

901904 - Deep-Sea Coral-Sponge Community Observatory

Week 29

1. Rich Henthorn
 - a. Camera Tripods
2. Paul Roberts
 - a. Timelapse camera support
3. Alana Sherman
 - a. Getting Mega ready, there was issue with the new lens so zoom control will have to wait.

Week 28

1. Alana Sherman
 - a. Prepping Mega,

Week 27

1. Irene Hu
 - a. Cataloged and sorted metadata for images and data from last cruise. Assembled multipage tiffs of the images we took for easier viewing and handover.

Week 26

1. Irene Hu
 - a. Fixed up some of the camera interface code, but having troubles getting camera to connect to Harlequin

Week 25

1. Irene Hu
 - a. Continuing to work on some camera code

Week 24

1. Irene Hu
 - a. Coral hugger deployment went well, imaged many corals. Ground fault is back

- b. Working on code to interface with camera directly instead of using Vimba Viewer

Week 22

1. Irene Hu
 - a. Data inventory for corals imaged in last deployment
 - b. Looked through images and processed some for compilation and correction. Need to redo blanks for proper corrections. System is dropping frames which makes compilation difficult
 - c. Updated code for new default values based on last deployment
2. Thom Maughan
 - a. ROVVOR, planktivore attached to the ROV Ricketts. Barry Lab is encouraging the enhancement of our phase 1 proposal to include a deep, 4000m, capable housing dedicated to the ROV.

Week 21

1. Irene Hu
 - a. Troubleshooting the coral hugger for comms issues when in water. Found a ground fault in backlight between insufficiently sealed debug connector, and circuit ground accidentally connected to chassis

Week 20

1. Irene Hu
 - a. Carson cruise on Monday. System worked well enough but various comms issues involving back light and motor, possibly a ground loop

Week 19

1. Irene Hu
 - a. Tests in tub for focus of different LEDs, field of view, depth of field, absorbance vs distance for two LEDs

Week 18

1. Irene Hu
 - a. Made an alternate version of GUI code with previous motor control structure, as using potentiometer as encoder seems to slow it down a lot

Week 17

1. Irene Hu

- a. Revisited motor controller manual and did a bunch of tests and calculations to figure out how it works. Two point calibration reduced to single point calibration and implemented into GUI
- b. Slightly reworked structure of motor controller driver in GUI to clean things up, implemented position polling while motor is moving

Week 16

- 1. Irene Hu
 - a. Test with Ventana went well
 - b. Working on actuators. Fixed a bug causing comms delay, trying to implement new feature to goto position. This requires a series of commands and a two-point calibration that will be difficult to automate with the GUI. Need to discuss
 - c. Modified electronics in backlight to improve LED performance. Reassembled chassis with great effort.

Week 15

- 1. Irene Hu
 - a. Weekly meeting; checks on Harlequin for testing

Week 14

- 1. Irene Hu
 - a. Chassis wiring for longer housing is finally finished, need to test
- 2. Paul Roberts
 - a. Planning for April 8 testing

Week 13

- 1. Irene Hu
 - a. Planned out spacing for chassis rewiring, ordered and printed some parts
- 2. Paul Roberts
 - a. SWIR chassis rewire support

Week 11

- 1. Irene Hu
 - a. Parts for chassis modification for longer house: iterations on fan holder and motor driver mounts

Week 8

- 1. Irene Hu

- a. Looked at chassis wiring with Paul for new longer housing. Did some unwiring and some planning
- b. Drafted and printed new parts to hold fan and motor controllers

Week 7

- 1. Paul Roberts
 - a. SWIR multispec chassis updates

Week 6

- 1. Irene Hu
 - a. Motor interface board received; attempted to hook up and found some issue with connectors, fixed

Week 3

- 1. Irene Hu
 - a. Revised motor interface board for two motors + minor fixes. New version ordered

Week 2

- 1. Irene Hu
 - a. Image correction for reflectance images, assembled RGB versions
- 2. Paul Roberts
 - a. Planning for Feb 10 deployment
- 3. Alana Sherman
 - a. Prepping Coral Macro for deployment in two weeks.
 - b. Ran 2-week test of the system over the holidays
 - c. Got deepsea connect up and running and swapped out batteries
 - d. Set focal length based on the expected target