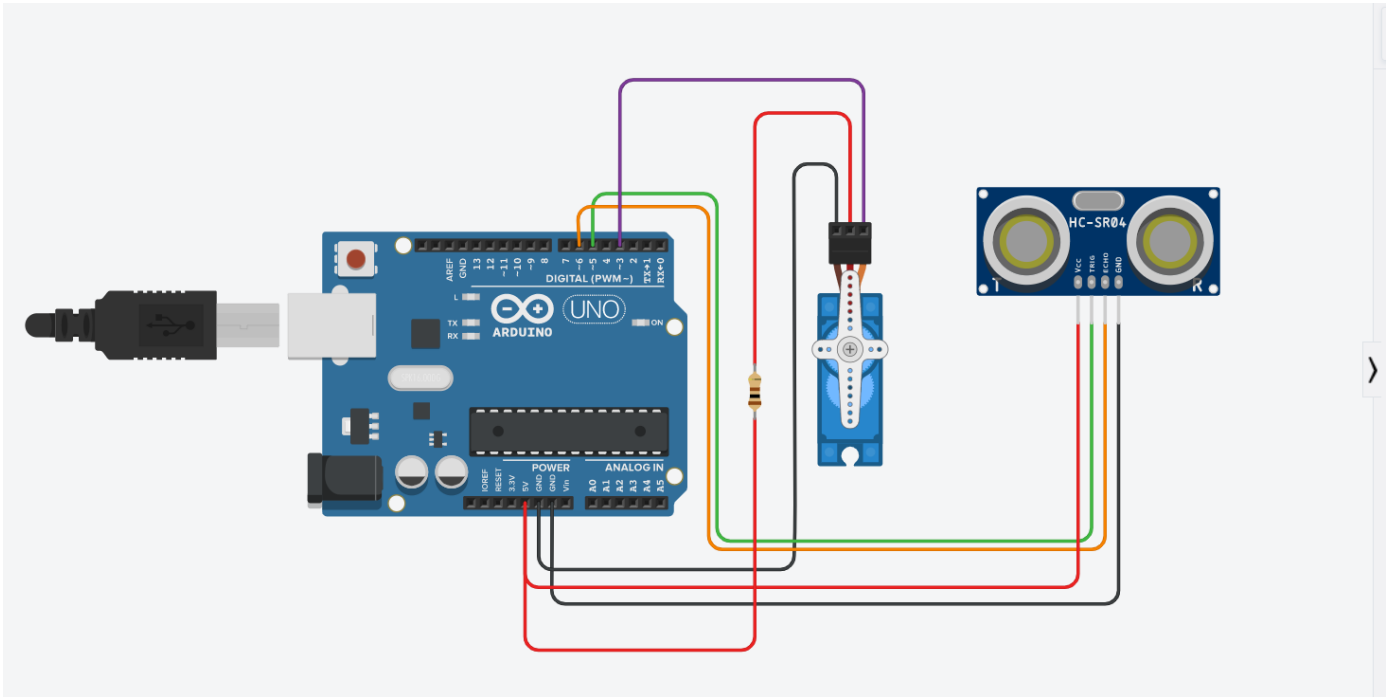# ASSIGNMENT-2

CODE:

```
#include<Servo.h>
Servo servo;
int trig=5;
int echo=6;
void setup()
{
servo.attach(3);
pinMode(trig, OUTPUT);
pinMode(echo, INPUT);
Serial.begin(9600);
servo.write(0);
}
void loop()
{
digitalWrite(trig,LOW);
digitalWrite(trig,HIGH);
delay(10); // Wait for 1000 millisecond(s)
digitalWrite(trig,LOW);
float dur=pulseIn(echo,HIGH);
float dis=(dur*0.0343)/2;
Serial.print("distance in cm;");
Serial.println(dis);
if(dis>=250){
servo.write(180);
Serial.println("door closed");
Serial.print("distance ");
Serial.println(dis);
delay(500);
}
else{
servo.write(0);
Serial.println( "door open");
Serial.print("distance");
Serial.println(dis);
delay(500);
}
}
```

Design:

OUTPUT:

```
distance in cm;167.74
door open
distance167.74
distance in cm;166.85
door open
distance166.85
distance in cm;166.85
door open
distance166.85
distance in cm;167.64
door open
distance167.64
distance in cm;168.41
door open
distance168.41
distance in cm;168.41
door open
distance168.41
```

```
distance in cm;333.45
door closed
distance 333.45
distance in cm;333.41
door closed
distance 333.41
distance in cm;334.22
door closed
distance 334.22
distance in cm;333.41
```