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| Project Design Document | |  | | --- | | 04/25/2021  Zach Gharst | |

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| Project Concept | | | |
| 1 **Player Control** |  | You control a   |  | | --- | | turret | | in this   |  |  | | --- | --- | | isometric | game | |
|  | where   |  | | --- | | mouse actions and hotkeys | | makes the player   |  | | --- | | Shoot projectiles at the incoming enemies | |

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| 2 **Basic**  **Gameplay** |  | During the game,   |  |  | | --- | --- | | enemy nests | appear | | from   |  | | --- | | outside of the player’s base | |
|  | and the goal of the game is to   |  | | --- | | survive as long as possible as the difficulty increases. | | |

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| 3 **Sound**  **& Effects** |  | There will be sound effects   |  | | --- | | as enemies and buildings are destroyed | | and particle effects   |  | | --- | | will appear also during the destruction of enemies/buildings. | |

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| 4 **Gameplay**  **Mechanics** |  | As the game progresses,   |  | | --- | | nests will spawn | | making it   |  | | --- | | so that additional enemies will spawn from each nest | |
|  | [optional] There will also be   |  | | --- | | decisions the player has to make about improving their turret. | | |

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| 5 **User**  **Interface** |  | The   |  | | --- | | wave counter | | will   |  | | --- | | increase | | whenever   |  | | --- | | a wave is completed and the next wave spawns. | |
|  | At the start of the game, the title   |  |  | | --- | --- | | Survive | will appear | | | and the game will end when   |  | | --- | | the player’s turret is destroyed. | |

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| 6 **Other Features** |  | |  | | --- | | The player will collect points as they destroy enemies. The points can be spent to increase certain aspects of the turret: attack speed, damage dealt, additional missiles, etc. | |

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# Project Timeline

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| Milestone | Description | Due |
| **#1** | |  | | --- | | Setting and landscape created | | |  | | --- | | 04/30 | |
| **#2** | |  | | --- | | Player turret functional and defensive walls placed. | | |  | | --- | | 05/05 | |
| **#3** | |  | | --- | | Enemy nests spawn, enemies attack base, and defense buildings functional (health). | | |  | | --- | | 05/10 | |
| **#4** | |  | | --- | | Game over condition and sequence. Sounds, particles, and graphics cleaned up to better match the theme of the game. | | |  | | --- | | 05/15 | |
| **Backlog** | |  | | --- | | -Ability to choose between special abilities at the start of the game.  -Ability to spend points on upgrading the turret. | | |  | | --- | | --- | |

# Project Sketch

