

901700 - Acoustical Ocean Ecology

Week 50

1. Paul McGill
 - a. Finished analysis of Deimos cable failure, which appears to be failure of ODI connector.

Week 44

1. Eric Martin
 - a. Handed over some materials to Brent Jones

Week 43

1. Eric Martin
 - a. Handed over some work to Brent Jones who's interested in parsing the EK80 data as well.

Week 42

1. Francois Cazenave
 - a. Helped with assembly of frame
2. Paul McGill
 - a. Did Test-Tank-side testing of MARS Echosounder and was stymied by networking issues.

Week 41

1. Francois Cazenave
 - a. Supervised assembly
2. Paul McGill
 - a. Met with Craig Dawe to set up tests for MARS Echosounder.

Week 40

1. Francois Cazenave
 - a. Supervising frame fabrication
2. Paul McGill
 - a. Finished wiring of MARS connector interface

Week 39

1. Francois Cazenave
 - a. Modified frame design to reduce weight
2. Paul McGill
 - a. Finished schematics for MARS Echosounder and identified suitable 375 V connector.

Week 38

1. Francois Cazenave
 - a. Designing frame

Week 36

1. Francois Cazenave
 - a. Finsihed design of echosounder frame
2. Paul McGill
 - a. Tested MARS interface can for MARS Echosounder. Found minor issues and am fixing them.
 - b. Had Zoom meeting with former colleagues of Kelly at UNH and NOAA to help them address EMI noise issues with a Simrad WBT-Mini sonar.

Week 35

1. Francois Cazenave
 - a. Design frame
2. Paul McGill
 - a. Finished system schematics for MARS Echosounder and got half of chassis wiring finished.

Week 34

1. Paul McGill
 - a. Trying find a place for current limiter board in the MARS Echosounder can

Week 32

1. Francois Cazenave
 - a. Assembled electronics housing
2. Paul McGill
 - a. Tested current regulator for MARS Echosounder but it didn't work well so am building a different version

Week 31

1. Paul McGill
 - a. Built current limiter to protect Vicor on MARS Echosounder. Not working yet but figuring it out.

Week 30

1. Paul McGill
 - a. Drawing schematics for MARS Echosounder

Week 24

1. Francois Cazenave
 - a. Started design of new housing
2. Paul McGill
 - a. Met with Chad W. and François to start design of MARS Echosounder frame and housings

Week 23

1. Chad Kecy
 - a. Finalizing electronic parts for Hydrophone testing. Performing load tests on new DC-DC's
2. Paul McGill
 - a. Working with Chad W. to figure out best design for next MARS Echosounder extension cable
 - b. Helped Chad figure out ground fault on current MARS Echosounder

Week 22

1. Francois Cazenave
 - a. Gathering information for housing design
2. Andy Hamilton
 - a. Working towards a tank test of hydraulic control system. Coded the IMU data ingress and control loop, working on actuator output.
3. Paul McGill
 - a. Tested latest incarnation of sonar Faraday shield with Chad W.
 - b. Ordered power supplies for MARS Echosounder

Week 21

1. Eric Martin
 - a. Consult to Chad regarding scoping for battery sizing for a moored bioacoustics package.
2. Paul McGill
 - a. Assembled and tested latest revision of Faraday shield for MBT Mini sonar
 - b. Obtained and configured Vicor Micro boards for MARS Echosounder

Week 20

1. Eric Martin
 - a. Brief analysis of battery need for moored deployment

Week 13

1. Paul McGill
 - a. Mostly completed assembly of sonar Faraday shield. Got Johnny to fab some last copper parts that I'll attach this week for testing next week.

Week 12

1. Paul McGill
 - a. Shopping for Enet switches for MARS Echosounder
 - b. Made adjustments to parts for WBT Mini Faraday shield and received new parts from James M. Will attempt to assemble them this week.
 - c. Resumed hyperparameter tuning on CNN for sonar identification.

Week 11

1. Paul McGill
 - a. Did initial assembly of WBT Mini Faraday shield and adjusted design dimensions where needed. Met with James M. to work on PCB layout for power filter on shield.

Week 10

1. Paul McGill
 - a. Got PC boards back from techs to build Sonar Faraday Shield. Some minor adjustments need to be made but we're getting much closer.

Week 6

1. Paul McGill
 - a. Modified Enet switch for wider power supply range and delivered to Chad W.
 - b. Beginning to spin up on Deimos (sonar plugged into MARS) redesign for this year.

Week 5

1. Eric Martin
 - a. Processing EK60 DEIMOS data, initial results are checking well against Echoview.
2. Paul McGill
 - a. Worked with Chad W. in lab to test new DC-DC converter to power Enet switch in sonar payload. It doesn't cause interference so I'll integrate it into switch.
 - b. Made initial model of sonar Faraday shield. Need to make more measurements to get hole placement correct.

Week 4

1. Chad Key
 - a. Board design is on pause until a new set of actuators are selected
2. Eric Martin
 - a. Finally made some progress processing Simrad data from the EK60 at MARS, reviewing it with Kelly and Chad for next steps.
3. Paul McGill
 - a. Working on mechanical layout of sonar Faraday shield.

Week 3

1. Eric Martin
 - a. Importing Deimos data, sadly this ek60 data does not ingest into echopype, a package that reads in simrad data. I am investigating what is broken in the library.

Week 2

1. Eric Martin
 - a. Warming back up into EK60/80 Data ingestion with Python
2. Paul McGill
 - a. Ordered parts for power supply for Enet switch in LRAUV sonar payload.
 - b. Got home copy of OrCAD connected to CIS database at MBARI