Final Project Proposal

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For our final project, we will be creating a turn based battle game with robots where the player’s goal is to destroy the enemy’s main robot while trying to keep their own main robot alive. The player will have to go through about 10 levels, requiring them to beat the current level before progressing to the next, each with a stronger enemy robot fighting against them.

When we say turn based battle, we are referring to a combat system similar to games such as Pokemon and Final Fantasy, where the player makes a decision, then combat occurs, and then the enemy makes a decision and combat occurs again, and so on. However we are putting a twist on this system with the player, instead of being able to directly make a decision (“I choose to attack with my Pikachu!”), they must use a 3-slotted slot machine to determine their actions (“I have a ⅓ chance to attack with my Pikachu!”).

The machine will contain 3 different reels each with 3 different actions the player can roll for: the “Robot Generator Reel” that creates mini robots to fight for the player, the “Support Reel” that gives useful buff actions that beef up the player’s forces, and the “Attack Reel” that has actions that weaken the enemy robots. Rolling multiples of the same action would also result in stronger versions of that action being used, with rolling three in a row allowing the player to take a consecutive roll (yes, this can go on infinitely). Repeats of certain actions while they’re still in effect(e.g. attempting to roll another “Tank Bot” while having a “Tank Bot” still alive) would result in nothing.

And of course, the enemy robot would use the same system, having an AI that would make it roll for whatever would help it the most in its current situation (e.g. it would choose the “Support Reel” and roll for the “Heal my robots” action if its robots were low on health points). The AI would also make better decisions as the player progresses through the levels, having increased chances at rolling multiples of what it needs in order to increase the game’s difficulty as the player gets closer to the final levels.

However, to avoid making the game purely luck based, the first slot in the machine would spin slow enough for the player to be able to get what they want, and the remaining two slots being somewhat random. We say somewhat random because knowing that it would probably frustrate the player if the enemy managed to roll multiple 3-in-a-rows, we would want to increase the chances of  the player rolling multiples of whatever action they are rolling for to try and make the game go in their favour.

Now knowing that our team is made of three people, we wanted to make sure the work was divided evenly in the coding aspect so that everyone would get large opportunities to improve their coding abilities and learn new things. We concluded that the enemy AI, the combat system and how each robot knows when to attack, the slot machine mechanics, and the various actions the slot machine can give were the largest and most complicated aspects of the game and assigned them accordingly: Helen will get the AI, Raymond will take care of the slot machine and Shahir will get the combat system. The various actions the slot machine can perform will be split between Shahir and Raymond as they overlap. (certain actions from the slot machine affect the combat sequence and will require thinking on both sides).

If we are unable to get a working skeleton done by the end of the first two weeks (which will probably consist of two main robots, a slot machine with only one reel and a combat sequence), we’ll most likely change our game to have a single level that can have a different difficulty (the player will have the option to have choose easy, medium or hard with each difficulty giving the enemy robot more health points) instead of multiple levels to reduce the workload.