# Project Alderaan: Design Document

Black text represents minimum game elements.

S: Blue text represents stretch goals to improve the base game.

## Story:

You are aboard the Imperial Starship Alderaan. A plague has swept aboard the ship, turning the crew into mindless zombies. Everyone is infected, except you. You need to get to a life pod, and get off this ship… but the zombies have a different plan for you.

## Game Loop:

Project Alderaan is a 2.5D shooter that involves the following elements:

* A rendered pseudo 3D environment in first person view
  + Programmable map for devs to create levels
  + Rendered walls, ceiling, and floor to simulate an indoor space
  + Collision detection for:
    - Player walking into walls
    - Player walking into a level’s end zone/goal
    - S: Player walking into items
    - Shots fired by player into enemies and walls
    - Shots fired by enemies into player and walls
* 3 Gameplay levels, represented by the starship’s deck
  + Each level, the player has to get to the end of the map to progress
    - Reaching the end point in a intermediate level will progress the player to the next level
    - The end point on the final map represents the final goal to beat the game. Reaching it will trigger player victory
  + S: Up to 6 levels
  + S: Save game and load game mechanic
* Items
  + Health packs
  + S: Additional weapons
* Enemies
  + Ranged Zombies (Stormtroopers)
    - Zombies do not move
    - Zombies attempt to shoot player
      * Shots have travel time, so the player can dodge
  + Boss Zombie
    - Boss has higher health
    - Boss will move to avoid shots from the player
    - Only one boss per level to guard the end of the level/map
  + S: Melee Zombie (Stormtroopers)
    - Zombies walk towards the player
    - Zombies deal melee damage only to the player
* Player
  + Player entity has health
    - Health is reduced when taking damage from enemies
      * When the Player reaches zero health, this will trigger player Game Over
    - Health is increased when walking into a health pack
  + S: Player entity has a shield that will regenerate when not taking damage
  + Player Weapon
    - Player comes equip at the start with a lazer pistol
      * Weapon is a lazer and has unlimited ammo, no reloading
      * S: Weapon has limited ammo, needs reloading
    - S: up to 3 Weapons: pistol, rifle, shotgun
      * S: Play acquires new weapons by walking into them
  + Player controls
    - Forwards, backwards, and strafing sideways, using WASD
    - First person view moving left and right, using mouse movements
    - Left mouse button fires the player’s weapon
    - S: Number keys to swap weapons
* S: Multiplayer

## Look and Feel:

Game States:

* Main Menu Screen. Options for:
  + Start new game
  + S: Load game
  + S: Settings
  + How to Play
  + S: Credits
  + Quit
* S: Settings Menu
* Pause game screen. Options for:
  + S: Save game
* S: Star Wars text crawl intro: Explains the story
* Gameplay screen
  + Health info bottom left
  + Weapon info bottom right
  + Weapon visible at bottom of the screen
    - S: Weapon weaves left-right, and bobs up-down while player is moving
* Gameover screen. Options for:
  + Start new game
  + Main Menu
  + S: Load game
* Next level screen
* Victory screen
* How to play screen
* S: Credits

How the screens flow together:

