BatSignal:
System Design Document

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1 Introduction

1.1 Purpose and Scope

This document describes the hardware and software components of the BatSignal distributed sensor network. This document is intended for use by developers implementing BatSignal.

1.2 Project Executive Summary

BatSignal is a distributed sensor network designed to collect audio and analyze the captures for ques indicating distress or emergency, and to alert staff of such situations. The system is designed to be physically scaled according to the needs of the location of installation.

1.2.1 System Overview

1.2.2 Design Constraints

1.2.3 Future Contingencies

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2 System Architecture

2.1 System Hardware Architecture

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2.3 Internal Communications Architecture

3 Human-Machine Interface

3.1 Inputs

3.2 Outputs

4 Detailed Design

4.1 Hardware Detailed Design

4.2 Software Detailed Design

A Appendix