**Arduino Safe Distance Detector**

**Proposal**

What you are going to build:

We are going to build a device with an LCD display and an Ultrasonic sensor on an Arduino Uno microcontroller.

Why is your device useful and what it does:

Our device is a safe distance detector. What it will do is to find out if the object if getting to close to the Ultrasonic sensor and when it reaches a certain point, the piezo speaker will beep and the LCD display will show that you are too close and need to move back, then a red light will turn on. Also, if the object is far from the ultrasonic sensor, then the piezo speaker will give a low sound to show that you are at a safe distance.

**Documentation**

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| **List of Supplies** | |
| Arduino Uno Board | Breadboard |
| LCD Display | Ultrasonic Sensor |
| Piezo Speaker | Resistors |
| Wires | LED |

**Plan for the program**

Our plan for making this device is easy to do. First, you must attach all the required supplies listed above and assemble it together. We use a code online to help us with this assignment while adding our own code to make the assignment more advance and efficient. We will use the LCD display to show the distance between the object and the ultrasonic sensor and piezo speaker to make the project more innovative and enhanced.

**Bibliography**

<http://4tronix.co.uk/arduino/Ultra-Sonic.php>

<http://www.toptechboy.com/arduino/lesson-20-arduino-lcd-project-for-measuring-distance-with-ultrasonic-sensor/>

<http://arduino.cc/en/reference/tone>

<http://arduino.cc/en/Tutorial/Blink?from=Tutorial.BlinkingLED>