Arduino Ultrasonic Sensor

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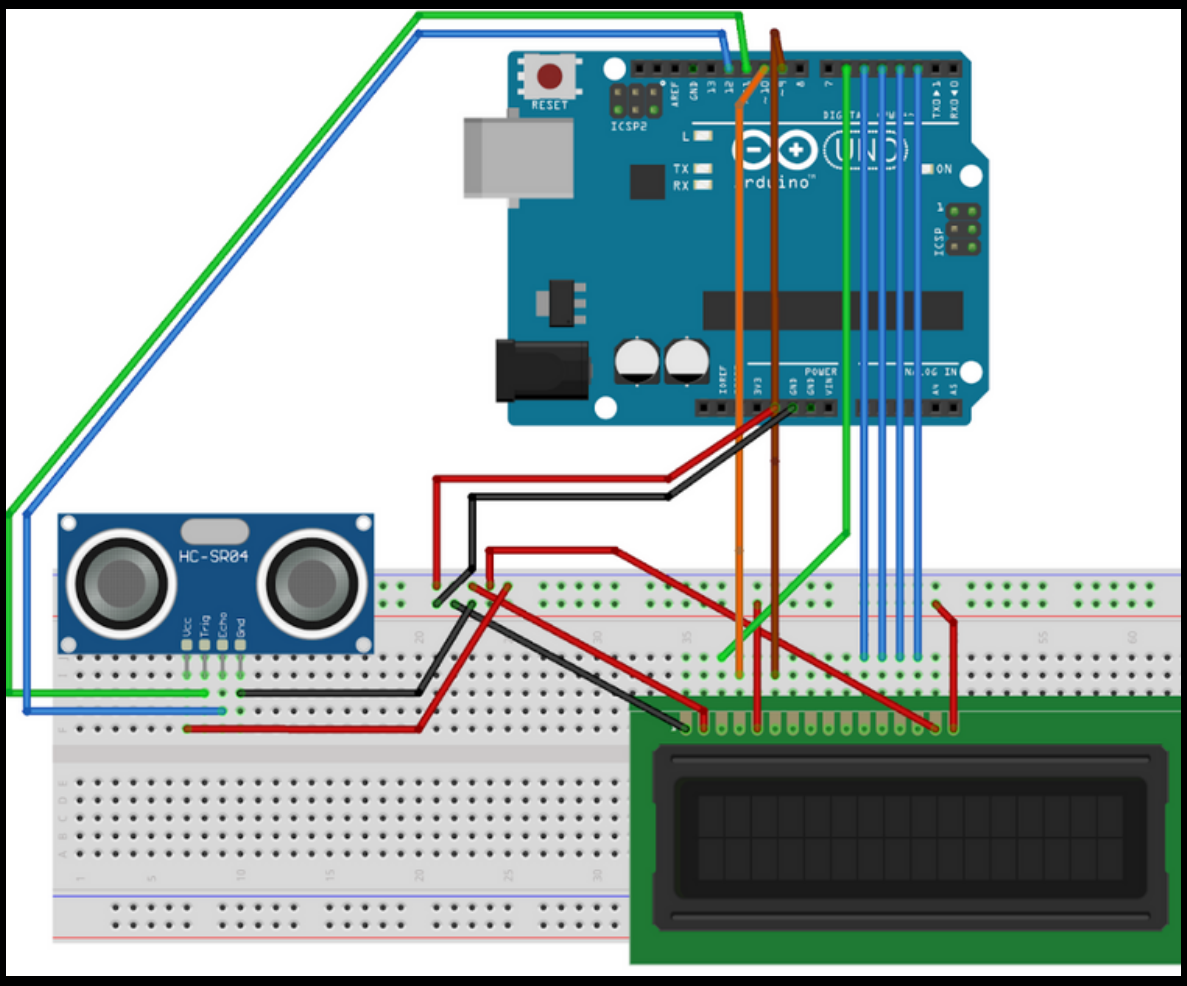
Description:

The Arduino Ultrasonic Sensor Distance Measurement project utilizes an Arduino microcontroller and an ultrasonic sensor to measure distances accurately. The project aims to provide a simple and affordable prototype for distance measurement.

Components:

- Arduino UNO board
- HC-SR04 Ultrasonic sensor
- LCD display module
- Breadboard justPi
- Wires

Diagram:



Code:

```
#include <LiquidCrystal.h>
 LiquidCrystal lcd(10,9,5,4,3,2);
const int trigPin = 11;
const int echoPin = 12;
long duration;
int distance;
void setup() {
  analogWrite(6,100);
  lcd.begin(16,2);
  pinMode(trigPin, OUTPUT); // Sets the trigPin as an Output
pinMode(echoPin, INPUT); // Sets the echoPin as an Input
Serial.begin(9600); // Starts the serial communication
}
void loop() {
long duration, distance;
 digitalWrite(trigPin,HIGH);
 delayMicroseconds(1000);
 digitalWrite(trigPin, LOW);
 duration=pulseIn(echoPin, HIGH);
 distance =(duration/2)/29.1;
 Serial.print(distance);
 Serial.println("CM");
 delay(10);
```

```
Serial.print("Distance: ");
Serial.println(distance);

 lcd.clear();
 lcd.setCursor(0,0);
 lcd.print("Distance = ");
 lcd.setCursor(11,0);
 lcd.print(distance);
 lcd.setCursor(14,0);
 lcd.print("CM");

 delay(500);

}
```