

Computer Games Development

CW208

GDD

Year IV

Darragh McKernan

C00271651

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| 11/05/2025 | |

**Game Overview**

War of Attrition is a 2D top down turn based strategy game. It will force the player to make tactical moves and be willing to sacrifice units in order to win at the end. It has a chess like strategy and will allow for the creation of custom units to add an unexpected twist to the game. It is a local multiplayer game where the players get to control the teams by selecting which of their units that they want to move in a way that will allow them to attack the enemy teams units. The players can use their money to create various types of units to help them win the battle, Each of the units have their own unique stats and appearance but will have different costs to reflect their strengths. The players will also be able to create tower units that will assist them in their gameplay, these will allow for more gold to be earned each turn and will allow for the creation of a research base so that the player can create their own custom units to help them get an edge over their opponent.

**Feature Set**

**General Features:**  
Grid based map.  
Turn based movements.  
Smart Unit Formations.  
Economy for managing units and towers.  
Unit information display for easy stat viewing.  
HUD.  
Menus for creating units or using research base.

**Editor:**Built in world editor.  
Tiles automatically set their own texture.  
Units will navigate around the world themselves.  
Change the game world as you see fit.  
Super easy to use.

**Custom Units**:  
Create a research building to make custom units.  
Use your money to increase its stats.  
Or get money back by reducing stats.  
Select a custom texture for your unit.  
After making your unit you can place it into the world.  
Previously made units wont be affected by new changes so  
make new units as needed.

**Combat System:**  
Simply move your units near enemies and they will automatically fight.  
You only need to worry about getting your units to the right positions, they will do the rest.

**Unit Information Box:**Hover your mouse over units to see their stats so that you know exactly where you and your opponent stand.  
Essential for planning where to move your units.  
  
**HUD:**  
See current players turn and the money they currently have.  
Access the menus to create new units and towers.  
Button to end current turn.  
  
**Unit Formations:**  
Simply select a unit then click on other friendly units to add them to the formation.  
Units will work away by themselves to get to the goal that was set for the leader.  
  
**Unit Behaviours:**  
Units will act differently depending on if they can stay in their formation or not.  
If they get blocked or can no longer get to their position in the formation they will try to get to the point through various different behaviours.  
  
  
**The Game World**  
The game world consists of a grid based map made up of singular world tiles. Tiles can be either ground or an obstacle tile, the units will only try to navigate the ground tiles. The player can pan the camera around the map to see the positions of all of the units. The player will also be able to zoom in or out if they need to see more or less of the map at a given time. Players can move their units to any valid tiles that are not already occupied in the world. Units in formations will seek valid tiles in order to get to their specified goal.

**Player Units**The player can pick from various units each with their own weaknesses and strengths, units with high damage and health will be slower and wont be able to move as far each turn. The units stats can be viewed by simply hovering over them and their stats will actively reflect their current values, this is how to check the health of your own units and the opponents units. Players can create their own units using the menus in the bottom right of the screen using the buttons to bring up the menus. Players will also be able to sell units but it will be at a loss. To move units the player simply needs to click on a unit and click on the tile they want it to move to, if the distance is too great the unit will not be able to be moved. If the player wants to create a formation they will have to first select a unit and then simply click on the units they want to add to the formation. After this they can select the target tile and the units will all move at once in a formation to that tile after the player has ended their turn. If for some reason the units can no longer get to their position in the formation they will be able to navigate separately in several different ways to get as close as they can to the end point that the leader has gone to. The player can also make towers that will be a support unit as opposed to the attack type units. The towers will be able to generate gold each turn and will allow for the creation of the research lab so that the player can then spend their money on making their own units to suit their own needs.

**User Interface**There is a HUD to show the players whose turn it currently is. It will also display the current players money and give them access to the End Turn button. The menu for creating units will be accessed from here and it will bring up a small menu with various buttons on it that when pressed will put the player in unit placing mode and will give them a circular highlight to show where the new unit will be created. All the player now has to do is to hover over a tile and if the placement highlight is there they can click to create a unit on that tile. If the player decides they no longer want to create a unit they can simply close the menu for creating new units and they will exit create unit mode. The other menu that can be access from the bottom right is the Create Tower button. This puts the player in create unit mode again but this time the menu that pops up will only allow the player to create towers. This functions identically to the Create Unit menu. If the player has created a Research Building they can then click on it in the game world to open up the Research Menu. This menu has various buttons and they are all used to modify the custom unit. Each stat that the unit can have can be changed here using the + and – buttons for the corresponding stats. The bottom of this menu will have 3 sprites that can be cycled through by clicking on the next or previous sprites. This sprite will be the one that the custom unit uses when created in world. To exit the upgrade menu a red X button is located in the top left of the menu to close it down. If the player hovers their mouse over any unit a readout box with all of their stats will show up so that the player can visually see the values of the units in the world.

**World Editing**The player can enter the world editor so that they can customise the world as they see fit. All that the player will have to do is to click onto the tiles and draw in the type of tile that they want to use in the world. The game will automatically save the positions of the tiles. If the player modifies the tiles in they will automatically set their own texture based on their own texture so that there is no need for full spritesheets and placing in sprites one at a time. This saves the player a lot of time and allows for them to get into the game significantly quicker after drawing in their intended map look.