

Alana Sherman Sorted By Project

300080 - DMO Support-Mini ROV

- finished OS talk which Brett kindly presented for me. (Week 8)
- Ordering components for new belly pack (Week 25)
- Ordered parts to supply power to new wireless bellypack. (Week 26)
- Helped demob Fulmar after multi-week deployments (Week 46)
- REfamiliarizing myself with the system. Helped rewire some of the van. Trying to learn the software and video systems. (Week 47)
- Ordering parts for spare GFI box. (Week 48)
- Brought up back up computers for the MiniROV. Loading all the LabView code and testing with spare Wago stack. (Week 50)
- Got two NUCs running and updated with all the software. Bringing up the next Nuc for the MiniROV. Working through some LabView debugging. Getting set up with a workable system to test at home. (Week 51)

800139 - EyeRIS

- Reviewed Paul's slides for upcoming concept design review (Week 14)
- Attended design review for strobe lights last week (Week 15)
- Watched Paul's lens controller demo (Week 20)
- Weekly meeting (Week 23)
- Talked over plans for the next design review with Paul (Week 39)
- Reviewed slides for review. (Week 40)
- Attended and took notes for Paul's design review this week. (Week 41)

901618 - Pelagic-Benthic Coupling

- Zoom meeting to review projects (Week 19)
- Meeting with Yui regarding putting a CO2 sensor on the Rover (Week 20)
- Weekly meeting (Week 20)
- Internal draft proposal review (Week 21)
- Weekly meeting (Week 21)
- Weekly meeting (Week 23)
- Reviewed proposal draft and battery spreadsheet for October's cruise (Week 26)
- Tested son-of-snappy, Rich updated the software. Still have a list of things to test with actual hardware but only discovered one issue with reading the battery voltage. (Week 26)
- Helped team with deployments on Tuesday (Week 34)
 - Was trained on telepresence Monday, and controlling the SES (Week 34)
 - Was shore contact and pinch-hit for Rich who was at sea with no microwave. We were able to communicate to the SES through the MARS node. (Week 34)
- Trained with Rich on how to set up the larval pump and how to test the SES for next week's ROV dives. (Week 39)
- Set up software for larval pump before Mondays deployment (Week 40)
- Talked to the SES from shore and ran missions to test the instrument after we cleared the clogged funnel. (Week 40)
- Tested our newest version of Snappy, our camera controller, and found some software issues. (Week 40)
- Packed for Flyer cruise (Week 44)
- Loaded Flyer (Week 44)

- Updated procedures for instrument turn around (Week 44)
- Helped demob Flyer after Sta. M cruise (Week 46)
- Provided shore support as needed (not much this time) (Week 46)
- Processed Rover SCOC for the previous year Oct 2019-Oct 2020. (Week 50)
- Purchasing components for Smith Macro camera (Week 51)

901809 - Deep Sea Bioinspiration

- Order parts for tilt motor (Week 6)
- Testing extended ODI pair (Week 6)
- Replacing water damaged labjack in DeepPIV v 4. (Week 11)
- Cleaning up DeepPIV v4 software (Week 11)
- Revisiting the labview gui I started for the sony block camera. Working on adding focus control. (Week 12)
- Got iris working on my GUI for the sony block camera (Week 13)
- Starting to work on logging data from the camera (Week 13)
- Continuing working on my labview gui to interface with the Sony camera for DPIV 3 and 4. In the past week I have manual focus and iris control working and began working on querying the camera for zoom/focus position information. (Week 14)
- Continuing my work on the sony camera labview gui, this week I was able to get gain, shutter, and reading the exposure settings working. Next I have to integrate logging into the system and setting a specific focus position. Progress! (Week 15)
- Spent a lot of time trying to add what I thought would be a simple feature to display the zoom ratio of the sony camera. I have that working now. (Week 16)
- Working on initial settings for the camera on start up, and disabling features when in auto vs. manual conditions. (Week 16)
- Working on adding focus speed control and an indicator, also need to integrate logging. (Week 16)
- Got Sony labview GUI working with LV 2018 then merged with the DeepPIV GUI. Now working through all the bugs left over. (Week 17)
 - Have to add features to gray-out buttons that are not active (Week 17)
 - Still need to do work on focus (Week 17)
- Hoping to merge the logging code this week as well (Week 17)
- Continued work on GUI, working on logging of camera data. Debugged some issue with reading the iris values and with focus commands. Getting there but lots of time spent on administrative tasks. (Week 18)
- Zoom meeting update, demo'd new GUI (Week 19)
- Working on gui: (Week 19)
 - Logging almost all complete (Week 19)
 - Working on changing focus control (Week 19)
 - Still debugging a read error (Week 19)
- Weekly meeting (Week 20)
- Looked into motor control options (Week 20)
- DeepPIV 4 GUI: (Week 20)
 - Added focus slider control for better step resolution (Week 20)
 - Improved reading of camera parameters (Week 20)
 - Working on setting initial conditions and control values after transitions between modes (ie. auto to manual transitions) (Week 20)
- Weekly meeting (Week 21)
- GUI work: cleaned up some of the reading of camera data, trying to track down new bug I created. Finally got it all loaded on bit bucket. Adding ability to control elmo motor controller. (Week 21)
- Fixed bug with manual focus setting in GUI (Week 23)
- Integrated dye injector but need motor to test (Week 23)
- (Week 23)
- Tested DPIV4 with both old and new software versions, I have a couple bugs to fix on both (Week 25)

- Fixed a couple bugs in the laser control software in both the old and new versions of the code. (Week 26)
- Worked on proposal (Week 29)
- Pulled all the pieces together to set up ROV-emulating interface can to test DPIV4 and DPIV3 (Week 30)
- Began documenting interface can (Week 30)
- Got software for DPIV4 working on two laptops (Week 30)
- Cruise prep and some demob for cancelled Flyer cruise (Week 33)
- Fixed several issues with the Coherent GUI (Week 34)
 - Focus slider reset (Week 34)
 - Added zoom reset button (Week 34)
 - Fixed bug with lens parameters reporting (Week 34)
- Fixed a couple bugs in the code (Week 35)
- Revisited code for DeepPIV4 fixed the following: (Week 37)
 - Update rate of camera data (Week 37)
 - Changed zoom speed and added zoom reset (Week 37)
 - Tried to fix initialize issue with labjack (Week 37)
 - Debugged issue with Iris (Week 37)
- Updated all the software and fixed the last couple bugs (for now) for DeepPIV4 (Week 38)
- Debugged a problem with our new laptops and DeepPIV3, turned out to be a driver issue with a serial server. There is still one mystery left which seems to be a network issue to resolve. (Week 38)
- Looking into a motor controller for a new dye injector. (Week 38)
- The dye injector continues to be a problem were spin around but dont land somewhere. We have two ideas and will see what works. (Week 41)
- Still working on motor spec for pump (Week 44)

901904.99 - Coral Camera System

- Tested extended ODI cable, and works well. Now being potted (Week 7)
- Tested the rewired tilt motor on the bench and through the camera electronics and that is working reliably (Week 7)
- Still need to test new cable for tilt motor and waiting for final decision on f-stop, then all housings will be closed up (Week 7)
- putting pieces together for tank testing, did calculations for various file size, memory cards, and deployment length options. (Week 8)
- Finished tank tests of the system (Week 10)
- Packed for cruise to Sur Ridge (Week 10)
- Loaded ship and prepped Camera for deployment (Week 10)
- Going to sea Friday to plug it in and set up for 9 month run (Week 10)
- Deployed Coral Cam last Friday for a 9-month deployment, after a couple hiccups it all seemed to work great. (Week 11)
- Moving on to planning a macro scale camera for close up imaging of coral. (Week 11)
- Started to put together a doc to capture requirements of a macro scale coral cam, this initial document is more a list of questions that need to be answered to guide the requirements. (Week 13)
- Put together a document to start formulating the requirements for the macro coral camera (Week 14)
- Zoom meeting to discuss project (Week 16)
- Starting to discuss the macro camera system requirements and learning about the challenges facing us. (Week 17)
- Group discussion of macro camera needs over email (Week 19)
- Started looking into what cameras are out there that might work for the macro and are smaller than what we have. (Week 21)
- Looking into available options (Week 23)
- Collected components for camera comparison testing (Week 25)
- Calculated energy budget and battery pack size for macro camera (Week 25)

- Collected pieces to do comparative camera tests between the sony a7s and a7r. Took a while to find the right connectors, software, etc. but have everything ready for my next visit to the lab. (Week 26)
- Continued testing sony cameras in lab, hopefully got as far as necessary (Week 29)
- Determined storage capabilities for the year long deployment of a7RIII (Week 33)
- Looked into compression options (Week 33)
- Looking into communications options through ROV that are smaller than having an ODI connector. (Week 33)
- Beginning to work on system block diagram (Week 33)
- Working on system block diagram (Week 35)
- Held a concept design review (Week 36)
- Worked on system block diagram and sorted out some details on remote communications (Week 36)
- Looking into alternate lighting options (Week 36)
- Reviewed comments from design review (Week 37)
- Investigating strobe options (Week 37)
- Working on system schematics (Week 37)
- Working on the schematics for the system (Week 38)
- Ordered all the interface cables for the sony to bench test with Snappy (Week 38)
- Working on specifying new battery pack, which has led me to realize that my new strobe/lighting plan is not quite as plug-and-play as I hoped. Trying to work through these details. (Week 39)
- Started testing out remote shutter triggering (hardware not software) for the sony a7r3. After a little fiddling this is working and works when the Sony control software is running. Then discovered a few gotchas using the dummy battery to power the camera. (Week 39)
- Had great success and great trouble testing the sony a7r4 with Snappy. Turns out their “smart batteries” are too smart for our design. Trying to figure out my options for working around a error message that comes up with our “fake” battery. All the other functionality (shutter control, strobe sync, remote computer control, power) worked fine. (Week 40)
- Going down the rabbit hole on this project. Discovered an issue with the camera using a “dummy” battery. My first solution (using an earlier model) has a big issue in that it has less memory. The second solution requires lots of testing, (Week 41)
- Second issue is the battery pack design. Our new strobes have a higher current draw despite requiring orders of magnitude less energy. This creates issues with the pack design we have planned but the lead time is long. We are trying to figure out how many answers are enough. (Week 41)
- Had Teleconference between Electrochem and Paul M and I to discuss battery pack design. (Week 42)
- Planned with Paul how to tackle current limiting, looking into an available solutions that I can test with a strobe I am borrowing. (Week 42)
- Started testing new Sony a7r3, battery error message does not seem to be an issue, I am modifying our Snappy code to allow for a more graceful shutdown (Week 42)
- Making test cable from SeaStrobe (Week 42)
- Working on schematics for camera housing (Week 44)
- Made up test setups for current limited circuit to power new strobes (Week 44)
- Made expense spreadsheet for the rest of the Macro project, reviewed spending tradeoffs (Week 44)
- Ordered all connectors and cable assemblies (Week 44)
- Spent week testing new DSP&L SeaStrobe with our Snappy controller and Sony a7RIII. Good news is that our planned cap charging circuit worked well, but there were issues with the strobe. The manufactures were able to recreate our issue and are sending a firmware fix. Moving forward ...slowly (Week 46)
- Finished testing of SeaStrobe (I hope) . The bug at startup was fixed by DSP&L, and after reflashing the firmware it was working well enough to do an overnight bench test. I also ran tests of system and component energy consumption, and Paul and I figured out how to get a guide number from Todd Walsh’s light meter. (Week 47)
- Ordered batteries (Week 47)
- Reviewed mechanical designs with Aaron for camera and battery housings. (Week 47)
- Built up a DiSCO camera bench set up to practice with Steve L how to retrieve images via the ODI connection to the ROV. This was a good fire drill for remembering how the system worked and figuring out what

documentation was missing. Thanks to Paul and Rich who helped me get a Raspberry pi set up to mimic what we have at sea. (Week 48)

- Ordered strobes and returned loaner strobe to DSP&L (Week 48)
- Ordering cables and parts (Week 50)
- Looking at best way to disconnect USB via Raspberry Pi from Sony Camera. (Week 51)
- Working on final schematics (Week 51)

Out of Office

- Out sick 3/4
- Vacation day 3/10
- Friday Aug 21- Tuesday Aug 25
- Working from home for this week.
- Back in the office this week :)
- Vacation day 11/24
- Vacation day 12/15

Overhead

- working on reviews all week plus prepping for external review. (Week 5)
- Two days out with sick kid (Week 6)
- Working on ER presentation (Week 6)
- Working on talk for Ocean Sciences on MiniROV (Week 7)
- Working on talk for ER (Week 7)
- external review talk prep (Week 8)
- Finished external review!!! (Week 10)
- Gathering work plans (Week 12)
- Zoom meetings all Thurs morning and one on Tuesday. (Week 13)
- Post doc applications (Week 13)
- Engineering meeting and group lead meeting (Week 14)
- Department and group zoom meetings (Week 15)
- zoom meetings and telecon with my LabView guru. (Week 16)
- Working on MBARI reopening issues, group lead zooms, etc. (Week 18)
- Discussed reopening plans with all group members either over email or video conference (Week 19)
- Supervisor meetings (Week 19)
- Abstract presentations and lots of meetings.... (Week 25)
- Worked on proposal for TAUUV (Week 29)
- Reading proposals (Week 30)
- Trying to sort out staffing issues for 2021 projects, have been contact EEs to work through hours individually (Week 34)
- Still refining allocations for 2021, this was a hard year to balance labor requests but we are almost there. (Week 36)
- Attended meeting on the design of the new bldg G. (Week 40)
- Attended review for new 4K camera (Week 48)
- Reading applications for new PE and Seafloor Processes jobs. (Week 50)
- Packed up projects to work on from home (Week 51)