This project will serve to outfit a remote salmon incubation chamber to measure various metrics relating to the conditions which salmon fry prefer to hatch. This includes a solar powered DC micro grid for power and an integrated sensor package.

The DC micro grip will use solar energy to charge a deep cycle battery and manage its charging state. This will include a DC-DC converter to take the solar power and get it to the proper charging levels for the deep cycle battery and a battery management system to regulate the amount of power being delivered to the battery.

The sensor package will measure water temperature, turbidity, dissolved oxygen, flow rate and do some minor statistical calculations based on measurement error. This information will then be periodically sent via bluetooth or wifi to remote storage. Also, have a camera to take photos each time measurements are taken.

Future work:

* Design a web application to view and download the latest information in real time.