

Justin Tucker Sorted By Project

300078 - DMO Support - AUV

- DP AUV capture head, continued work (Week 17)
- Capture Head design support (Week 19)
- Continued work on Capture head design review (Week 20)

901405 - Wave-Energy Conversion for Oceanographic Applications

- Mooring design analysis (Week 4)
- Wave climate data processing (Week 10)
- Battery Housing endcap design (Week 10)
- Pressure relief valve design (Week 11)
- Endcap design (Week 11)
- Battery endcap design (Week 13)
- Continued work on subsea housing, and battery housing endcap (Week 16)
- Battery endcap and Docking subsea housing design, continued work (Week 17)
- Battery housing endcap and subsea housing support (Week 19)
- Continued work on subsea housing electronics layout (Week 20)
- Continued work on Subsea housing endcap mod (Week 21)
- Continued work on Subsea housing chassis design (Week 21)
- Endcap PRV test fixture design (Week 21)
- Finalized various small parts to shop and orders for assembly (Week 23)

902004 - Planktivore

- CFD batch run configuration on DeepRip2 for ANSYS and OpenFoam (Week 13)
- General CFD scaling setup see Overhead (Week 17)

902101 - LRAUV Technology Development

- Carbon tube coupon test follow up (Week 2)
- Carbon test tube bond prep (Week 10)
- Coordinate system exports for Gazebo Sim (Week 17)
- Propeller optimization setup (Week 19)
- CG/CB separation measurement test plan (Week 21)
- Hovering Module CAD export and extrinsics support (Week 23)
- CG CB measurement support (Week 23)

902204 - Scalable Robotics

- Mini ROV target holders for deployment and recovery (Week 9)

- VN100 housing design (Week 13)
- Continued work on VN100 housing (Week 16)
- Heading housing design, continued (Week 17)
- VN100 housing support (Week 19)
- Heading sensor housings being machined (Week 20)

902208 - Mini ROV Operations

- Thruster, combo ring, first parts fit tests (Week 2)
- Heading sensor housings being machined (Week 20)

902504 - Scalable Semantic Mapping

902606 - Low Altitude Survey AUV

- Kinematic path energy estimation (Week 11)
- Continued work on energy usage simulation and thruster positioning (Week 13)
- Work on thruster orientation (Week 16)
 - Thruster spec sheet curve digitization script (Week 16)
- Continued work automating thrust curve ingestion into simulator. (Week 17)
- General CFD scaling setup, see overhead (Week 17)
- Drag and added mass simulation setup (Week 19)
- Continued work on SUBOFF CFD benchmarking (Week 20)
- Gazebo Sim Basic setup (Week 21)
- Prep for Sim handoff to Vicente (Week 21)
- Energy sim cross check against various model setups HoloOcean, Stonefish, Gazebo (Week 23)
- Sample bathymetry mesh generation (Week 23)

DQ2533 - UW Tidal Turbine

Out of Office

- Fridays through March 2026
- OOO 3/27-4/3
- Tentative 6/1-6/12
- out 5/22
- 6/5-6/12

Overhead

- New project planning (Week 2)
- LARS test weight design (Week 4)
- LARS sim updates (Week 4)
- High performance PV investigation (Week 7)

- ANSYS installation on DeepRip2 (Week 7)
- RV DP LARS prepwork (Week 7)
- Mooring analysis for Amazon deployment (Week 9)
- DAKOTA setup and training for design of experiment management (Week 9)
- Claude solidworks integration (Week 11)
- Continued work on compute node configuration and job scheduling for CFD workflows. (Week 16)
 - DeepRip2 CPU heat generation and fan noise investigation (Week 16)
- Passive eDNA sample holder for ROV deployment (Week 16)
- General CFD workflow and server setup. Ongoing work with DeepRip2 and secondary servers. SLURM job submission now working correctly (Week 17)
- Optimizing the CFD workflow for container investigation. (Week 17)
- General CFD benchmarking (Week 19)
 - Continued work on DARPA's SUBOFF geometry generation and validation (Week 19)
- Collection bucket eDNA sample holder design (Week 20)
- eDNA sample collection prints (Week 23)
- Stanford Capstone project outline (Week 23)
- Doc Ricketts lifting analysis (Week 27)
- Finishing up Doc Ricketts Lift Point Analysis Report (Week 30)
- Finishing up draft Stanford ME170 Sr. capstone project requirements documents (Week 30)