

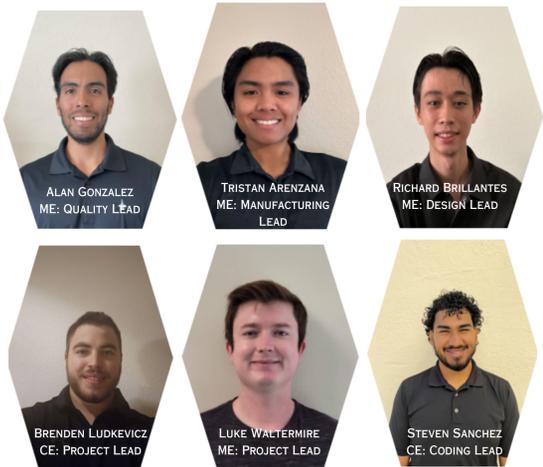
PROJECT OVERVIEW

The completion of this AUV (Autonomous Underwater Vehicle) will allow for underwater research using long distance acoustic methods.

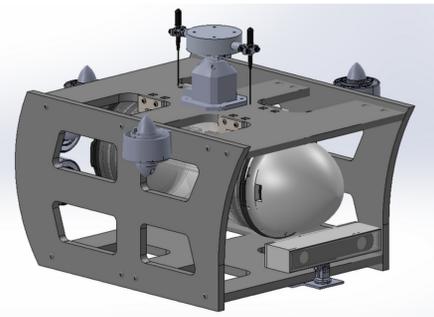
Requirements:

- AUV must have the ability to maneuver in 3D underwater space
- AUV must be autonomous and be able to move on a predefined path using integrated sensors.
- The AUV must have a rotating hydrophone array capable of acoustic research.

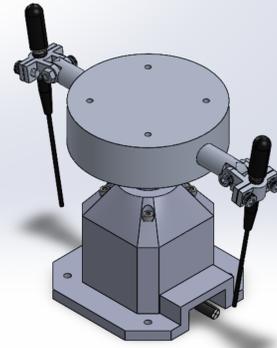
MEET THE TEAM: AUV PATHFINDERS



CAD MODELS

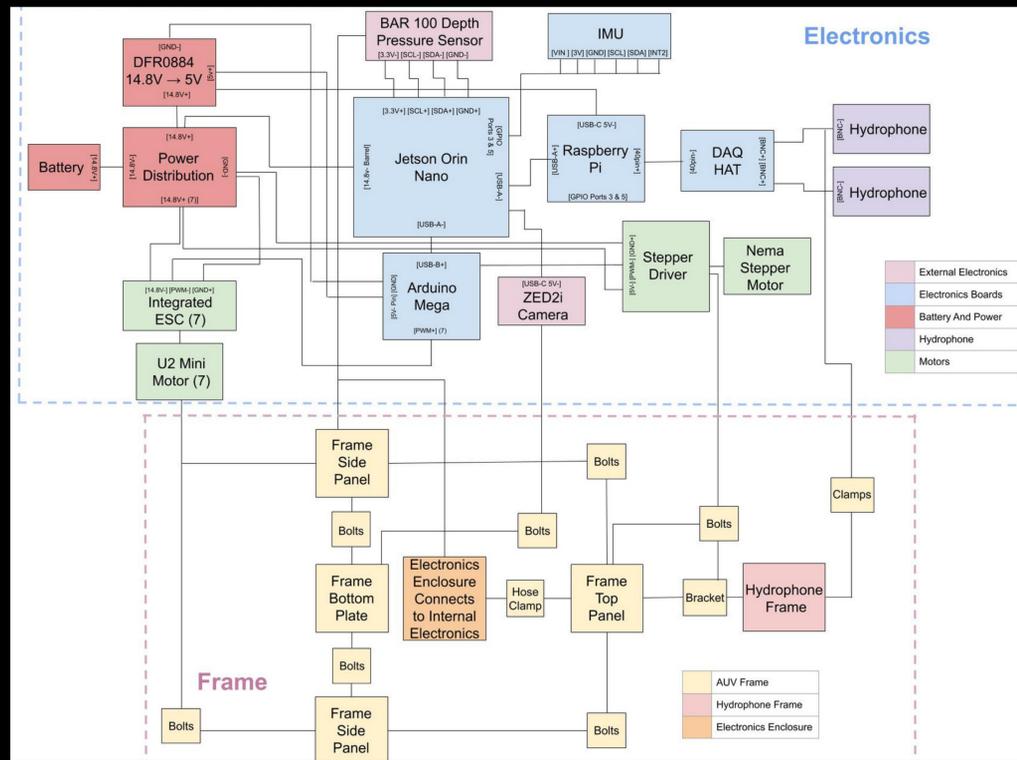


FULL AUV ASSEMBLY

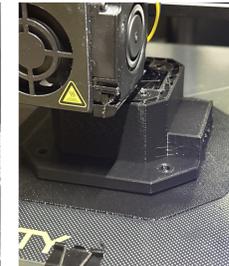
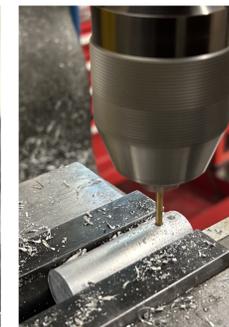
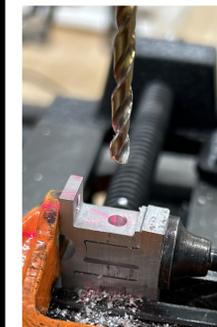


ROTATING HYDROPHONE FRAME

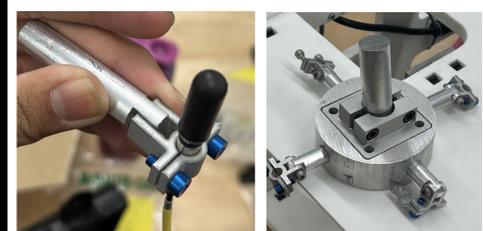
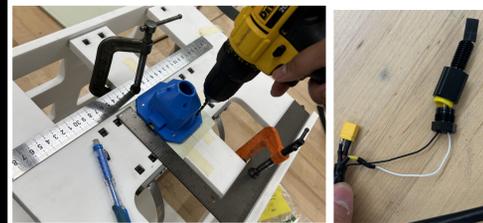
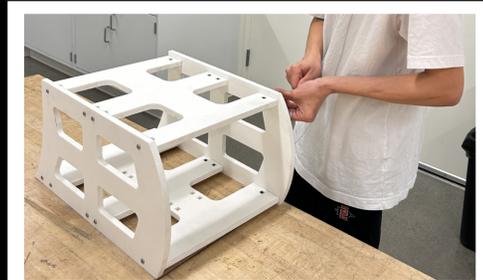
SYSTEM LEVEL DIAGRAM



MANUFACTURING

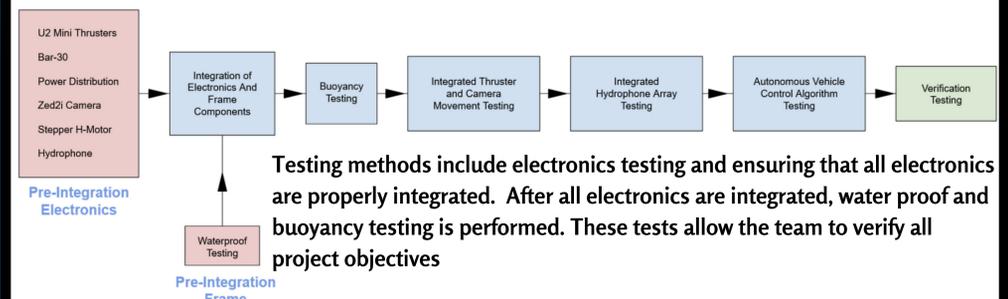


ASSEMBLY



TEST METHODS

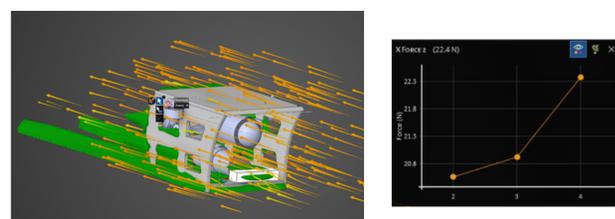
AUV Pre-Verification Test Plan



ACKNOWLEDGEMENTS

Team AUV Pathfinders would like to thank Dr. Scott Shaffar and Professor Barry Dorr for advising us through this senior design project. We would also like to thank our sponsor, Dr. Zahra Nili Ahmadabadi for funding and providing guidance for our project.

ANALYSIS



Condition Created To analyze drag on the faces of the full AUV Frame Assembly.

- 0.5 m/s = 20.4 N
- 1 m/s = 20.9 N
- 2 m/s = 22.4 N