

PROJECT 3 GAME DESIGN

ECHOES OF DAWN

By Kang.S

Demo: [Click here to download the demo](#)

Video: <https://youtu.be/len6GjmuGjM>

Genre: 2D, Platformer, Puzzle

Platform: PC

Develop Engine: Unity 2021.3.34f1cl

Control: Mouse + Keyboard

Created by KANG SHUO

Schedule



1 Introduction

Echoes of Dawn is a 2D puzzle exploration game set in an abandoned spaceship. Players control a robot that, upon reactivation, embarks on a journey to uncover the truth behind the ship's mysterious evacuation. By solving color-based puzzles and interacting with the environment, the robot gradually develops self-awareness. The game combines a minimalist visual style with an immersive narrative, blending mystery, philosophy, and exploration. Its core mechanic—color manipulation—integrates with the story, offering players both engaging gameplay and a deeply emotional experience.

2 Story Background

Version:0.9 StartHTML:0000000105 EndHTML:0000000853 StartFragment:0000000141 EndFragment:0000000817 The story takes place aboard an advanced research spaceship, abandoned after an unexplained incident. As players navigate the desolate corridors, they encounter remnants of the crew's life: broken terminals, encrypted messages, and abandoned machinery. These fragments reveal the ship's role in humanity's desperate search for survival, as well as hints about the protagonist's original purpose. However, as the robot progresses, its newfound consciousness raises questions about free will, the consequences of human ambition, and the sacrifices made for survival. This dynamic backdrop enhances the gameplay, weaving the environment and narrative into a cohesive whole.

3 Inspiration

The design of Echoes of Dawn draws inspiration from a blend of interactive storytelling, minimalist design, and sci-fi narratives. The color-switching mechanic takes cues from *Hue* (Fiddlesticks, 2016), reimagined to integrate with a futuristic spaceship setting. The eerie atmosphere and sense of isolation are influenced by *Dead Space* (Visceral Games, 2008), creating a tense exploration experience. Additionally, *Wall-E* (Andrew Stanton, 2008) inspired the emotional depth of the protagonist's journey, while *The Talos Principle* (Croteam, 2014) informed its exploration of self-awareness and philosophical questions. These references converge to form a unique narrative and mechanical experience.

4 Reference

The design and mechanics of Echoes of Dawn are influenced by several acclaimed works. The core color-switching mechanic draws inspiration from *Hue* (Fiddlesticks, 2016), where players solve puzzles by manipulating the environment through colors. The atmospheric design, with its claustrophobic spaceship corridors, takes cues from *Dead Space* (Visceral Games, 2008), which excels at creating tension in isolated settings. The narrative theme of self-aware AI exploring its purpose is inspired by *Wall-E* (Andrew Stanton, 2008), while the philosophical under tones and exploration of consciousness are influenced by *The Talos Principle* (Croteam, 2014). These references together inform the game's design, blending innovative mechanics with an emotionally resonant story.



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B Game Mechanism

5 Game Dynamics

The dynamic of Echoes of Dawn revolves around the interplay between gameplay mechanics, player choice, and environmental storytelling. The following dynamics are core to the experience:

- Color Manipulation and Interaction:** Players switch between colors to alter the environment, such as revealing hidden pathways or neutralizing hazards. This mechanic evolves over time, introducing new challenges that require creative problem-solving and an understanding of the ship's structure.
- Environmental Exploration:** The desolate spaceship is a living puzzle. Players explore interconnected rooms where every element—be it lighting, objects, or colors—provides clues about the ship's story and the puzzles at hand. Revisiting areas with new insights creates a sense of layered exploration.
- Narrative Unfolding through Gameplay:** Progression is tied to uncovering the ship's history. Players piece together fragments of data logs, visual cues, and mechanical interactions, experiencing the story non-linearly while the protagonist evolves emotionally and philosophically.
- Player Empowerment and Agency:** As players master the color mechanics and solve increasingly complex puzzles, they are rewarded with a sense of accomplishment and deeper insights into the game world. This dynamic ensures engagement through both intellectual and emotional challenges.

6 Core Experience

The core experience of Echoes of Dawn lies in its fusion of exploration, puzzle-solving, and narrative discovery. Players engage with a visually immersive abandoned spaceship environment, using the core mechanic of color-switching to manipulate obstacles and solve puzzles. Each puzzle is not only a challenge but also a narrative device, revealing fragments of the ship's mysterious past and the protagonist's evolution toward self-awareness. The gradual discovery of these elements fosters a sense of curiosity and emotional connection, as players uncover the broader implications of humanity's actions and the protagonist's role within the story.

This experience emphasizes:

Exploration and Immersion: The spaceship is intricately designed, encouraging players to revisit areas as new abilities and knowledge are gained. **Integrated Storytelling:** The puzzles and environmental interactions seamlessly reveal the narrative. **Emotional Engagement:** Players witness the robot's transformation, making the journey personal and thought-provoking.

7 Game Control



Move Left and Right



Jump



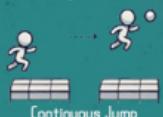
Bring up the color wheel



Pick up items, talk to characters and interact with interactive messages



Jump



Continuous Jump



Pick up color balls



Mobile Platform

1. Color Switching Mechanism

Description: Players can switch between colors (e.g., red, blue, green) to alter the environment. This includes revealing hidden paths, deactivating dangerous areas, or activating specific devices.

Design Intent: This mechanic requires players to think strategically about the combination and effects of different colors to solve puzzles. As the game progresses, the complexity of color interactions increases, providing a continual challenge. **Innovative Aspect:** The color-switching mechanism is tightly integrated with the storyline, allowing players to uncover hidden clues about the abandoned spaceship while solving puzzles.

2. Exploration and Dynamic Environmental Interaction

Description: Players control the robot to freely explore the spaceship, which is rich in layered environmental design. Each room has unique interactive elements, such as power systems, sealed doors, and hidden passageways.

Design Intent: Open exploration encourages players to approach the spaceship like a complex puzzle, with rooms and resources reused dynamically (e.g., revisiting a room to unlock new areas).

Innovative Aspect: The mutability of the environment (e.g., shifting doors, moveable bridges) mirrors the protagonist's emotional awakening, tying gameplay to narrative progression.

3. Self-Awareness System

Description: The robot protagonist gradually "awakens" during gameplay, with its dialogues and interactions evolving from mechanical and cold to more emotional and human-like.

Design Intent: This system allows players to experience the robot's growth as an individual, while deepening emotional engagement during gameplay.

Innovative Aspect: This mechanic blends gameplay with storytelling, enabling players to shape and witness the robot's transformation as part of their journey.

4. Narrative-Driven Puzzles

Description: The puzzles are deeply connected to the spaceship's backstory. For example, unlocking a password-protected door might reveal laboratory logs, or using the color-switching mechanic might activate the ship's core systems.

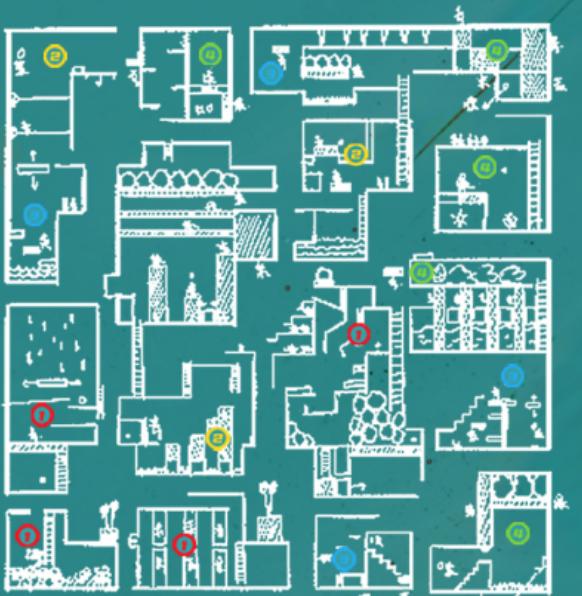
Design Intent: Players uncover the main storyline and the secrets of the spaceship while solving puzzles, making the challenge meaningful beyond just mechanical engagement.

Innovative Aspect: The integration of non-linear storytelling with puzzle design offers players a sense of exploration and discovery, enhancing their satisfaction and connection to the game.

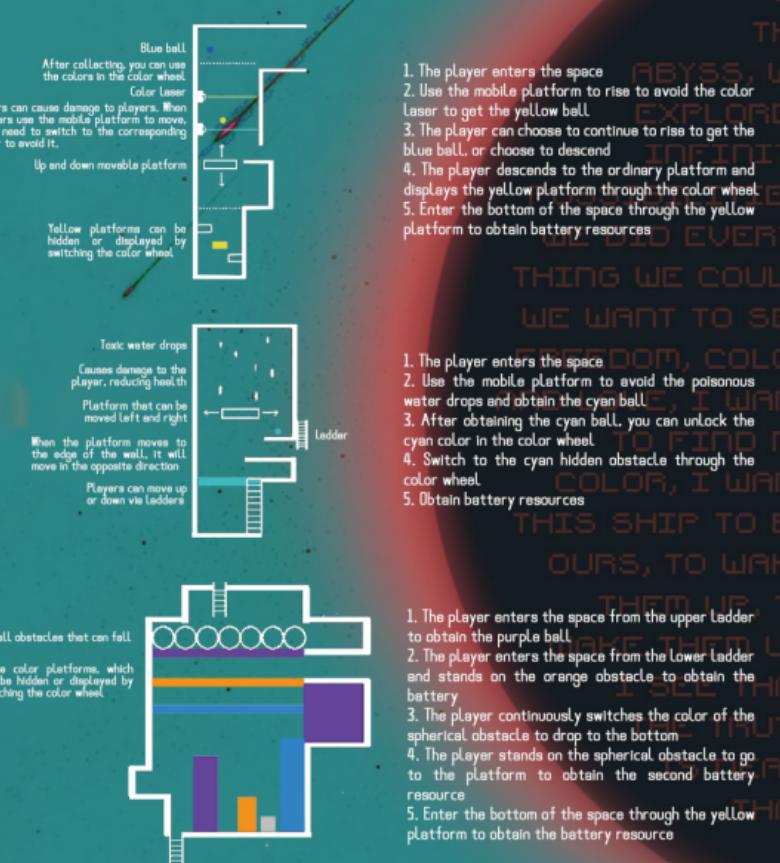
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9 Level Design

This part of the spaceship serves as the prologue of the game. It consists of multiple rooms, each designed as a small puzzle or challenge area. Within these rooms, players will encounter different tasks or collect various items. The numbered colors on the Level design map indicate which areas players can access first in their initial exploration and suggest the order of progression after completing earlier rooms. This structure helps the designer establish a logical flow while allowing players to experience freedom in actual gameplay by exploring at their own pace. As part of the narrative, the spaceship is where players must collect color spheres to escape. This setup introduces the core gameplay mechanics and provides players with a hands-on tutorial. Each room acts as a self-contained challenge while also contributing to the broader goal of solving the spaceship's mystery.



Main Map Design



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10 Game Code

```

public class DatabaseListener {
    public DatabaseListener(DatabasePool pool) {
        pool.addListener(this);
    }

    public void onDatabaseCreated(Database db) {
        System.out.println("Database " + db.getName() + " created!");
    }

    public void onDatabaseDestroyed(Database db) {
        System.out.println("Database " + db.getName() + " destroyed!");
    }

    public void onDatabaseUpdated(Database db) {
        System.out.println("Database " + db.getName() + " updated!");
    }

    public void onDatabaseModified(Database db) {
        System.out.println("Database " + db.getName() + " modified!");
    }

    public void onDatabaseDeleted(Database db) {
        System.out.println("Database " + db.getName() + " deleted!");
    }

    public void onDatabaseRenamed(Database db, String oldName) {
        System.out.println("Database " + db.getName() + " renamed from " + oldName);
    }

    public void onDatabaseCopied(Database db, String oldName) {
        System.out.println("Database " + db.getName() + " copied from " + oldName);
    }

    public void onDatabaseMoved(Database db, String oldName) {
        System.out.println("Database " + db.getName() + " moved from " + oldName);
    }

    public void onDatabaseAttached(Database db) {
        System.out.println("Database " + db.getName() + " attached!");
    }

    public void onDatabaseDetached(Database db) {
        System.out.println("Database " + db.getName() + " detached!");
    }

    public void onDatabaseOpened(Database db) {
        System.out.println("Database " + db.getName() + " opened!");
    }

    public void onDatabaseClosed(Database db) {
        System.out.println("Database " + db.getName() + " closed!");
    }
}

```

Main Game

```

    public void handle()
    {
        Mix();
        Eat();
        Sleep();
        Rest();
    }

    private static final String[] names = {"小明", "小红", "小强", "小芳", "小伟"};
    private class Person extends Animal
    {
        public static final String name = "人";
        public static final int age = 10;
        public static final double weight = 50.0;
        public static final double height = 1.75;

        public void speak()
        {
            System.out.println("我叫" + name + ",今年" + age + "岁,体重" + weight + "公斤,身高" + height + "米");
        }
    }

    public static void main(String[] args)
    {
        Person p = new Person();
        p.speak();
    }
}

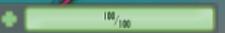
```

Player Control

Color Item

Color Ball Manager

11 Game UI

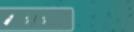


Character Health

enemy Health Bar



Number of Batteries



Immigration Quantity

Log Box



Color Wheel



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12 Game Demo

