Mike Risi Sorted By Project

200105 - Core Nav - MDUC

- Meeting with Rich S. to go over status, and next steps (Week 15)
- Started working on pan and tilt code (Week 18)
- Meeting with Rich on remaining work, and plan for deployment (Week 18)
- Working on class for ROS PT-10 and PT-25 pan and tilts (Week 20)
- Project meeting with Rich S. (Week 21)
- Working on LCM based control source for pan and tilt port (Week 21)
- Working on plan with Rich to test hardware on ships (Week 31)
- ZMQ interface design for navproc software (Week 31)
- Continuing work on pan and tilts for Doc Ricketts. (Week 33)
- Looking into ZMQ interface to facilitate accessing data during cruises. (Week 33)
- Ran into problem running old navproc code due to datamanger issues with Ubuntu 20.04. Will use virtual machine with older version if I can't resolve the problem. (Week 34)
- Pan and tilt simulator nearly complete. (Week 34)
- Getting prototype system ready for testing on October 12th cruise. (Week 39)
- Working on UHS process (Week 40)
- Configuring prototype for testing on October 12th cruise (Week 40)
- Meeting with Rich S. to go over remaining processes to develop and deployment plan. (Week 41)
- Continuing work on UHS and overlay processes. (Week 41)
- Tested new core nav software on Western Flyer (Week 44)
- Continuing process development (Week 44)
- Meeting with Rich on misc. development and repo clean-up questions (Week 47)
- Working on vorne process with test display (Week 51)

300062 - DMO Support-DR

300080 - DMO Support-Mini ROV

- Documenting ZMQ interface. (Week 15)
- Working on ZMQ PUB/SUB interfaces to MiniROV (Week 16)
- Worked on ZMQ interface code (Week 17)
- Bringing control system up to date with precision control framework (Week 17)
- Working with Dale on ZMQ interface to MiniROV (Week 18)
- Updating station keeping software to use pcon-lib (Week 18)
- Updating station keeping software to use pcon-lib (Week 19)
- Working on input sources for rov-control (Week 20)
- Meeting with Dale to discuss 2021 work and test plan for tentative June work in test tank (Week 20)
- Finished basic input sources to rov-control (Week 21)
- Working LCM position source that uses DVL and compass (Week 21)
- Adding lever arms to DVL position integrator (Week 23)

600034 - Control Tech - Rock

- Working on LCM frame work for precision control projects (Week 13)
- Continuing clean up of LCM framework (Week 14)
- Working on UI commands for midwater tracking control system (Week 14)

- Finished core of midwater tracking control system, starting to plumb in signals (Week 15)
- Review of midwater tracking control system with Steve Rock (Week 15)
- More work clean up LCM control framework (Week 15)
- Continuing plumb in signals and testing with LCM log files (Week 16)
- Working on first cut of gain scaling for the range and lateral control loops (Week 16)
- Removed Linux specific code in update timer (Week 17)
- Finished first cut of mid-water tracking control system, ready for tank test (Week 17)
- Working on generic rov-control application for ROVs (Week 18)
- Final review of mid-water tracking control with Steve Rock (Week 18)
- Working on generic rov-control application for ROVs (Week 19)
- Working on rov-control application for ROVs (Week 20)
- Meeting with Steve to discuss 2021 work and stereo camera setup (Week 20)
- Finished all standard input publisher and subscriber classes (Week 21)
- Working control loop implementation (Week 21)
- Working on generic rov-control application for ROVs (Week 23)
- Working on generic rov-control application for ROVs (Week 24)
- Testing of mid-water tracking control system with Steve Rock in test tank (Week 26)
- Preparing Vision-only registration survey test on Ventana in September (Week 31)
- Updated opencv to version 4 on home development machine. Updating code to work with new version. (Week 33)
- Meeting with Steve to go over concept for target hunting mode in mid-water tracking control system. (Week 34)
- Working on interface to transition between hunting and tracking modes. (Week 34)
- Continued adding user interface commands to the generic ROV control system (Week 35)
- Adding/testing commands to generic rov-contol system (Week 47)
- Porting xojo Pilot GUI to Qt (Week 50)
- Implementing rov-control commands (Week 51)
- Continuing Qt Pilot GUI development (Week 51)

662000 - Software Eng

- Upgrading OS on office workstation (Week 50)
- Sexual Harassment Prevention Training (Week 50)
- Made last trip to MBARI to pick equipment for shutdown, setting up office at home (Week 51)

701127 - MARS O&M III

- Working on test software to verify the node power controller ADC boards (Week 35)
- Working on test software to verify the node power controller ADC boards (Week 36)
- Setup software on nuc to test MARS mini node NPC stack (Week 39)

901101 - Ocean Imaging

- Finished LCM interface for (https://www.rosys.com/) light tilter (Week 5)
- Added control loop to light tilter interface so lights track sled angle. Tested code on deployment computer (Week 5)
- Working on survey automation (Week 5)
- Testing first cut of automated surveys for February cruise series (Week 6)
- Met with Dave to go over anticipated patch tests for next weeks cruise. Testing patterns against simulator. (Week 7)
- Tested new strobe rotators with Moxa RS-485 interface. Modified the ROS positioner class slightly to take advantage of new ramping velocity commands in current model of rotator. Rotators are now mounted on the sled and ready to go. (Week 7)
- Misc. help with Ocean Imaging MOB. (Week 7)

- Tested software changes and new strobe rotators at sea (Week 9)
- Starting way-point and scripting changes to Ocean Imaging control systems for the October 12th cruise (Week 35)
- Working on way-point and scripting changes for Ocean Imaging control systems (Week 36)
- Working on way-point and scripting changes for Ocean Imaging control systems (Week 38)
- Added position loop around track-line velocity loop to allow for position based move commands. (Week 39)
- Testing way-point concept with new track-line move commands (Week 39)
- Misc. prep for upcoming cruise (Week 40)
- Way-point processing completed, testing on scripts from previous expeditions (Week 40)
- Moved way-point processor to standalone process to help with user access. (Week 41)
- Got Kearfott watchdog working for cruise. (Week 41)
- Participated in cruise to survey Sur Ridge, clam fields, and test sled and software improvements. (Week 44)
- Working on prototype user interface for, "The Rack" (Week 50)

901809 - Deep Sea Bioinspiration

- Working with Paul on MiniROV machine vision camera integration for March cruise series (Week 5)
- Started working on queued subscriber class so tracking software can receive updates from external processes (Week 5)
- Testing VARS microservice that Brian S. added to access annotation information in real-time over ZMQ (Week 6)
- Working on subscriber to publish VARS annotations to LCM log for the March cruise series (Week 6)
- Finished process to publish VARS annotations to LCM log and tested against the MiniROV VARS system. (Week 7)
- Helped prepare for an external review demonstration of mid-water tracking (Week 9)
- Preparing MiniROV for next week's cruise series to test mid-water tracking (Week 9)
- Updating midwater tracking control system based on results from last cruise (Week 13)
- Misc. meetings with ML-tracking team (Week 13)
- Cleaning up mwt-apps repo (AKA mesobot-tracking) (Week 14)
- Created repo for shared LCM types and associated classes (Week 14)
- Implemented stitched stereo message to deal with stereo sync issues (Week 14)
- More clean up of midwater tracking apps (Week 15)
- Sent out stereo stitch concept to group for comment (Week 15)
- Shared LCM type repo with cvision (Week 16)
- Update of control system re-write at weekly meeting (Week 16)
- Added stitched stereo capability to mid-water tracking apps (Week 17)
- Started test of midwater tracking control system (Week 23)
- Worked on stitched stereo image publisher using USB camera for testing (Week 24)
- Added frame grab feature to stere_sub util to grab calibration images (Week 24)
- Working on GUI mid-water tracking control system (Week 26)
- Camera testing and calibration of mid-water tracking cameras (Week 26)
- Finished ML-tracking tests in test tank (Week 30)
- Tested ML-tracking and control code on two day cruise series using MiniROV on Rachel Carson (Week 30)
- Misc. MOB meetings for BioInspr August Flyer cruise (Week 31)
- Helped MOB MiniROV for ML-Tracking tests on 8/10/2020 cruise. The cruise was canceled but I'm planning on doing some software testing in the test tank with Paul Roberts since MiniROV is currently configured for this work. (Week 33)
- Documenting LCM types for mid-water tracking control system (Week 39)

901911 - ROVVR

- Updated MiniROV ZMQ interface doc (Week 47)

- Modified ZMQ to LCM bridge to publish new LCM types (Week 47)
- Created process to handle CLUMP topic (Week 47)
- Helped out with setup of the ZMQ/LCM bridge for testing (Week 50)

Out of Office

- February 19-22: Ocean Imaging Cruise
- September 18-29: Ocean Imaging Cruise
- September 30 - October 2: Vacation
- March 9-12: Vacation
- May 26-29: Vacation
- June 29 - July 1: Vacation
- October 12-17: Ocean Imaging Cruise
- September 7 - September 11: Vacation
- October 19-23: Vacation
- December 21 - December 24: Vacation
- December 21 - January 4: Vacation

Overhead

- Misc. input for department budget projection and return to work planning. (Week 17)
- Input for return to work and MBARI access priority (Week 18)
- Installed Ubuntu 20.04 on development computer (Week 23)
- Misc. phase 2 meetings and feedback (Week 34)