

Enoch Nicholson Sorted By Project

706008 - READi-net

- Completed nitrogen sensor install on FIDO 8 (Week 4)
- Pushed nitrogen sensor firmware feature (Week 4)
- Performed nitrogen leak and feature testing on FIDO (Week 5)
- Migrated FIDO design files to MBARI vault (Week 7)
- Vacuum Sensor modifications (Week 11)
- Setting up for Packard install (Week 12)
- Packard Deployment of FIDO (Week 14)
- Supporting Bozeman FIDO deployment (Week 14)
- Completed Bozeman elevation troubleshooting and filed root-cause case study (Week 15)
- Began vacuum fix to FIDO sampler code branch (Week 15)
- Investigated FIDO 6 nitrogen capsule depletion anomaly (volume counter / suspected slow leak) (Week 15)
- Delivered READI-Net summary to USGS (Week 15)
- Scoped FIDO vacuum valve install for mechanical wrap-up (Week 15)
- Delivered FIDO vacuum-check fix to Montana; installed and running on FIDO 6 (Week 16)
- Established revised vacuum sensor limits (Week 16)
- Merged code branches into test-ready sampler firmware version (Week 17)
- Reinstalled vacuum pump valve with new hardware. Showed able the process (Week 17)
- Completed shipping prep including nitrogen leak checks and leak-rate calculations confirming systems OK to ship (Week 20)
- Terminated pumps and reprogrammed pump controllers; verified operation before shipment (Week 20)
- Investigated logs from Brazil deployment (Week 20)
- Investigated puck metadata for Brazil deployment (Week 21)
- Provided troubleshooting support to USGS (Week 21)
- Reprogrammed FIDO5 (Week 24)
- Continued FIDO wrap-up documentation and finalized open items (Week 24)
- Met with Jim to plan BOM completion; focus on parts inventory and data cards (Week 24)
- Continued cylinder assembly (Week 24)
- Onboarded summer intern Brooke (Week 24)
- READI-Net assembly modeling; added parts and fasteners and wrapped most insertion tasks, with BOM nearly ready to hand off (Week 25)
- Set up FIDO on the dock (Week 25)

- Reviewed phase separator drawings (Week 25)
- FIDO packing for the Newport deployment (Week 28)
- Supporting intern project (Week 28)

901007 - Benthic Biology & Ecology

- Pump redesign for hydraulic and dosing system (Week 11)
- Injection and Hydraulic Pump Redesign (Week 12)
- Beginning instrument prep ahead of April deployment (Week 14)
- Performed BRS pump teardown and inspection; identified hydraulic pump tubing damaged by fluorinert (Week 15)
- Purchased replacement tubing for hydraulic pumps (Week 15)
- Submitted machine shop request for additional BRS pump housings (Week 15)
- Assembled pump test equipment and trialed clamp tool (Week 15)
- Initiated pump tubing replacement and fluid swap from fluorinert to silicone oil; baselined dry current draw on 7 NF10 injection pumps (Week 16)
- Rebuilt first injection pump with EPDM tubing and verified operation in housing (Week 16)
- Ordered Cole Palmer hardware for 1/4-28 fill port conversion (Week 16)
- Handed off updated pump drawing to Ray for NPT port machining and Uniontech reprint (Week 16)
- Filled BRS compensator and injection pump; tested pressure configurations (Week 17)
- Installed QDC fittings on pump manifold and validated low-pressure regulator (Week 17)
- Finalized compensator configuration (Week 17)
- Verified all injection pumps held pressure after rebuild (Week 20)
- Diagnosed leak in hydraulic pump barb fitting and rebuilt; assembled remaining two hydraulic pumps (Week 20)
- Completed hydraulic pump assembly and resolved priming issue (Week 21)
- Installed injection pumps and finished pump checkout (Week 21)
- Coordinated elevator setup for BRS (Week 21)
- Cleaned lab space (Week 24)
- Relocated BRS cart to the G high bay (Week 24)
- Supported BRS Deployment (Week 24)
- Wrapped up BRS instrument recovery and diagnosed chamber injection failures (Week 25)

901205 - ESP SURF Center

901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach

- First UAV Flight with Trinity Pro outside of Moss Landing (Week 4)
- Built flight data scraping tool for annual report generation (Week 5)
- Flight planning (Week 11)

- Intern review (Week 11)
- Installing polarizer (Week 11)
- Packard flight prep (Week 12)
- Terrace Point Survey (Week 12)
- Packard Flight attempt (Week 14)
- Created flight requests for Matrice test flight and state parks surveys (Week 17)
- Completed three Matrice test flights off the Paragon searching for velella.
Captured lessons learned on Paragon hatch covers and non-slip mats (Week 20)
- Rebuilt spare CW prop assembly from damaged units and ordered replacement parts (Week 20)
- Completed SUAS recurrent exam (Week 21)
- Submitted flight request for Carson cruise (Week 21)
- Conducted Matrice test flight off the Carson (Week 21)
- Started consolidated flight request, ops, and risk-management form (Week 21)
- Onboarded Karen on Matrice for test flights (Week 21)
- Started UAV project proposal form (Week 25)
- Open house prep (Week 28)

901904 - Deep-Sea Coral-Sponge Community Observatory

902101 - LRAUV Technology Development

- Set up lifting bail structural analysis framework and completed hand calculations for base vehicle; ready for FEA (Week 16)
- Scoped lifting bail FEA approach and set up ANSYS analysis from SolidWorks exports (Week 17)
- Completed first MECHTECH candidate interview (Week 17)
- Restarted variable buoyancy (VB) system project (Week 25)

902111 - Carbon Flux Ecology

- Planned fabrication tasks for upcoming SINKER deploymentOverhead (Week 4)
- SINKER deployment preparation (Week 5)
- Working on SINKER OSM presentation (Week 7)
- Sinker Packard Recovery/redeploy planning (Week 12)
- SINKER packard operations (Week 14)
- Moved SINKER to the dock and loaded supplies onto the Packard (Week 15)
- Supported SINKER deployment off Packard (Week 16)
- Helped come up with a concept for an acoustic released recovery line. Yamir to build. (Week 24)
- Tested acoustic release with bucket; confirmed functional and handed remaining mods to the team (Week 25)

902609 - TIDE OMICS

- Received quote for Nanoliter pump and scoped FMI pump alternatives (Week 21)
- Attended middleware update meeting (Week 24)
- Met with Nadia and Kev to scope 3G work (BioLink integration, 3G depth hardening) and next-year deep sampling requirements (Week 24)
- Reviewed labor allocations with Kev for sub-task breakdown (Week 24)
- Started Biolink task tracking (Week 25)
- Planned DOEST tour stops (Week 25)
- Reviewed TIDE proposal and next-year tasking (Week 25)

Out of Office

- Thursdays at MLML
- Sick
- June 26 to July 6th

Overhead

- Completed annual review training (Week 4)
- Created gcode signing script for Prusa slicer exports (Week 4)
- Trained on Prusa 3D printing system (Week 4)
- Set up new team member with PDM vault access (Week 4)
- MARS bulkhead simulation (Week 7)
- Reviewing and interviewing Interns (Week 14)
- Finalized prototype dive jar design and sent ordering info (Week 15)
- Onboarded more users to the vault (Week 15)
- Discussed apprenticeship program scope: one candidate, September start, drawing-focused role (Week 17)
- Completed Dive First Aid Pro certification course (Week 17)
- Modeled BW dive jar and prepared for next prototype round (Week 20)
- Sent intern mentoring agreement (Week 20)
- Completed Project Management Training (Week 20)
- Captured SCUBA EyeRIS component weights for buoyancy calculations (Week 20)
- Final LPS Letter (Week 20)
- Abstract Presentations (Week 20)
- Intern Mentoring agreement (Week 21)
- Vault setup for new users (Week 25)
- Developed presentation for Highschool Robotics Camp (Week 28)