



Design Document

BETA RELEASE

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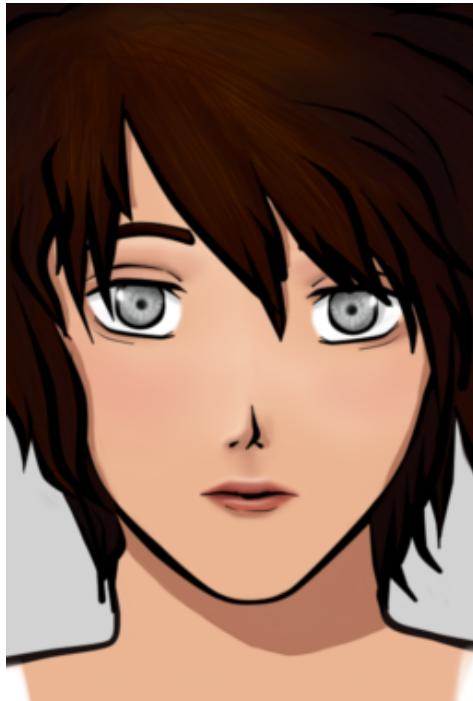
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Synopsis

Mia is a young woman who is struggling to move on after the death of her twin sister, Kara. Mia finds it impossible to recover even after some time has passed. Her irreconcilable grief causes her to slip further and further into despair until she finally has a mental breakdown. Mia ultimately retreats into her psyche where she is forced to solve the puzzles in her mind and confront her grief. In the process she reflects on her individual identity and overcomes the shadow that haunts her.

Characters

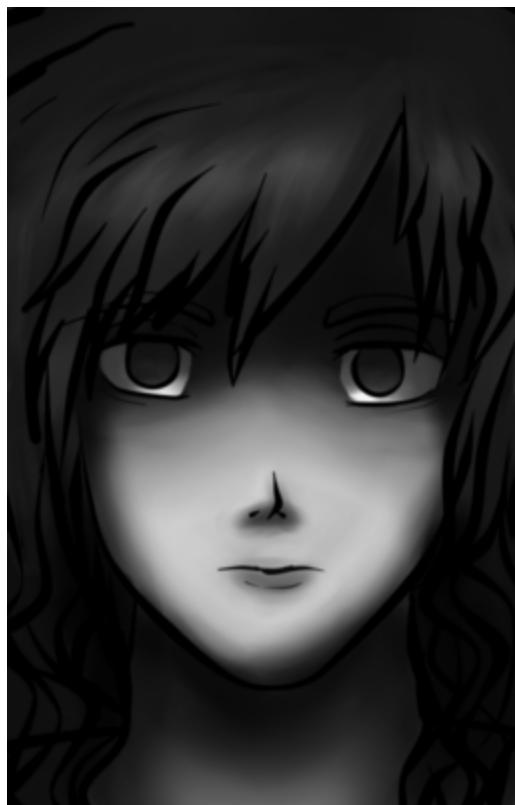
The main protagonist is a young woman named Mia. Along with her sister, Kara, the two make up the cast of the plot. Mia and Kara are identical twins with opposite but complementing personalities. Kara has passed away, and Mia, distraught over the loss of her sister, retreats into her mind to confront her grief and rediscover her individual identity.



Mia in game portrait

Compared to her twin sister, Mia's personality is more serious, uptight, and introverted. In contrast, Kara is more outgoing and carefree. Mia sometimes feels eclipsed by Kara's vibrant nature, but Kara helps her to overcome her insecurities. Their contrasting personalities are further explored through their hobbies. Mia and Kara both love music, but Mia plays more mechanically and with greater precision, while Kara likes to improvise. Though their styles seem incompatible, they make for a nice duet.

In addition to the two main characters, there is a shadow character that acts as the main antagonist in the plot. Exactly what the shadow represents is left intentionally unclear to the player. Story elements suggest that the shadow may represent Kara, but she is ultimately revealed to be a manifestation of Mia's grief, which she must defeat in order to move on physically and emotionally.



Kara shadow in game portrait

Setting

Mia's mind creates the setting for Duality. Mia's consciousness retreats into an internal library representing an archive of Mia's memories and experiences. The library is composed of a circular central room filled with bookshelves and mirrors that lead into larger chambers containing creative and logical puzzles which convey themes of duality. The first two puzzle chambers are mirrored, and Mia can move between the original and mirror image room by interacting with mirrors along the wall in the middle.

Gameplay

As Mia, the player must manage her health by avoiding prolonged direct encounters with her shadow. The shadow will actively drain Mia's health when it is in close proximity, and the player must avoid the shadow while solving the puzzles in each mirrored chamber. When she is in the mirror image of any puzzle room, Mia's shadow will attempt to stop the player from completing the puzzle by following Mia and reducing her health. Should Mia be reduced to zero health, the player must restart the puzzle from the very beginning.

Journal entries will be updated throughout the game to document Mia's experiences. Instructions will be provided in a tome should the player require more direction. Diary entries can also be found in the rooms which chronicle some of her past life with Kara and explain the story backdrop for each of the puzzles in the game.

Cutscenes

In addition to the opening and ending scene, cutscenes with subtitles will play at the beginning and end of each puzzle.

Opening Scene

The game opens with Mia and Kara as young girls playing hide and seek. Mia counts while Kara hides just around the corner. As Mia looks behind a curtain, Kara will be shown just behind her, with her hands over her mouth, concealing her giggles. Mia gives up her search and Kara comes up and hugs her from behind. She laughs and tells Mia that she was hiding in her

shadow. Fade to an older Mia standing over Kara's grave, with her shadow falling over her twin's resting place. The scene then fades black to Mia standing in front of a mirror in her bedroom, with her hand on the mirror. She suddenly breaks down crying and crumples to her knees. The image turns black, and white text appears as Mia says, "I miss you." The text rearranges to show "You're missing from me" while Kara whispers in the background. Mia then looks up at the mirror from the floor. Next is a zoomed in shot of her eye, with the reflection of herself shown in it. Finally, the scene ends with a zoomed out image of Mia, still sitting on the floor with her hand raised to a now missing mirror, surrounded by bookshelves.

Music Room Opening

The scene opens with young Mia and Kara seated at a grand piano together. Mia is playing the song perfectly. She tells Kara to play it just as she does. Kara plays it right at first, but changes the ending entirely. Mia scolds her for not playing it properly. Kara answers that she prefers her own ending over the one in the sheet music. Mia argues that Kara can't just play what she likes; she's supposed to play the song correctly, in the proper order. As Mia tells Kara to play it again from the top, the window next to them shows that it is getting dark outside.

Music Room Ending

Seated again at the piano at a brighter time of day, Mia tells Kara more patiently to give it another go. Kara asks Mia to play it again for her, which Mia does. As she approaches the ending, Kara joins in with her own improvised ending, and the song becomes a duet. They both turn to each other and smile, and Mia tells Kara that the song sounds really nice played together.

Observatory Opening

Mia and Kara are sitting bundled up on a grassy hill awaiting the Leonid meteor shower. Kara is impatient for it to start and Mia replies that it should be any minute now. Just then a meteor streaks by in the sky and Kara tells Mia to make a wish. Mia sits silently with her eyes closed for a couple seconds and opens them. Kara asks Mia what she wished for, but Mia doesn't want to tell her at first. Upon further prompting, Mia tells Kara that she wished she could be as bold and sunny as her and not have to borrow Kara's light like the moon to shine.

Observatory Ending

Still seated on the hillside, it is close to the break of dawn and the meteors have peaked. Mia and Kara look at each other, and after some thought, Kara says that Mia might be the moon and might not. Either way she doesn't think of her that way and sees her only as a protective older sister. Mia cuts in and retorts that she's only older than her by an hour. Kara laughs and replies that still, sometimes she can be careless and Mia always watches out for her. Kara calls Mia a knight of the night, complete with shining armour. The image then shows the constellation Leo with the Leonid shower radiating out numerous meteors as Kara finishes by telling Mia not to waste any more wishes because she shines plenty bright already on her own.

Final Room Opening

Mia stands, frustrated, in front of a blank piece of paper on an easel. Next is a close up of the different strokes she is adding to the canvas. As strokes are added, we hear ghostly snippets of things Kara once said to Mia. It is slowly revealed that she is painting a picture of someone, and that someone is Kara. Kara's painted face suddenly shows tears falling on her cheek, and we see that Mia has burst into tears. She cries out that she can't do this, can't do anything anymore without Kara. Mia notices how her tears have now smudged all the paint, and in utter frustration, paints over Kara's picture in black. She then throws down her brush and paints and then we see that the canvas with the image of Kara now looks very much like the shadow. The final shot is of Mia tearfully approaching the mirror as she does in the opening cinematic

Ending Cinematic

Upon leaving the final puzzle room, Mia still feels sorrowful, though she is relieved after coming to terms with her shadow and grief. She stands before the original mirror that is now glowing and useable. Mia holds her hand back up to the central mirror, seeing her own tired eyes looking back at her. Again, there is a close up image of her eye, followed by a zoomed-out image of her back in her bedroom. She closes her eyes in exhaustion. Opening her eyes, she sees the shadow staring back at her through the mirror. She starts speaking to her reflection/shadow about her own theory of being twins. She smiles halfheartedly and whispers "I love you, Kara" to her reflection as the shadow fades into her own image. As Mia turns away, her hand remains against the mirror, which is then shown in a close-up, pressed

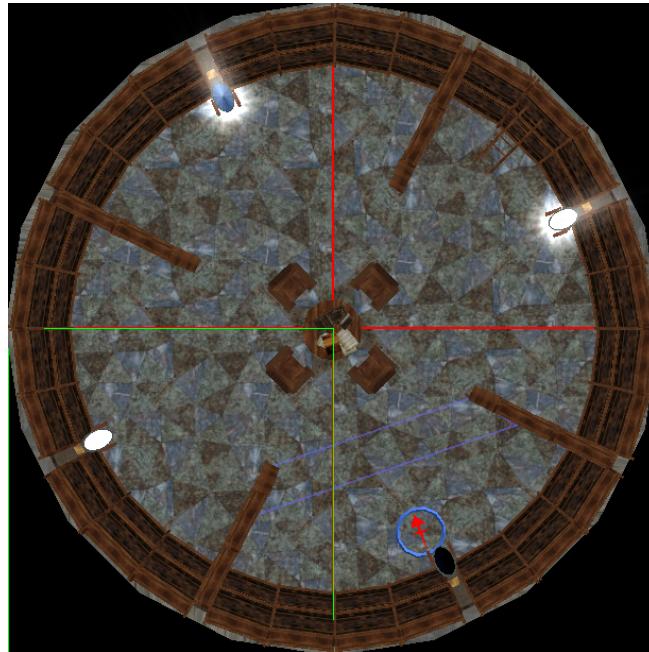
against the reflection's hand. Mia takes a breath and steps away from the mirror, genuinely smiling. The reflection in the mirror is then shown to be Kara, smiling back and whispering "I love you too".

Level Design

Central Chamber

The central chamber serves as a hub in the story and is the location where the player begins the game. The player returns to this chamber after completing each puzzle to enter the next puzzle room. The chamber is a circular room with walls lined with bookshelves.

From this room, the player can decide which of the two starting puzzle chambers to begin with by interacting with the mirrors along the circumference of the hub. After completing all of three puzzles, the player can finish the game by interacting with the mirror on the Entrance Mirror that is glowing to return to reality.



Layout of the Hubs

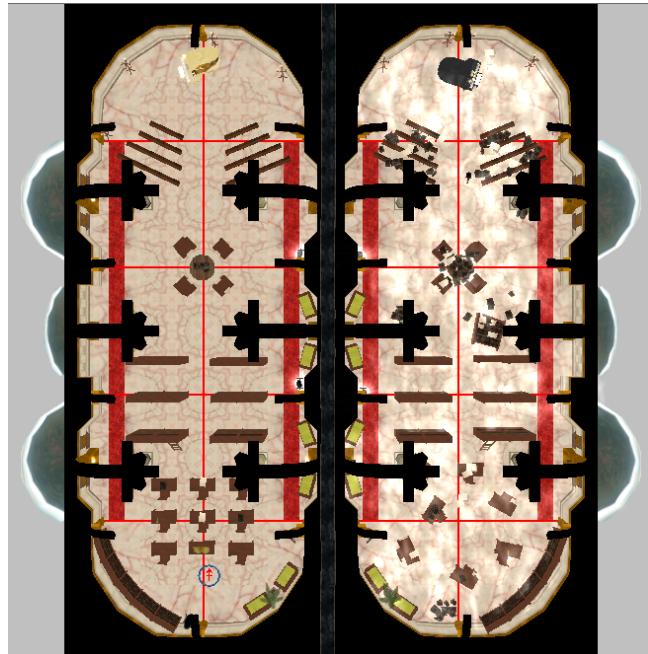
Music Room

The music room is one of two puzzle rooms with which the player can begin. While interacting with either Light Piano or Dark Piano, four musical "orbs" spawn around the piano,

two of which scatter in the current room, while the other two run through the dividing mirrors into the opposite room. Mia must interact with these fragments in order to recreate four measures from a piano duet that she had previously played with Kara. During Cut Scene Mode, the orbs will change color with its respective measure of music. The challenge of the puzzle comes from how accurately a player can remember and recreate the song by finding and selecting the correct fragments. The player can remember the order that the coloured orbs spawn to recreate the order. Each fragment will play its song segment when the player approaches the orbs.

Once the first part of the puzzle is complete, the player is then prompted to solve the second part of the puzzle by interacting with the piano in the other room and finding the correct fragments again. When the puzzle is complete a box will spawn by the Exit Mirror, it contains a spell that the player can equip. This spell enables the player to temporarily freeze anything that moves.

If the player dies because of the Shadow's damage the puzzle will be reset to its original state and the player will have to restart.



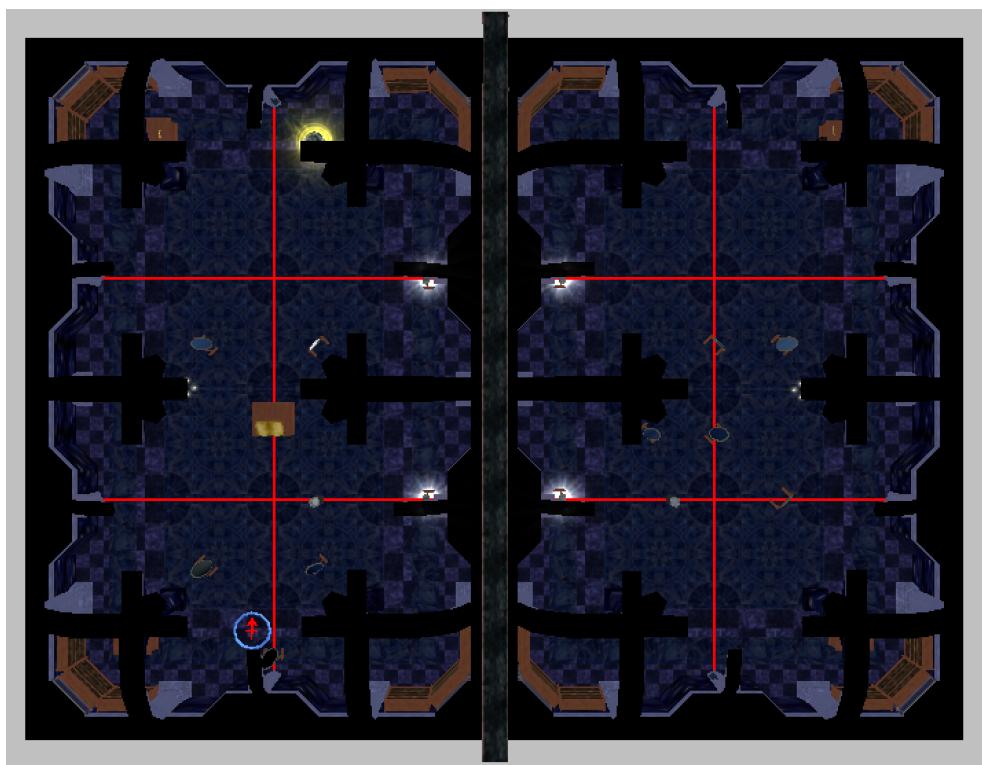
Layout of the Music Room

Observatory

This puzzle contains a source of light, the Sun, that creates a beam of light that reflects off the mirrors in the room at certain angles in order to cross into the shadow room. The beam can reappear in the Mirrored half once the glowing Crystal is clicked on.

When the Moon in the Mirrored room is lit up then the puzzle is complete and an Armoire will spawn by the Moon, containing a piece of Armor the player can equip. The armor allows the player to block damage from the shadow fifty percent of the time.

If the player dies because of the Shadow's damage the puzzle will be reset to its original state and the player will have to restart.



Layout of the Observatory room

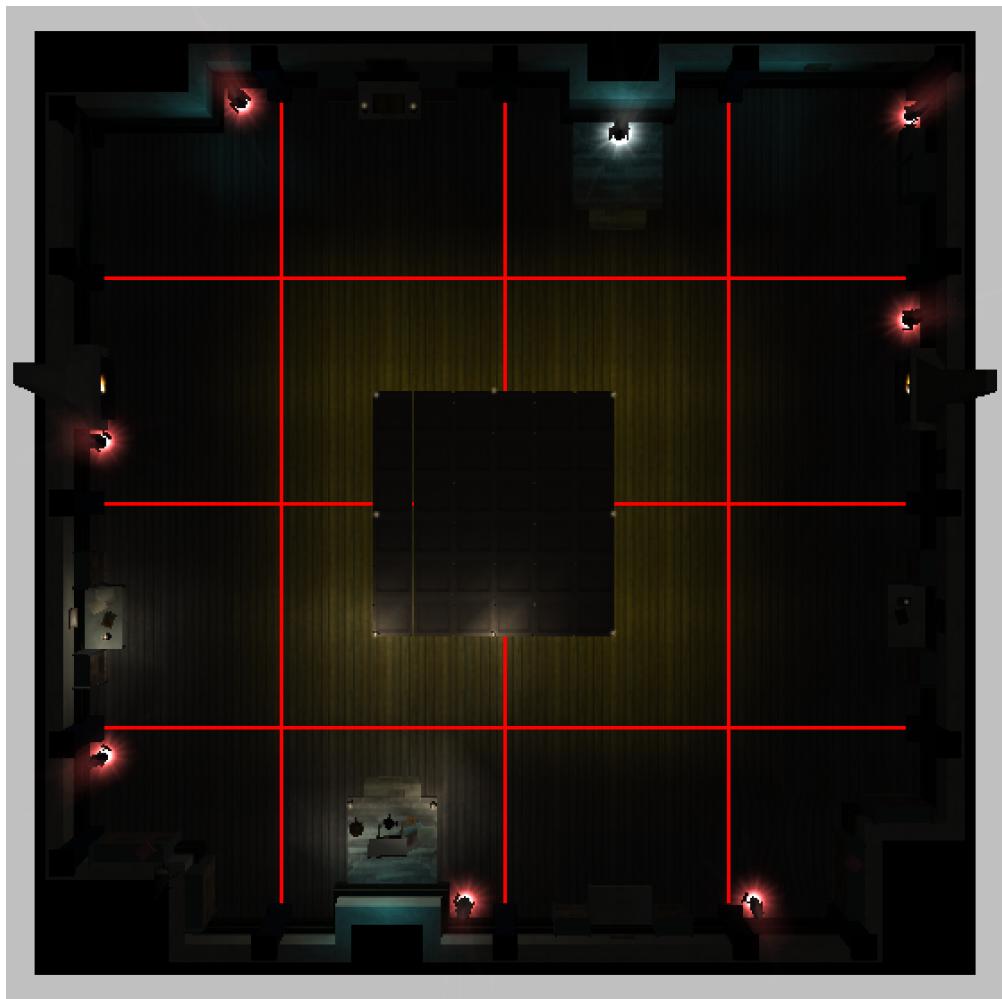
Final Room

The final chamber is a large, open rectangular room with mirrors placed around the perimeter. After Cut Scene Mode the and multiple Kara Shadows spawn on the 6x6 tiles in the center of the room then disappear. The puzzle begins when Rays of Lights appear on

each tile. The grid of lights represents Mia's canvas, which she must protect from the onslaught of shadows.

In order to complete the puzzle, the player has to find the shadow that looks different from the others and click on her. Once the player finds the shadow five times, the puzzle is over.

If the player is unable to prevent the loss of all the Rays of Lights or interacts with ten or more wrong shadows the puzzle will be reset to its original state and the player will have to restart the level.



Layout of the Final Room

Production Details

Tile Budgets

Room	Dimensions	Tiles
<i>Central Chamber (Hub)</i>	4 x (2 x 2)	16
<i>Music Room</i>	4 x 5	20
<i>Observatory</i>	4 x 3	12
<i>Final Room</i>	4 x 4	16

Total: 64 tiles

Custom Assets

The follow custom content will be created for this production:

- Original music composed for:
 - Sound tracks for the music puzzle
 - Ambient theme for hubs and observatory
 - Final encounter with the shadow
 - Main opening theme
 - Additional tracks for cutscenes
- 3D models for mirrors will be created for the interactive mirror placeables

Challenges

The following challenges are anticipated during development:

- Camera angle control to hide division between mirrored and unmirrored rooms
- Manipulation of visual effects to
 - Remove or alter the appearance of shadows
 - Provide or remove lighting in the environment to differentiate mirrored and unmirrored rooms
- Visual elements/queues to aid the music room puzzles
- Providing enough explanation for players to understand the varied gameplay
- Separate modules for interweaving cut scenes as transitions

Contingencies

In the case of overwhelming time constraints, the following areas may be left out of the final release:

- Custom models
- Some custom audio tracks
- Some intelligent behaviours of the shadow
- Select cutscene sequences

Schedule

Milestones

1. January 9 - Team Formation
2. January 16 - Concept Presentation
3. January 24 - Design Document
4. February 14 - Vertical slice walkthrough with Executive Producer
5. February 24 - Vertical slice walkthrough with Instructor
6. March 14 - Beta Release
7. March 21 - Beta Evaluation
8. April 3 - Game Trailer
9. April 8 - Final Release

Timeline

January 20 to January 24 - Conceptual Design

January 20 to February 3 - Vertical slice asset creation, level design, and script

January 27 - Vertical slice detailed design review

February 3 - Vertical slice assets, level design, and story components complete

February 3 to February 13 - Vertical slice integration and testing

February 14 - Vertical slice complete

February 14 - Story and script complete

February 14 to February 23 - Outstanding asset creation, level design, script revision

February 24 - Outstanding assets, level design, and script revision complete

February 24 to March 13 - Beta integration and testing

~~March 7 - Observatory room implementation complete~~

~~March 12 - Final room implementation complete~~

~~March 13 - All cutscenes complete~~

~~March 14 - Beta release complete~~

March 15 to April 3 - Game trailer production

March 15 to April 8 - Final bug fixes and testing

April 3 - Game trailer release

April 8 - Final Release complete