Software Requirements Specification for SE 4G06, TRON 4TB6: subtitle describing software

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Revision History

Date	Version	Notes
Date 1	1.0	Notes
Date 2	1.1	Notes

1 Project Drivers

1.1 The Purpose of the Project

1.2 The Stakeholders

1.2.1 The Client

1.2.2 The Customers

1.2.3 Other Stakeholders

1.3 Constraints

1.3.1 Solution Constraints

1.3.2 Implementation Environment of the Current System

1.3.3 Partner or Collaborative Applications

1.3.4 Anticipated Workplace Environment

1.3.5 Schedule Constraints

1.3.6 Budget Constraints

1.3.7 Enterprise Constraints

1.4 Naming Conventions and Terminology

1.4.1 Definitions of All Terms, Including Acronyms, Used by Stakeholders Involved in the Project

1.4.2 Relevant Facts and Assumptions

1.4.3 Relevant Facts

1.4.4 Assumptions

2 Functional Requirements

Definitions of All Terms, Including Acronyms, Used by Stakeholders Involved in the Project.
Definitions of All Terms, Including Acronyms, Used by Stakeholders Involved in the Project

Requirement No	FR-001
Description	The device is able to pick up sounds in the environment of the user.
Fit Criterion	The data received by the device shall match the sounds supplied to the device's surroundings.
Dependencies	N/A

Requirement No	FR-002
Description	The device has to be able to classify different sounds.
Fit Criterion	Will compare test sounds and the device classifications shall match the true classification of the sounds.
Dependencies	FR-001, FR-003

Definitions of All Terms, Including Acronyms, Used by Stakeholders Involved in the Project. Definitions of All Terms, Including Acronyms, Used by Stakeholders Involved in the Project in

2.1 The Scope of the work and the Product

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Requirement No	FR-003
Description	The device has to be able to set or change its classification.
Fit Criterion	The sound classifications shall match the sent classifications.
Dependencies	N/A

Requirement No	FR-004
Description	The device is able to provide feedback to the user.
Fit Criterion	The feedback should alert the user that the device is trying to communicate some information.
Dependencies	N/A

Requirement No	FR-005
Description	The feedback provided is the appropriate feedback.
Fit Criterion	The feedback shall convey what signal classification was detected.
Dependencies	FR-002, FR-004

3.4.2 Supportability Requirements

3.4.3 Adaptability Requirements

3.5 Security Requirements

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3.5.1 Access Requirements

3.5.2 Integrity Requirements

3.5.3 Privacy Requirements

3.5.4 Audit Requirements

3.5.5 Immunity Requirements

3.6 Cultural Requirements

3.6.1 Cultural Requirements

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3.7 Legal Requirements

3.7.1 Legal Compliance Requirements

3.7.2 Standards Compliance Requirements

3.8 Health and Safety Requirements

4 Monitor and Control variables - Taranjit

5 Traceability Everyone at end, needs 2 and 3 done first

5.1 Traceability Matrix

6 Project Issues Taranjit Jordan

6.1 Requirements Likely/Unlikely to Change

6.2 Off-the-Shelf Solutions

6.3 Tasks

6.3.1 Project Planning

6.3.2 Planning of the Development Phases

6.4 Costs

Highlighted below are the cost estimates for the project's physical system. Avoidable costs are the enviromental set up and software, this is due to universal resource availability.

Project Cost	
Description	Cost
FLORA Arduino Microcontroller	14.95
SparkFun Analog MEMS Microphone	6.95
Tatoko DC Motor	25.04
PCB Board	40.45
Silicone Watch Strap	15.50
5V Battery	20.20
Memory Card Reader	6.94

Table 1: Project Cost

6.5 User Documentation and Training

Documentation of the features and user application of the product will be provided in written and video format enbled with a unique QR code, which will be provided in packaging of the product. Required training of the product will be needed to record intial sound detection. This is provided in the same user documentation used in the setup stages.

6.6 Risks

- Inaccurate sound detection - retrain that particular sound to increase accuracy of product
- Wrong vibration pulse - reselect how many pulses required for particular sound
- Incorrect application signals - reboot device and user application to resync user settings

6.7 Future Developments

References

Reflection Appendix

Please include an Appendix in your SRS documents that reflects on the graduate attribute of lifelong learning. The reflection should answer two questions:
What knowledge and skills will the team collectively need to acquire to successfully complete this capstone project? Examples of possible knowledge to acquire include domain-specific knowledge from the domain of your application, software engineering knowledge, mechatronics knowledge or computer science knowledge. Skills may be related to technology, writing, presentation, team management, etc. You should look to identify at least one item for each team member.
For each of the knowledge areas and skills identified in the previous question, what are at least two approaches to acquiring the knowledge or mastering the skill? From the identified approaches, which will each team member pursue, and why did they make this choice?
The Appendix does not need to be long. One or two pages should be adequate.