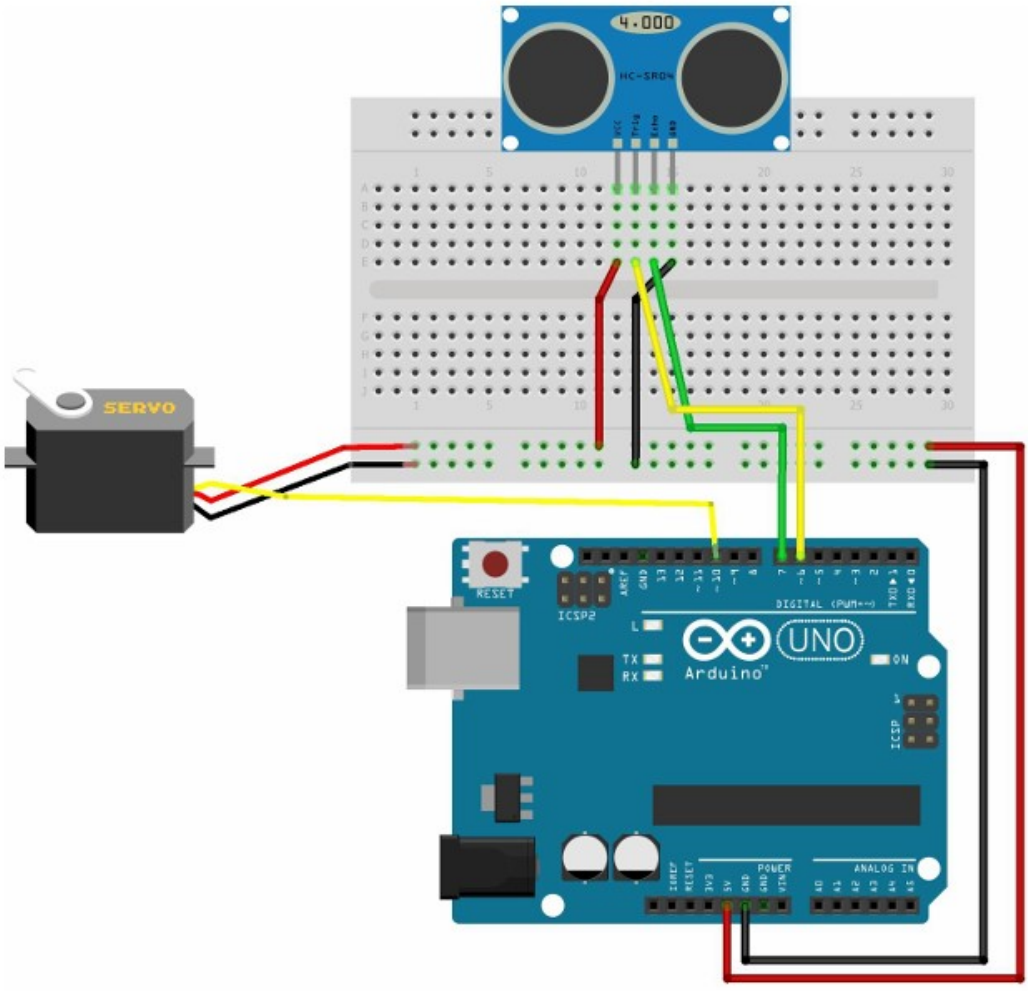
Proximity with servo and ultrasonic SENSOR

Hardware required :

- ARDUINO UNO
- BREAD BOARD
- ULTRASONIC SENSOR
- SERVO MOTOR
- USB CABLE
- JUMPER WIRES

SOFTWARE REQUIRED:

- ARDUINO IDE



CONNECTIONS :

- Connect the Arduino uno to the computer system using the usb cable.
- Connect the ultra-sonnic sensor trig pin to digital pin 7 and the echo pin to digital pin 6. Connect the GND to Gnd of the ARDUINO and the vcc to vcc of ARDUINO.
- Connect the digital pin of the servo motor to the digital pin 3 of the Arduino uno and the connect the Gnd and Vcc from the servo motor to the Arduino uno.

PROCEDURE:

- After connecting all the hardware components type the preferred code on ARDUINO IDE .
- Compile the code to check for any errors .
- If no error then select the port under tools and then dump the code
- Check the output.

PROGRAM:

```
#include <Servo.h>
 #include <NewPing.h>
 const int ServoPin = 10;
 const int TriggerPin = 6;
 const int EchoPin = 7;
 // 100 = maxDistance
 NewPing sonar (TriggerPin, EchoPin, 100);
 Servo servo;
 void setup() {
 Serial.begin(9600);
 servo.attach(ServoPin);
 }
 void loop() {
 int cm = sonar.ping_cm();

 Serial.println(cm);
 int angle = map(cm, 2, 15, 15, 100);
 servo.write(angle);
 delay(50);
 }
```