

Enoch Nicholson Sorted By Project

706008 - READI-net

- Modeling DOEST prototype sampler (Week 16)
- Finished the prototype model for the drive and cylinder. Ordered hardware and fit check components. (Week 17)
- Began designing the prototype press assembly. (Week 17)
- Completed initial design of press assembly and reviewed with Mark Tynes and Scott Jensen. (Week 18)
- Produced and submitted machined part drawings for fab. (Week 19)
- Fit checked printed parts and ordered full prototype components. (Week 19)
- Waiting on parts (Week 20)
- Transferred CAD data to PDM Vault (Week 20)
- Waiting on machined parts. (Week 21)
- Began assembly of printed components. (Week 21)
- Continued DOEST prototype assembly. (Week 22)
- Completed DOEST prototype build. (Week 23)
- Fixed design issues with clamp to make it usable for fluidic testing. (Week 24)
- Ordered pucks for testing. (Week 24)
- Started conceptual layout for October Prototype. (Week 24)
- Modeling cylinder concept. (Week 25)
- Prototype design for new drive, cylinder and clamp. (Week 26)
- October prototype system layout. (Week 27)
- Selected actuators for October prototype, and started to finalize layout of some subsystems. (Week 28)
 - Drive: Combined with base plate and simplified belt / tensioning system. (Week 28)
 - Clamp: Switched back to C-Frame design, but made of plates. (Week 28)
- Completed instrument layout for October prototype. (Week 29)
- Provided mechanical update to SURF Center. (Week 29)
- Received design buy in from manufacturing. (Week 29)
- Purchased COTS mechanical components. (Week 29)
- Continued detailed design of the October prototype. (Week 30)
- Received mechanical components. (Week 30)
- Purchased system components (Week 32)
- Submitted drawings to the shop (Week 32)
- Sampler prototype built & troubleshooting (Week 33)
- Sampler prototype build & test support (Week 34)
- Printing adjusted components to improve instrument fit. (Week 35)
- Updated printed parts. (Week 36)
- Ordered components for a second instrument. (Week 37)
- Prototyping sampler side plates for fluidics / electronics mounting (Week 38)
- Continued sampler 1 & 2 build / test (Week 39)
- Sampler build and testing support (Week 40)
- Second Sampler build (Week 41)
- OMICS Meeting (Week 41)
- Met with Adam from USGS during OMICS meeting to discuss the current state of the sampler. (Week 42)
- Completed mechanical assembly of the second sampler, awaiting wiring & testing. (Week 44)
- Fixing clamp issues on the second sampler. (Week 46)
- Supporting puck development (Week 48)
- Cleaning printed pucks. (Week 49)

- Puck snap ring machining. (Week 50)

771131 - Great Lakes PCM/HAB

- On hold awaiting discussion of priorities. (Week 17)
- Obtained parts for phase separator and discussed mounting plans with NOAA GLERL collaborators. (Week 18)
- Mocked up mounting arrangement for phase separator, pump, and control / power housing. (Week 19)
- Produced and submitted drawings for phase separator / pump mounting bracket and electrical enclosure mounting plate. (Week 20)
- Built phase separator. (Week 20)
- Tested 1/8" moon pool mount. Too flimsy, made out of 1/4" 5052. (Week 21)
- Designed a fairing for the pump to reduce drag and deflect debris. (Week 21)
- Mounted phase separator & pump on SEATRC with bracket. (Week 22)
- Finished machining control housing. Handed it off for wiring. (Week 22)
- Test mounted pump and phase separator. (Week 23)
- Added connector to hatch. (Week 23)
- Cleaned and reassembled SEATRAC for shipping. (Week 23)

901205 - ESP SURF Center

- 3G Cartridge Heater calibration fixture (Week 41)
- Connected and ran calibration fixture components. The PID controller is successfully driving heated beds. (Week 42)
- Cartridge heater calibration fixture testing. (Week 43)
- Reassembled single board calibration fixture & returned to Brent (Week 44)
- G-10 retaining ring fabrication (Week 45)
- Heater fixture design (Week 47)
- Calibration fixture design (Week 48)
- Creating calibration fixture test parts (Week 49)

901405 - PowerBuoy Development

- Assisted with buoy rigging & deployment. (Week 18)

902306 - SINKER

- Disassembly of ZebraTech Hydro Wiper (Week 16)
- Developing Mechanical Engineering task list (Week 16)
- Started conceptual design of wiper test aquarium. (Week 17)
- Completed design of test aquarium and discussed with the group. Produced drawing for quote. (Week 18)
- Started sketching frame ideas. (Week 18)
- Obtained pinout for wiper control cable. (Week 18)
- Started basic housing design using hand calcs and DSP&L Under Pressure. (Week 18)
- Transferred CAD data to PDM Vault (Week 20)
- Ordered aquarium and completed design of printed aquarium components. (Week 20)
- Worked on PBC layouts: Module board and its daughter board, System Controller. (Week 20)
- Began conceptual layout of SINKER frame. (Week 20)
- Refined module board layout. (Week 21)
- Began concept chassis design. (Week 21)
- Continued conceptual frame model. (Week 21)
- First pass at SINKER mass properties. (Week 22)
- Began discussing deployment with ROV pilots. (Week 22)
- PCB mechanical layout. (Week 22)

- Ordered aquarium hardware. (Week 23)
- Submitted frame drawings. (Week 23)
- Continued frame design. (Week 23)
- Completed conceptual layout of System controller. (Week 24)
- Began assembling the wiper test aquarium. (Week 24)
- Rachel Carson ride along to observe ROV / MARS operations. (Week 24)
- Housing weight trade offs Ti vs Al (Week 25)
- Acrylic viewport feasibility & basic design (Week 25)
- Presented and discussed mechanical progress at our biweekly meeting. (Week 26)
- Contacted glass manufacturer for material information. (Week 27)
- Completed aquarium cart. (Week 29)
- Revised system controller board layout. (Week 30)
- Contacted glass manufacturer (Week 30)
- Concept design of wiper compensator. (Week 30)
- Met with Zebra Tech about deep hydro wiper. (Week 30)
- Met with wiper vendor (Week 32)
- Hydro wiper prototyping (Week 32)
- Housing detail design (Week 34)
- Drafted and submitted Housing A drawing package for peer review. (Week 35)
- Built compensated wiper. (Week 35)
- Added optics mount to test aquarium. (Week 35)
- Housing A drawing package complete & submitted. (Week 36)
- Finished Housing B drawing set. (Week 37)
- Quoted fabrication with Scripps. (Week 37)
- Completed check of housing drawings with FC. Released and submitted final drawings to Scripps. (Week 38)
- (Week 40)
- December deployment frame design (Week 41)
- December deployment frame design (Week 42)
- Completed deployment frame for December cruise & submitted work orders. (Week 43)
- (Week 43)
- Completed Sinker deployment frame assembly (Week 44)
- Began finalizing Chassis design for I-Face & Sed-Cam housings (Week 44)
- Finished deep wiper assembly (Week 44)
- Ordered acrylic test ports (Week 44)
- Completed Interface & sediment chassis layout / fabrication drawings (Week 45)
- Wiper Testing (Week 46)
- Pressure vessel assembly (Week 46)
- Chassis assembly (Week 46)
- Chassis Assembly (Week 47)
- Housing Pressure Testing (Week 47)
- Housing & Wiper pressure testing (Week 48)
- Chassis assembly (Week 48)
- Wiper tank testing (Week 48)
- Instrument assembly & deployment preparation (Week 49)
- Deployment preparations (Week 50)

Out of Office

- AAUS Class
- 12-15-23 to 01-02-24

Overhead

- Proposal workshop (Week 18)
- Workbench setup (Week 18)
- Western Flyer screening (Week 18)
- New Employee HR Training (Week 18)
- Assisted with LRAUV Recovery (Week 18)
- Detailed notes on housing design. (Week 20)
- (Week 22)
- UAV flight ops / observation (Week 34)
- Striver VTOL harness repair. (Week 36)
- ME candidate interview (Week 43)
- UAV Flight Ops (Last Week) (Week 44)
- End of year wrap up & 2024 planning (Week 50)