Project Dust

Game Design Document

Team Troublemaker

Gam400/450

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Game Overview

High Concept

Project Dust is a 2.5D Platformer in which the player is a Dust Fairy who uses Static Electricity to teleport around obstacles.

Gameplay Brief

In Project Dust, the player is controlling a 2D character traversing a 3D world. In addition to standard movement and jumping, the player can teleport to new areas by aiming and firing a laser-like beam of static, and fighting enemies by firing off balls of dust. All of the player's movement and abilities, as well as the movement and abilities of other entities in the world, are locked onto the 2D plane. Occasionally, there will be portals within the levels that take the player to new zones of play; these areas may be at different z-coordinates, but the only difference this poses to gameplay is visual.

Story & World Overview

In the world of Project Dust, there is a secret world of dusty creatures invisible to the human eye. Within each home, hidden in the walls, the furniture, and everyday objects, are legions of tiny creatures composed of dust. Many are harmless, and only aim to cause mischief for their own amusement, while others have more malicious intent. Too much dust left unattended can be very bad for its human residents, so each house is assigned a lone protector, to manage and control all matters of Dust in the house.

The player is one such protector, known as a Dust Fairy, who is charged with the protection of a small house in the countryside. It is a very busy time for our Dust Fairy protagonist, because the residents of this house are now moving out. Disaster strikes, and she is swept into the moving van with the rest of the boxes! Now, she must escape the van before it leaves the next morning. If she cannot stay with her house, then she has failed as a Dust Fairy -- her house will fall into decay and become unsafe for humans before long.

Target Audience

Project Dust is aimed at a very general audience, with our primary audience being players who have tried at least one platform game. We will aim for as much accessibility to new players as possible, but without prior platform game knowledge, some aspects of gameplay will take a bit of practice to learn.

Artistic Style

Project Dust will be produced using both 2D and 3D assets. All of our characters will be shown with 2D sprites, rendered in a cute, cartoonish style with semi-realistic proportions, akin to the style of Ghibli animations such as *The Secret World of Arietty* and *My Neighbor Totoro*. On the

other hand, the world of the game and the objects that populate it will be created with 3D models.

Gameplay and Mechanics

Like many platform games, the player's overall goal is to reach the end of each level. Along the way, players will be traversing a number of different obstacles designed to get the player using their teleportation ability in a number of ways, while exercising their basic platforming skills and combat abilities.

Movement

The player is capable of moving and jumping along the 2D axis like many standard platforming games. We want the player to be able to have pretty tight control over their movement, but the controls will still have some intentional floatiness to them because the player-character is a tiny fairy, and tiny fairies aren't exactly good at standing their ground. Though she is a fairy, Dust fairies are flightless, and to reflect that the player-character will not be capable of real flight in the game. We have considered allowing the player to glide short distances after jumping, but this is a feature that has been pushed far off to the side for now for the sake of scope.

Teleportation

The player teleports by activating and aiming a beam of static at a nearby surface; wherever the beam lands is where they will teleport to when they release the fire button. The laser-like nature of the static beam allows the player to aim it through small cracks between obstacles, so that they can move to places their body would normally be too small to reach.

We will have two types of special surfaces in the game that affects the way the teleport beam works. The first is a "Blocker", which does as its name implies and prevents the player from teleporting to objects with that surface. The second is a "Reflective" surface, which reflects the beam wherever it hits it. When the beam is reflected, the player can only teleport if the end of the beam is touching another teleportable surface. While reflective surfaces can help the player reach new areas (such as teleportable areas around corners), they can also be used as a way to force a player to think differently about a familiar obstacle setup or problem.

Combat

As the player's ultimate objective is to reach the level goal, our approach to combat is one that focuses on rewarding and punishing the player's ability to pursue and reach that objective. When enemies attack the player, they won't affect any kind of a health system, but will affect the player's movement and position in the level in different ways. Some enemies will push or throw the player back, while others may hold them in place, or make it difficult for the player to move as they usually would.

To fight back, the player can use their powers to charge up and fire orbs of dust at their opponents. Smaller dust orbs can be quickly fired by tapping the attack button, but by charging

up their attack, the dust orbs get bigger and deal more damage to the enemies they hit. Enemies have a hidden health system, but this is to facilitate when attacks on certain enemies are more or less effective.

Portals and Zones

To allow for visually and geographically interesting level design, the player will sometimes travel between areas of different Z-axis depth via objects we are tentatively calling “portals.” When the player triggers or uses a portal, it transports them to a different area of the map, which is on its own Z-coordinate. The player’s Z-coordinate will always match the area they are currently positioned in, though all their other controls will behave normally, in 2D according to their current plane.

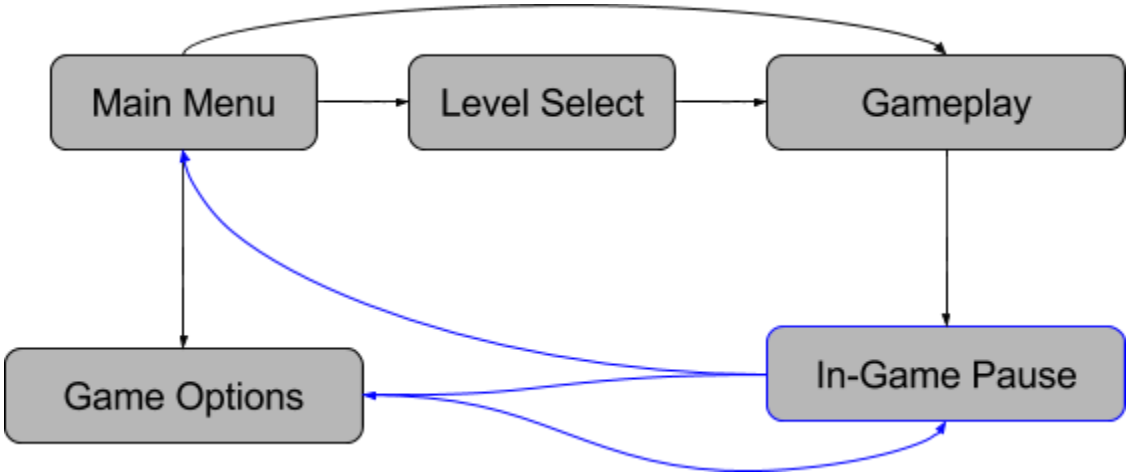
Levels

Our game’s level progression will take place in a mostly linear format. The premise and location of each level will reflect points in the story of the Dust Fairy becoming trapped in and escaping the Moving Van, and trying to return home. We have not yet refined down what that will look like, or what specific parts of this arc we want to cover, but we do know that we want to keep our total number of levels fairly small. Ideally, we will have a total of 3 full levels by the end of this project cycle (next Semester), or a total of 15-20 minutes of solid gameplay.

Each level should take around 3 to 5 minutes for the player to complete, or 1 - 2 minutes completing each checkpointed section. As these levels will be moderately-sized, we have considered the possibility of adding secret “Challenge Areas” where the player is tasked with saving a friendly creature called a “Dust Sprite.” These challenge areas would be “pocket encounters” taking 1-2 minutes each, containing a number of complicated obstacles that would not be found in the regular level. However, this feature will only be completed in second semester, if we have reached all of our other goals. We recognize that it is an extra, nonessential feature to the game, so we are focusing on the important features first.

Screen Flow

Overview



Screen Descriptions

Main Menu: The first interactive screen the player reaches when they start up the application. From this screen, the player has access to the Level Select and Game Options screens, in addition to the option of quitting the application.

Level Select: Utilized for navigating to specific levels within the game, when the first level has been started (but not finished), or one or more levels have been completed. Players can select a level to play, and if there is already progress in the level, they have the option to start from the last checkpoint, or to start from the beginning.

Game Options Screen: Where the player can make adjustments to a number of settings that affect gameplay, such as volume balance, subtitle options (if applicable), and perhaps others if we deem them necessary.

In-Game Pause Menu: During gameplay, the player can activate this screen to pause all action occurring within the game. From this screen, they can access the Game Options, and can choose to exit the level with or without saving progress from the last checkpoint they reached.

Game Options

SFX and Music Volume: We will allow the player to adjust the volume of the game's Music and SFX as separate settings. We will consider adding a "Master Volume" as well, but there may be technical complications that come with implementing such a feature, and those complications are something we deem would outweigh the feature's worth.

Graphical Effects: For certain status effects on the player, we may utilize different camera filters that some players could find annoying or dizzying. We will find ways to make it possible to turn those filters down, if not off.

Artificial Intelligence

In Project Dust, our primary need for AI revolves around creating unique, interesting creatures to populate this secret world of Dust. For the time being, this primarily means what kinds of interesting *enemies* we are going to be throwing at the player, though we would also like to add (or experiment with adding) non-interactive or just passive creatures that are there to help make the world feel alive.

Proposed Enemies

The following is a list of enemy types currently proposed for the game. Some of these have already been prototyped. Other types may be added later on, with the core intent of punishing the player's ability to move or current position in the level.

Mite: Basic grunt-like enemy that chases the player. More mischievous than anything. When it catches up to the player, it causes them to sneeze, which forcefully pushes the player away.
Brute: Big hulking enemy that is slow-moving and very tall. If the player tries to run past them, the Brute picks them up and throws them backwards. As long as the brute is holding the player, they are helpless.
Mood Parasite: Floating enemy that aims to land on players heads. If it does so, it scrambles the player's controls, making no direction they move exactly what they expect. To disengage from the Parasite, the player must Teleport away. This effect would be one area we use special effects on the Camera.

Miniboss Proposal

At this time, we are currently considering the addition of one or two types of minibosses to certain areas of the game. These would be larger, more difficult enemies with some kind of special attack pattern, that players would need to defeat to move forward in a zone. This is a feature that we would most likely push to next semester, or late this semester if we decide we have time.

Artistic Style Guide

Progress Disclaimer:
As most of our artistic production is slated for next semester, the following style guide shown here is subject to change. Everything you see here is basically what we are aiming for, though things like exact character design and some color selections may be different in the final game.

Game References

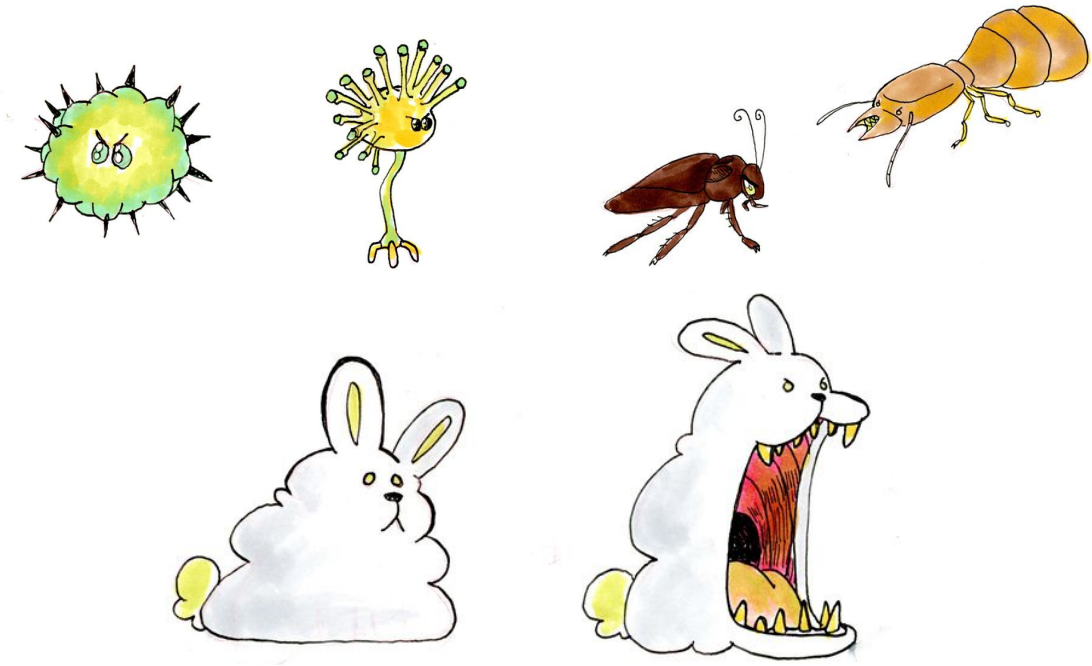
The games shown below are an accurate representation of the 2D meets 3D style we are trying to achieve. Vibrant 2D characters move along a 2D plane, though the environment around them is relatively 3D in nature. *Shantae, Half Genie Hero*, by Wayforward Games, provides the closest example of what we want for the overall mood and character proportions, though the level of realism in the world is probably closer to that of *Indivisible*, by Lab Zero Games.

Character Concepts

For our main character, we wanted to give her a fairly youthful appearance, as she is a fairy. The pin she's carrying we've decided is also a wand she uses to focus her static powers, while the other end is either used for focusing Dust or making other attacks.

Enemy Concepts

Below are a series of different possible enemies our character might face. While they will be primarily dust and mold-based, we have considered using common house pests as well.



Technical Plan

As we will be using Unity 5 Personal as our game engine, all features we need to support our development are currently in place.

Our programmers will be writing custom functionality for a few things, such as:

- Enemy/Friendly Entity AI
- Camera Logic
- Player Functionality
- Projectile and Effects Logic (When to appear/die, etc)

While our designers will be using several of Unity's pre-made systems such as:

- Lighting & Shadows
- Particle Systems
- General Scene Editor (to place level objects)