

Trello: [4000 team2 | Trello](#)

Git: [Bruggles718/GSND4000-Team-2-Project-5](#)

Itch: [Project 5 by KuroNeko233333](#)

Pattern: [Pattern Language for Game Design — Pattern Library: Double Jump or Not, This Gap is 10 Feet Wide](#)

Overview

There are three layers in the level, each separated by terrain.

At first, the player can only move left and right and do a single jump. Because of this, the player cannot reach high platforms or pass special obstacles right away.

There are **7 stars** in total. Some stars are in easy-to-reach places, but some require special abilities. Collecting enough stars unlocks a new ability. After unlocking all abilities, the player can finally get the **trophy** and finish the game.

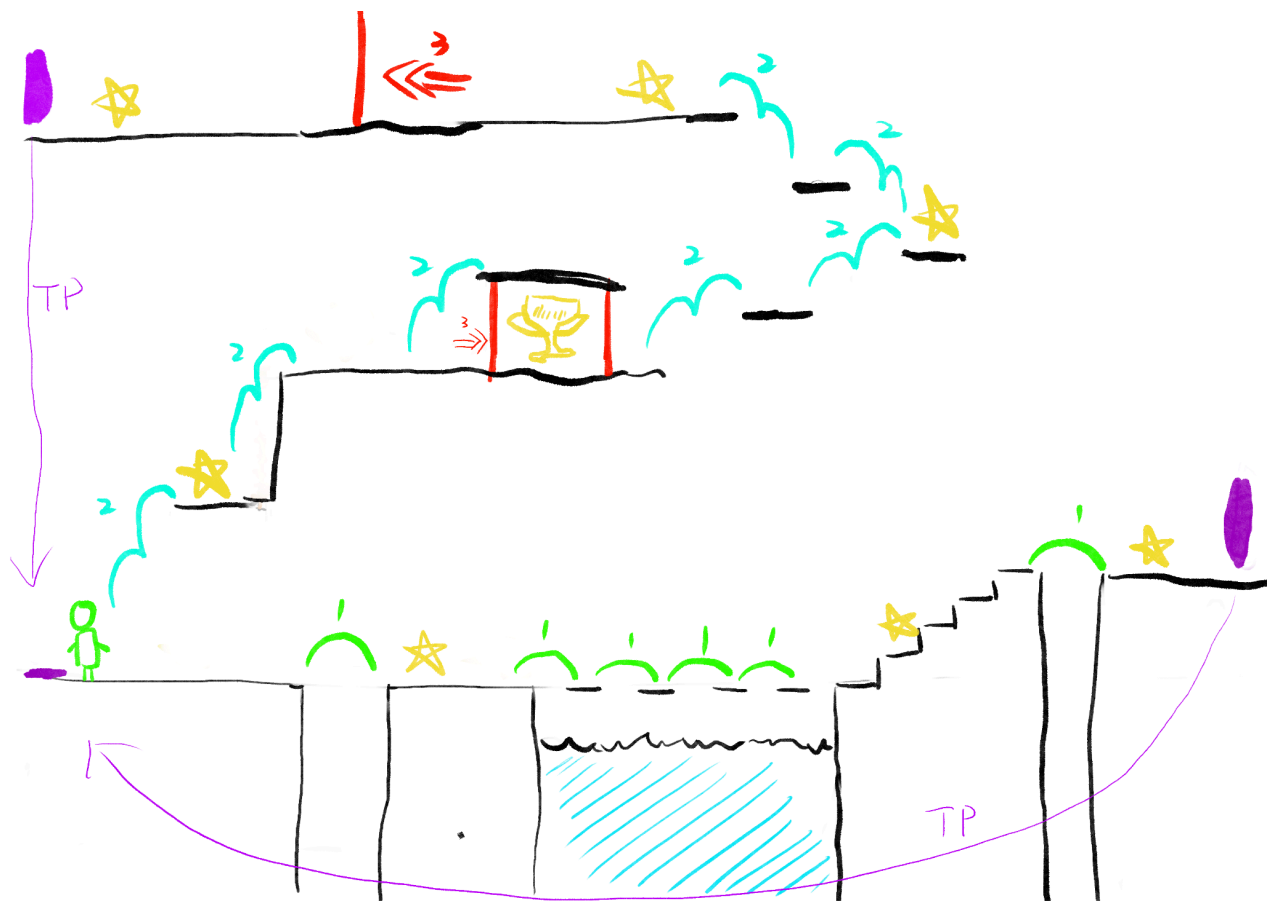
Special Abilities

1. **Double Jump**
2. **Aether Dash** (dash and pass through special barriers)

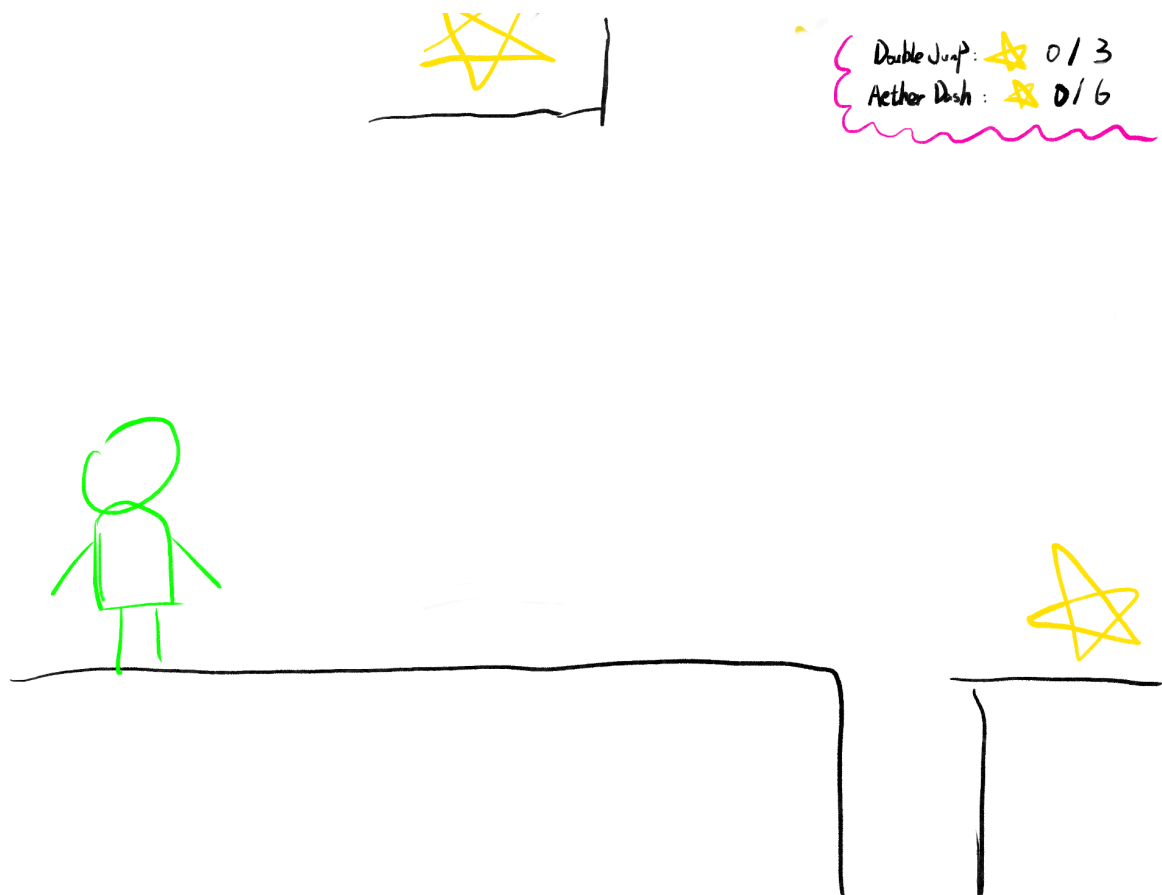
Game Flow (check with image)

- When the player starts, they can see a high platform with a star on it, but they **cannot** reach it with a single jump. There is also a star on the right side that they **can** reach. So, the game naturally guides the player to go right.
- The player jumps over a gap and continues along some platforms. Then they go through deep water, climb some stairs, and jump over another gap. This way, they can collect **three stars** and unlock the **Double Jump** ability. Then they reach a portal on the far right that sends them back to the start.
- Now the player can use Double Jump to reach that high platform they saw at the beginning. This takes them to the **second layer**. After another Double Jump, they see the trophy up ahead, but it's protected by a special barrier. The player still can't get it, so they must keep exploring.
- Moving to the right, they use Double Jump to make tricky jumps up to the **third layer**. Collecting enough stars there lets them unlock **Aether Dash**. Using Aether Dash, they can pass through the barrier and return via a portal to the start.
- Finally, they Double Jump to the second layer again, use Aether Dash to get past the barrier, and grab the **trophy**, finishing the level.

Level Design:



Camera and UI:



How game relate to Pattern

Right from the start, the player can see areas they cannot reach yet. Later, when they gain new movement abilities, they can return and explore those areas. After reaching the second layer, the player sees the trophy but still cannot get it because they need another new ability. Once they unlock their movement skills fully, they can finally claim the trophy and complete the game. Core mechanic: Bind progression to player abilities, rather than simply unlocking them through level frames or paths. The level is not a straight line, but a maze of abilities - the player must first get a double jump to unlock a high platform, then get a sprint to cross a barrier, and finally get a trophy and complete the map. Levels always present the full picture (star positions, trophies, gates), and by unlocking new pathways through abilities, players feel that they are expanding the area in the same world rather than switching from level to level. After players master the two jumps and sprints, they can go back to any area they have seen and challenge higher difficulty collection routes, reflecting the design concept of the world is always under the player's feet. This combination of core ability progression + open-ended backtracking not only preserves the rhythm and guidance of linear levels, but also achieves the overall sense of a large world map.

Level design intent and player experience

Progressive unlocking of abilities, creating a cycle of explore-return-explore.

Players can only move left and right and jump single-handedly at the beginning, and are unable to climb high platforms or traverse special obstacles. As a result, the level starts with a visible but inaccessible area, making players curious about the secrets hidden here.

As the player collects the first few easy stars, he or she unlocks the Double Jump, which allows the player to return to the starting platform and enter the second level of the level. Collecting more stars unlocks the Aether Dash, which allows the player to cross a special barrier to reach the core of the third level.

Each time a new ability is acquired, the level will guide the player back to a previously visible but inaccessible place. This design allows the player to go back and forth between exploring new areas and breaking through old barriers, retaining a linear pace while providing a seamless sense of openness.

Layered level structure creates a three-dimensional sense of the whole world.

The scene is divided into three layers, and the player constantly switches between the three spaces, making the level look more like a mini-map than an isolated number of platforms.

The camera is utilized to always see higher and farther targets (platforms, special barriers, trophies), creating macro coherence. The player understands at all times that the world they are in is coherent, rather than a cut-off level.

the Visible Unreachable in the beginning stimulates the desire to explore; the Two Jumps + Dash in the middle brings the freshness of operation; in the end, after obtaining all the abilities, when returning to the starting point to collect the final trophy, the player experiences the achievement of completing the atlas. When you return to the starting point to collect the final trophy after obtaining all the abilities, you can experience the sense of accomplishment of completing the map.

Although the levels are linear, each time you return to an old area, you can jump and sprint freely in a new way, which reduces the sense of saturation and allows players to feel guided and explore on their own.

Time:

	Estimated hours	Actual hours
Team	23.25	24.25
Average	4.65	4.85
Bradley	3.25	4.25
Zhaoze	6	5
Sadaf	3	4
Zihao	5	5
Zihan	5	5

Assets Used:

Tileset: <https://graphicriver.net/item/candyland-pixel-art-tileset/21408134>

Player Sprite (modified):

<https://assetstore.unity.com/packages/2d/environments/platformer-tileset-pixelart-grasslands-248158?srltid=AfmBOopAaeUCRzHuxgiTbj3maFCH7BxjMKbri7eVrZG6UxQh4WemX8MS>

Cookie Collectible: <https://henrysoftware.itch.io/pixel-food>