

Johann Voigtlander Sorted By Project

702108 - Deployable AI

901809 - Deep Sea Bioinspiration

- MiniROV Dive, 12 hour day, collected animals (Week 5)

902204 - Scalable Robotics

- MiniROV In test tank for camera and laser calibrations (Week 7)
- Removed VN110 from BlueBoat. Helping install InertialSense IMU/RTK sensor (Week 9)
- Installed Norbit WBMS (Week 10)
- Charged & Installed 8P batteries for deployment (Week 10)
- Programmed mission failsafes (Week 10)
- Advised Vicente how to build thrusters to create a small constant water flow currentt in the test tank (Week 10)
- Enabled RTK on the BlueBoat (Week 11)
- Remounted RTK GPS antennas further towards the bow (Week 13)
- Found GPS offsets (Week 13)
- Organized harbour deployment for later this week (Week 13)
- MiniROV in test tank for final Arctic tests (Week 14)
- I deployed the blueboat in the harbour and tested the RTK GPS and Norbit multibeam. (Week 14)
- Working on Blueboat 4G/5G modem integration with Adriana (Week 14)
- Cleaning up Atuncita wiring in miniROV control van (Week 15)
- Routed SDI cable for additional monitors in control van (Week 15)
- Investigating 4g/5g router installation on blueboat. Looking into zerotier option with Adriana (Week 15)
- Connected Blueboat with 4g/5g modem (Week 16)
- Prepared blueboat for harbour test (Week 16)
- Cleaned up Blueboat wiring (Week 19)
- Scheduled a deployment with the Paragon, the boat performed well, but requires further upgrades (Week 19)
- Conducted a blueboat harbour test. Data was processed, and a bathymetry map was created (Week 19)
- Integrated a relay on the Blueboat to remotely power the Norbit (Week 20)
- Built up a network map of Blueboat - working with Adriana & Travis for Tailscale VPN integration (Week 20)
- Deployed Blueboat on the beach from the paragon - hull sustained damage (Week 21)
- Installed cradlepoint router in the boat and installed tailscale VPN (Week 21)

- Working on Blueboat Norbit WBMS pole re-design (Week 22)
- Laser assembled in new housing (Week 24)
- 3D printed PoE can mount brackets and laser/camera caps (Week 24)
- Tested PoE gear: cameras, lights, multibeam, laser... (Week 24)
- Ordered parts to daisy chain additional lights (Week 24)
- Blueboat electronics re-installed into new hull (Week 25)
 - Debugged tailscale connection issue (Week 25)
- Coordinating plan to confirm old batteries are useable or not (Week 25)
- Installed VN100 into PoE2 can and confirmed all sensors functional (Week 25)
- Ordered new connectors and daisy-chained lights (Week 25)
- Constructed the Ventana mapping drawer (Week 26)
- Blueboat is back together (Week 26)
 - Working on battery safety (Week 26)
- Mobilized & demobilized Ventana mapping drawer (Week 27)
- Blueboat improvements (Week 27)
 - Base station bulkheads installed (Week 27)
 - Cart stands designed and 3D printed to protect Norbit WBMS (Week 27)
 - Updated software (Week 27)
 - Purchased waterproof camera (Week 27)
- Designed and built Mola AUV docking station (Week 29)
- Created powerpoint presentation for ASVs (Week 29)
- Started Mola2 commissioning, discovered overdischarged batteries (Week 30)
- Mola1 in the test tank on Tuesday, collecting data (Week 30)
- Designed and printed mounts for WiSub & USBL on Mola AUV docking station (Week 30)
- Helped Pushyami repair Blueye ROV thruster (Week 30)
- Designed and printed mounts for USBL on MOLA and docking station (Week 31)
- Mola in test tank to collect data (Week 31)
- Assisting with Mola in test tank (Week 32)
- 3D modelling new blueboat Norbit mount (Week 32)
- Assisting with Mola in the test tank (Week 33)
- Purchased RTK GPS options for the Arctic (Week 33)
 - Resolving shipping issues (Week 33)
- 3D model of the docking station complete (Week 33)
- Working on new event camera (Week 39)
 - 3D model of camera made (Week 39)
 - Electronics purchased (Week 39)
- Started working on the event camera. Installed and bench tested on raspberry pi (Week 40)
- 3D modelled all components, working on 3D modelling a mounting plate (Week 40)
- Designed housing for event camera. Mounted components and built electrical harness (Week 41)
- Improved event camera code, fixed ERC, added record button, added buttons to change FPS, added a timestamp to the filename. (Week 41)

- Calculated camera FOV in seawater (Week 41)
- Improved blueboat Norbit mount (Week 41)
- Fixed blueboat Tailscale networking issues (Week 41)
- Wired up event camera (Week 42)
- Fixed bugs in code (Week 42)
- Improved code for Eventcam (Week 43)
- Shrunk housing to use GroupB without the extension (Week 43)
- Investigating a better lens option with Paul R (Week 43)
- Redesigned the event camera to fit the new lens (Week 44)
- Enhanced event camera software (Week 44)
- Wrapped up code, wiring, and housing for the event camera - ready for testing (Week 45)
- Installed and enabled Procman on the blueboat, updated documentation (Week 45)
- Added Procman & LCM spy to blueboat (Week 46)
- Event camera tests in the test tank (Week 46)
- Organized Blueboat harbor survey for DMO (Week 46)
- Debugged Blueboat power issue (Week 48)
- Completed multiple harbor tests (Week 48)
- Completed blueboat survey of the harbour (Week 49)
- Purchased blueboat spares (Week 49)
- Looking at transport case for blueboat (Week 49)
- Debugging Blueboat tailscale disconnection. Purchased an RTC to integrate (Week 50)
- Drew up sensor baselines in solidworks for data processing (Week 50)
- Surveyed the harbour where RC & DP moor up (Week 50)
- Integrated new Cerulean sonar on Blueboat (Week 51)
- Cleaned lab (Week 51)
- Added RTC to Blueboat (Week 51)

902208 - Mini ROV Operations

- MiniROV Mob (Week 4)
- GT Dives x3 (Week 4)
- Tool sled swap to benthic setup (Week 5)
- Reconnected control van to building (Week 5)
- Upgraded Focal box with diagnostics board (Week 5)
- Test tank camera and laser calibrations for GT (Week 6)
- Clump EPOD disassembled (Week 6)
- Dissassembled clump EPOD (Week 7)
 - Fixed vicor 850 degree C reading. I added an additional PT100 temperature probe. (Week 7)
 - Updated schematics with new changes (Week 7)
- I opened up the thruster housing and found 'milky' oil and some metal particles. We are replacing that thruster in hopes it will clear the ground fault on the clump. (Week 7)
- Troubleshooting clump ground fault in motor. (Week 9)
 - Tuned original clump motor, reassembled (Week 9)

- Found ground fault in clump tilt motor cable. (Week 9)
- Ordered spare Wago modules (Week 9)
- Found the specs of the control van power converter for maintenance (Week 9)
- Rebuilt clump thruster and tested (Week 10)
- Worked out how to sync Atlas & Raid project library using VicaVersa software with the help of Neil (Week 10)
- Helped Frank install swing arm, additional lights, probe motor, probe camera, temp probe, alt/depth (Week 10)
- Reconfigured LabVIEW Digi devices to work with the newly installed sensors - still troubleshooting (Week 10)
- Looking into replacing our raid drive NAS, which has critical errors (Week 10)
- Purchased additional SDI->HDMI and HDMI->SDI modules for additional monitors and computers in the control van (Week 10)
- Purchased spare fiber bulkheads & patch cables (Week 10)
- Renewed LabView license (Week 10)
- Moved essential electronics into MiniROV lab and reconnected for test tank days (Week 11)
- Ordered subsea fiber bulkheads and patch cables (Week 11)
- Debugging the control van input power issues (Week 11)
- Fixed issues with manip probe, CT, temp probe, and alt/depth in LabView. (Week 11)
 - Problem was with file structure for logging on the co-pilot PC (Week 11)
- Synchronized Atlas to the MiniROV Raids with the help of Neil Connor. Purchased spare NAS raid (Week 13)
- Organized control van, helped cable management (Week 13)
- Re-installed Norbit (Week 14)
- Fixed issues from mobile rack -> container swap (Week 14)
- Designed and printed mount for ice drill on drawer and quiver (Week 14)
- Printed spare ice core holders for swing arm (Week 15)
 - Getting one made from resin for lower friction (Week 15)
- Cleaned up cabling in control van (Week 15)
- Debugged issue with 4DNAV opening up com ports used by vehicle (Week 15)
- Made winch GUI smaller to fit on copilot screen (Week 15)
- Verified a few cable assemblies' wiring to be potted (Week 15)
- Tested out new gas funnel (Week 15)
- Got a new minirov profile made on windows tablet (Week 15)
- Debugged Focal issue on MiniROV (Week 16)
- Following up on delivery date for Focal board. They are still expected to arrive well before the Arctic expedition (Week 22)
- Working on Arctic shipping logistics with KOPRI (Week 26)
- Worked out MiniROV 4k camera upgrade budget and video map (Week 27)
- Packaged and inventoried the last few items to ship up to Alaska (Week 30)
- Looked through old NUC PC's and organized them (Week 31)
- MiniROV high voltage meeting with Alana (Week 33)
- Had meeting regarding new thruster design (Week 41)

- Learning more about Maxon drivers for thrusters (Week 43)
- Investigated the new AD2S1200 resolver-to-digital board. Interfaced it with our current resolvers (Week 44)
- Made Hall sensor cable for thruster redesign (Week 45)
- Set up an electrical testing jig for thruster tests (Week 45)
- Found the thruster test tank test setup. Looking for a suitable load cell (Week 45)
- Getting quote for DVL (Week 46)
- Helping Matt with dangerous goods paperwork to get the containers back to MBARI ASAP (Week 46)
- Attended Geosense MiniROV deployment meeting (Week 46)
- Completed end-of-year spending sheet (Week 48)
- Powered 10' van to inspect AC unit (Week 49)
- Purchased VN100, computer equipment, made PO for DVL (Week 49)
- Purchased DVL and VN100, started looking into integrating into the mini (Week 50)
- Looking into purchasing stock to build a new swing arm mount as a spare (Week 50)
- Building up a 10" PC rack (Week 51)
- Purchased Focal GME boards (Week 51)

902402 - CSEM

- Adjusted lengths of line on black winch & general maintenance (Week 5)
- Completed vessel project manager (Week 9)
- Organizing March 17th cruise (Week 9)
- Connected Dataq for topside real-time current monitoring (Week 9)
- Wound up winch, ready for deployment (Week 10)
- Fulmar is 240V 3-phase, winch voltage needs to be swapped over (Week 10)
- Organizing crew and logistics (Week 10)
- Finished all NOAA VPM forms (Week 10)
- Cruise planning and logistics (Week 11)
- Rewired winch to 240V 3-phase for Fulmar (Week 11)
- Getting CTD ready for deployment (Week 11)
- Completed mob, deployment (x2), and demob on the Fulmar. Deployments went smoothly and were successful (Week 13)
- Compiled and organized all the data and notes (Week 13)
- Purchased GFCI test cable to debug potential issues with power supply (Week 13)
- Winch control panel parts ordered (Week 14)
- Black winch cover being made (Week 14)
- Built up space in control van for topside electronics (Week 15)
- A large plug was installed in the control van for 208V 3-phase black winch connection (Week 15)
- Purchased additional GPS loggers and spare parts for deploying 2 additional data loggers (Week 15)
- Debugged GFCI issue on CSEM power supply - verified equipment safety (Week 15)
- Built cable for topside voltage and current monitoring (Week 15)
- Helped out with ITAR/EAR classifications on CSEM equipment (Week 15)

- Installed power supply in AUV server rack (Week 15)
- Built up cable to connect 4th datalogger for time sync (Week 15)
- Replaced corroded cabling in black winch (Week 16)
- Rewired winch 3-phase to clockwise rotation for minirov control van (Week 16)
- Inventorying and packing for Arctic trip (Week 16)
- Getting new lines made for 3rd and 4th datalogger deployment (Week 16)
- Working on Antarctic logistics (Week 19)
- Creating a datalogger and triggerbox GUI to see the settings and data stream better (Week 19)
- Discussions with Mr. Shin regarding CSEM deck placement. (Week 21)
- Working with Mr. Shin on winch deck placement changes (Week 22)
- Engineering drawings of the datalogger protective housing were made (Week 24)
- Drew up engineering drawings for datalogger protective housing to be manufactured (Week 25)
- Working on Arctic shipping logistics with KOPRI (Week 26)
- Wrote proposal activities and budget (Week 27)
- Reviewed manufacturing of datalogger housing (Week 29)
- Ordered parts for new triggerbox construction (Week 31)
 - Started initial programming (Week 31)
- Wiring done on the new CSEM triggerbox (Week 32)
- Continuing code development (Week 32)
- Trigger box housing completed (Week 33)
- Programming finished and tested (Week 33)
- Working out logistics of Antarctic deployment. Possibly may not happen due to engine trouble on the ship. (Week 39)
- Working out logistics to ship the equipment from Korea -> MBARI -> Antarctica (Week 40)
- Figuring out Antarctic shipping logistics (Week 41)
- Completed Antarctic treaty training course (Week 41)
- Met with Aaron & Eliana to discuss Antarctic deployment logistics (Week 43)
- Met with Eliana to discuss Antarctic deployment (Week 44)
- Completed German Antarctic treaty course (Week 45)
- Moved equipment to ESB (Week 46)
- Set up the system for a tutorial for Eliana (Week 46)
- Moved line spooler to ESB to decrease length of line from 250m to 150m for Antarctic trip (Week 46)
- Working on shipping logistics to Chile (Week 46)
- Packing system for Antarctica (Week 48)
- Refurbishing BlueROV (Week 48)
 - Creating niskin bottle trigger mechanism for ROV (Week 48)
- Completing paperwork for shipping (Week 48)
- Completed BlueROV water sampling modification and validated functionality in the test tank (Week 49)
- Working on shipping paperwork (Week 49)

- Packing gear for shipping (Week 49)
- Got final approval for CSEM shipment to Antarctica. Need to finalize palletizing with Matt & ship the pallets out (Week 50)
- The shipment finally left! (Week 51)
- Purchased foul-weather gear (Week 51)
- Organized files (Week 51)

902504 - Scalable Semantic Mapping

- Blueboat heave test completed (Week 30)
- Organizing payment for 4Dnav use in the Arctic (Week 50)

902505 - 2025 Arctic Expedition

- Sent CSEM load shackle notes to Mr. Shin (Week 13)
- KOPRI medical documents submitted (Week 25)
- Met with the Arctic team to go over AUV/ROV operations (Week 27)
- Made PO for 4DNAV (Week 51)

Out of Office

- Dec 16th - Jan 10th - Vacation
- May 30th - June 5th
- Oct 9-13th

Overhead

- Debugged Roberto's SBE 16 CTDs (Week 20)
- Open house (Week 29)
- Rigging training (Week 41)