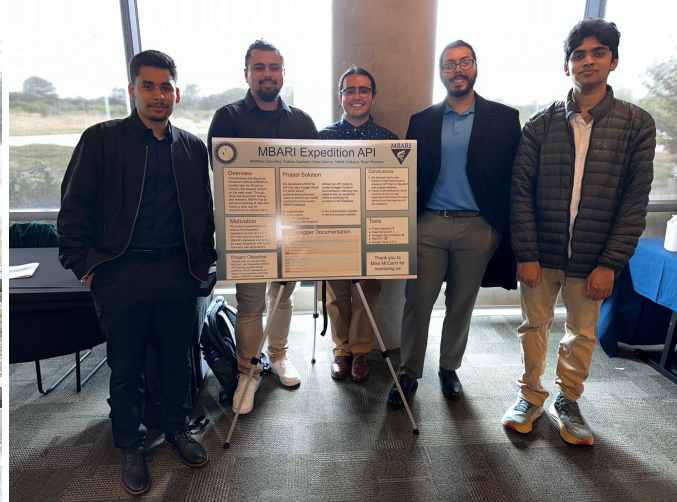
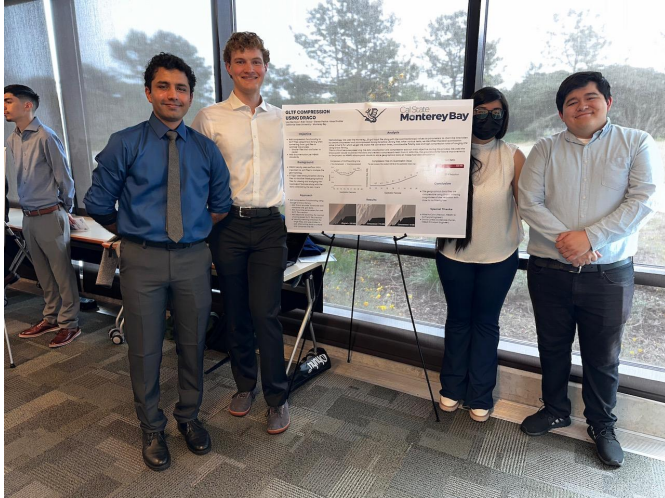


Engineering Weekly Report 5/16/2024 - 5/23/2024

<https://docs.mbari.org/internal/projects/Engineering/Weeklies/2024/>

Executive Council Notes



Two Computer Science capstone teams from Cal State Monterey Bay presented their projects at their capstone festival yesterday. One team added compression capability to the mbgrd2gltf tool in MB-System and the other explored a server-side framework option for the Expedition Database modernization project. That afternoon they got to tour MBARI. Special thanks to Megan Bassett for showing off the Video Lab and to Dave Caress for the Mapping AUV show and tell on the dock.

Individual Activities

- Michael Anderson
- Kevin Barnard
 - 902204 - Scalable Robotics
 - Performed calibration of MOLA stereo cameras using new ChArUco board target
 - Designed trajectory following system for MOLA
 - Collected SLAM dataset
 - Corrected bugs in OAK-D LCM camera driver
 - Set up RTAB-Map SLAM for MOLA deployments
- Francois Cazenave
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Monitoring buoy
 - Clean up
 - 902106 - Niobicon-Based AUV Docking Development
 - Preparing AUVs and mooring for deployment
 - Test in the tank
 - Overhead
 - NITROX diving training
 - Out of Office

- Took sick day on tuesday
- Danelle Cline
 - Out of Office
 - Vacation June 5-19
- Duane Edgington
 - 901502 - Ocean Soundscape
 - Returning to orca model literature search
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
 - Team meeting
 - 902111 - Carbon Flux Ecology
 - Team meeting
 - 2025 proposal work
 - Out of Office
 - June 10 - 21, 2024. Vacation UTC-8
 - Sept 17 - 20, 2024. PyTorch Conference, San Francisco
 - Oct 21 - Nov 8, 2024. Vacation UTC+1
- Jon Erickson
 - 902010 - Mesopelagic LRAUV
 - Drafting
 - Still waiting on a quote for the VB parts from Lee Hyd.
- Kevin Gomes
- Andy Hamilton
- Kent Headley
 - Out of Office
 - Jun 4-7
- Rich Henthorn
 - 902305 - Event Detection Using the Sedimentation Event Sensor
 - Image processing and detection algorithms on SES target controller
 - Detection tests success
 - Trigger trap testing
 - 902401 - Geo-Sense
 - Weekly meeting
 - Cable selection
 - 902405 - Precision Control Technologies
 - TRN in LRAUV simulation
 - Overhead
 - Rec-Comm softball
 - Out of Office
 - May 28 - June 5: Vacation
 - June 20: SES deployment on Carson
 - July 3 - 11: Vacation and WFH
 - Aug 26 - Sep 11: Vacation
- Brett Hobson
- Irene Hu
 - 901805 - Coastal Biogeochemical Sensing Program
 - Ongoing modifications and updates to MSC3 baseboard and TIVA modules
 - Circuit analysis for Dura board checkout procedure in Chem Sensor lab
 - 901904 - Deep-Sea Coral-Sponge Community Observatory
 - Circuit boards sent out for fab, back and forth re: various issues
 - Reviewing some existing code

- 902305 - Event Detection Using the Sedimentation Event Sensor
 - Weekly meeting
- Overhead
 - Abstract and presentation
- Out of Office
 - May 3-15: Taiwan
- Scott Jensen
 - Out of Office
 - June 17-21 vacation
 - July 18-23 vacation
 - July 24-29 vacation
- Brent Jones
- Chad Kecz
 - Out of Office
 - Out of office on Fridays
- Brian Kieft
 - Out of Office
 - 05/27-06/21 (GMT+1)
 - 07/08-07/12 (HST)
 - 07/16-07/22 (EDT)
- Denis Klimov
 - 901112 - Monterey Bay Time Series
 - The IFCB instrument had been deployed on Power Buoy and so far performance had been good.
 - 901809 - Deep Sea Bioinspiration
 - Provided feedback for 2 OVAI job applicants
 - 902401 - Geo-Sense
 - We narrowed down the cable supplier (Winchester Interconnect, former Falmat) and had several rounds of discussions adjusting parameters of the cable. For the team, the cable selection for this unusual application had been quite an exercise. The good news, the cable is selected and order placed this week.
 - Overhead
 - Looking at the laser safety section for the new Test Tank warning poster
- Eric Martin
 - 901101 - Seafloor Mapping
 - Getting the housing built up
 - Closing strobes
 - Cleaning lab
 - 901217 - Chemical Sensor Program
 - Energy harvesting code
 - 902204 - Scalable Robotics
 - Tank testing
 - Mola mods
 - OAK testing on Rpi5
 - Overhead
 - Telepresence paper
 - Livestream meeting for Ventana
 - SEE-EAD zoom and in-person interviews.
- Thom Maughan
 - Out of Office

- May 10 days. May 20 - 30 (or so). Colorado
 - Aug two to three weeks vacation Colorado.
- Mike McCann
 - 901101 - Seafloor Mapping
 - Figured out the integration of crispy_forms with django_filter to improve SMDB's missions page
 - Moved to production spreadsheet processing for additional Mission details for SMDB
 - Added new columns and filtering selectors for the additional Mission details in SMDB
 - 902403 - Expedition DB Modern
 - Testing capstone team's Flask implementation for an EXPD API
 - Out of Office
 - 24 June - 19 July: Vacation
 - 22 - 25 July: ESIP Federation Summer meeting, Asheville, NC
 - 28 July - 1 August: SIGGRAPH, Denver, CO
- Rob McEwen
- Paul McGill
 - 300070 - DMO Support - Ventana
 - Reviewed final design for current/voltage monitor board
 - 701147.99 - MARS IV Node Upgrade
 - Reviewed and approved new PO for UW contract
 - 901904 - Deep-Sea Coral-Sponge Community Observatory
 - Got Raspberry Pi set up with latest operating system for testing
 - Got focus motor controller turning the motor with laptop app
 - 902304 - Piscivore Cam
 - Testing on camera controller software v1.3.1 continues
 - 902305 - Event Detection Using the Sedimentation Event Sensor
 - Successfully tested modem triggering McLane controller on Trigger Trap
 - Finished drawing for modem-to-controller cable, sent to manufacturing
 - 902401 - Geo-Sense
 - Reviewed Winchester cable design and agreed to go ahead with order
 - Overhead
 - Replaced two computer monitors in my office with newer models, which required some office cleaning
- Enoch Nicholson
 - 706008 - READI-Net
 - Completed ordering of parts for FIDO
 - 901007 - Benthic Biology & Ecology
 - Moved instrument to test tank
 - Began checkout of hardware
 - Out of Office
 - April 5-10 Vacation (Available via Slack & Email)
 - April 14-18 IEEE Oceans (Available via Slack & Email)
 - April 19-23 Vacation (Unavailable)
 - September 19-24 Vacation (Available via Slack & Email)
- Tom O'Reilly
- Mike Risi
 - Out of Office
 - Offsite on Tuesday and Friday
 - January 16 - January 19, 2024
 - February 22, 2024
 - March 4 - March 8, 2024 - vacation

- April 24, 2024 - vacation
 - May 20 - May 24, 2024 - vacation
 - June 17 - June 18, 2024 - vacation
- Paul Roberts
 - 901904 - Deep-Sea Coral-Sponge Community Observatory
 - Planning for proposal
 - 902004 - Planktivore
 - Planktivore data management
 - 902111 - Carbon Flux Ecology
 - Planktivore and Chiton data management
 - 902204 - Scalable Robotics
 - PoE interface rebuild
 - Overhead
 - Abstract presentations
 - DOEST presentations
 - SEE interview
 - Intern planning
 - Out of Office
 - June 21, 28
- Brent Roman
 - Out of Office
 - June 20 - June 31 (gunkholing in the Sacramento Delta)
 - July 1 - Aug 31 (Vacation in Japan)
- Carlos Rueda
 - 901502 - Ocean Soundscape
 - Group mtg.
 - 902101 - LRAUV Technology Development
 - TethysDash related support to Saab Inc.
 - Added WMS map provided by Brian to the dash to support Denmark deployments. Thanks Kevin G. for the underlying support in ODSS.
 - Adjustments in TethysDash regarding waypoint information: scanning for relevant events at most to the beginning of the deployments; and implementing an interim workaround given that the **Loaded** event for direct **run** command has not been yet implemented in the LRAUV.
 - 902204 - Scalable Robotics
 - Delineating a [Dial backend](#) counterpart.
 - Advancing the rerun based visualization.
 - With Giancarlo, enabled our [doc-generation](#) mechanism for CoMPAS lab repos.
 - Overhead
 - Thanks Kevin B. for the several dependency updates on the [docs](#) server!
 - Motivated by this, I proceeded to adjust several sites, fixing a few long standing issues along the way (eg. the [tabbed extension](#) was broken), as well as enabling [automatic light/dark mode](#).
 - Embedded SE interview.
 - Out of Office
 - May 21: sick.
 - June 10–13: vacation
 - July 2–3, 22–25: vacation
- Karen Salamy
 - Out of Office
 - I will be out several days this month (May 21-22) for shoulder surgery.
 - On-campus 3 days/week (**T**, **W**, **TH**).

- Brian Schlining
 - 500055 - VARS, M3/RS, DSG
 - Continuing work on the knowledgebase replacement at <https://github.com/mbari-org/oni>
 - Out of Office
 - May 16-21 - Vacation
 - Jun 10-14 - Setting up video lab at OSU
 - Jul 15-24 - Vacation
 - Aug 19-22 Vacation
 - Sep 5-9 - Vacation
 - Oct 7-10 - 5th Marine Imaging Workshop in Monterey
- Alana Sherman
 - 901904 - Deep-Sea Coral-Sponge Community Observatory
 - Working on a talk for DOEST
 - 902401 - Geo-Sense
 - Cable decision was finalized this week and PO was submitted - this is a big milestone
 - Put together notes and slides from review to share with our collaborators
 -
 - 901205 - ESP/Readinet
 - Identified two candidate power supplies for 3.3V and 12V after looking at many, both are on order
 - Added new GPIO assignments and added interface for laser range finder
 - Overhead
 - Helped on SE hire zoom interview Tuesday
- George Stern
 - 902204 - Scalable Robotics
 - Some mola updates
 - 902304 - Piscivore Cam
 - Preliminary light sensor schematic capture, board design, build, integration and testing
 - Light thermal testing and mechanical build
 - Many wasted hours trying to find optically clear, pliable, water resistant, electronics rated potting compound with a lead time <2wks
 - Boost converter testing
 - 902306 - SINKER
 - Marginal progress on detailed design of the motor controller board
- Johann Voigtlander
 - 902204 - Scalable Robotics
 - Built up Blue Robotics Blue Boat. Updated firmware, ready for testing.
 - 902208 - Mini ROV Operations
 - Connected VARS to SHORE network so Lonny & Brian can download data
 - Started ice core testing
 - 902402 - CSEM
 - Working on shipping logistics to bring the SWAN system to MBARI from Germany.
 - Out of Office
 - April 16th - May 7th Germany CSEM
 - May 8th - May 12th Vacation