MERMAID BUOY

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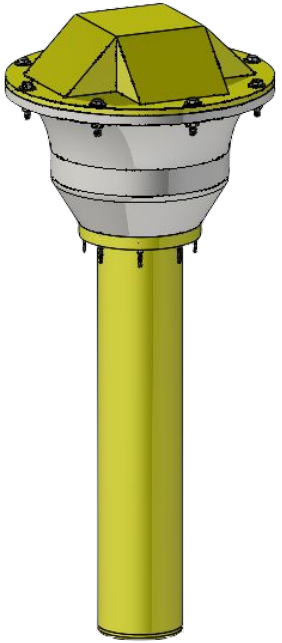
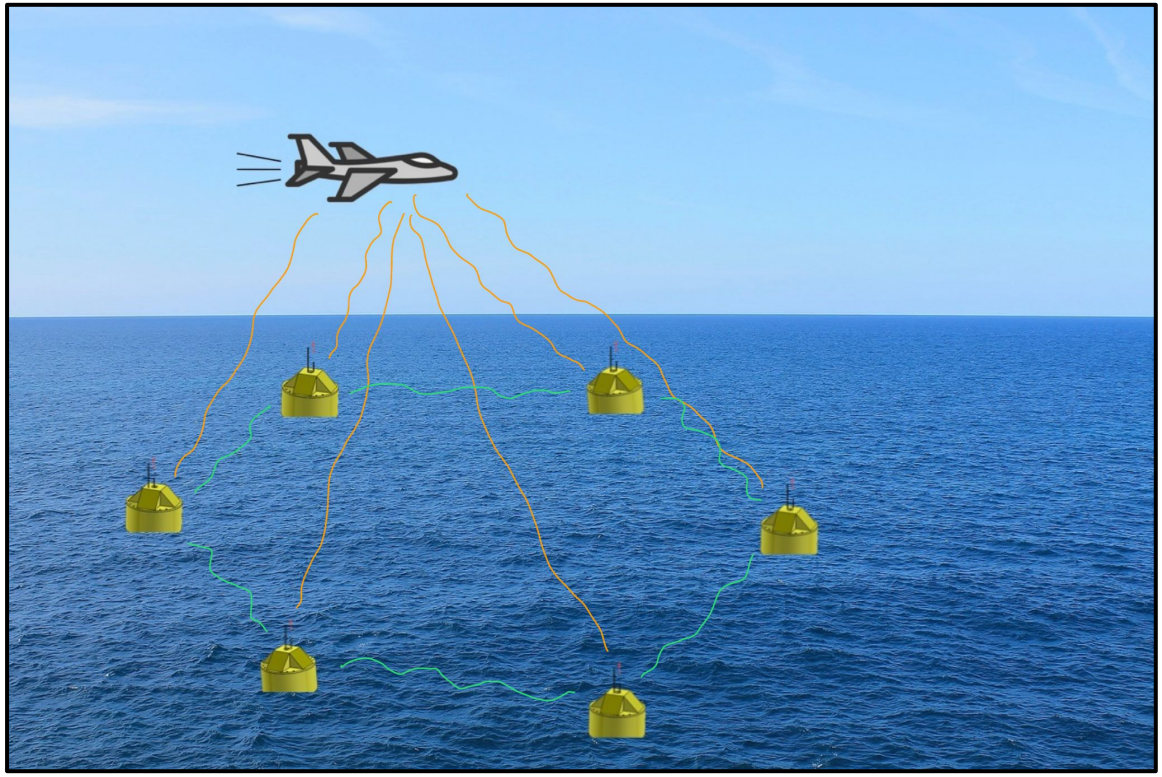


Project Abstract:

This project encapsulates the research and developments of the Maritime Environmental Research and Monitoring for Advanced Infrasound Detection (MERMAID) Buzz Buoy, a collaborative initiative between the University of San Diego Senior Design Project Capstone team and the Georgia Tech Research Institute (GTRI). The MERMAID Buzz Buoy project focuses on developing a robust maritime buoy platform for deploying a custom infrasound sensing system in challenging ocean environments.The Buzz Buoy must not only survive hostile conditions, but also provide essential power, communications, and processing capabilities. This project contributes significantly to enhancing maritime surveillance capabilities.

Use-Case Environment



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Buoy Shell Components

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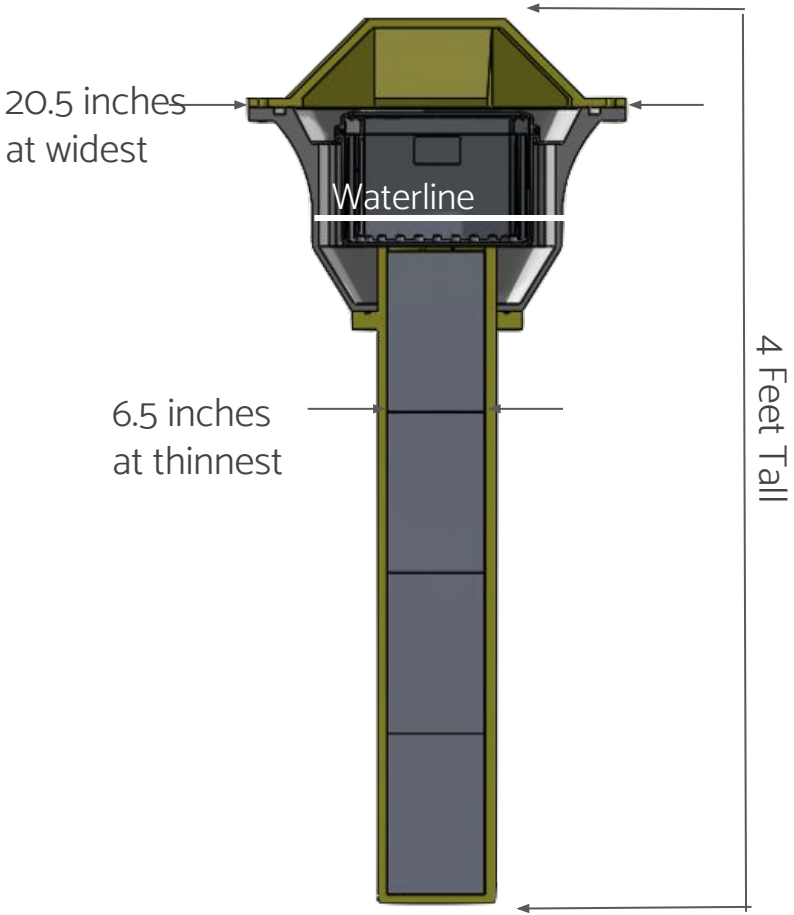
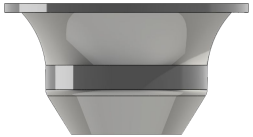
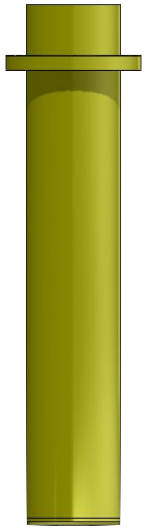


BUOY HAT

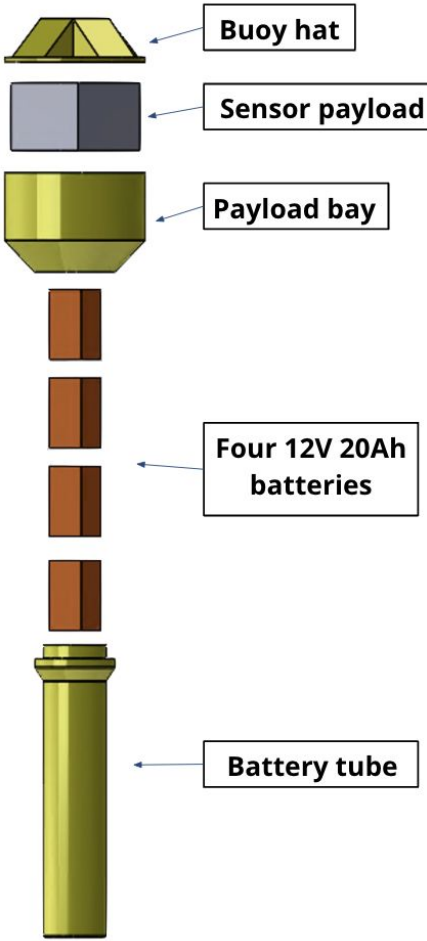


PAYLOAD BAY

BATTERY TUBE



Buoy Internal Components



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Military Grade Radio

Constant communication ashore

Advanced Infrasound Payload

Designed by GTRI to detect surface and aviation targets

4 x 20 Ah BATTERIES

Can power payload for over 24 hours

Test Plan

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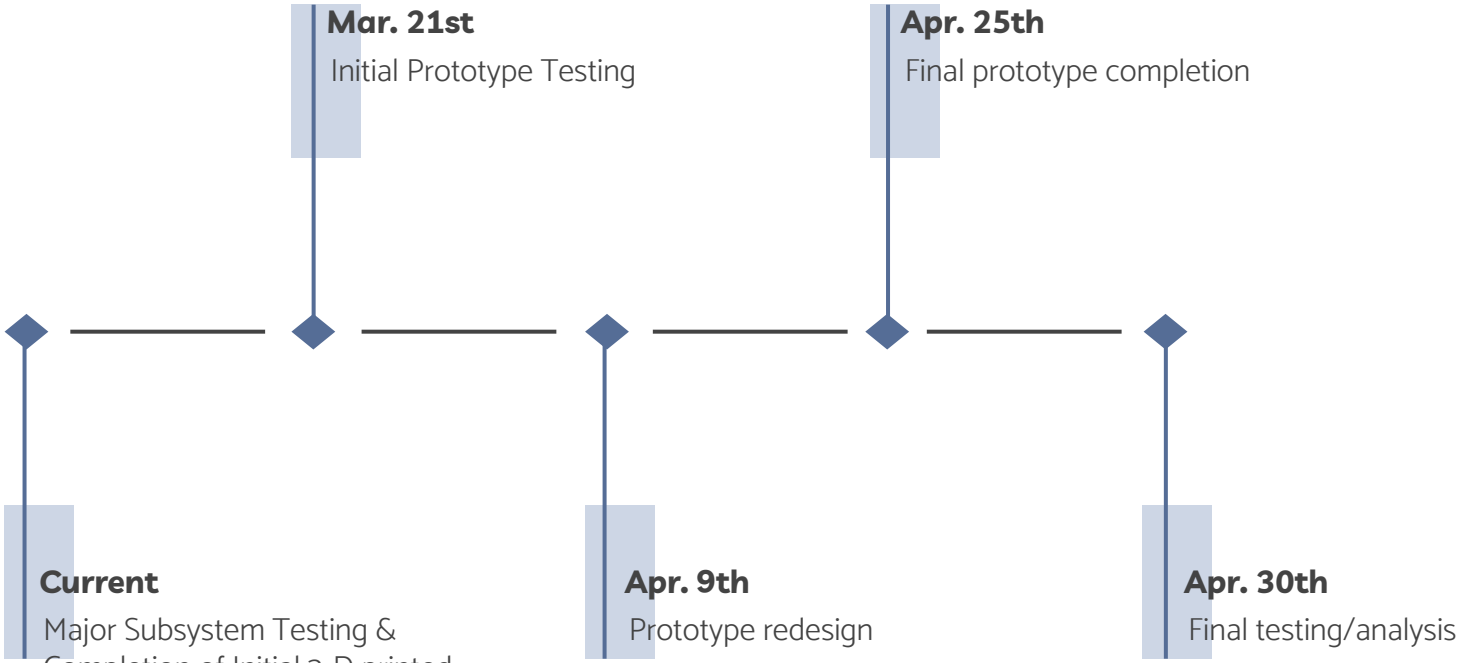
TIMELINE



Acknowledgements

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