

Ultrasonic Sensor using Arduino

Table of contents

Contents	Page No
1. Components Required	1
2. Requirements	2
a. High level requirements	2
b. Low level requirements	2
3. Block diagram	3
4. Expected output	4

Components Required: The components required for the project are

- I. Arduino Uno - 1
- II. ultrasonic sensor hc-sr04 - 1
- III. Potentiometer - 1
- IV. Fixed Voltage supply 5V - 1
- V. 16 x 2 Lcd screen - 1

Requirements:

a) High level requirements

HLR-1

To measure the distance of the object with ultrasonic sensor

HLR-2

To display the output on the 16 x 2 Lcd display

b) Low Level Requirements

LLR-1

Power supply of 5V DC

LLR-2

Working current of 15mA

LLR-3

Ranging distance from 2cm to 400cm

LLR-4

It has a resolution of 0.3cm

LLR-5

Measuring angle of 30 degree

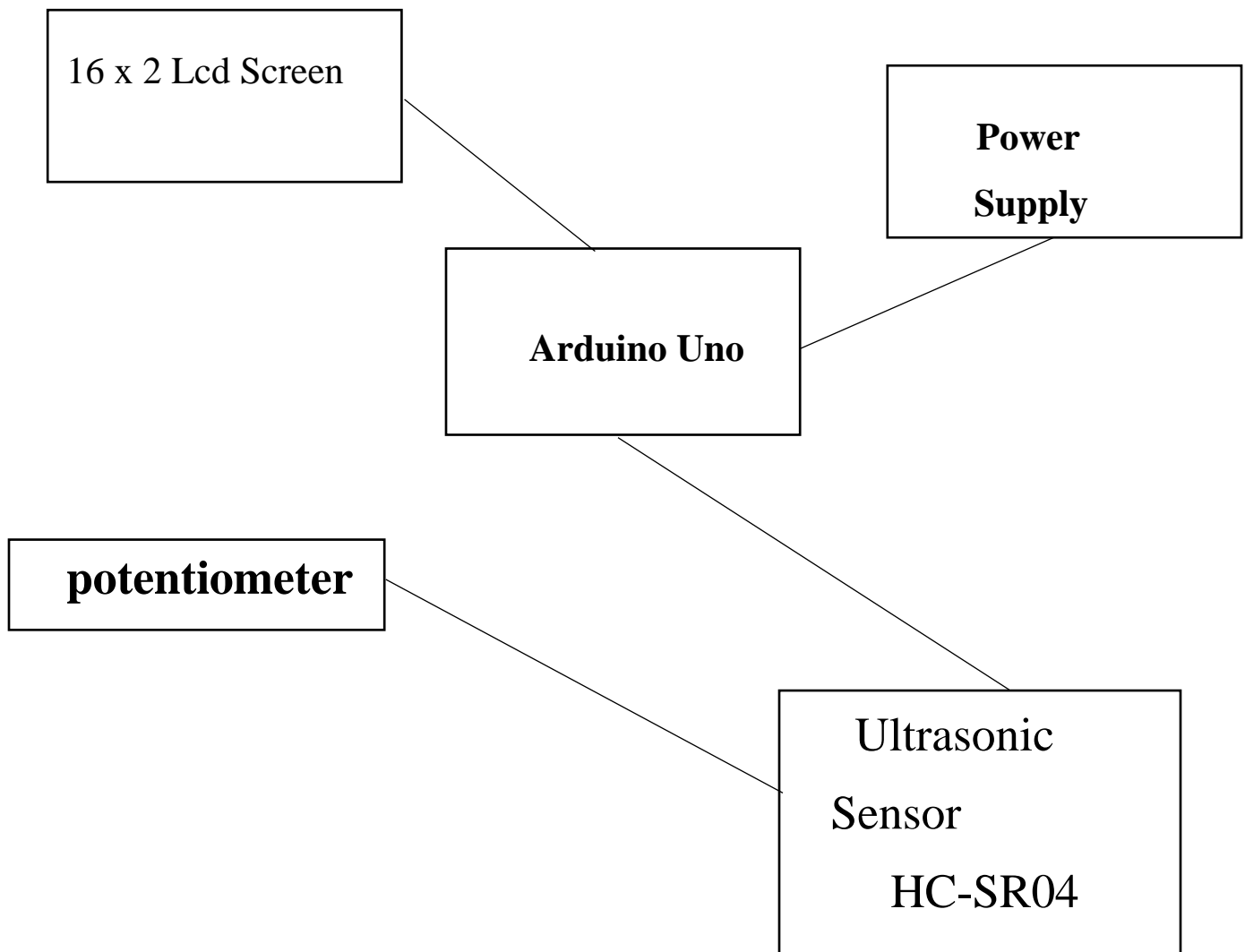
LLR-6

Trigger input pulse of width 10 μ s
TTL Pulse

LLR-7

Echo output signal is TTL pulse
proportional to distance range

Block Diagram:



Expected Output: The expected output from this project is that the distance of an object should be displayed on the Lcd screen