

AUV Meeting Minutes

October 11, 2023

- ❖ MAE 434W team discussed their design ideas.
- ❖ We began waterproof testing and buoyancy testing in the lab.
 - We submerged AUV into a large bucket of water and we found out that 5 lb of lead shot was enough to overcome the buoyancy force and make AUV sink to the bottom. We still need to determine how much lead shot weight to remove to get the perfect neutral weight so the AUV neither sinks nor rises.
 - Before we could conduct any more testing, we noticed that the water soaked AUV material appeared to be soft, almost spongy, and was even shedding bits of material.
 - We spent the rest of the meeting discussing ideas to fixing this problem: our main idea was to coat the AUV with a waterproof sealant.
- ❖ Some team members were able to speak more to Dr. Kaipa:
 - Dr. Kaipa gave us permission to coat AUV with sealant.
 - He also gave us permission to place silicone caulking on the motor mounts (to prevent water penetration) but we should focus on the O-ring section before working on the motor mounts.
 - He also wants us to try using a balloon latex material as gasket addition to the O-ring.
- ❖ Will did more work on the Raspberry Pi: he installed an OS to the Raspberry Pi and got the motors to run with it.