



ASSIGNMENT 2

Ultrasonic sensor and servo motor



BY

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CODE-

```
#include<Servo.h>

Servo s;

int i=0;

void setup()
{
    s.attach(4);
    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);

    /*The door will open when the
    vehice is within 3 meters to 10 cm near the door*/

    if(dis<=300.00 and dis>=10.00){
        s.write(i);
```

```

delay(50);

Serial.println("Status:Door opening");

i++;

if(i==180){ //The door will be kept open for 2 seconds

    delay(5000);

}

}

/*The door will close when the
above criteria fail*/
else{

    s.write(i);

    delay(50);

    Serial.println("Status:Door Closing");

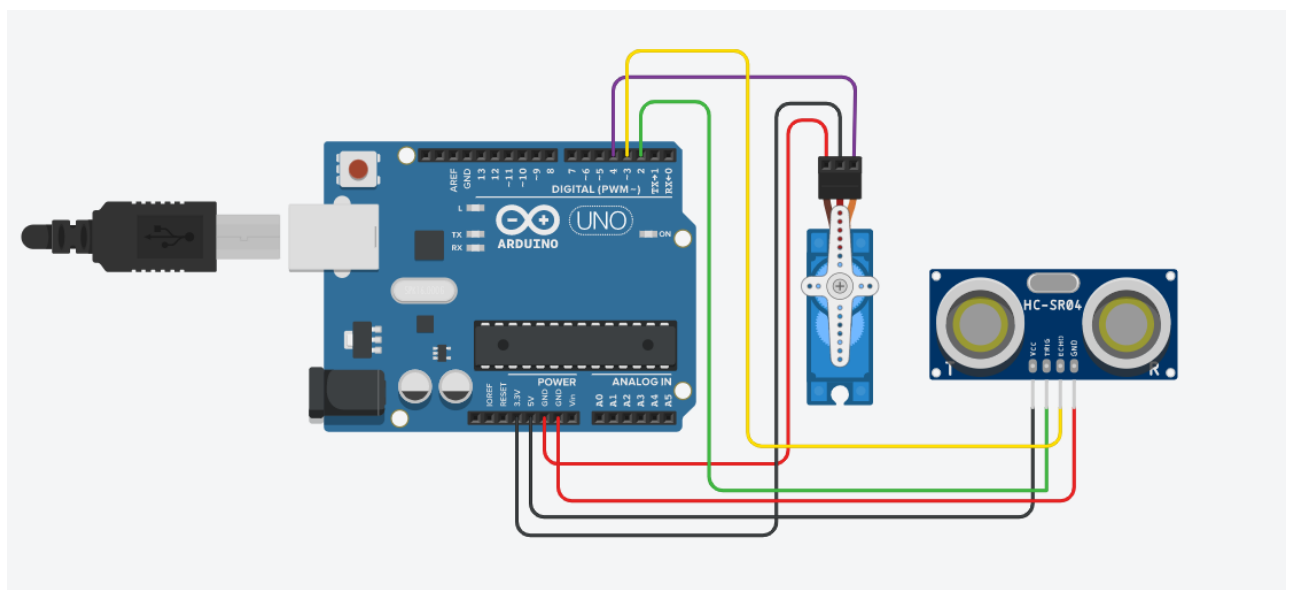
    i--;

}

}

```

CIRCUIT-



In Work Screenshots-

