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
```

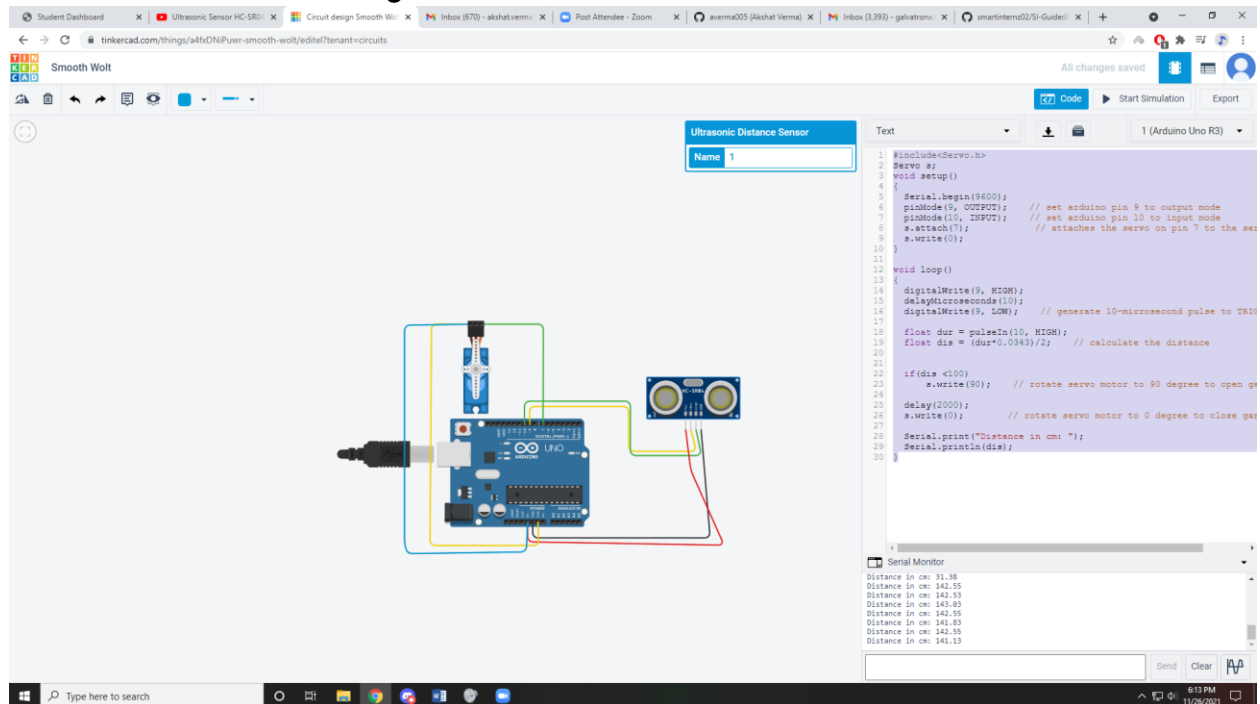delay(2000);

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-