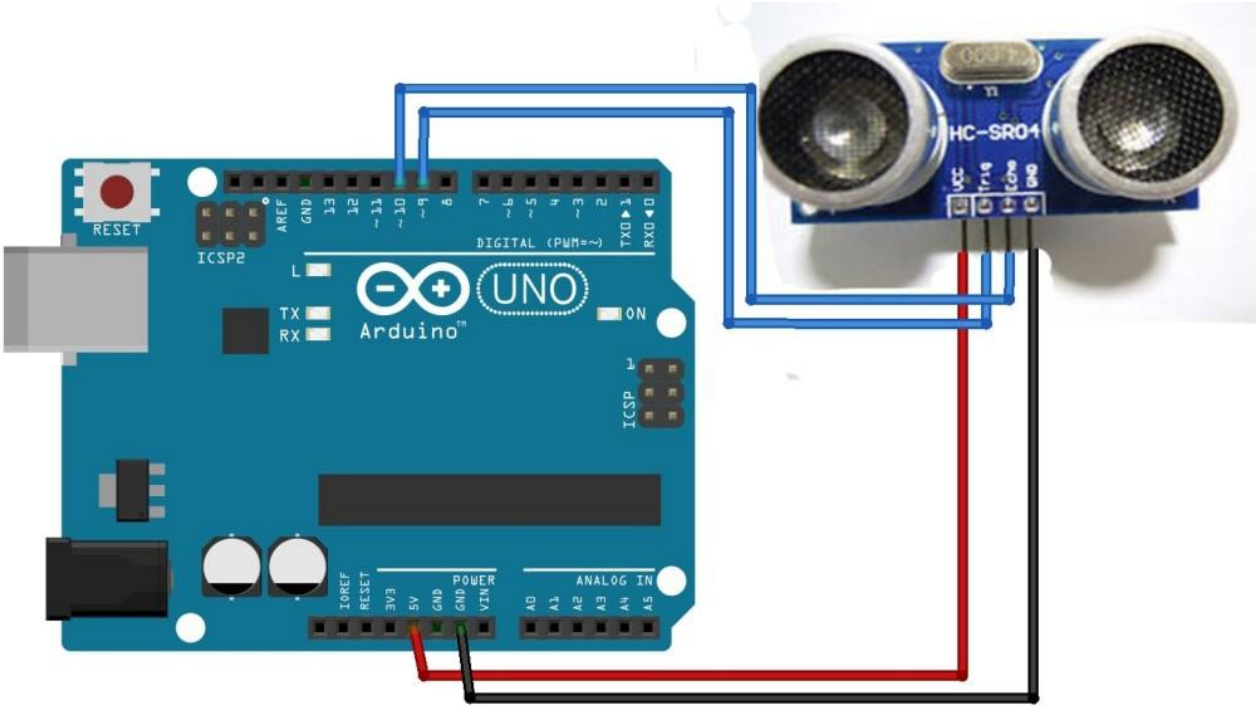
SENSORE AD ULTRASUONI HC-SR04 – ARDUINO

Riferimento:

http://www.giuseppecaccavale.it/arduino/sensore-ad-ultrasuoni-hc-sr04-arduino/



QUI una libreria in grado di migliorare la lettura e la sensibilità di questo sensore:

https://www.dropbox.com/s/s47utngoflgahjn/NewPing.zip?dl=0

Ricordate di copiare la libreria in **\Documents\Arduino\libraries\…**

oppure in

C:\ProgramFiles\Arduino\libraries\…

Posto qui un esempio, i collegamenti sono uguali a quelli dell'esempio con monitor seriale .

```
//HC RS04 Sensore ultrasuoni

#include <NewPing.h>
#define TRIGGER_PIN 9 // Arduino pin tied to trigger pin on the ultrasonic sensor.
#define ECHO_PIN 10 // Arduino pin tied to echo pin on the ultrasonic sensor.
#define MAX_DISTANCE 400 // Maximum distance we want to ping for (in centimeters). Maximum sensor
distance is rated at 400-500cm.

NewPing sonar(TRIGGER_PIN, ECHO_PIN, MAX_DISTANCE);

int SetDistance = 0;
int ValueDist = 0;
```

```
13
14 void setup() {
15  Serial.begin(115200);
16 }
17
18 void loop() {
19  delay(2000); // Wait 50ms between pings (about 20 pings/sec). 29ms should be the shortest delay between pings.
20  unsigned int uS = sonar.ping(); // Send ping, get ping time in microseconds (uS).
21  ValueDist = uS  * 10 / US_ROUNDTRIP_CM;
22
23  Serial.print("Ping: ");
24  Serial.print(ValueDist); // Convert ping time to distance in cm and print result (0 = outside set distance range)
25  Serial.println("cm");
26
27 }
```