

Game Design Document



SPACE ZOO

Margherita Orlando - Game Designer
Federico Locatelli - Game Programmer
Manuela Piccirillo - Artist
Luca Cattaneo - Game Programmer
Andrea Tarondo - Game Programmer



CONTENTS

1. Vision Statement	3
1.1 Game logline	4
1.2 Gameplay synopsis	4
2. Audience, platform and marketing	5
2.1 Target audience	5
2.2 Platform	5
2.3 System requirements	5
2.4 Top performers	6
2.4.1 Feature comparison	6
3. Legal Analysis	6
4. Gameplay	7
4.1 Overview	7
4.2 Gameplay Description	7
4.2.1 Obstacles	7
5. World	9
6. Interfaces	10
6.1 Menu	10
6.2 Controls	11
6.2.1 Keyboard controls	11
6.2.2 Playstation controls	11
6.2.3 Xbox controls	12
6.3 Map	12
7. Winning conditions:	13
8. Characters	13
8.1 Felux	13
8.2 Felux's mother	13
8.3 Gem	14
8.4 Felux's father: Helux	14
9. Story	15
9.1 Synopsis	15
9.2 Complete Story	15
9.3 Backstory	15
9.4 Narrative devices	16
9.4.1 Subplots	16
9.4.2 Themes	16
10. Design Values	17

1. Vision Statement

Felux is a game that combines the genres of platform, puzzle and open-world games, capturing the most peculiar and fun features, to give life to an adventure in space traveled by our particular protagonist: a luminescent cat.

Thanks to you, to whom Felux will turn to as his adventure companion throughout history, our feline friend will be able to walk his path towards the goal, a star.

During his journey, Felux will come across bizarre obstacles and dangers, placed along his path, on the asteroids that will lead him to various areas of the universe.

In the universe, danger is around the corner: icy or hot paths, sudden windstorms and poisonous gases! It will be up to you to find the way to make Felux travel the way smoothly, by rotating the numerous asteroids and moving the colored rays that come out of them, to destroy, overcome obstacles thanks to your intellect and thus create a viable path for your companion.

Advance towards your destination surrounded by a spatial and nostalgic atmosphere accompanied by anecdotes that will be told to you along the way and try to discover the true story behind Felux and his journey into space.

1.1 Game logline

Felux is a single-player 3D puzzle game based on the story of a supernatural space cat named Felux who, after the death of his mother, decides to embark on a journey between the planets to reach his father, a dying star, in order to cause a supernova that will lead to the birth of new stars and new life, including his parents.

1.2 Gameplay synopsis

To help Felux reach his father, the player must create paths between the various planets by rotating the asteroids, trying to make Felux avoid some obstacles that could block his way or harm him. These paths are represented by light rays and can be crossed by Felux thanks to his feline balance.

The main mechanics of the game consists in the rotation of asteroids, of different shapes and sizes, through which the player can direct the light rays that come out of the craters. The player can rotate only the asteroid on which Felux is located. In some levels, rays can have different functions, such as destroying obstacles, based on their color that can be changed by Felux thanks to his light.

Along the way to the goal, various dangers are placed on some asteroids such as corrosive substances that can harm Felux, asteroids covered with ice that speed up the rotation and many other elements that will hinder our protagonist.

During his journey, the player will be accompanied by the evocative atmosphere of space and music, surrounded by stars and luminous components, and by the engaging story that will be told, during the game, by Felux himself who will provide the player with more and more information on

how he has begun his adventure in space. From the beginning of the game Felux addresses the player as his companion in adventure, asking him for help in reaching his father.

2. Audience, platform and marketing

2.1 Target audience

PEGI 7: this game is characterized by the presence, however small, of particular cartoon and fantasy images that can induce feelings of fear.

Gender: any

Locations: any

2.2 Platform

This game will run on computer because this will allow us to better manage the rotation of the asteroids, therefore the main mechanics, and will allow us to use more contents such as: more 3D models in the scenes to create a suggestive atmosphere and more space to be able to tell an engaging story through the dialogues that will appear throughout the levels. We are also thinking about the possibility of creating the game in a mobile version in the future.

2.3 System requirements

	Minimum requirements	Recommended requirements
Memory	At least 1 GB di RAM 2 GB of available space	2 GB di RAM 2 GB of available space
Network	Discreet connection	Broadband internet connection
Graphics card	NVIDIA GeForce 9500 GS or AMD Radeon HD 6450A	NVIDIA GeForce GTX 760A or AMD Radeon HD 7560D + HD 7600 Dual
CPU	Windows: Intel Core 2 Duo E8400 MacOS: Apple M1	Windows: Intel Core 2 Duo E8400 MacOS: Apple M1
Audio Card	Yes	Yes

2.4 Top performers

- God of Light:

Genre: puzzle

Platform: mobile, PC

Developer: Playmous, EON Games

Publisher: Playmous, Plug in Digital

Release Date: 8 Nov, 2017

Description: It is a puzzle game in which we play a creature called Shiny who want to save the universe from the darkness. Our goal is to seek out objects that reflect, split, combine and bend rays of light to activate the Sources of Life and bring light back to the universe.

- Archaica: The Path of Light:

Genre: puzzle, adventure

Platform: Nintendo Switch, Microsoft Windows, PlayStation 4, Xbox One

Developer: Two Mammoths

Publisher: Two Mammoths

Release Date: 8 Sep, 2017

Description: It is an atmospheric puzzler with lasers and mirrors, that introduces a mystical and ancient world, full of challenging puzzles. In this game, we become the Light Bearer who is sent on a quest to walk the legendary Path of Light and save the world from impending disaster.

2.4.1 Feature comparison

Unlike the games mentioned in the Top Performers, Felux consists of unusual gameplay that combines real-time actions and rotation physics of the asteroids. In addition, the game is characterized by a sequential level structure with an “open-world” component: the game is divided into areas, each area consists of several levels that can be played by the player at random, but at the same time each area is accessible to the player only if he has first completed all the levels of the previous areas. Each level therefore provides information on the history of the game and some of this information can be acquired by the player in a different order, thus involving the player even more in the search for the father of the protagonist.

3. Legal Analysis

CATEGORY	LICENSE
Unity	Personal: It includes access to all core game engine features, continuous updates, beta releases and all publishing platforms.
Models	No copyright: models are created by our 3D artist
Sounds	No copyright: sounds are downloaded from FreeSound website

Documentation	Office 365 Education: It includes Word, Excel, PowerPoint, OneNote, Outlook, Publisher and Access
----------------------	--

4. Gameplay

4.1 Overview

The player must take advantage of the game mechanics in order to make Felux overcome obstacles and thus find paths towards the main goal of the game.

GAME MECHANICS	DESCRIPTION
Jump	The player can use the Jump Control to make Felux jump in order to make him overcome an obstacle
Asteroids rotation	The player can rotate the asteroids Felux is on in order to: <ul style="list-style-type: none"> - make him overcome obstacles by balancing the rotation; - direct the rays towards other asteroids in order to create a path; - direct the colored rays towards obstacles or objects in order to solve a puzzle
Cast a ray	The player can make Felux cast a ray from the asteroid he is on
Change ray color	The player can change the color of the rays. Each color has different functionality: <ul style="list-style-type: none"> - Red: It destroys Red Crystals - Blue: It demagnetizes Blue Crystals - Yellow: It destroys Yellow Crystals

4.2 Gameplay Description

During the game, the player will be able to make Felux move freely between the various levels within a certain area and his goal will be to find paths in order to form constellations, defined for each area. Among the various paths that can be found there are also "unnecessary paths" that can be used as a shortcut between one level and another but, unlike the other paths, they are not necessary for the completion of an area.

4.2.1 Obstacles

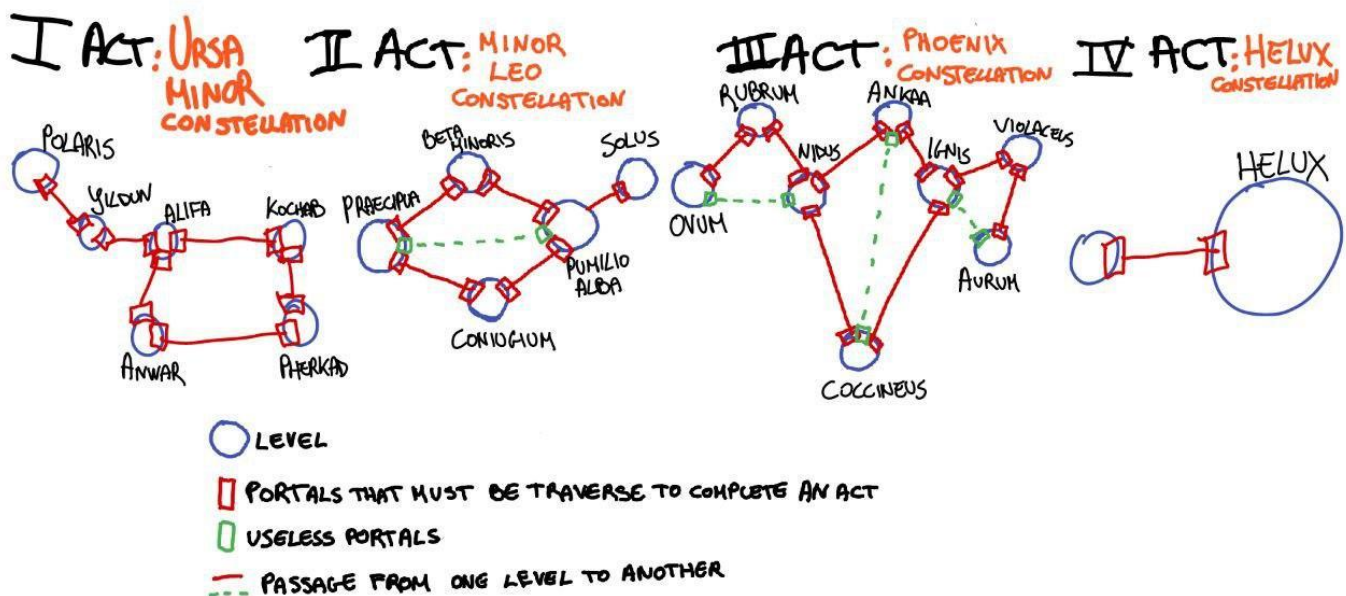
OBSTACLES			
NAME	DESCRIPTION	EFFECT	HOW TO OVERCOME IT
Lava	A river of lava emerging from one of the asteroid's craters	If Felux walks on lava, he restarts from the beginning of the level	Jump
Ice	A piece of the asteroid surface is covered with ice	If Felux walks on ice, the asteroid begins to rotate faster	Balance the rotation
Slime	A green slime emerging from one of the asteroid's craters	If Felux walks on slime, the asteroid begins to rotate slower	Balance the rotation
Steam	Steam escapes from one of the asteroid's craters	If Felux walks on steam, he restarts from the beginning of the level	Find another way
Tornado	A tornado escapes from one of the asteroid's craters	If Felux walks on tornado, he flies off to another asteroid	It can be avoided or exploited to reach other asteroids
Bump	A protuberance on the asteroid surface	If Felux collides with it the rotation of the asteroid is blocked	Jump
Red Crystal	A crystal formed on the asteroid surface that blocks holes	If Felux doesn't destroy it, the light ray cannot enter the next asteroid	Hit it with the red light ray
Blue Crystal	A crystal formed on the asteroid surface that creates a magnetic field blocking the way to other asteroids	If Felux doesn't demagnetize it, he cannot proceed in the level	Hit it with the blue light ray
Yellow Crystal	A crystal formed on the asteroid surface that blocks the constant rotation of an asteroid	If Felux doesn't destroy it, the next asteroid will remain stationary and never show its target hole	Hit it with the yellow light ray

Mirror	A floating object that deflects light	Felux can use it to reach new places with its light	Hit it with a light ray
Celestial Body	A floating object that blocks light	Limits the places that Felux's light can reach	Shoot the ray in another direction

5. Winning conditions:

- A **level** is completed when all the necessary paths within it are reached.
- An **area** is completed when all levels in that area are completed.
- The **game** is completed when all areas are completed.

6. World



The entire journey that Felux has undertaken is set in space. The story is divided into 4 acts, each of which is set in different areas which are represented by four constellations: The Ursa Minor, the Lion Minor, the Phoenix and the Helux. Each star is named after the stars of the true constellations except the one star, Helux, the father of Felux. Helux is not a real constellation but it is the area where Felux's father lives, in fact the first star of the fourth act has not assigned a name because it serves as a passage to the final scene where Felux finally meets his father: a big star. Each constellation is characterized by a different setting, obstacles and predominant colors in order to diversify and introduce variety to the game.

In the **first** constellation the predominant color is yellow. It serves as a tutorial for the player by introducing the first obstacles: yellow crystal, lava and bump.

In the **second** constellation the predominant color is blue. Inside are blue crystals, ice, solar panels, tornadoes and steam.

In the **third** constellation the predominant color is red. Inside, the red crystals, the lava with different configurations, the solar panels and the bump have been inserted.

In the **fourth** constellation the predominant color is green. Inside there are all the crystals and all the obstacles encountered during the game plus a new obstacle that is the slime.

The choice of inserting different obstacles was made in such a way as to increase the difficulty of the game from constellation to constellation.

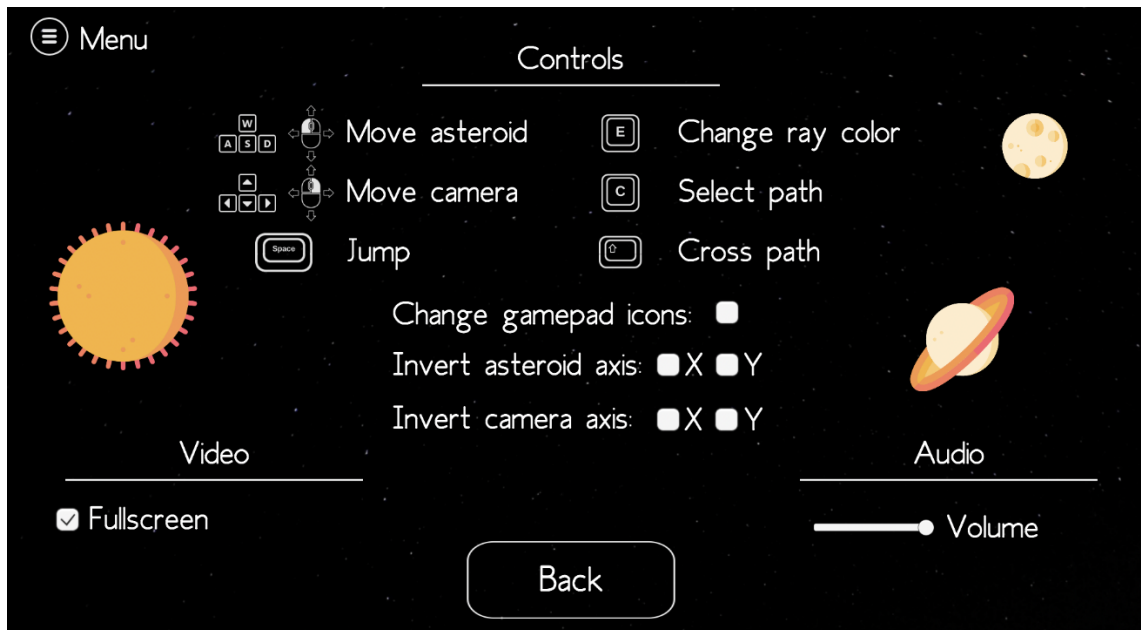
7. Interfaces

7.1 Menu

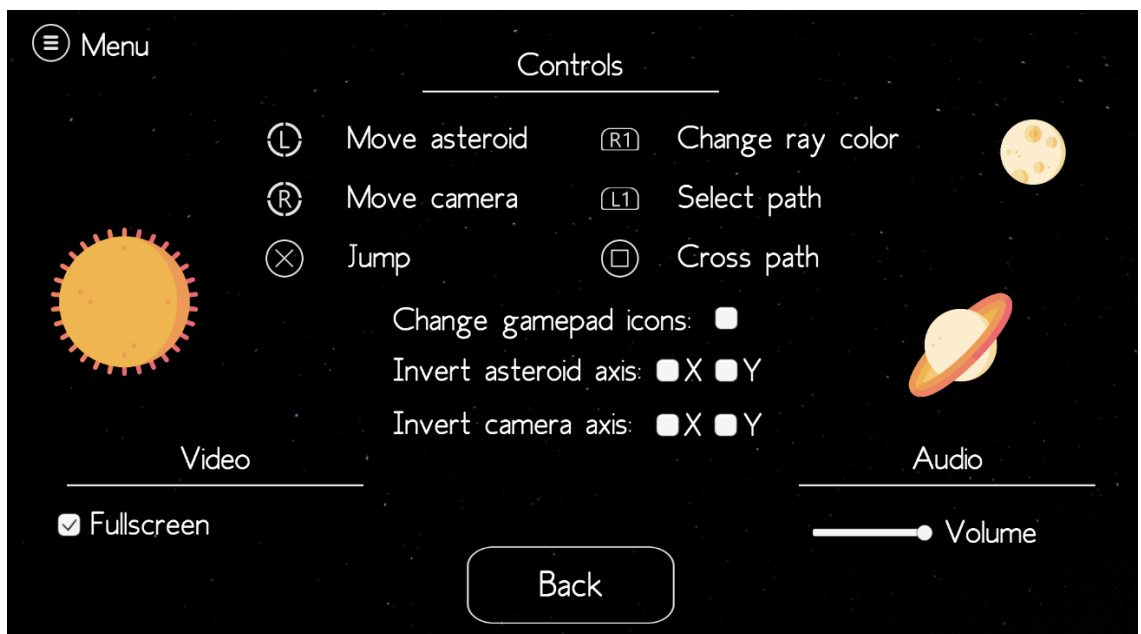


7.2 Controls

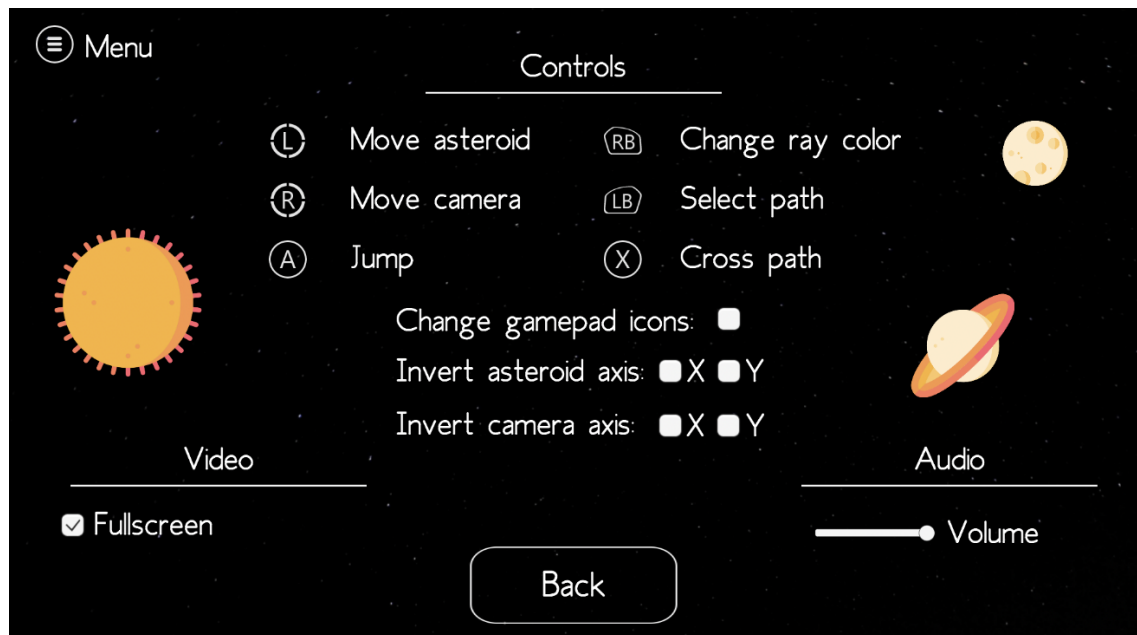
7.2.1 Keyboard controls



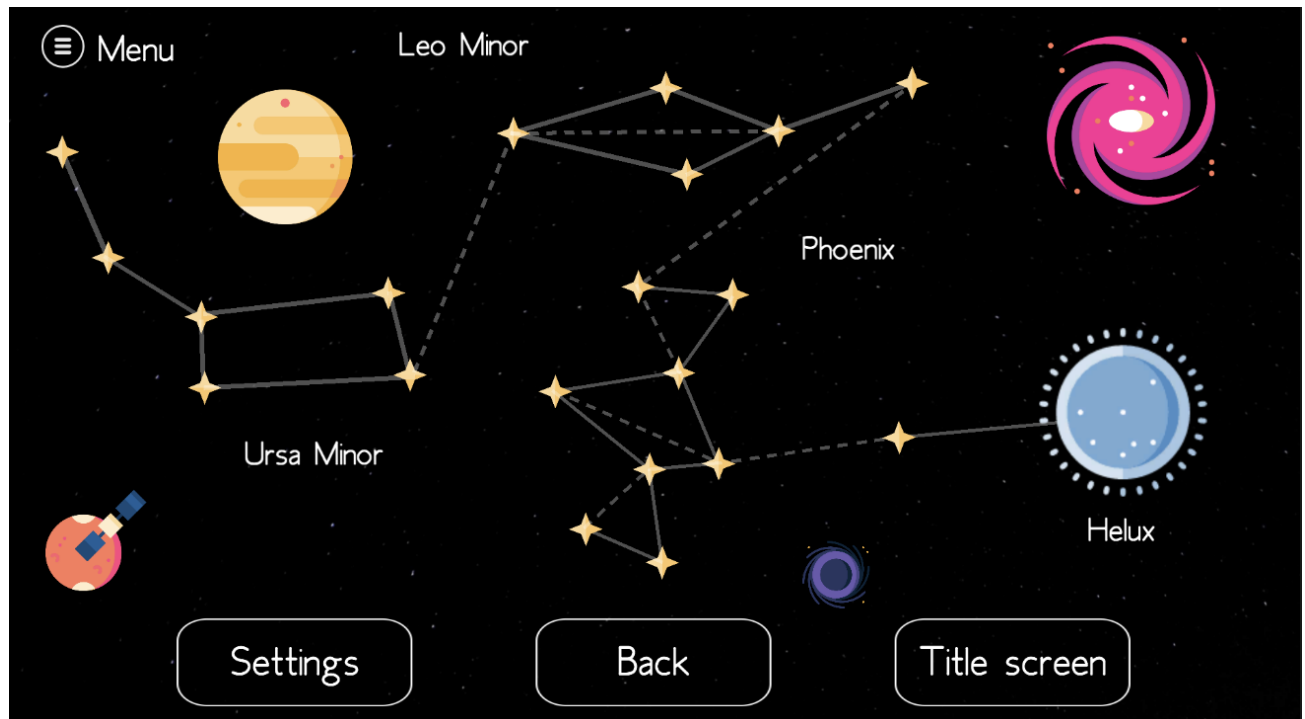
7.2.2 Playstation controls



7.2.3 Xbox controls



7.3 Map



8. Characters

8.1 Felux

Player Character

Story:

Felux is a supernatural luminescent white cat born from the strong and bizarre love of a cat and a star. Although he is a supernatural cat, he grew up like other cats on planet Earth along with his cat-mom. Since he was just a puppy he has grown up with the certainty that one day he would join his father there in distant space. When his mother reaches his time, Felux notices that his father's light is slowly becoming weaker and so he decides to embark on his journey, hoping to be reunited with his father and to help him. Once he reaches space, Felux realizes that he has powers coming from the light he emanates, which will allow him to use rays to move himself between the asteroids.



8.2 Felux's mother

Non-Player Character

Story:

Born on planet Earth in a sixth floor apartment, Felux's mother has always been the typical domestic black cat until one night she decides to run away from home to join her beloved in space. She spent every night staring at the sky and especially that star in particular, which more than all the others gave off a dazzling light. So, pushed by love, she runs away and jumps as much as she can in the sky until she manages to reach her goal. Once there, her dream comes true, she finally managed to meet her sweet half. But unfortunately the dream vanishes after a short time, she cannot stay there in space because that is not her place, so she is chased away by the celestial deities and brought back to her Earth. Shortly thereafter, the cat realizes that she is carrying the fruit of that enormous love in her womb and after a few weeks she gives birth to a white kitten surrounded by a luminous glow, just like her father, to whom she gives the name Felux. Although happy with her puppy, the mother-cat did nothing but want to reunite with her love, but unfortunately this never happened and she died before that could happen.



8.3 Gem

Non-Player Character

Story:

Gem is a sungem hummingbird of planet Earth, the most beautiful of its species. Gem has always believed to be the most beautiful thing that exists in the entire universe, his feathers in the reflection of the sun were able to charm anyone. Her self-esteem was so great that it overflowed outwards in the form of a glow until one day this light completely covered her, making her what appeared to be like a celestial body, like a star. But in that moment, Gem realized that due to her strong light, the others could no longer look at her and admire her as before, she so desperate she ran away. Accompanied by her light, she decided to leave her house and go into the unknown, into space, away from those who could no longer even look at her, in search of something or someone who could love her again.

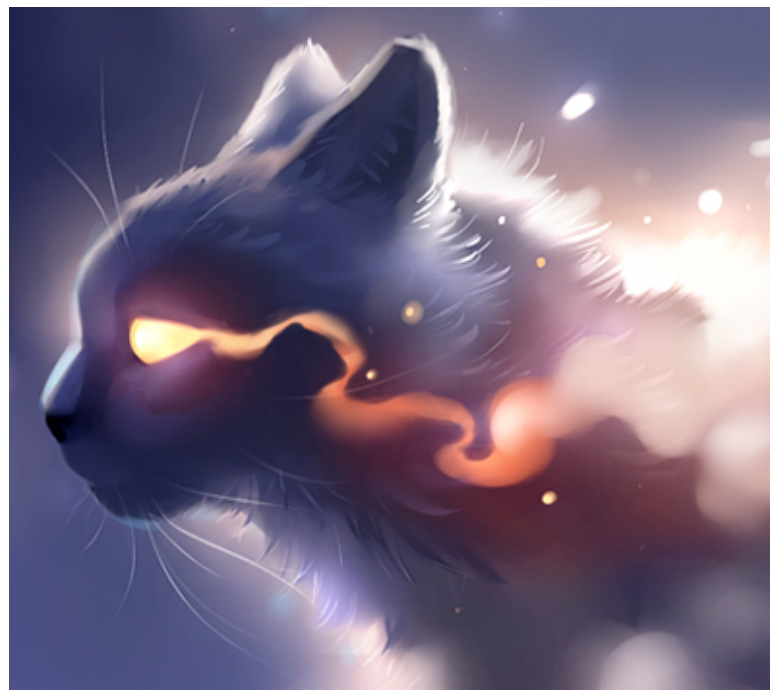


8.4 Felux's father: Helux

Non-Player Character

Story:

Felux's father is nothing more than a star, a celestial body that shines with its own light. His story began billions of years ago with his birth. In all these years, even if surrounded by billions of celestial bodies, he has remained alone in his vast light until one night he realizes that he is being observed. Unlike the other times when he felt observed by many beings because of his light, this time was different, it was as if someone was looking at him with different eyes, with the eyes of love. Thus, the star decides to concentrate and thanks to its strong light, he was able to find the strength to see who was watching him with that interest. And that's where he saw her, a pitch-black cat resting on a window sill. Since then the two did nothing but look at each other more and more intensely every night, until the cat found the courage to make her way into space to reach her beloved and once she arrived, the two were it not for the celestial deities who divided them again. The star was sad and could not help but admire from up there his beloved and the son who was born from their love. But when the time came for his partner, the pain was so strong that his light began to feel it: slowly, like her beloved, he was fading too. When at the end of the game he is joined by his son, he changes his shape into one resembling a celestial cat.



9. Story

9.1 Synopsis

“Felux” is a 3D puzzle game where the player must help a supernatural space cat named Felux in its journey to reunite with its father, a star now dying, in order to cause a supernova and let new stars and new life be born.

To reach its destination, Felux must walk on little asteroids of various shapes and dimensions, but to move from one asteroid to another he needs a light ray connecting the two on which it can walk exploiting his feline equilibrium.

9.2 Complete Story

REASON				
I ACT		II ACT	III ACT	IV ACT
TUTORIAL	Felux still has its light	Felux still has its light	Felux is losing its light more and more	After encountering the NPC, Felux regains his light

MECHANICS	I ACT		II ACT	III ACT	IV ACT
RAYS	TUTORIAL	Felux can change color of the rays	Felux can change color of the rays	Felux can use some orbs of light (TUTORIAL), which he will have to collect in each level, to change the color of the rays	Felux no longer needs the orbs of light to change the color of the rays

9.3 Backstory

One evening a cat, looking out the window, looks at the starry sky and bewitched by one of the stars decides to reach it, so she begins to jump on the cars, on the trees, on the buildings, higher and higher, until she finally reaches her goal. The cat and the star were now one, their love was so strong that she gave birth to a small puppy covered with light which was given the name of Felux. But the cat could not stay there much longer in space, hers was not her place, and so she was sent away to her home planet along with her puppy.

Several years passed, the cat did nothing but look after her puppy and gaze nostalgically at her sweet star. But as the star continued to shine in the sky, the cat was slowly fading until she left her puppy in the dark, alone. After that event, the star in the sky didn't seem to be so bright anymore and every evening Felux wondered if his father was okay. One evening all of a sudden he no longer

saw him, by now his light was so weak that it was confused with the other thousands of stars that surrounded him.

Here begins the story of Felux, a young white cat who decided to cross space in search of his father, a dying star, in order to cause a supernova and give birth to new stars, new life, in an attempt to reunite his parents.

At the end Felux manages to reach his father and thanks to his light he manages to cause a supernova that gives rise to a binary system consisting of his parents and Felux himself who finally become part of the universe together.

9.4 Narrative devices

9.4.1 Subplots

The loss of light

Shortly after the start of his journey into space, Felux begins to feel sick and realizes that he is gradually losing his powers due to his light that seems to be extinguishing more and more, just like that of his father.

After crossing a long road, Felux is exhausted and can no longer continue, until suddenly a strange curious being, like a star with a hummingbird's beak, comes to his aid. The hummingbird introduces himself, says her name is Gem and talks about herself to Felux even before knowing his story and only afterwards, she looks at Felux and asks him if he thinks she is beautiful. Felux replies yes and Gem is amazed, it's been years since someone had admired and complimented her, so she decides to help the young cat by giving him some of her light. Felux begins to glow like he never did and finally feels strong enough to continue his journey. After thanking the strange being, Felux notices that Gem's light has dimmed so he asks her for an explanation. Gem tells her story, she was the most beautiful being of her kind but because of her strong light no one could look at her anymore. Gem thanks Felux for taking some of her light so she can finally go home.

The paths of the two strange creatures part and Felux's journey in search of his father continues.

9.4.2 Themes

Importance of the family

The game focuses above all on the theme linked to the family remarked several times by the protagonist whose goal is to save and bring back their parents. During the game there will be many inner dialogues of the protagonist that will recall this theme.

The search for home

The house is another main theme that is addressed throughout the game. The protagonist himself, after losing his mother, begins his journey in an attempt to find again a place that he can call "home", a place where he can live in peace with his loved ones.

The circle of life

The protagonist's journey begins after the inevitable death of his mother, in an attempt to manage to save his dying father. At the end of the game, the protagonist will be able to save both of his parents by generating new life.

10. Design Values

This game is developed with the aim of entertaining the player thanks to the game mechanics including the experimental mechanics concerning the rotation of asteroids. This mechanic will test the player's skills in balancing different forces, solving different puzzles and figuring out which path to take in order to reach a certain level.

Another objective of the game is to immerse the player in the journey undertaken by the protagonist in search of a star and lead him little by little, through the dialogues scattered throughout the levels, to discover the truth about the story of Felux and the identity of this star who is none other than the father of the protagonist.

During the game, the feelings experienced by the protagonist will affect those of the player, also involving him thanks to the subplot of Felux's loss of light that will make the player even more bond to the little cat, who begins to feel bad in the first act and to extinguish in the second act, thus risking to fail in his enterprise. While in the third act, the player will be surprised by the light and the new powers of Felux that will encourage him to continue towards the goal.