

Denis Klimov Sorted By Project

300083 - DMO Support - LRAUV

- Some work on the LRAUV battery pack 'sticks' replacement; updating serial numbers without opening repaired packs (Week 30)

800139 - EyeRIS (Remote Imaging System)

- Initial discussions of plans for a year (Week 2)
- Reviewing battery pack redesign requirements (Week 30)
- Revising battery pack design for EyeRIS using newly compiled Battery System Design Check-List (Week 35)

901809 - Deep Sea Bioinspiration

- Discussions of potential concept design reviews for multi-camera system (Week 2)

901903 - BioRAMAN

902004 - Planktivore

- We are ramping up work on this, resuming lab testing, and starting outfitting a Flume set up in the Rock Lab (Week 2)
- Material for Aquavore tank/ aquarium is ordered and picked up from Professional Plastics, assembly is done by Gary's Plastic Place in Santa Cruz since gluing acrylic with good quality requires skill and very specific techniques. (Week 7)
- Also, order for rails/ fasteners from McMaster is received (Week 7)
- Core of the lab test setup (Aquavore) is ready, next - doing some improvements and setting up the experiment. (Week 9)
- The hardware for mounting strobe boards is ordered, this week we are attempting to assemble the board stack and do the test fit on the frame assembly (Week 11)
- We had to do couple of adjustments on the strobe assembly design, due to issues of tolerances stack. Latest testing indicated they fit satisfactory now, but better fit would require drastic redesign/ reprint of 2 parts. This temporary modification of parts on the mill would have to do for upcoming deployment (Week 15)
- We have upcoming deployment approaching quickly. Of a recent development, designed a vacuum viewport extractor which greatly simplified removal of viewports, to the point that now insertion is a bigger effort. (Week 18)
- Also, worked on various issues of mounting and clearances on a strobe assembly, as well as cables and routing (Week 18)
- Also, designed an assembly jig allowing handling Planktivore housings during assembly (Week 18)
- Organizing parts and fastener, and updating assembly jig with 100% fill bases (Week 25)
- We are looking at building a mobile setup for Aquavore. (Week 37)
- We have a conceptual design of key components for Aquavore / Fluume adaptation: (1) Aquarium designed to transit water flow from round water pipe to rectangular optical section, allowing access to the flow structure from the water free surface; (2) Wide version of Aquavore Base supporting the aquarium; (3) Lifting assembly holding the Aquavore Base and Aquarium, allowing vertical adjustment under load. (Week 46)
- Currently, finalizing parts, detailing drawings, and placing orders (Week 46)
- We have parts started coming together for the Fluume assembly integration. Couple of important pieces are still being made: Aquarium assembly (by Gary Plastics Place) and Mounting Plate (need functional water jet for

this one). We can, however, start on the assembly with what we have, assemble lifters, access integrity, replace casters, add crossbarace and modify assembly as needed while waiting for parts. (Week 51)

902101 - LRAUV Technology Development and Fleet Operations

- Degaussing two primary battery packs for upcoming LRAUV deployment (Week 18)
- Removing LRAUV project related parts from building G. (Week 37)

Out of Office

Overhead

- BEDS: data from 3 experiments are provided to Mike McCann and Roberto for decoding and visualizing (Week 2)
- BEDS: searching for the new place to park BEDS mobile station test setup. (Week 7)
- Prepping deployment of IFCB on Power Buoy is starting to ramp up. We are identifying what the differences are from previous deployment, and what improvements to be implemented, and a schedule. (Week 9)
- For Power Buoy - IFCB integration, looking into mobile setup for IFCB testing in building D, due to space constraints around Power Buoy location (Week 11)
- We are ramping up for IFCB deployment. This year configuration includes improved biofouling protection, Zinc anode, and replaced intake tube from copper to PTFE due to corrosion issues during 2021 deployment. (Week 15)
- Power Buoy was recovered for maintenance, this means we have the opportunity to inspect IFCB condition mid-deployment. IFCB was removed, disassembled, and powered up on a test stand. We are evaluating the condition of remote intake assembly and looking if biofouling protection is adequate or could use an improvement. (Week 25)
- As Power Buoy deployment is approaching, work on IFCB and battery pack replacement will need to be ramped up in about a week. Batteries for a Power Buoy battery pack are equalized, and would be retested in several days, to check for any weak or abnormal unit, then replacement as necessary, mounting control boards, and assembling a pack once the battery box is ready. (Week 30)
- This week we have a deployment of IFCB on Power Buoy; at this time more or less routine deployment still requires careful prepping of IFCB to ensure good optical calibration and quality images. (Week 35)
- IFCB on Power Buoy is deployed! (Week 37)