901007 - Benthic Biology & Ecology

Week 42

1. Enoch Nicholson
    a. Supported BRS cruise operations

Week 41

1. Enoch Nicholson
    a. Started Instrument MOB

Week 38

1. Enoch Nicholson
    a. Discussed instrument preparations for October cruise
    b. Identified cable assembly ordering issues

Week 35

1. Kent Headley
    a. found some chamber controller hardware

Week 32

1. Enoch Nicholson
    a. Completed project documentation migration to new lab notebook system

Week 30

1. Enoch Nicholson
    a. Met and debriefed the june deployment
    b. Made plans to work towards October deployment of brs

Week 28

1. Kent Headley
    a. Ran a series of simulations with macro-enabled script for an I2MAP tow-out mission. Wrote up and posted the results to Erik and Rob. The current and new script behaved similarly, and I believe that the features are ready to test in the tank and/or at sea.
    b. The new features include macros, which allow users to group and reuse a sequence of behaviors, and stop using different end conditions. There is also a

new scheduling feature that allows behaviors (or macros) to be started at a specified date/time. Together, enable precise mission scheduling, reduce cut-and-paste code and associated errors, and make mission scripts more modular, readable, and reusable.

Week 26

1. Kent Headley
    a. checked in new chamber controller programming doc and included on oasis5 doc website (http://fangtooth2.shore.mbari.org/oasis5)

Week 25

1. Kent Headley
    a. Figured out complete build and programming process for MRS/BRS chamber controller firmware. It's a two step process involving a bootloader as well as firmware image load. Building the code relies on some special cables and old Windows software. I can now build and install both the bootloader and firmware, and am putting together some documentation.

Week 21

1. Enoch Nicholson
    a. BRS Instrument assembly
    b. BRS Hydraulic pump testing, redesign and assembly
2. Justin Tucker
    a. BRS build continues

Week 20

1. Enoch Nicholson
    a. Starting Instrument Assembly
2. Justin Tucker
    a. BRS build

Week 17

1. Enoch Nicholson
    a. Testing lid check valve & spring closure
    b. Revised hydraulic pump and submitted
    c. Ordered second attempt at BRS side plates

Week 14

1. Justin Tucker

    a. Ongoing review and updates to BRS drawings
    b. BRS pump troubleshooting

Week 13

1. Enoch Nicholson
    a. Handed off components for test build to chris.
    b. Discussed schedule for assembly & testing of new components before June deployment
    c. Troubleshooting hydraulic pump system.
2. Justin Tucker
    a. Troubleshooting flush pump valve assembly
    b. Misc print prep for auxiliary parts

Week 12

1. Justin Tucker
    a. Modification and finalization of BRS PEEK parts

Week 11

1. Enoch Nicholson
    a. Ordered 3d printed chamber parts
2. Justin Tucker
    a. Continuing work to get quotes and lead times on parts for manufacturing
    b. Testing volute shape for pump
    c. Continuing design on lid assembly

Week 10

1. Enoch Nicholson
    a. Starting to move BRS chamber components into the shop for Fabrication.
    b. Lengthy fabrication discussion with the machine shop and Ray
2. Justin Tucker
    a. Finalizing drawings for the lower part of the assembly
    b. Working with shop to plan manufacturing schedule and quotes
    c. Continued design of upper assembly

Week 9

1. Justin Tucker
    a. Continued design of BRS base assembly

Week 7

1. Justin Tucker

    a. Continue work on valve design tolerances
    b. Redesign of ball check valve
    c. Source FKM u cup seal

Week 6

1. Justin Tucker
    a. Valve design revamp

Week 4

1. Enoch Nicholson
    a. Supporting justin as he starts to take over BRS changes
2. Justin Tucker
    a. Working through layout for Rev C improvements

Week 3

1. Enoch Nicholson
    a. Discussed project timeline with Jim's lab.
    b. Started handing off design work to Justin to keep the project moving during Jan & Feb
2. Justin Tucker
    a. Introduction of BRS, system and CAD familiarization