# Project Proposal

Build a robot powered by turbine from passing currents.

Robot is anchored to ground. Thus it charges itself from the current and then moves about the ocean floor. The robot would be self-sufficient thus no human contact is needed and would need to transmit back to the user wirelessly. Applications that the robot could be used for, is ocean floor exploration ie. With video camera or ocean floor sediment analysing.

Key points are:

* The differential is created by the tank being anchored to the ground. If the robot is not properly anchored it will move with the current and gain no power. Thus the tank tracks must anchor the robot to the ground. (or spiked wheels, eg. Bike cogs.)
* The robot enclosure must not have any air in it. If there is air inside the robot it will be compressed at deep water and ruin the robot. Thus the whole enclosure must be filled with a liquid, the liquid used must also not conduct due to the circuitry. Eg. Oil.

To prove this concept I will design a small robot that includes a generator turbine and can move using tank tracks.

Key Questions:

* Where to get turbine from? Talking to Tim Youard about this. He possibly has a spare.
* How much can I spend?
* Where to get enclosure materials from?