Background/Motivation:
- Goal to deploy a deep sea benthic microbial fuel cell (BMFC) to depths of 1000 meters.
- Create an anaerobic environment on the sea floor to generate electricity in order to power small sensors.
- Shallow water systems exist, but there are no unassisted devices for deep water.

Testing/Results:
- Multiple prototypes were made in order to test both the mechanical deployment as well as the electrical functionality of the design.
- Pool tests were performed in order to see if the device would deploy correctly.
- There have been successful underwater deployment tests of both a small scale as well as the 1:3 scale prototype where the anode would lay flush with the pool floor.
- Anode testing was done with multiple styles of the anode to compare the results. There were also tests done to see if the anode style would work with our design.
- Promising results have been collected showing that the new anode design can compare to the already successful buried anodes. Tests were also done with the anode attached to one of the small scale prototypes, again showing great data. All results can be seen on the graphs on the right.

Conclusion:
- Creating an unassisted, self-establishing deep sea benthic microbial fuel cell will make deployment both easier and cheaper, while also allowing deployment in deeper waters.
- Having BMFCs at deep sea depths will allow monitoring that currently does not exist.

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