**List of ideas for game improvement**

**I. Major features:**

**1) New enemies/bosses with unique abilities:**

a) Submarine. A submarine is the ultimate hub of enemies. Bot will have to fight the submarine, which will have many fierce guns in the last level. It will be much faster than the bot and other enemies will come out of it from time to time.

b) Ghosts of dead pirates will be present inside shipwrecks. These can be modeled as skeletons or zombies. They will be the only enemies inside shipwrecks. However, some of them will be found outside too. This will be explained in the cutscene as "Enemy found the magical captain's skull which they are using to control the ghosts.". They will attack the bot with pirate swords. And they can be stunned but not teleported as they are ghosts and their health never reduce. However, they get stunned for 0.5 seconds when they are shot at.

c) Diver with chain harpoon. It gets hook to your body, and they will pull you towards a group of enemy to gang-bang you.

d) Diver with chain saw.

*Fun*: unique bosses and enemies are of course important for the fun of any game.

*Unique*: none.

*Educational*: none.

*Predicted amount of work*: high.

*Hien’s comments*: good to have but should not of high priority

**2) Extinct animals resurrection:**

+ Main idea: In treasure chest, find fossil fragments of extinct animals. Number of fragments you have to collect depend on the size of the animal. When we have enough fossil fragments, we bring it to the lab. It will be a jigsaw game. He has to finish in 2 minutes. We will display educational information about the fish, how it became extinct. Show the real science - how fragments of DNA can be obtained from fossil and a full DNA sequence can be used to revive extinct creatures.

The fish will serve us in battle. bot can have multiple pets. A small fish will just follow you and heal you. Other fish can increase your attribute, etc. An anchient shark will be able to attack. Bot also need to heal his minions.

+ Expanded idea: With the ancient fish, bot can make strategy. There will be a strategy screen when he right clicks on it. The bot can choose different options, like: If you see the terminator, swim right, or swim toward center of screen, swim towards me, etc. Bot can also lend a skill to it, and create strategy when it is supposed to use it. e.g: When you see the shark use the hammer, then bite it.

*Fun*: pretty fun when having some fishes to fight by your side with their unique abilities, jigsaw game can be fun and challenging too.

*Unique*: having minions in game is not unique but the whole thing of reviving extinct animal and have it fight by your side is unique.

*Educational/Informative*: real science of how to revive extinct animal. Real science is currently one of the thing that our game lacks.

*Predicted amount of work*: high +.

**3) Encouragement for doing good deeds:**

We will have "goodwill bar". This bar will increase every time you clean trash, heal fish or plant tree. It fills up very fast. When the bar fills up there will be a wheel that will roll like in a casino. The idea is the environment is paying you back for the good deeds you have done.

- Poseidon face: clear all cool down time and refill health

- Skill icon: increase skill power by 5%

- Fruit icon: increase attribute by 1

- Revived fish icon: increase their attribute or power

*Fun*: making the shooting in the game much more dynamics, initiative for healing the fish which normally players ignore.

*Unique*: the idea of having some bar to fill up and something special happens is not too new but the content of "something special" is unique for our game.

*Educational*: encourage the player to do good deeds but not very informative.

*Predicted amount of work*: high -.

**4) Skill Combos:**

It will be unlocked only when you have some achievement. 2 slots. If the combination is not correct, nothing will happen but you will still lose health for using both skills. Order matters

- Hammer + Bow = throwing stunning hammer

- Sandal + Belt = whoever got hit got hipnotized

- Armor + Belt = whoeer hit you got hipnotized

- Hammer + Belt = whoever got hit got hipnotized

- Armor + Hammer = get enough damage = explode

- etc.

- Invalid combos = nothing or just one of two happens

*Fun*: making the skill casting more complex and less linear, the player need better relex, add more skill effects into the game, more things for user to discover and try to achieve.

*Unique*: unique, can separate us from millions of skill casting games in the market.

*Educational*: none.

*Predicted amount of work*: high -.

**5) Trash management:**

We will have different kind of trash with different env points. Most points for radioactive trash, then plastic, glass, rubber, biodegradable. Fish health reduce when it swims near radioactive trash. Hydrobot first have to build trash processing plants at any place he wants and as many as he wants. However, it takes 50 ENV points to build it as it is an artificial structure in the sea bed. It would also take 5 days to build it. Trash gets collected when z is pressed. No environment/experience point is given for collecting. Points are given only after the bot process the trash in the correct plant. He just have to double-click on a trash-processing-plant to dump all collected trash into it. Each trash(correct kind) = 100/40/30/20/10ENV & 10EXP each, for incorrect kind, 5ENV points will be deducted. This will make the player to collect 1 kind at a time, and prevent spamming of Z+X all the time. He can also get help from fish (discussed in minor features sections 1.d, 1.e, 1.f).

*Fun*: force the player to think a little bit more when trying to clean trash.

*Unique*: the idea of classifying trashes is not too new.

*Educational*: brings real technology of how to process different kind of trash into our game. Real science is currently one of the thing that our game lacks.

*Predicted amount of work*: high -.

*Hien’s comments*: I advocate the idea of having trash classification in the game because it adds educational factor to our game which we currently are lacking of. However, if we are going to implement this, we have to further work on this idea. Letting the player to collect only 1 kind of trash at a time is perhaps not very good, we can still let him collect all kind of trash at the same time by:

+ Pressing Z: collect trash and put it in category A (i.e recycling trash)

+ Pressing X: collect trash and put it in category B

+ Pressing C: collect trash and put it in category C

Trash of type A but press X? Trash wrongly put into category B. Perhaps there is limit on how many trash bot can carry at a time.

3 types of factory for processing 3 types of trash, when hydrobot on top of a factory:

+ Pressing Z: drop all or just 1 trash in category A into this factory

+ etc….

Wrong drop -> no gain or even lose points. Drop all or just 1 piece a time depends on how many errors we make when testing.

Get rid of the trees, trash processing factories recycle trashes, give out resources and/or powerup packs. Use resources to build more recycle plants or researching facility. Research facility has upgrades to process trashes better (faster, give back more resources, more expr given, better powerup pack etc.). But trash factories need trash to operate, no trash -> no recyling -> no powerup pack. Maybe player has to choose trash factory to produce resources and/or powerup pack. So we need periodical trash drop-> unlimited supply of trash for factories to operate. Enemies try to destroy factories, bot has to protect them.

Trash drop notification on radar.

Ratio: bio : plastic : radio

Trash drop ratio = 5 : 4 : 1

Cost to build factories = 1 : 1.2 : 6

Resources recycled = 1 : 2 : 1

Time to recycle resources/produce power pack = 1 : 2 : 3

Power pack quality (time last) = 1 : 1.2 : 3

Times a piece of trash can be used to produce resources/power packs = 1 : 1 : 10

Reward given for collecting 1 piece = 1 : 1.5 : 5

**6) Fix oil leak:**

Do research how it is done. State of the art technology. There will be oil bubbles coming out from random places in the oil rig. The bot has to clean oil bubble before it escapes his reach (floats above him to the surface). More will be fun, as it requires quick reflex from the player.

*Fun*: can make the gameplay more variable.

*Unique*: more than average.

*Educational*: brings real technology of how to seal oil leak into the game. Real science is currently one of the thing that our game lacks

*Predicted amount of work*: high.

*Hien’s comments*: very nice to have but amount of work will be high because of oil piles/ oil leaks modeling, oil processing technology simulation etc.

**7) Trees die:** due to pollution, oil blobs, or enemies destroy them.

*Fun*: stop the spamming of trees planting, more work for the player to do.

*Unique*: not applied.

*Educational*: none.

*Predicted amount of work*: low.

*Hien’s comments*: we can do this if we have time.

**8) Labirynth:** maze, different maze every time. rescue a endangered species or find relic, or ancient city with a labyrinth with a relic.

*Fun*: can make the gameplay more variable.

*Unique*: not really.

*Educational*: none.

*Predicted amount of work*: high.

*Hien’s comments*: high amount of work and not much value.

**9**)  **(Khoa) Using the sea animals as part of the game play:**

+) Skills adding:

* Ocean’s Soul: Command sea animals
  + Having fog of war, use animal to scout
  + Control the fish but not for fighting
* Build structures:
  + Different kinds of factories: Recycling trash
  + Healing Tower: Affecting the health of nearby fish
  + Research center: Give boost for factories, healing towers. We can describe the latest technology here. This building will offer lots of upgrades applied to many areas: increasing fish health, increase recycling speed of the factories, increase health of fish, etc.
  + Oil recycling tower: Absorb floating oil plumes and recycle it
  + Defense tower: Help the bot fight against the enemy
  + Engineer building: Slowly repair nearby structures.

+) Tree will be damaged and then destroyed by floating oil plumes.

+) Fish as employee:

* Having fish works inside the structures, so the player is encouraged to heal and protect the fish. Fish is needed for the structure be to fully functional.
* The fish will stay inside the building (disappear).
* Select the fish, point to the structure to make it works there.
* The health of the building is 50 by default, then later increase as it has more fish in it (say +10 per fish)
* The enemies will attack the structures. The fish dies when the building is attacked; say a fish got killed when the hit point of a building is decreased by 10.

*Fun*: The storyline will fit new skills and explain new features that we want to add to the game. We have the fish works for the structures, so the players are encouraged to heal and protect more fish. Otherwise they cannot clean the trash since processing requires factories. More strategy and more brain work for the player. They have to think where to build the factories, structures, etc. The player cannot abuse the use of tree.

*Unique*: depends on judging perspective and how it is implemented.

*Educational*: With research center, we can describe the latest technology we use to clean up oceans, oil, etc.

*Predicted amount of work*: high +.

*Hien’s comments*: This idea requires very high amount of both graphic (modeling different buildings etc.) and programming work. It attempts to change the game from a shooting game to a full strategy game. I do not think we should do this just because we want to add some brain smashing factor to our game. If we want brain factor, we should do it in a way of a shooting game. The idea of controlling the fish mind sounds like animal abusing for me. Most importantly, how does this fit into our current game where the hydrobot is a rambo style of warrior who roams around killing enemies? Why do we need scout and fog of war? Basically this requires too much change to the current game which will not be a good idea. However, we can take or integrate some of the good features from this idea to integrate into another idea:

+ Different types of factories for different types of trash

+ Bot can build a research center to improve/upgrade current technology for processing trash, fixing oil leaks etc. or the research center can even be used to resurrect extinct animals. But what is the reason behind having to build a research center here instead of returning to the main land?

**10**)  **(Thien) Using the sea animals as part of the game play:**

Use the animals as part of the game play instead of them just swimming around a getting in the way (after level one they pretty much become obsolete because the player will not even bother with them any more).

+) Every animals will have a different special ability.... ie.

-) sea turtles : defense

You can command the turtles to defend a certain object/animal/building/area.

-) sharks : attack

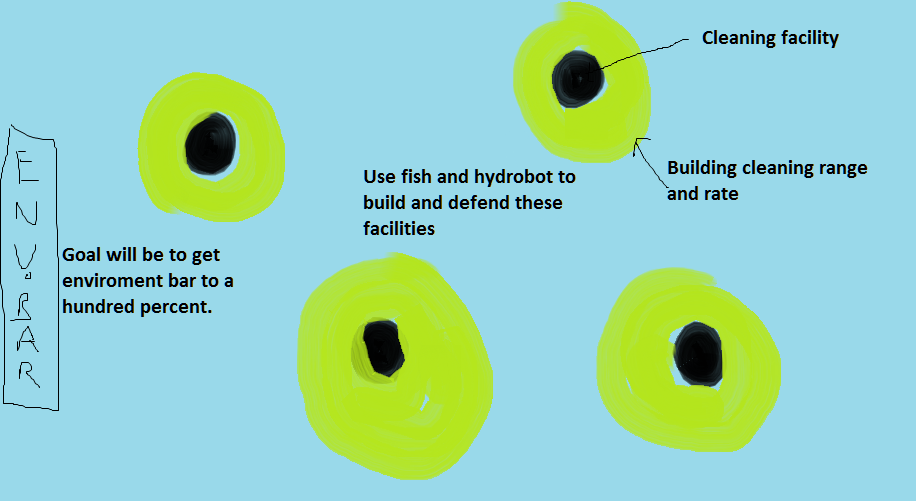
Sharks will be the main offensive line. You can use them to fight off enemies so that the hydrobot can make buildings or whatever he needs to do but need time. (like building the  different recycling plants or mating building).

-) seals : scouts

Seals can scout areas for maybe resources/potential enemies/threats and rely them back to the hydobot. Maybe even collect points and resources for him.

+) Instead of planting trees into the ocean (which I really never understood because people don't plant trees into the ocean), we have the hydrobot build a building of some sort that automatically cleans the ocean (at least within certain range). Sort of like it sucking in the surrounding area and cleaning it.

A prototype game plan.



*Fun*: add an element of strategy to a game. As of right now, our game is basically just a run and shoot game with no real strategy involved (besides planting and using an endless supply of plants).

*Unique*: depends on judging perspective and how it is implemented.

*Educational*: none.

*Predicted amount of work*: high +.

*Hien’s comments*: Again, the idea of telling animals to do this and that sounds like animal abusing to me. Judges may not like it. Moreover, a shark can only bite and kill, if you tell it to bite a diver, it will cause massive damage and kill the diver instead of teleporting him like now and killing is not allowed in imagine cup game. Telling a seal to scout seems like forcing it to risk its life for your purpose and if hydrobot is a rambo, why does he need a scout? And if just fish healing ignorance is the problem for doing all of this, then making the game harder + the Goodwill bar will pretty much solve the problem.

**II. Minor features:**

**1) Fish enhancement:**

a) Put the electric eel, which can zap the bot. make funny pop-up comments when zapped.

b) Luminous/glowing fish in darker scenes.

c) Different mutant shark texture.

d) Carry Trash: Option available only when fish health=100%. Bot can tell fish to carry all his trash to

any of the available trash-processing-plants.

*Associated with the sea animal abusing feature.*

e) Help to find radioactive trash: Option available only when fish health = 100%. Bot can ask fish to show him radioactive trash. When bot follows fish to trash, he can not do anything else. Since there will be very few radioactive trash (probably 1) & they will provide 100 env points, the player has to decide whether to take help from fish, or try finding it himself. This will improve decision-making factor of game, and also make level 1 more interesting.

*Associated with the sea animal abusing feature.*

f) Save fish: Bot can instruct a fish to swim toward him or toward his minion (ancient fish) when attacked. This will make it easier to save fish.

*Associated with the sea animal abusing feature.*

**2) Achievements for bragging rights:**

For example, you gain achievements when you never get hit or kill all the enemies or get 100,000 points in survival mode.

**3) Change the mini game:**

Typing game is boring. Make something more fun like platform game.

**4) Graphic improvements:**

Draw a the boundary of the game, Bigger Ship wreck & more complex, Change 3d models that are taken from google 3d warehouse. Levels more unique: Every scene should look different. Do research to see which sea has what. Each level bot goes to diff sea. e.g dead sea is more pulluted. Sea near pole is full of ice. Dirty (brownish) water when env is low. Skill effects improvement. All’s animation improvement. Levels look less repetitive. Bot looks cooler.

**5) Thien’s collected feedbacks:**

The following are suggestions based on some feedback I got from friends and family....

When I get my family and friends and family to play the game... they don't really understand the goal or point. They say that it's pretty and interesting but just can't understand the main purpose for the game. They tell me that there is simply to much going on. There suggestion is that we need a main objective... which I believe should be to clean and save a dying and polluted ocean. Our game right now doesn't have a main objective.... it is doing a little bit of everything. Fighting bad guys, planting trees, cleaning the ocean, healing fishes, finding treasures, etc....

(I think this is what Jose and Yun is complaining about.... yes they haven't played our game to really understand it but I think this could be an indication of bad "marketing". We want our game to have a clear and concise message... even if the player hasn't even played the game. The judges wont play the game either.... they will simply look and judge, just like Jose and Yun did.)

**6) Twist in storyline:**

a) When the terminator overpowered the hydrobot, Poseidon and the fish came to the rescue. He lost to the terminator’s strength and tried to run away. His fatness slows him down so he decided to abandon his trident. His trident was later picked up by a fish. Meanwhile, the hydrobot ran into a cave which is too small for the terminator to chase after. He was angry and destroyed the entrance so that the terminator could not get out. After months of training inside the cave, the hydrobot got stronger to the level of a single blast of the Thor’s hammer blows away the cave. The bot then obtained the trident which gives him more abilities but slows down his movement.

b) Poseidon turns bad, bot brings the terminator's gun & poseidon uses it to kill the hunters. Also bot discovers that all the hunters that did not pass the quiz and writing test, we're killed by Poseidon. He discovers a room full of stinking dead bodies. The female divers are naked (possibly raped by Poseidon). In the last level, he has to fight Poseidon and save the hunters as well, even though the hunters are also

trying to kill him.

**7) Sushil’s inputs:**

+) More action right at the first level: I know that our game already has a good story line and if a player follows, I'm sure they would get enticed. But if the first level does not appeal, people might not go on to the next level. So, my idea is to improve on the game play action at the beginning itself. Some of the ways that might help are

-) put some little less intelligent and less powerful shooting enemy who do not attack other fauna, but attack only hydrobot. This gives the feel of survival right at the start.

-) allow the player to trade experience point for speed.. use double click for faster travel along the space (something in the line of AOE where infantry runs in double click but does a lazy walk for single click).

+) Level selector: If a player has already completed certain level, unlock all levels below it so that user can choose which one to play.

+) Regarding the radioactive trash, we can put a bit of animation on top of such trash to differentiate it from normal trash.. something like glowing and blinking red cloud of dust around such items.