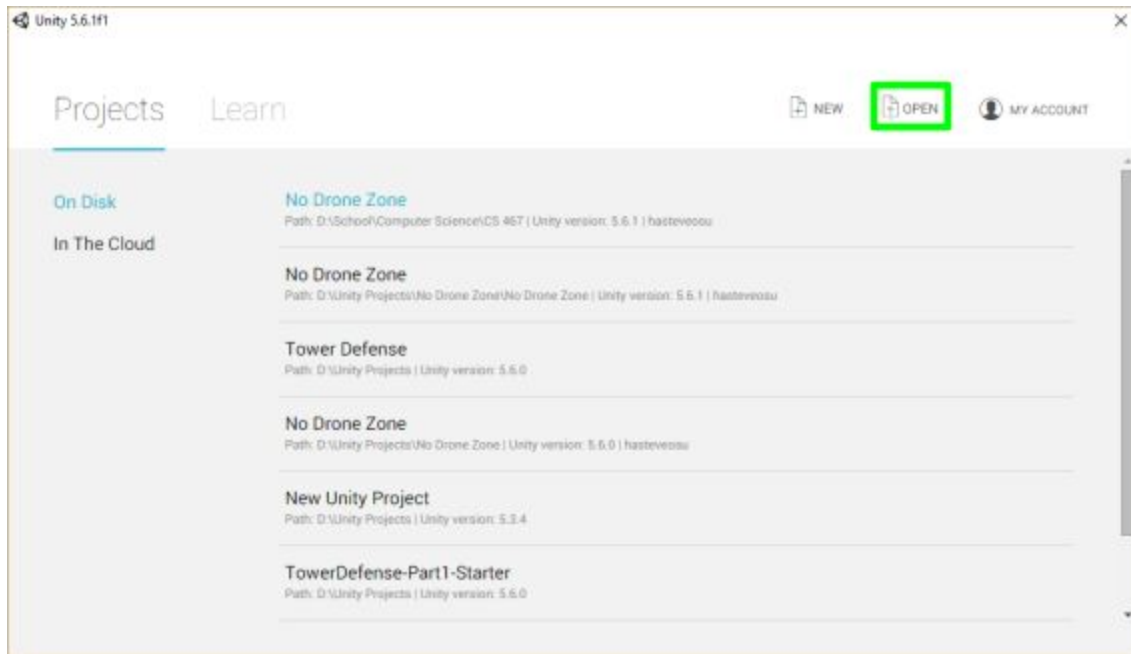


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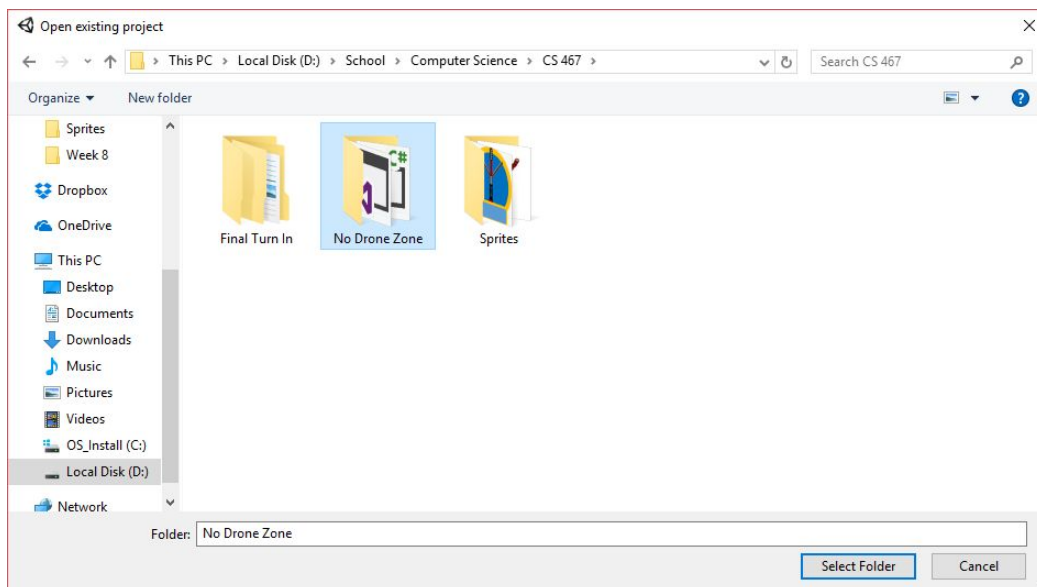
Perseus Group: Steven Ha, Thomas Mathew, Gabriel Orellana
Instructions document

I. View Project:

To view the project in Unity first downloaded it for free from <https://unity3d.com/>. Unity requires you to create a free account in order to use it. Once an account has been created, you will be taken to the Projects screen. From here select open.



Navigate to the folder included in the zip named No Drone Zone and select it.



The No Drone Zone project will open, and the code and assets can be viewed.

II. Game Instructions:

The game was created specifically to run on the Google Chrome web browser. The game was built using the WebGL platform within Unity. Because the game was designed for the WebGL platform the game can be accessed using other web browsers that support HTML5. For example, the game can also be accessed using Apple's Safari web browser.

To access the game, first open Google Chrome. Then type in the web address below:

<http://people.oregonstate.edu/~has/NoDroneZone/>

If the page loads and an error specifying that the web browser does not support WebGL or the game isn't loading, follow the instructions to install the extension GameLoad for Google Chrome. The web address for game load is below:

<http://www.gameload.top/>

When the game loads, the user will be brought to the Login and Registration screen. Prior to getting access to the game, the user needs to have an account that is stored on the server. To register, the user will fill out a form that requires their name, email address, and password. Only one account is allowed per Email Address.

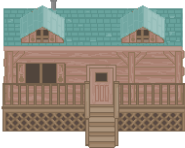




Figure 1: Login & Registration Screen

The game will load when the user successfully registers an account or logs in using previously registered credentials.

The game contains 3 levels which the user can advance through linearly. The user will need to defend their home for each level. The user has 3 lives total for the duration of the game, and life is worth 5 hitpoints. Each level generates 10 waves of enemy drones. Each drone that makes it to the user's home will reduce their HP by 1 hitpoint. Thus, if 15 enemy drones make it to the user's home during the duration of the game, the user will have lost the game.

The targets of the enemy drones for the various levels are shown below.

Level 1	
Level 2	
Level 3	

GUI Layout and Description:

Wave Indicator	Message that will appear when the game is going to generate a new wave of enemy drones. Message appears when the game is within 3 seconds of generating a new wave.
Level Information	Displays the level and wave information. The wave value displays the current number of waves the game has generated for the level.
Bank	The bank shows the user how much money they to spend on towers. This value changed real-time as the user spends money on towers and earns money by destroying drones.
Towers	The towers section displays the towers that the user is able to purchase, and the cost of each tower. If the user does not have enough money in the bank to purchase a particular tower, the tower will be grayed out.
User Health	Shows the number of lives and the current number of hitpoints remaining in that life.

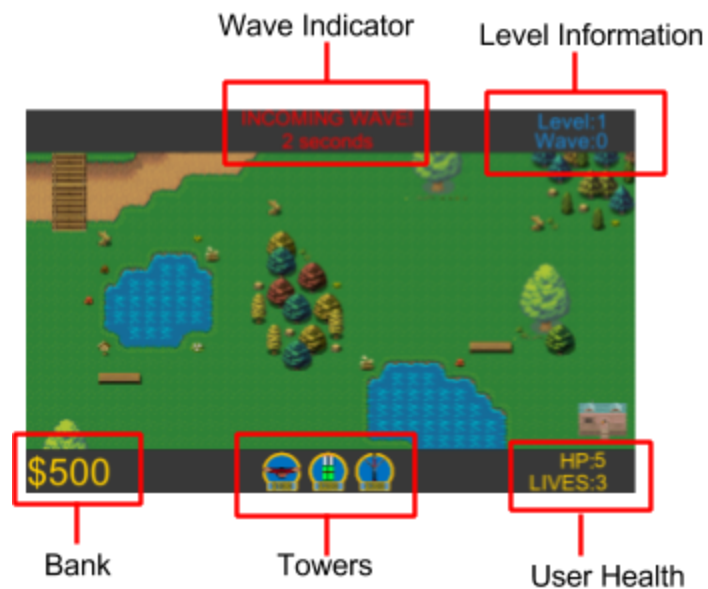
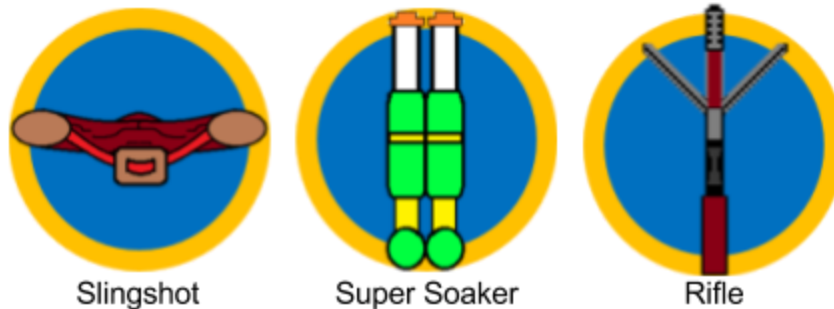


Figure 2: GUI Layout

Placing Towers:

There are three distinct tower types: Slingshot, Super Soaker, and Rifle.



The sprites for these were created by a member of the team in MS Paint and Powerpoint. Each tower has a set cost. The player must have sufficient funds in order to be able to select a tower for placement. Each tower has unique values for its range, rate of fire, projectile speed, and damage. Towers will automatically target and fire on enemies that enter their range. They will continue firing on an enemy until it leaves their range. The tower will then target the enemy in their range which entered it first. To place a tower, hover the mouse over the desired tower and left click with the mouse.



Figure 3: Select Tower

Move the mouse to the desired placement spot. Spots where the tower can be placed will turn green, indicating the tower can be placed there. If the location does not turn green, a tower cannot be placed there. Spots which can hold a tower but already have one placed there will turn red. To place the tower, simply click with the left mouse button on an acceptable location. To cancel tower placement, hit the spacebar.



Figure 4: Available Spot for Tower Placement



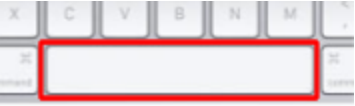

Figure 5: Unavailable Sport for Tower Placement

Game Controls:



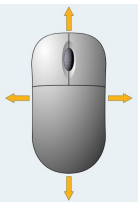
At the start of the game, the game is zoomed out. If the user zooms in during the game, they can pan around the map. Moving the mouse cursor close to the game's window will also allow the user to pan around the map. For example, moving the cursor to the top edge of the window will pan the game up if the user is zoomed in.

Keyboard:

	<p>W: Pan up S: Pan down A: Pan left D: Pan right Z: Zoom out X: Zoom in</p>
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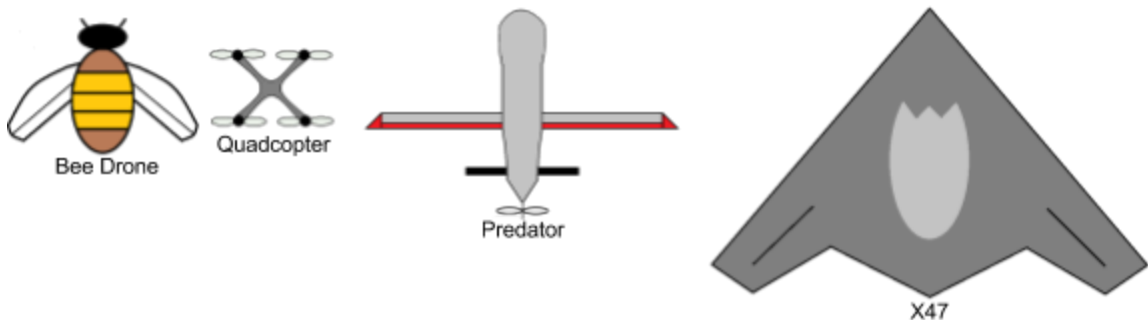
	Spacebar: Cancel tower placement and/or tower range display
	Esc: Pauses game and displays Save/Quit Menu. Pressing Esc again will unpause the game.

Mouse:

	Left Click: Select Tower/ Place Tower
	Scroll: Zoom In and Zoom Out
	Mouse Movement: Pan Around Level if Zoomed In

Enemy Spawning:

Once the player has logged in, a countdown will begin at the top of the screen. Once the countdown reaches 0, enemies will begin spawning. There are four enemy types: Bee, Quadcopter, Predator, and X47.



Like the tower sprites, the enemy sprites were created by a team member in MS Paint and Powerpoint. Each enemy has unique stats for health, speed, and money generated upon their destruction. Enemies will proceed on a set path to their target. If an enemy reaches the target, the player will lose one HP. If the player's HP reaches 0, they will lose one life. If their lives reach 0, the game will be over.

Pause Menu:

Pressing Esc while playing the game will bring up the Save/Quit menu.

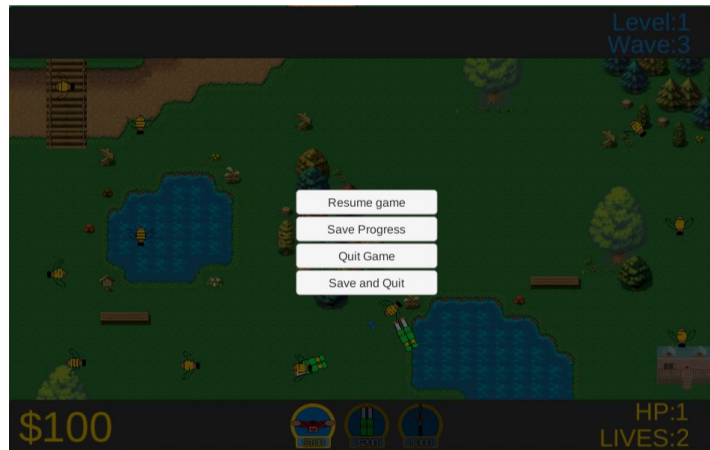


Figure 6: Pause Menu

Selecting 'Resume Game' will return the user to the game.

Selecting 'Save Progress' will save the user stats the user had at the start of a level.

Note that the game will not save unless the user has completed at least the first level, to prevent getting "stuck".

Selecting 'Quit Game' will end the game and return the user to the Login & Registration screen.

Selecting 'Save and Quit' will save the game and then end the game for the user, at which point the user will be returned to the Login & Registration screen.

Game Over Menu:

The user will be brought to the game over screen when the game ends. The game ends when the user has defeated each level or if the user's hitpoints and lives have reached 0. The "Score" represents the amount of money the user had when the game ended. So a perfectionist can strive to complete the game with as much money remaining as possible.

The user will have the option to replay or quit the game.

Selecting 'Replay' will reset the user's stats and restart the user at level 1.

Selecting 'Quit' will return the user to the Login & Registration screen.

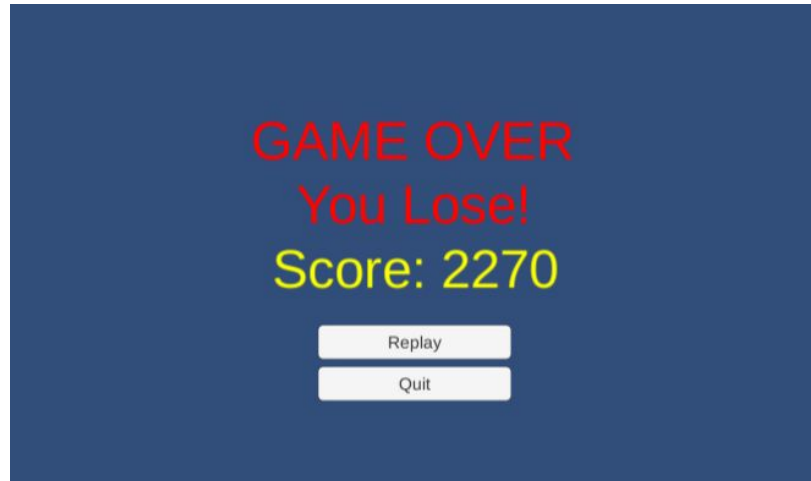


Figure 7: Game Over Lose Screen

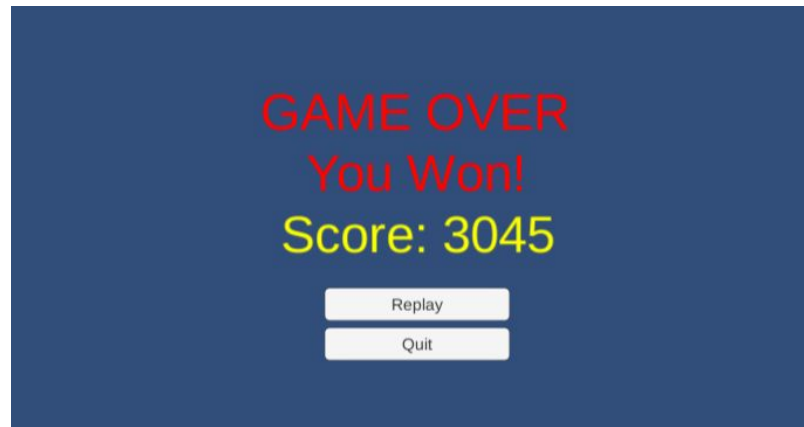


Figure 8: Game Over Win Screen

NOTE: The next 3 figures show the path of the enemy for each level. Do not look at the figures if you want to learn the path by playing the game.



Figure 9: Enemy Path for Park Scene

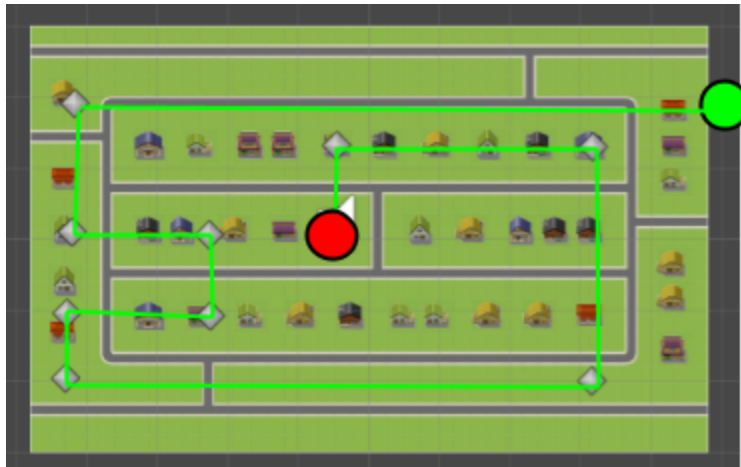


Figure 10: Enemy Path for Neighborhood Scene

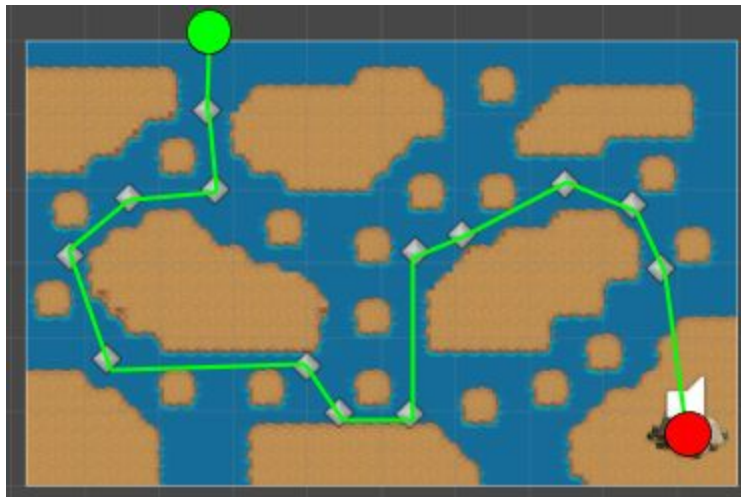


Figure 11: Enemy Path for World Scene