<GAME NAME>

Revision: 0.1

# **Overview**

## Theme / Setting / Genre

Asteroids style shooter game, set in deep space.

## Story (Brief)

Our main character is an astronaut caught outside his spacecraft when a hostile alien fleet attacks. He has to fight against them while avoiding incoming debris in order to survive, fix and upgrade his spacecraft, and get back home?

## Gameplay (Brief)

Waves of enemies / obstacles float across the screen, some intelligently and some randomly.

The player needs to move around the space on the screen to avoid, aim and shoot at them in order to destroy and not be damaged.

At the end of each wave, the player is presented with upgrading options, and a new harder wave initiates.

## Core Gameplay Mechanics Brief

* Move across the screen with sharp thrusts of the astronauts jetpack
* Aim and shoot at aliens / debris
* Use spacecraft special ability to clear the entire screen
* Upgrade weapons / jetpack / spacecraft
* Different types of enemies / obstacles

## 

## Targeted platforms

* Web
* Ps4 / xbox controllers?

## 

# **Story and Gameplay**

## Story (Detailed)

## Gameplay (Detailed)

## Core Gameplay Mechanics (Detailed)

* Movement
  + - The astronaut character is connected to the spacecraft with an oxygen line, so movement is limited to the screen area.
    - Pressing a direction button will initiate a short, sharp thrust in that direction. This burst of speed will be calculated against current velocity and movement vector to realign the astronaut’s movement.
    - If the astronaut gets too close to the edge of the screen, the oxygen line connecting him to the spacecraft will stretch and start pulling him towards the center of the screen (like a bungee rope).
* Aiming
  + - Mouse cursor / joystick aims the astronauts weapon towards the direction of the pointer from the astronaut.
    - The astronaut should always be facing the general direction of where he is aiming (can’t aim at something behind you right?)
* Shooting
  + - Clicking the ‘shoot’ button will fire the astronaut’s weapon towards the aim direction.
    - Enemies / obstacles hit along the path will be damaged according to the weapon’s damage factor.
    - Shots will disappear on first hit in trajectory (no target penetration).
* Spacecraft special ability
  + - Special ability charges over time?
    - Clicking the special ability button while it is charged will trigger it, destroying all enemies and obstacles on the screen.
* Upgrades
  + - upgrading weapons will change their damage factor / enemy penetrability
    - upgrading the jetpack will allow smoother control over the astronaut’s movement
    - upgrading the spacecraft will shorten the charge time of the special ability

* Types of enemies
  + - Enemy type 1 – move randomly on screen (but not too close to player) and shoot towards the player. Hitting it 2 times will destroy it.
    - Enemy type 2 – enters screen, then releases 2 additional enemies (same but smaller). They all move in a circle on screen, and each one charges towards the player after a random 5-10 seconds. Hitting it will destroy it.
* Types of obstacles
  + - Asteroid type 1 – enters screen and keeps trajectory until leaving screen. Hitting it will destroy it.
    - Asteroid type 2 – enters screen and keeps trajectory until leaving screen. Hitting it will split it into 2 smaller asteroids type 1.
    - Supplies crate – floats on screen randomly for 10 seconds. Hitting it will destroy it and give the player HP. If it is not hit after 10 seconds, it starts floating away from the player until out of the screen.

# **Assets Needed**

## 2D

* HUD
  + - HP gauge
    - Special ability charge gauge
    - Weapon type 1 icon
    - Weapon type 2 icon
* GUI
  + - Main menu
      * Background
      * Game Logo
      * Buttons – New Game, Continue, Settings, Credits, Quit
    - Settings menu
      * Buttons – Background audio on/off, SFX on/of, Back
    - Credits screen
      * Background
      * Game Logo
      * Team members and roles text
      * Buttons - back
    - In game
      * Buttons – Pause

## 3D

* Character List
  + - Astronaut (Player)
    - Spacecraft
    - Oxygen line
    - Enemy type 1
    - Enemy type 2
* Environmental Art Lists
  + - Supplies crate
    - Asteroid type 1
    - Asteroid type 2
    - Background planet 1
    - Background planet 2

## Sound

* Sound List (Ambient)
  + - Menu
      * Background music
      * Button hover (on / off)
      * Button click
    - Fighting sequence (during enemy wave)
      * Background music
    - Between fighting sequences (after enemy wave)
      * Background music
* Sound List (Player)
  + - Character Movement Sound List
      * Jetpack thrust
    - Character Hit / Collision Sound list
      * Player hit physically
      * Player shot
    - Character on Injured / Death sound list
      * Player hit growl
      * Player death sound
      * Enemy type 1 hit growl
      * Enemy type 1 death sound
      * Enemy type 2 hit growl
      * Enemy type 2 death sound
* Sound List (Enemy type 1)
  + - Character enters screen
      * Enemy type 1 battle cry
    - Character on Injured / Death sound list
      * Enemy type 1 hit growl
      * Enemy type 1 death sound
* Sound List (Enemy type 2)
  + - Character enters screen
      * Enemy type 2 battle cry
    - Character on Injured / Death sound list
      * Enemy type 2 hit growl
      * Enemy type 2 death sound
* Sound List (Asteroid types 1 + 2)
  + - Destroyed sounds
* Sound List (Supplies crate)
  + - Destroyed sounds

## Animation

* Environment Animations
  + - Example
    - etc.
* Character Animations
  + - Player
      * Example
      * etc.
    - NPC
      * Example
      * etc.

## Code

* Player Scripts (Player Pawn/Player Controller)
* Global Scripts (Runs in the background)
  + - Example
* NPC Scripts
  + - Example
    - etc.

# **Schedule**

## <Object #1>

* Time Scale
  + - Milestone 1
    - Milestone 2
    - Etc.

## <Object #2>

* Time Scale
  + - Milestone 1
    - Milestone 2
    - Etc.

## <Object #3>

* Time Scale
  + - Milestone 1
    - Milestone 2
    - Etc.

## <Object #4>

* Time Scale
  + - Milestone 1
    - Milestone 2
    - Etc.