

The general objective in our game is to stop the enemies that spawn at point A from getting to point B. Point A is the top of the phone screen, while point B is the Bottom. But, if enough enemies manage to make it to the bottom of the screen you lose. You may also get shot enough times to die then lose the game. In between rounds you get a break to rest and build up your defenses, buy items to help, or buy upgrades for current defenses. Rounds will gradually get harder and keep going until you lose, while there is no story, winning, or beating a final boss in this game, there is still a goal. That goal is, get as much money and survive as long as you can.

This game will be played in waves. A wave consists of a set amount of randomly selected enemies picked from a table of possible enemy spawns, that will keep going until all of these enemies are destroyed or reach the bottom. To stop the enemies from getting to the bottom, you may tap the bottom of the screen and shoot up at them. Dragging the bottom allows movement for your ship on the x-axis to aim your shot. In order to help you stop the enemies, you will be able to build defenses. These defenses shoot at the enemies for you. Before the enemies spawn you will be placed at a menu to build or upgrade your defenses, but once the enemies spawn you will no longer be able to build new defenses until you end the current round. One of the defenses will generate money for you instead of killing enemies. Choosing which ones to have is a strategic choice because you are only allowed a total of four. Unfortunately, these defenses and upgrades aren't free, and you must earn money to buy them. Luckily for you, the enemies will drop money for you when you kill them. You can also buy certain upgrades for your defenses to help defend your "base". As the rounds go up, the more enemies will spawn and the rounds will generally get longer. This will continue until you eventually lose the game, and the credits will play.

The target audience for this game is people who enjoy tower defense games, or just want to waste some time while waiting for the bus, or at a doctor's appointment. The game won't be overly complex to a point where it scares of younger audiences or people who want a game that lets them mindlessly tap. The amount of money gathered will encourage competitive play among friends to see who can gather the most money and survive the longest.

The main method for making money through this app would be ad revenue. An idea for the ads would be to have them placed at the end of the game after the credits. Having ads after losing the game would serve to not interrupt gameplay and give the user a reason not to lose, especially if they hate ads.

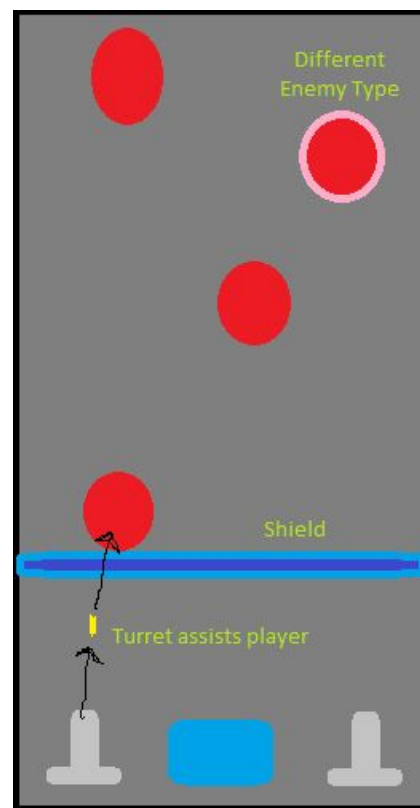
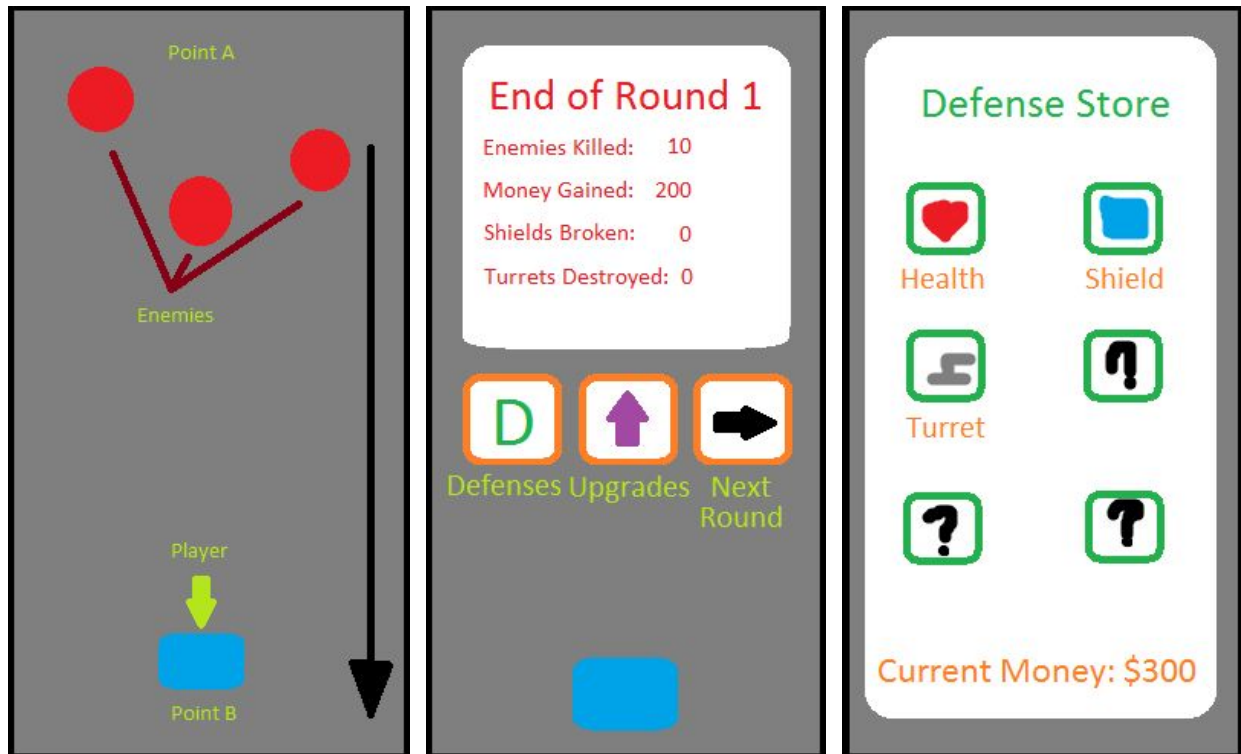
Something we did not end up adding feature wise was purchasable shields to protect the player. There were time constraints and it was decided that turrets would be the only defense. We also scrapped our original idea of the player tapping the enemies to get rid of them. The game now uses bullets shot by the player's ship to kill the enemies. Having shooter elements over just tapping allows for more difficulty to be introduced to the game as well as more user interaction. Mindless tapping would get boring eventually because it proved too easy to win. Tapping also gave the player no sense of self because they did not need their own sprite and turrets were almost useless because tapping allowed for much faster killing over turrets shooting.

Completed Components

Towers	Player Object	Storyboard	Items
While each of the towers that you purchase will be their own object, a table that stores the possible towers you can purchase is created. The tower object itself stores its' position, health, and if it has been upgraded. The amount of created turrets is stored to limit it to 4.	The player object appears at the bottom of the screen and only movable on the x-axis via touch. The player object has to store what upgrades the player has, and the player object is constant.	The storyboard is be separated into 4 states. The first is the opening game menu. The second is the main game. Where you tap/touch the bottom of the screen and try not to let any enemies past. The third is the end of round screen where you can purchase defenses, items, etc. The final storyboard is the credits after you lose.	There is a menu to display kinds of items there are. Each item purchased will require a certain amount of gold.

Player Tap	Enemies	Defenses	Sound
Tapping the bottom of the screen allows the player ship to shoot up. Tapping buttons allows for purchasing or progressing through different menus.	Sprite that moves from the top of screen to the bottom. If shot by the player they are damaged and destroyed. Three different types of enemies are created. Each type moves differently and one drops bombs instead of shooting down at the player.	Turrets that are acquired with money through a menu after a round has been completed. Upgrades acquired with money in a menu after a round is completed. Basic defense needed before it can be upgraded.	The player, each enemy, and each turret has a different sound that plays when they shoot. A sound plays when hit by a laser and when killed. Purchasing items has sound. The main menu has music.

Concept Art



Progress and Finished Art



Work Distribution

Core concepts - Everyone involved
Sprite Implementation - Brandon
Game Mechanics - Ricky
Level Coordination - Rolando
Sound Implementation - Brandon, Rolando, Ricky

Original Projected Milestones

- Week 5: Have art ready to use for objects, have enemy, towers, items, and upgrades planned out.
- Week 6: Have a character on the bottom, and an infinitely spawning enemy that you can tap. So we can test the game's core tapping mechanic.
- Week 7: Add in the round phases. add a health bar.

- Week 8: Add in currency and purchase functionality. Allow the purchasing of towers, items, etc.
- Week 9: Add in the rest of the enemy types, put in tower and item functionality.
- Week 10: Work on the formula of randomly generating enemies, and the scaling difficulty between the rounds of the game.
- Week 11: Bug testing, and have the finished product ready.