# HTML5 Tower Defense Game: Instructions

**Oregon State University**
**CS467 Capstone Project**
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# Instructions

Website access: **flip1.engr.oregonstate.edu:8181** (OSU VPN required)

GitHub repo: **https://github.com/caseycheek/cs467-capstone**

1. Access project through browser either by web or localhost (see **Installation.pdf**).

2. Start the game by clicking the 'CLICK TO START' button and then select level and click the "PLAY" text.
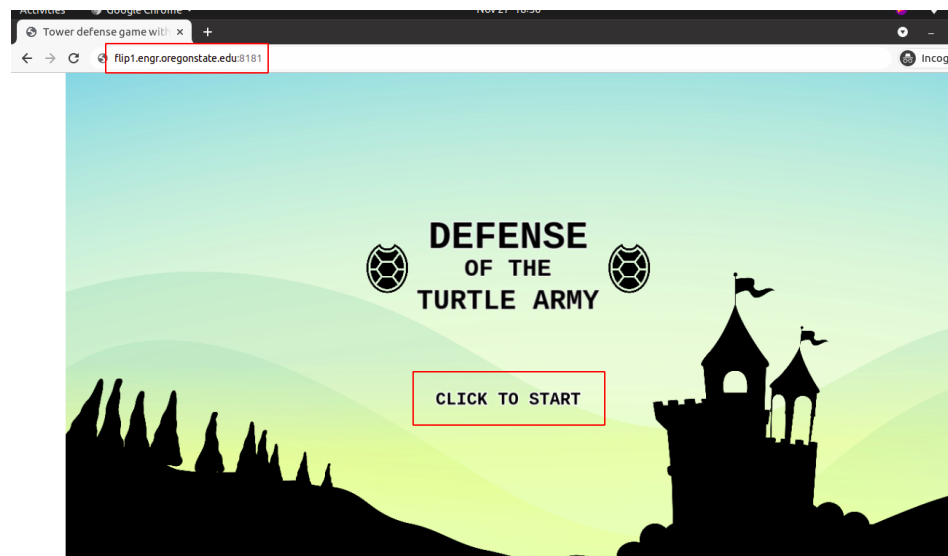


Example uses **flip1.engr.oregonstate.edu:8181** to access game (OSU Engineering server)

3. In order to win the game, the player needs to survive 3 levels with 10 waves of enemies and protect the base's health from reaching 0.
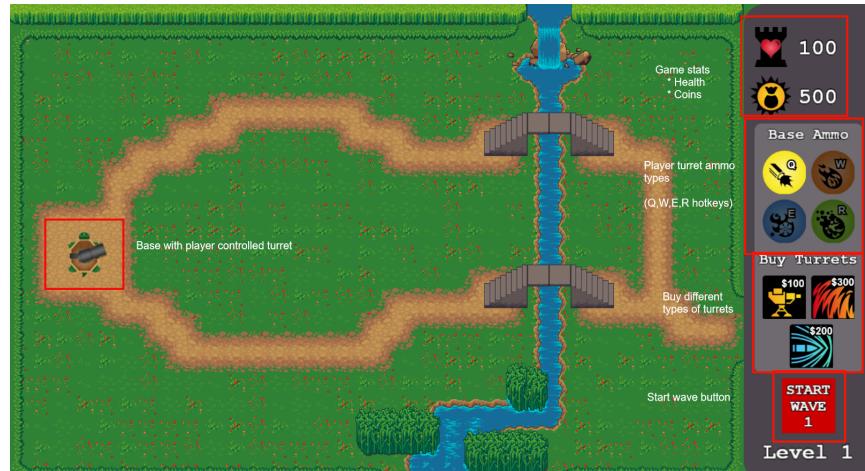
Current map layout and UI

4. To start the current enemy wave press the 'Start Wave' button (see image above)

5. Players have their own turret at their base (shown as a big turtle with a gun on its back) to manually fire on enemies with a left mouse click, you can also hold down the left mouse in order to fire in succession. Different ammunition can be toggled by the **Q**, **W**, **E**, and **R** hotkeys:
   ○ Press **Q** to activate the rifle. This gun is most effective for inflicting moderate damage on enemies at a distance.
   ○ Press **W** to activate the flamethrower, a powerful weapon for close-range attacks.
   ○ Press **E** to activate the freeze gun. Freezing bullets shoot rapidly and will slow any enemy they hit, yet they inflict little damage on their own.
   ○ Press **R** to activate poison clouds, which can slow a group of enemies. Poison clouds have a short cooldown before they can be used again.



Towers have a limited range and will fire on closest enemy

6. Auto-fire stationary turrets can be placed anywhere so long as there is no water, bushes, bridges, or dirt path. Turrets will fire upon enemies until they die or walk out of range, then they will select the nearest target. To buy a turret, first click one of the three turret icons.
   ○ Standard rounds are the cheapest turret and will pick away at enemies that walk past.
   ○ High-velocity sniper rounds can pierce enemies, damaging multiple targets with a single shot but have a low fire rate and damage drops off for each enemy hit.
   ○ Flamethrower turrets have a high fire rate but low damage.
   Hovering the cursor over the map will show where they can be placed (a red reticle indicates a valid placement, while a black 'X' means a turret can't go there). Place the turret on the map with a left mouse click. You can cancel a purchase of a turret with a right mouse click. You will be refunded for the purchase and re-enable base tower ammunition.

7. Enemies will randomly follow paths and make their way towards the player's base. Player coin accumulation and health will update accordingly if the enemies are destroyed or succeed in reaching the player turret, respectively.

8. If the player's base health drops to zero, the game will transition to the 'Game Over' scene where the player can reset the game.



Game over scene with option to reset

9. If the player survives 10 enemy waves on level 1 or 2, the game will transition to the next level.

10. The player wins the game if they can survive 10 enemy waves on the hardest level (level 3). The game will then transition to the 'Victory!' scene.