**Game Design Document for:**

# COSMIC PING 2D

**Pong in Space**

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Version # 1.1

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[**COSMIC PING 2D**](#_heading=h.wh02itylypeh) **1**

[**Project Management**](#_heading=h.fko8r8wsq7ct) **3**

[Version 1.0](#_heading=h.2et92p0) 3

[Version 1.1](#_heading=h.145w96vdj2yj) 3

[**Planning**](#_heading=h.cxf4wec930zm) **4**

[Dev Plan](#_heading=h.j7dpike1ymdp) 4

[Stretch Goals](#_heading=h.r3xpbfrx6fda) 4

[**Game Overview**](#_heading=h.exb85mwhyn54) **6**

[What is the game?](#_heading=h.35nkun2) 6

[Who is the target audience?](#_heading=h.1ksv4uv) 6

[What themes are present in the game?](#_heading=h.44sinio) 6

[Where does the game take place?](#_heading=h.2jxsxqh) 6

[What/who do I control?](#_heading=h.z337ya) 6

[What is the main focus?](#_heading=h.1y810tw) 6

[**Black Box Testing**](#_heading=h.ri1vgtki96ac) **7**

[**Source Control**](#_heading=h.bpexryc4nr1l) **8**

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# Project Management

## Version 1.0

Initial, skeletal document. Included dev plan and stretch goals.

## Version 1.1

Updated dev plan.

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# Planning

## Dev Plan

* + ~~Create prefabs~~
    - ~~Paddle~~
      * ~~Which player's paddle?~~
      * ~~Move up and down~~
      * ~~Paddles stop at edge of playing field~~
    - ~~Energy Orb~~
      * ~~Gravity~~
      * ~~Dynamic scaling of volume and mass~~
      * ~~Combine on collision~~
      * ~~Explode at a critical mass~~
  + ~~Set up basic game~~
    - ~~Instantiate two paddles and an orb in the middle~~
    - ~~Orbs bounce off paddles~~
    - ~~Closed sides; orbs bounce off; toggle~~
    - ~~Orbs are destroyed past paddles~~
    - ~~Shooting orbs from paddles~~
      * ~~Basic functionality~~
      * ~~Force scales with mass~~
      * ~~Variable cooldown between shots~~
  + ~~Health system~~
    - ~~Code implementation~~
    - ~~UI health bars~~
  + ~~End-of-game screen~~
  + Lighting
    - ~~Orbs as main light sources~~
    - ~~Bigger is brighter~~
    - Colour
      * ~~Player colours~~
      * Orb colours
        + Change colour as they get brighter?
  + ~~Main menu~~
    - ~~Design UI~~
    - ~~Code Implementation~~

## Stretch Goals

* Pause menu
* Sound
  + Orbs make (procedural) sound based on mass and velocity
  + Orb colliding with paddle (and edge) sound
  + Orb collision combination sound?
* A selection of different playing fields, with static obstacles
* Powerups/Modifiers? If powerups benefit one player, do we need orb "ownership"? Defined by current orb colour. Orb colour changes to same colour as player when it bounces off their paddle.
* Settings menu
* 4-player mode

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# Game Overview

### What is the game?

A two-player game where you battle your opponent by trying to shoot energy orbs of varying mass past their deflector paddle. However, the orbs affect each other gravitationally, like celestial bodies, and combine into larger orbs when they collide with each other.

### Who is the target audience?

### What themes are present in the game?

### Where does the game take place?

### What/who do I control?

### What is the main focus?

### 

# Black Box Testing

# Source Control