Meeting #2 (January 31)

* Construction by Sea Perch method: PVC pipes
* Design proposals
	+ Quadcopter design using tilt sensor
	+ Torpedo shaped design
* Methods for making vehicle unmanned
	+ Sonar
	+ Light sensors
		- Probably won’t work in cloudy water
	+ GPS
		- We would need to create GPS signal
		- Might annoy local government agencies like the Naval Station or the FCC but we might still be able to work around this
* Where to test
	+ Pool?
	+ River?
* Programming: Arduino (most of us have experience using this from Electromechanical Systems class)
* Modeling software:
	+ SOLIDWORKS
		- Justin has experience using SOLIDWORKS and thinks it will be better than Inventor for our project, may be difficult to access without paying $100)
	+ Autodesk Inventor
* Purpose of project: Improve on existing concepts
	+ Improve size
	+ Improve cost (our goal is to make something that’s already been done but to do it cheaply (under $1000))
* Existing vehicle to from which to get ideas:
	+ EcoMapper Autonomous Underwater Vehicle
	+ Boeing’s Echoranger
	+ US Navy Orcha
	+ Mark 18 Mod 2 “Kingfisher” UUV
	+ NOAA’s “Sentry”
	+ NOAA’s “Sea Bed”
* Features of vehicle
	+ Unmanned
	+ Collision avoidance
	+ Pathfinding
* Stages of project
	+ MAE 434W: Remote control
	+ MAE 435: Complete autonomy
* Main roles and responsibilities:
	+ Design
	+ Analysis (validating work)
	+ Arduino
* General notes:
	+ We might want to get certifications for using MLAB equipment.
	+ We will meet with Dr. Kaipa at 11:00 AM on Thursday to get a more concrete idea of what we need to do to accomplish the project