**Group 3 Final Project Design Document**

As stated in our proposal our group is focused on creating a dynamic and fresh tower defense game with a distinct techno arcade game aesthetic. The game places the player in control of a central tower at the heart of a large maze. Starting at the beginning of the maze, colorful enemy units or “viruses” wind their way down the maze towards the player tower. If they reach the player character these viruses will explode and increase the player’s overall infection level. If the player’s infection level reaches one hundred percent before the end of the game, the viruses fully take over, the map turns red, and the game is over. Luckily, the player has a wide arsenal of varying defensive towers to protect him or her from the encroaching onslaught of viruses. These towers are placed around the edges of the maze labyrinth, and fire consistent barrages of laser bolt projectiles, damaging and eventually destroying the oncoming viruses. There is, of course, a limit to how many defensive towers the player can place. Each tower takes up a certain amount of the player’s available memory or RAM. In order to generate more RAM to build more towers, the player must destroy oncoming viruses, as each one opens up more memory for the player to use. In this way, the player naturally levels up their ability to defend as the waves of viruses increase in intensity.

In terms of programming, all assets made in the game were generated by team members. Both the virus and tower models were created directly by the group. In addition to the tower defense mode, we were also committed to a computerized, electronic aesthetic on which the game is based around. The game is placed on a computerized grid, with a raised maze of objects. Varying designs and versions of both enemies and towers appear to the player with differing abilities. Viruses vary in speed and overall health, ranging from a default red, to a fast blue, to a health emphasized green. Towers contain a wide differentiation of abilities. Beginning with a basic tower with a default rate of damage and fire, the player then has the option to place towers with increasing rates of fire, increased range and damage, splash damage, and towers that provide an small additional amount of RAM after each kill. Each tower is effective in various different situations, and the game is designed to force the player to commit to a different towers and builds based on their overall strategy. Additionally, all relevant information to the player, RAM, survival time, tower selection, and infection rate, is show in a glowing and continuously updating display above the maze. All told, we hope to provide a polished, exciting addition to the tower defense genre and an enjoyable experience for the rest of the class.