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Class: CSE224

Professor: Nicholas Macias

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Project Name: **DOOR ALERT SESTYEM BY ARDUINO** 

### **Project Description:**

My project will use an Arduino and some hardware components. Basically, I am planning to write a code for the Arduino that show an alert message on the screen with a beep sound. I will build a circuit that take output from the Arduino, and it will be hooked to 5V. This project can be used to set an alarm system for a house or store to keep it safe.

### **Challenging Elements:**

I will begin with the challenges I might face. The first challenge will be the time which we all know it is the most important element in any project. As I work a fulltime job, and I attend college fulltime therefore time management will be crucial. My second challenge will be to learn the syntaxes of the Arduino programing to turn on the right pin to work properly. Another challenge that I might face could be building circuits for the hardware part because this still a challenging subject for me.

### **Expected Learning Outcome:**

- 1- Learning syntaxes of Arduino programming tool.
- 2- Building and configuring circuits.
- 3- Writing appropriate codes for the hardware.
- 4- Learning about new components that will be used in the project.

### **Description of Service Component:**

I will use in this project the following components

Resistor 221 ohm	1
Resistor 100 ohm	1
SparkFun Button	1
Standard LCD	1
UIltrasonic Sensor -HC SR04	1
Speaker	1

Rotary potentiometer 1
SparkFun 2 pin screw terminal 1

Arduino board 1

For now, this what I am deciding the component will be used for my device, but it could have other changes for future use.

## **Status of the project:**

I can say that my project status still in the first phase of the process which is the planning phase. This stage basically is the process of putting things together before moving to the next step. I will start purchasing all the components needed for the project, and research more in depth about Arduino, this will help me understand better the construction of Arduino, how it works and what sketches it takes. Overall, there's still many things that need to be done.

### **Specific milestone for mid-term**

I think the first milestone will be analyzing the functionality of the project and what can make this project more successful during each stage.

Reviewing and evaluating the project results and what other impact can this project have in my ending report.

### **Specific milestones for end-of-term**

I will review and test all the possibilities of the project's final stages.

I will write a report that show all the stages of the end-term and what could be the next step for the project.

# Major challenges anticipated and plans for addressing them:

My major challenge will be time, but I will try to use my time wisely by planning and do not procrastinating. This strategy will help me to keep things organized and under control.

### Why did you choose this project?

I chose this project because I found the Arduino and microcontroller chips interesting topic to work with and I would like to learn more about it.

#### What are your specific interests that relate to this project?

My main interest for this project it is the learning experience that I will gain as well as meeting the expectations of the project on the stablished time.

### What do you hope to learn from this project?

I hope to learn new skills that might help me to solve problems on my future career and real-world projects.

What benefit do you think this project will have to you and your education?

I believe it will have an important impact on my future career and classes.