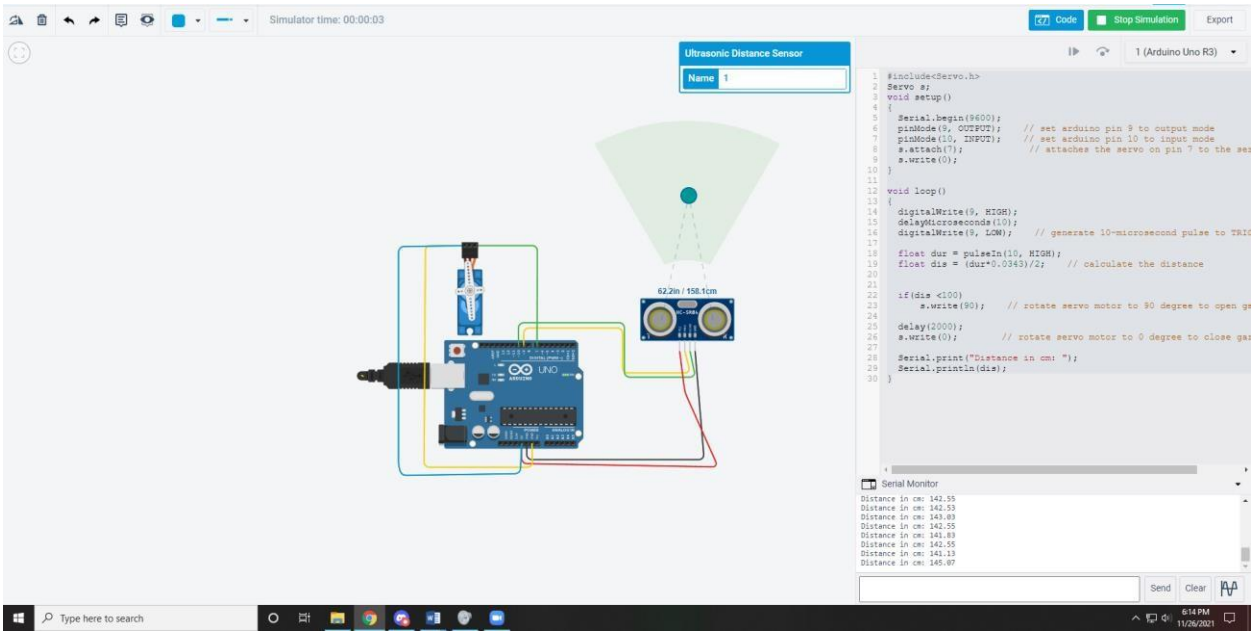
```
#include<Servo.h>
Servo s; void
setup()
{
 Serial.begin(9600);   pinMode(9, OUTPUT);    // set arduino
pin 9 to output mode   pinMode(10, INPUT);    // set arduino
pin 10 to input mode
 s.attach(7);          // attaches the servo on pin 7 to the servo object
 s.write(0);
}

void loop()
{
 digitalWrite(9, HIGH);   delayMicroseconds(10);    digitalWrite(9,
LOW);    // generate 10-microsecond pulse to TRIG pin

 float dur = pulseIn(10, HIGH);   float dis =
(dur*0.0343)/2;    // calculate the distance


 if(dis <100)
    s.write(90);    // rotate servo motor to 90 degree to open garage door   delay(2000);
 s.write(0);       // rotate servo motor to 0 degree to close garage door
```

```
  Serial.print("Distance in cm: ");
  Serial.println(dis);
}
```

Screenshot of the design-



When the distance is more than 100cm-



When the distance is less than 100 cm-