CU RoboSub team

CU Robosub team

(date of release)

Hydrophone board

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# Index

[**Abstract**](#_ib4r1vu7ocoo) **3**

[**Design Requirements**](#_n97nmv71p9aj) **3**

[**Design Overview**](#_3nlzg6d8ulig) **3**

[Previous designs](#_9yg0riapmfl5) 3

[**System Implementations**](#_uyd2mzm3tg96) **4**

[Power System](#_spppur78jxrd) 4

[Active Filter](#_wnzyi0fs0d1p) 4

[Amplification stage](#_oglobrn97qh) 4

[ADC Sampling](#_2fz07jv5sv4d) 4

[**System status**](#_xdg1n2vr4qb) **4**

[**Known Issues**](#_32passmcg5ht) **4**

[**Appendix**](#_1irz63c2lc3u) **4**

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# Abstract

This document will describe the standard documentation elements for the electrical design team. It is broken up into multiple sections that can be used or not used as is need. There will be release versions of this document as well as a “live” version. Release versions will be prefixed with the date of release (ie 2018-3-6-design-document-Format.pdf) and will be exported as PDF files. By keeping a live and release versions available members will continually be able to change, append, and add sections as is needed. Release versions will be tied to a particular version of the board that is manufactured.

# Design Requirements

In this section the requirements for each board will be described. This can be done with:

* Bullet points
* That describe each requirements

|  |  |
| --- | --- |
| Description | Specifications |
| Or with a table | That can go into much greater detail about individual needs for each requirement |
|  |  |

# Design Overview

This section will give the overall description of how all the different systems on the board work together. Not going into great detail on each individual section but any seasoned electrical engineer should be able to understand the entire system from this section alone.

## Previous designs

This section will give a high level description of previous designs and what was changed with this version. For new boards this is not necessary but for any revisions it will be required to look at previously released documentation and provide a description of which (if any) systems have been changed. If no systems have been changed describe why the board is being re-made.

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# System Implementations

These sections will be made up of the technical information about each sub system. They should be sufficiently descriptive for a novice electrical engineering to be able to reference the information provided to learn how the systems work. This is the Section where you find the most errors in your work because as you try to justify your design decisions you may realise that you have made some incorrect assumptions. It will also give the team lead who will review this the opportunity to check on your thought process and make sure you are making the right design choices

## Power System

Basic LDO stage for getting needed power rails for adc, and filter stage

## Active Filter

Since the

## Amplification stage

Information about that

## ADC Sampling

Information about the Maxim board

# System status

This section is dedicated to describing the status of the system. What version is it on where is it in the production schedule.

# Known Issues

The board did not sample properly due to an issue with grounding of the negative line of the

# Appendix

This is where you will store all of your information on which parts were used and links to their data sheets. Also links to where the Altium files can be found (they should be within the folder this document is stored in) and any citations to resources you found useful in the design process for this part.