

Paul Roberts Sorted By Project

701164 - SnoCam+ Research

- All hands meeting and project update (Week 6)
- lighting design meeting (Week 6)
- Lighting brainstorming, concept diagrams for illumination and optics (Week 7)
- Advising on illumination and optics (Week 8)
- Advising on sensor and lens selection for prototype system (Week 9)
- finalizing optics and sensors for prototype system (Week 10)
- Status update meeting (Week 33)

901221 - Midwater Time Series

901809 - Deep Sea Bioinspiration

- Lightfield camera validation for upcoming paper (Week 2)
- Testing new multicamera interface electronics on MiniROV (Week 2)
- Testing new lightfield compute hardware (Week 2)
- EyeRIS calibration and validation in test tank (Week 3)
- Testing multicamera interface can on MiniROV (Week 3)
- EyeRIS calibration and validation for Octopus paper (Week 4)
- EyeRIS camera validation and calibration for Octopus paper (Week 5)
- Completed multicamera interface can electro/optical testing (Week 5)
- EyeRIS octopus paper (Week 6)
- Preparing for final report and end of Moore Foundation funding (Week 6)
- Wrapping up EyeRIS octopus paper (Week 7)
- Testing DeepSTARia on MiniROV in Test Tank (Week 7)
- Planning for MiniROV integration (Week 8)
- Test tank work with MiniROV (Week 8)
- Moore Foundation (EyeRIS) project wrapup, data wrangling, RIMS software testing (Week 9)
- Coordination on MiniROV deployments (Week 9)
- Midwater sled fitup and tracking testing (Week 10)
- EyeRIS (Moore Foundation) project wrapup (Week 10)
- EyeRIS (Moore Foundation) project wrapup (Week 11)
- MiniROV Midwater sled updates (Week 11)
- DSPL machine vision camera testing (Week 11)
- DeepSTARia software integration with latest CVisionAI model (Week 11)
- EyeRIS (Moore Foundation) project wrapup (Week 12)
- Testing new ML models for DeepSTARia (Week 12)
- EyeRIS (Moore Foundation) project wrapup (Week 13)
- EyeRIS (Moore Foundation) project wrap up (Week 14)
- migrating DeepSTARia to new yolov5 deepstream model (Week 15)
- Integration of deepstream models and nvtracker into DeepSTARia vehicle control (Week 16)
- Field work work on Fulmar (Week 17)
- Infosheets and EyeRIS data wrangling (Week 19)
- Chiton deployment for CANON (Week 20)
- Supporting Chiton deployment for CANON (Week 21)
- Chiton data ingest from CANON experiment (Week 22)

- Intern support (Week 25)
- Chiton software and data management (Week 28)
- EyeRIS computer troubleshooting (Week 31)
- Electrical support for minions camera bringup (Week 35)
- Assisting with minions camera development (Week 36)
- Minions camera support (Week 37)
- Optim camera deployment (Week 38)
- MiniROV interfacing (Week 38)
- Mini PoE integration (Week 39)
- Optim camera software (Week 39)
- Multicamera testing on MiniROV (Week 40)
- Multicamera acquisition software (Week 41)
- Supporting field work on Fulmar (Week 45)
- optim camera control (Week 46)
- LCM image exporting (Week 46)
- Ordering parts for EyeRIS/Chiton (Week 48)
- Updating Chiton system controller (Week 48)
- Chiton strobe controller and red LED revision (Week 49)
- Multicamera design (Week 50)
- Chiton strobe controller upgrades (Week 50)

901904.99 - Corral Camera System

- Completion of multispectral LED array schematics and board fab (Week 2)
- Bench testing multispectral illumination hardware (Week 6)
- Starting requirements for ROV multispectral camera (Week 7)
- Review of current multispectral camera status and planning for ROV instrument dev. (Week 8)
- Planning for initial testing of multispectral camera las system (Week 11)
- Review of firmware and software control for multispec (Week 12)
- Planning meeting (Week 14)
- Weekly meeting (Week 16)
- Setup of AVT Alvium camera and python API examples (Week 17)
- Brainstorming meeting for multispectral lab and ROV camera (Week 19)
- Meeting with Irene and planning for assembly of multispec camera (Week 21)
- Assembly and initial testing of multispec camera for tank imaging (Week 25)
- planning for calibration and tank testing (Week 31)
- Software eval and updates on lab system (Week 33)
- Planning design review of ROV camera (Week 35)
- Planning for design review and lab system testing (Week 36)
- preparing for ROV camera design review (Week 37)
- Planning for design review (Week 38)
- Design review planning (Week 40)
- Design review prep (Week 41)
- Multispectral design review preparation (Week 42)
- Design review preparation for multispectral ROV camera (Week 43)
- Finalizing drawings for ROV camera (Week 45)
- Ordering parts for ROV camera (Week 45)
- ROV camera fabrication (Week 46)
- multispec ROV camera fabrication (Week 47)
- Ordering parts and finishing PSU schematics (Week 48)
- Sourcing parts and power supply design (Week 49)
- System controller brainstorming and design (Week 50)

902001 - Ventata 4k camera

- Finalizing laser connectors (Week 2)
- Starting fabrication of revised chassis parts for new corrector optics (Week 2)
- Sourcing parts for rack box electronics (Week 3)
- Sending bulkheads to DSPL for integration into second housing (Week 3)
- Starting fabrication of modified chassis parts for new corrector optics (Week 3)
- Planning for assembly and testing of second camera and new corrector optics (Week 4)
- Starting assembly of second MxD camera (Week 5)
- Planning for assembly and testing of new optical corrector (Week 6)
- Moving into temp space to complete build of second camera (Week 7)
- Assembly of second camera and relocating to new workspace (Week 8)
- Meetings and timelines for new corrector optic delivery (Week 9)
- Receiving new optics from Fathom Imaging and starting integration (Week 12)
- Retro MxD camera with new corrector optics (Week 13)
- Validation of new optical corrector (Week 14)
- testing new optical corrector (Week 15)
- Assembly of new optical corrector (Week 16)
- retrofit of new chassis parts for corrector (Week 19)
- In-water testing of new corrector optics (Week 19)
- Optics testing (Week 20)
- Lens control firmware updates (Week 20)
- Sizing laser integration (Week 20)
- Wrap up of new optics testing and planning for laser integration (Week 21)
- Final testing of new optics and lens control updates (Week 22)
- Updates for laser control (Week 25)
- Final assembly and testing for Ventana integration (Week 25)
- Supporting installation on Ventana and RC control room setup (Week 28)
- Supporting deployments (Week 29)
- planning for second camera assembly (Week 31)
- Laser alignment testing (Week 37)
- Laser testing / troubleshooting (Week 38)

902004 - Planktivore

- Review of controller design (Week 4)
- Review of system controller (Week 5)
- Engineering meeting (Week 6)
- Review of camera controller (Week 6)
- Kickoff meeting (Week 7)
- Planning LRAUV integration and software migration from Chiton to Planktivore (Week 8)
- Planning meetings for april deployments (Week 9)
- Migration and consolidation of planktivore V1 and Chiton code for LRAUV integration (Week 10)
- LRAUV software integration (Week 12)
- Compute Chassis assembly (Week 13)
- Strobe electronics mounting (Week 13)
- Pseudo-nitzschia ROI detector (Week 13)
- Planktivore V2 assembly and testing for EcoHAB (Week 14)
- Planktivore V2 pn detector dataset creation and training models (Week 14)
- V2 assembly and testing for EcoHAB (Week 15)
- Firmware updates to camera controller (Week 16)
- Support for field deployments (Week 16)

- Supporting deployment efforts and data processing (Week 17)
- Abstract preparation (Week 19)
- Abstract submission (Week 20)
- Abstract presentation and processing data from paragon deployment (Week 21)
- 2024 proposal planning (Week 22)
- Deeprip setup (Week 25)
- 3D printer setup (Week 25)
- Proposal submission (Week 28)
- V2 battery integration (Week 35)
- integration on LRAUV (Week 36)
- preparing for LRAUV deployment (Week 37)
- LRAUV deployment (Week 38)
- First deployment on LRAUV Ahi (Week 40)
- First deployment on Ahi (Week 42)
- Second field deployment on LRAUV Ahi (Week 43)
- Data management and RIMS integration (Week 45)
- RIMS integration (Week 47)

902111 - Carbon Flux Ecology

- Making mosaics of SES images (Week 29)

902204 - Scalable Robotics

- Kickoff meeting and planning for 2023 (Week 2)
- Sprint 0 : Stereo cameras for Mola and planning for Mini ROV tank tests in March (Week 3)
- Sprint 0 reviewing options for stereo camera on Mola (Week 4)
- Sprint 0 review (Week 5)
- 1500 m PoE camera housing design for MiniROV (Week 5)
- Bench testing Mola stereo cameras (Week 6)
- Preliminary design of 1500 m PoE camera housing (Week 6)
- Review of flat port OAK housing design (Week 7)
- Testing DSPL Machine vision cameras (Week 7)
- RE interviews (Week 8)
- Mola stereo camera housing fabrication (Week 8)
- Sprint 3 : flat port housing fabrication and testing (Week 9)
- Coordination on MiniROV deployments (Week 9)
- Flat port housing testing (Week 10)
- MiniROV fitup and testing (Week 10)
- CoMPAS MiniROV integration (Week 11)
- Mola flat port stereo pressure testing (Week 11)
- Open HSI dataset support (Week 11)
- Fabrication and testing of frame for cameras, laser, and DVL (Week 12)
- Assembly and testing of laser and mola flat port housing (Week 12)
- MiniROV sled and frame (Week 13)
- Laser line generator integration (Week 13)
- MiniROV integration (Week 14)
- Mola Flat port tank testing (Week 15)
- 950 m laser housing (Week 15)
- 950 m laser housing (Week 16)
- dome-port laser housing (Week 16)
- Field work on Fulmar (Week 17)

- Planning for Oct deployments and MiniROV sled (Week 21)
- wide angle laser optics (Week 22)
- camera interface concept (Week 22)
- MiniROV sled and camera integration (Week 25)
- PoE interface can solid modeling (Week 29)
- Printing April tags (Week 29)
- PoE Interface Can solid modeling (Week 30)
- PoE can drawings, thermal simulation, and sourcing parts (Week 31)
- PoE Interface bench testing (Week 33)
- Wider laser line generator (Week 33)
- HSI refactor planning (Week 33)
- PoE can testing (Week 35)
- HSI camera on the MiniROV concept modeling (Week 35)
- PoE can pressure test (Week 36)
- HSI concept modeling and OSM abstract (Week 36)
- HSI AI cam design (Week 37)
- PoE can assembly (Week 37)
- FLIR camera driver support (Week 37)
- MiniROV interfacing (Week 38)
- HSI camera design (Week 38)
- Mini PoE integration (Week 39)
- PoE camera software (Week 40)
- HSI camera assembly (Week 41)
- Wide-angle laser assembly (Week 41)
- Testing HSI can and system (Week 42)
- HSI camera testing and mounting in mapping sled (Week 43)
- Supporting field work on Fulmar (Week 45)
- HSI lighting improvements (Week 46)
- Scoping SOI integration (Week 47)
- Ordering parts for SOI integration (Week 48)
- SOI integration planning (Week 49)
- SOI integration and power system upgrades (Week 50)

902306 - SINKER

- Kickoff meeting and planning for 2023 (Week 2)
- Kickoff meeting, scheduling and hardware procurement (Week 3)
- System diagrams and planning (Week 4)
- Hardware procurement (Week 4)
- Wiper mechanics concept design (Week 5)
- System diagrams and interfaces (Week 5)
- Wiper concept model (Week 6)
- Electrical system design (Week 6)
- Completing requirements documentation (Week 7)
- Power path and power isolation design (Week 7)
- Wiper design (Week 8)
- Electrical hardware selection (Week 8)
- Testing cameras and lenses (Week 8)
- Wiper concept and camera / lens testing (Week 9)
- Purchasing zebra-tech wiper (Week 10)
- review of system PCB design (Week 10)
- System PCB review and mechanical modeling of interface housing (Week 12)

- Interface can mechanics (Week 13)
- Dev board for firmware development (Week 13)
- LED lighting design (Week 14)
- Dev board bring-up (Week 14)
- camera testing and lab setup (Week 15)
- dev meeting (Week 15)
- ME planning and organization (Week 16)
- Updating solid models with latest camera/lens/illumination design (Week 19)
- Sediment camera optics modeling (Week 20)
- finalizing CAD models (Week 20)
- Finalizing sediment camera optics (Week 21)
- Pressure housing weight reduction (Week 22)
- Electrical design review (Week 22)
- Ordering sediment camera lens (Week 22)
- Proposal submission (Week 28)
- Preparations for design review (Week 29)
- Testing cameras and lenses (Week 29)
- Design review planning (Week 30)
- Budget review (Week 30)
- Mechanical design (Week 31)
- Battery pack modeling (Week 33)
- Housing drawings (Week 33)
- Internal chassis for sediment camera (Week 35)
- Internal chassis for sinking camera (Week 35)
- chassis modeling and optics mounts (Week 36)
- finalization production for Ti housings (Week 37)
- sediment camera optics and mounting (Week 37)
- Internal chassis design (Week 38)
- firmware troubleshooting (Week 38)
- Sediment camera chassis and optics (Week 39)
- planning for tank testing and instrument assembly (Week 40)
- Testing sediment camera optics (Week 42)
- Preparing for system assembly and testing (Week 45)
- Project management (Week 46)
- Prep for field work (Week 46)
- System controller bringup (Week 47)
- Optics testing (Week 47)
- Assembly and sediment camera bring up (Week 48)
- Image acquisition software (Week 48)
- Sediment camera assembly and tank testing (Week 49)
- Interface can software (Week 49)
- Integration and testing of SINKER on Ventana (Week 50)

Out of Office

- Jan 4 - 8 CES
- Working remote 2/27 and 2/28
- Working remote due to road closure 3/13, 3/14, 3/15
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- June 6 - June 13
- June 26 - July 4 (tentative)
- June 26 - July 4

- July 14
- Sept. 1 (China Peak CES)
- 10/19-10/21
- 11/23-11/26
- Dec. 25 through Jan. 1 2024

Overhead

- SE interview (Week 20)
- A few slides on Chiton/CANON for DOEST (Week 22)
- Intern support (Week 25)
- Intern support (Week 28)
- Poster and materials for open house (Week 29)
- Open house posters and planning (Week 30)