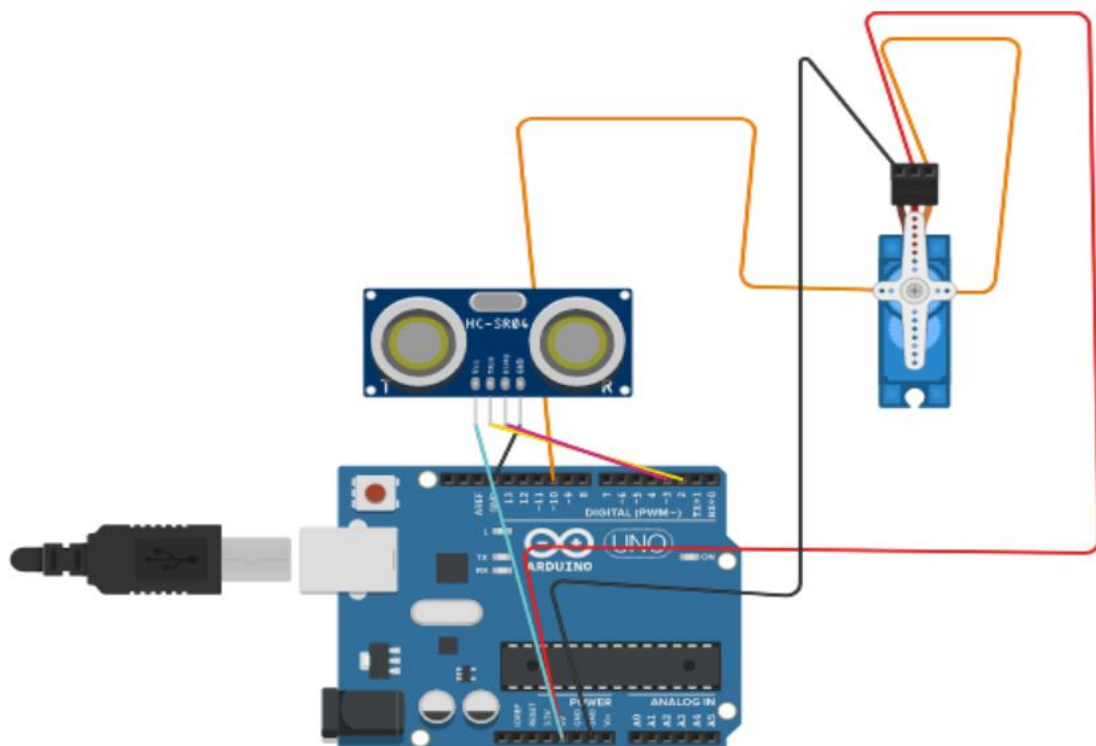**18481A04A4**   **Assignment2**

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.

```cpp
// C++ code
//
int trigpin=2;
int echopin=3;
#include<Servo.h>
Servo myservo;

void setup()
{
pinMode(trigpin,OUTPUT);
pinMode(echopin,INPUT);
Serial.begin(9600);
myservo.attach(10);
myservo.write(0);
}

void loop()
{
digitalWrite(trigpin,HIGH);
delay(1000);
digitalWrite(trigpin,LOW);
float duration=pulseIn(echopin,HIGH);
float distance=duration*0.0343/2;
```

```
Serial.print("the distance is");
Serial.println(distance);
if(distance>=80)
{

Serial.print("the door of the garage is opened");
myservo.write(90);
delay(1000);
Serial.print("the door of the garage is closed");
myservo.write(0);
}
else
{
myservo.write(0);
}
}
```