

Distant Hearts

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1 Short Description

Distant Hearts is a small level-based puzzle game about guidance and connection. The player switches between two roles:

- the spirit, who can freely fly through the world but cannot interact with it
- the creatures, which have a physical body and can manipulate their surroundings

The goal of each level is to reunite the two creatures by clearing the obstacles keeping them separate.

2 Story

You are a wandering spirit, roaming through the open fields. Along the way, you encounter creatures unlike yourself. Though rarely alone, they stand just out of reach, their paths blocked by heavy stones or locked gates.

You feel their deep longing, so you set out to help them clear away the obstacles that keep them apart.

With each reunion, your heart and theirs fill with warmth.

Carrying that light, you continue on your journey.

3 Aesthetic

The visual style of Distant Hearts is a minimalistic, cute pixel art aesthetic that reflects the straightforward level design and gameplay. Each element in the game is drawn on a 32x32 pixel canvas, to make the game look cohesive and to ensure a consistent visual language across all levels and objects.

3.1 Color

The color palette is kept simple to make it easy to look at and also to be able to clearly differentiate each element in the level. While the environment for the most part contains colors on the natural side, the characters in the levels are designed with more striking and bright colors to make them stand out more. As a whole, the colors of the game lean towards pastel colors, though still having a little more saturation than a complete pastel look.

3.2 Characters and Shape Language

Each character is designed with a clear silhouette and a distinct color, making them easily recognizable and readable within the level.

The spirit has a typical ghost-like shape, to give the player a hint that they might not be constrained by physical walls and objects. To put even more emphasis on that, the spirit has an idle animation where it hovers over the ground, gently moving up and down, with a shadow beneath it underlining the fact that it flies.

The creatures on the other hand clearly stand on the ground. Their bodies do not move up and down and their feet are also standing right on their shadow.

3.3 Animation

To make the static screen a little more lively, we implemented an idle animation for each character where the sprites change just ever so slightly, kind of like a stop-motion animation style. We took this inspiration from the game *Baba Is You*, where this is in fact done with every single object in the game, even stones.

3.4 Sound

Similarly to the visual art of the game, the music and sound is also kept as simple as possible.

While the title screen has a cute but short and minimalistic song playing in the background, when the player starts the game, he is greeted by a natural ambience with birds chirping.

When the terrain of the levels change to the winter theme, this ambience is replaced by the sound of blowing wind and also a very minimalist melody with a leitmotif of the title track. This melody only contains high notes played on a glockenspiel, to put emphasis on the cold and quiet calm environment.

Besides the background music and ambience, the actions the player takes in the game (like walking, pushing buttons or merging creatures) are also supported by little sound effects. These are mostly played on square-wave or chiptune-like instruments, to fit the pixel aesthetic of the game.

4 Mechanics

4.1 Design Pillars

1. Precise, grid-based Movement

The Movement is locked to a 64x64 pixel grid.

The player gets clear feedback when moving thanks to sound effects, snappy movement and leaving small dust trails behind.

This precise movement gets challenged on icy grounds, where the player only stops sliding when something is in the way.

2. Short, level-based environmental Puzzles

Each level contains one puzzle that is rather short, albeit not always easy.

The first levels each introduce one new mechanic, so the player gets familiar with them. After that, the different mechanics are combined to form more difficult and complex puzzles.

3. Guiding the creatures to manipulate the world

As the wandering spirit, you have no physical form, so you can fly through obstacles like walls or locked doors, but you can't interact with anything in the world.

While guiding a creature, you can interact with things like pushing stones or pressing buttons, but you are bound to the rules of physics and can't simply go through obstacles.

4. Simple abilities

As the wandering spirit, the player can only fly, take control of creatures or stop controlling them.

As a creature, the player can interact with the world by walking, pushing stones, pressing buttons by walking onto them, sliding over ice and merging with another creature.

This simple set of abilities ensures that most players will easily understand what they are capable of, so they can focus on the puzzles at hand.

4.2 Game Loop

1. Observing the level

The Player scans the level for things like:

- Where is the wandering spirit?
- Where in the level is each creature?
- Which obstacles are in the way of the creatures?

2. Planning the approach

The Player tries to determine how they can manipulate the environment to bring together the creatures by:

- seeing which creature is able to interact with things and which creature maybe can't yet do much
- thinking about which steps to take next

3. Acting according to the plan

After deciding on a plan, the player takes action and:

- takes control of one of the creatures
- tries solving the puzzle by executing one or more of their abilities (pushing, pressing buttons, sliding on ice)
- perhaps switches over to the other creature if the puzzle requires them to
- if they soft-lock themselves, restart the level
- finally remove all obstacles between the creatures and joins them together

4. Switching to the next level

When the player joins two creatures together, they get some visual and acoustic feedback that tells them they did something great.

After that, an overlay tells the player to press the select button to switch to the next level.

5 Technology

Game Engine:	Godot 4.4
Godot Plugins:	Controller Icons
Music and SFX:	beepbox.co
Art:	Aseprite

6 Accomplishments

We actually managed to implement all of our design pillars, so our game actually feels pretty complete. With all the elements of our design pillars and by following the principles of our defined game loop, we built 10 levels in total.

The first 5 levels take place in the “normal” or green biome, where we focused on introducing the most basic mechanics like how to move, how to push stones and how different buttons work.

Only after that, the snow biome is, together with the new ice mechanic, introduced to the player, where his current knowledge about the game mechanics are challenged.

7 Remaining Tasks

After the last playtesting session, we have noticed some areas in our game that need some fixing or polishing, either because of bugs or because we'd like to improve the player experience over all.

We have found two bugs which we will need to fix. Both of them have to do with the ice mechanic.

When the player pushes a stone that is standing on ice, as soon as the stone hits normal, unfrozen ground, it is supposed to stay in that first unfrozen tile. Currently the stone still keeps sliding, until it hits an element like a wall, another stone or a creature. This is only a problem in one level and was also only found by two playtesters, but nonetheless it should be fixed.

The second bug has to do with pushing stones on ice as well, but for this bug, the problem occurs when pushing a stone on ice, the place where the stone is supposed to stop is still on ice and the player also quickly walks/slides toward that direction after pushing the stone. In that case, the player class calculates the position where the player is supposed to stop but the stone isn't in that spot yet, so the player glitches onto the same position of the stone. This bug isn't game breaking, since the player can

simply walk off the spot with the stone and also wasn't found during playtesting but by us after the testing session, but we'd still like to fix it.

Lastly, we sometimes noticed the playtesters were getting frustrated when soft locking themselves by pushing stones onto a wall although they needed that stone and can't get it off the wall since they can't pull. We already have a function to restart a level, but sometimes you happen to make the same mistake two times in a row, and having to start a level from the beginning even if it only takes 20 seconds, can indeed seem a bit annoying. For that reason, we'd like to implement a mechanic where the player can rewind at least one step or action they took.

8 Workload Distribution

	Caroline	Nikolai
Planning Phase	11 h	11 h
Programming	26 h	29 h
Art	19 h	12 h
Music and SFX	7,5 h	1,5 h
Level Design	8 h	7 h
Documentation & Itch Page	7 h	7 h
Total	78,5 h	67,5 h

9 Original Plan vs. Outcome

Originally, we planned the levels way bigger than we ended up making them. When we first started prototyping levels, we imagined levels that contained 4 or even 6 creatures that the player is supposed to merge correctly. To find out which creatures belong together, the player was supposed to "hover over" one of them and then the color of the creature they wanted to be with would be revealed within it.

Implementing so many creatures into one level turned out to be way more complex than we thought, especially since we needed to come up with more intricate puzzles that fit together and don't overwhelm the player. So we decided to keep the levels small first and only have one puzzle per level that the player can concentrate on.

Additionally, having to find out the color of the belonged creature of each one (or at least half of them) turned out to be a little too tedious for the player, since they would have had to first fly all over the map to get the colors and then remember them while

solving the puzzle (and if they forget, fly to that creature again). And since this didn't require any skill but only time, we decided to scrap that mechanic, at least for now.

10 Lessons Learned

Compared to our last game projects, we consciously kept the scope of the game very small. We definitely noticed the difference in our past games and this one and how much more polished this one feels.

We tried to archive this by using simple shapes and animations, recoloring surroundings to make new biomes (winter levels) and keeping the levels simple as we can always expand later if we want. We also avoided feature creep by focusing on our design pillars only and seeing every idea that we had just as a “nice to have” with a low priority.

11 What's Next?

Currently we only have two different creatures that repeat over all the levels. Ideally, we'd want to introduce some more creatures with different sprites and colors in the future, so there is more variety.

We also originally planned to put more than two creatures into one level ([see chapter 9](#)), but wanted to first only design puzzles with two, to keep the scope realistic. Now that the foundation has been laid, it would be logical to try and make levels that are a little bigger and have maybe 4 or even more creatures.

Besides that, we'd also like to design more level mechanics and also seasons. So for example, since we already have a winter biome, we could add spring levels with cherry blossoms falling down the screen, summer levels with water mechanics like rivers and lakes, and fall levels with piles of leaves as an element to maybe hide.