Report Title

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# INTRODUCTION

Overall, the program should be designed to calculate measurement of the sound pressure. We should be able to measure the value at five randomly selected locations at certain point. The program should be able to show which location the error in. Also, be able to compare the error of each measurement value to the theoretical value, the program should be able to run the smallest value and biggest value in the plot (x, y), also the mean (average) and standard deviation, and the percentage of percentage of the number of errors that deviates less than one standard deviation from the mean. The sound pressure measure data we measuring in dB level. It was saved in a file named *sound.txt*

# (ALGORITHM)

1-inpute c and r on x/y coordinate

2-read all the value from sound file and show it

Part1:

3-we using for loop to identify random value number

Part2:

4-input d into the into the sound pressure ,while I is the sound intensity

5-compute the distance d=√(x2-x1)²+(y2-y1)² of the point (x,y)

6-compute the intensity 

7-compute the sound pressure that we asking for 

8-go around the loop until he printed all plots (x,y)

Part3:

9-compute the mean and standard deviation

Mean = Sum of each individual/total number of items

Difference = ((Original Value – Mean) ² + (Original Value – Mean) ² +….)/Total number

Standard Deviation = √difference

## PROMPLEM SOLOVING (FLOW CHART)

1

Start(r=1)

Stop(r<=24)

Step(r=1)

Int r

1

A

Start(c=1)

step(c<=8)

Stop(c=1)