

702108 - Deployable AI

Week 50

1. Akshay Hinduja
 - a. Sent JCB005 for RMA
 - b. Test new boards to see if issue is resolved

Week 49

1. Akshay Hinduja
 - a. RMA request sent for JCB005 board which had anomalous behavior in 4 and 6 cam mode, making it difficult to get full resolution images at 60fps.

Week 48

1. Akshay Hinduja
 - a. Test issues with Connect Tech JCB005 board. Conclusion is to RMA board and trye another one. Inconsistent connection issues made it impossible to run 3+ cameras at full res and full fps

Week 47

1. Akshay Hinduja
 - a. Troubleshoot camera board issue with Connect Tech. Unable to use all ports, with at least 2 not showing camera feed
 - b. Contact allied vision onto why we are not getting advertised fps at full resolution

Week 46

1. Akshay Hinduja
 - a. Debug hardware limitations on AVT cameras not getting advertised fps.
 - b. MIPI cables do not have a rigid connections and prone to disconnections easily

Week 45

1. Akshay Hinduja
 - a. Wrote python scripts to leverage gstreamer library to run cameras on agx orin
 - b. Troubleshoot issues with multicam. Only one camera is responsive
 - c. Contact Connect Tech for possible solutions

Week 44

1. Kevin Barnard
 - a. Cruise Oct 22, 2024 : ran PID and new RL vehicle controllers with YOLOv5 DeepStream tracking pipeline; conducted online training of RL controller
2. Akshay Hinduja
 - a. Test multi-cam setup on AGX Orin
 - b. Start writing scripts to control cameras through python
 - c. Write setup documentation
3. Paul Roberts
 - a. Data review and reporting from Oct 2024 field work

Week 43

1. Kevin Barnard
 - a. Tested RL agent on MiniROV Oct 22, 2024
 - b. Ran successful online RL training at sea
2. Paul Roberts
 - a. Field testing RL agent
 - b. Revisions to boxview software

Week 42

1. Akshay Hinduja
 - a. Setup allied vision camera on AGX

Week 41

1. Akshay Hinduja
 - a. Setup allied vision camera on AGX

Week 40

1. Akshay Hinduja
 - a. Setup Nvidia Deepstream for CTI Rogue carrier board
2. Paul Roberts
 - a. Preparing for Oct 14-16 tank testing

Week 39

1. Akshay Hinduja
 - a. Setup Nvidia Jetson AGX Orin
 - b. Test camera setup

Week 38

1. Akshay Hinduja

- a. Setup Nvidia Orin AGX for new sensor head
- 2. Paul Roberts
 - a. RL modeling support

Week 35

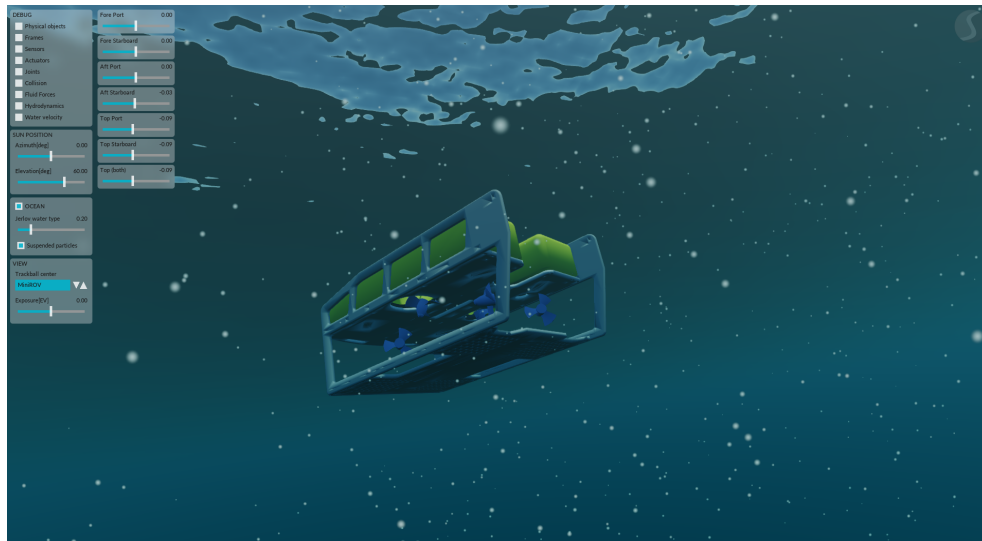
- 1. Paul Roberts
 - a. Planning for Oct. cruise

Week 32

- 1. Paul Roberts
 - a.

Week 6

- 1. Kevin Barnard
 - a. Modeled MiniROV core body components and thrusters in Stonefish for RL training



b.

Week 5

- 1. Kevin Barnard
 - a. Exported core MiniROV STL from SolidWorks and converted to optimized OBJ mesh for hydrodynamic simulation
 - b. Set up simulation environment for MiniROV

Week 4

- 1. Kevin Barnard
 - a. Kickoff meeting Jan 23, 2024

- b. Started working on MiniROV simulation; scoping body physics and thruster parameterization
- 2. Paul Roberts
 - a. Kickoff meeting, planning for miniROV simulator

Week 2

- 1. Kevin Barnard
 - a. Began scoping work for Stonefish simulation of MiniROV