1. Space Maze 2014:
   a. Copyright 2104 TR Studios
2. Table of Contents
3. Section I: Project Overview
   a. Personnel (with contact info)
       i. Damian O'Leary doleary@gmu.edu
           1. Production Lead, lead designer, programming assistant
       ii. Fritz Reese freese@gmu.edu
           1. Lead programmer
       iii. Andrew Schilthelm aschilt2@gmu.edu
           1. Lead Artist, programming assistant
       iv. Wes Chappell wchappel@gmu.edu
           1. Level designer, Quality Assurance
   b. Executive Summary
       i. High Concept: This is a maze traversal game involving space exploration and combat.
       ii. The Hook: The fun and challenging nature of the game as well as the repeatability.
       iii. Setting: The game is set in various planet surfaces in space
       iv. Genre and Scope (number of missions): A puzzle solving exploration game. There are two missions currently.
       v. Visual Style (2D, 3D Isometric, etc): The whole game is in 2D
       vi. Engine (and editor?): Phaser 2.0.3
   c. Core Gameplay (What does the player do?)
       i. Single-player: The player leads his ship through various mazes using the mouse (which the ship follows). He must defend himself from enemy ships using the mouse-click to fire the primary laser.
   d. Game Feature
       i. Gameplay innovations: Ray casting was used to make the mazes more challenging and mysterious. Upgrades to the ship allow the player to personalize his experience with the game.
       ii. Artistic techniques: 8 bit graphics creation via pixel painting.
       iii. Features that make this game unique: Most maze games are boring to play again once completed. Space Maze 2014 has replay value due to the difficult gameplay and the various upgrades.
   e. Project Scope
       i. Number of levels/missions: 2 levels
       ii. Number of NPCs: The number varies depending on level. Level one only has 5 enemies.
       iii. Number of weapons: There is one base weapon the player uses with the opportunity to upgrade the rate of fire.
       iv. Number of vehicles: There are two types of vehicles, the player ship and the enemy ships.
   f. Target Audience: Space Maze is for the casual gamer, it's easy to pick up and understand how to play.
   g. Delivery Platforms: PC and mobile devices.

4. Section II: Story, Setting, and Character
    a. Story
        i. There is no defined story for the game, play and have fun!
    b. Environments
        i. Area #1
            1. General description: A desert planet devoid of life.
            2. Physical characteristics: The ground is rough sand and boulders block the way to the exit.
            3. Level One takes place this area.
        ii. Area #2
            1. This is an ice planet
            2. The planet surface is solid slow and sheets of ice form walls which comprise the maze.
    c. Characters
        i. Player Character(s)
            1. Weapon set: Basic laser gun.
        ii. Bad Guys
            1. White ships with the same basic laser gun as the player
5. Section III: Combat
    a. Weapons
        i. Laser Gun
            1. Basic fire rate of one bullet every fifth of a second
            2. Can be upgraded to have faster rates of fire.
    b. Powerups
        i. Light Beam upgrade
            1. Can increase the angle for a greater field of vision
        ii. Fire Rate upgrade:
            1. Increases the fire rate of the players gun
6. Section IV: Controls
    a. PC Keyboard/Mouse Commands
        i. Default keys for movement controls
            1. Ship movement: player ship follows the mouse cursor or the finger if on mobile.
        ii. Default keys for using weapons
            1. Clicking the mouse fires the weapon, or tapping your finger on a touch screen
7. Section V: Interface
    a. The Camera
        i. Standard view: Top down view of the maze, camera follows the player.
    b. Menus
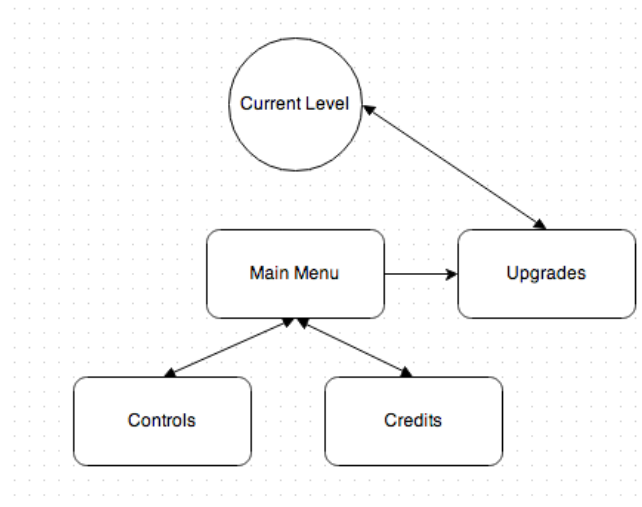
    i. Main Menu
        1. Continue
            a. Loads the level that the current session has progressed to.
        2. New Game
            a. Loads and begins the first level of the game
        3. Upgrades
            a. Redirects you to the upgrades menu state
        4. Controls
            a. Displays the button controls for playing the game.
        5. Credits
            a. Displays the credits (names of the developers)
    ii. Upgrades
        1. The store where the player can purchase in game upgrades for their ship.

8. Section VI: Artificial Intelligence
    a. NPC #1: Enemy ship
        i. Statistics
            1. Field of view:
                a. Enemy ship can detect the player from 100 pixels away
            2. Weapons:
                a. Same basic gun as the player, can kill in one shot
        ii. Internal states & the triggers that change them
            1. Enemies will roam in a random pattern. If they collide with a wall they will turn away at a random angle and resume roaming.
        iii. Movement
            1. Moves at a constant velocity in random, linear trajectories.
        iv. Combat decisions
            1. When the player comes within 100 pixels the enemy ship will turn and fire a laser at it.

9. Section VII: Detailed Level/Mission Descriptions

a. Level #1
   i. Basic Maze Layout, few enemies roaming map
b. Level #2
   i. More complicated maze layout, with several more enemies
10. Section IX: Scoring, Cheats, Easter Eggs, & Bonuses
a. Score (parts)
   i. Score is increased for every enemy ship that the player kills. The player's score is then decreased by the amount of time it took to complete the maze.
   ii. The score is displayed to the player at the end of each level and also at the bottom of the Upgrades menu screen.
11. Section X: Game Modes
a. Single-player
12. Section XI: Asset List
a. Art
   i. Model & Texture List
      1. Characters
   ii. Animation list
      1. Characters
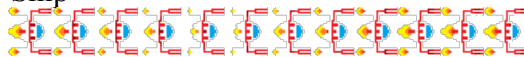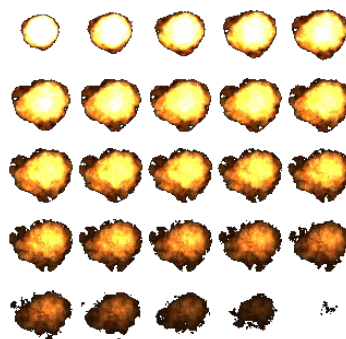   a. Player Ship
            i.

         b. Enemy Ship

            i.

      2. Weapons
         a. Main Gun
            i.
      3. Explosion

         a.
   iii. Interface Art List
      1. Buttons (example below)
         a.

b. Sound

     i. Weapon Sounds
      1. Weapon #1
       a. Audio engineered firing noise, resembles a "pew" sound.
   c. Music
     i. Ambient
      1. Main menu music from "The Last of Us"
13. Section XVI: References

The explosion spritesheet:
http://thundernoodle.net/notblog/2011/10/17/how-to-animate-a-sprite-using-a-sprite-sheet-in-xna/

LevelOne spritesheet:
http://rpgconspiracy.files.wordpress.com/2011/06/steampunkish-tilee.png

LevelTwo spritesheet:
http://s63.photobucket.com/user/busbuzz/media/TileD-2.png.html

Sound:
The Quarantine Zone (20 Years Later)