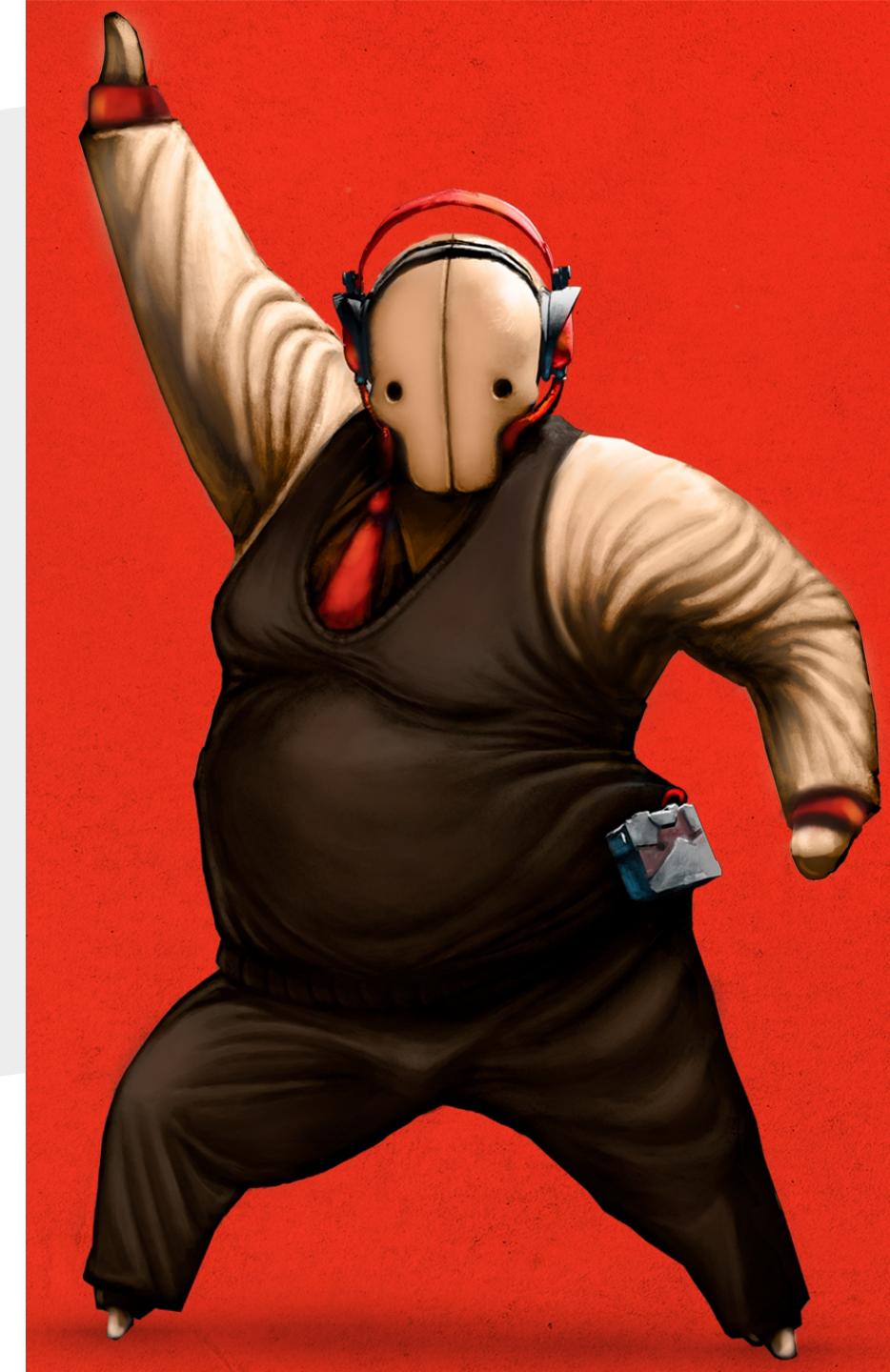


INST 711:  
DIGITAL TO PHYSICAL

# FELIX the REAPER

A ROMANTIC COMEDY GAME  
ABOUT THE LIFE OF DEATH

Shaan Chopra, Shiva Ghasemi,  
Tripti Rajput, Rachel Wood, & Jiale Xu



## **DESIGN** PROMPT

*Re-create the gameplay experience as closely as possible in a non-digital medium for which it is ideally suited.*

# FROM THE CREATORS:

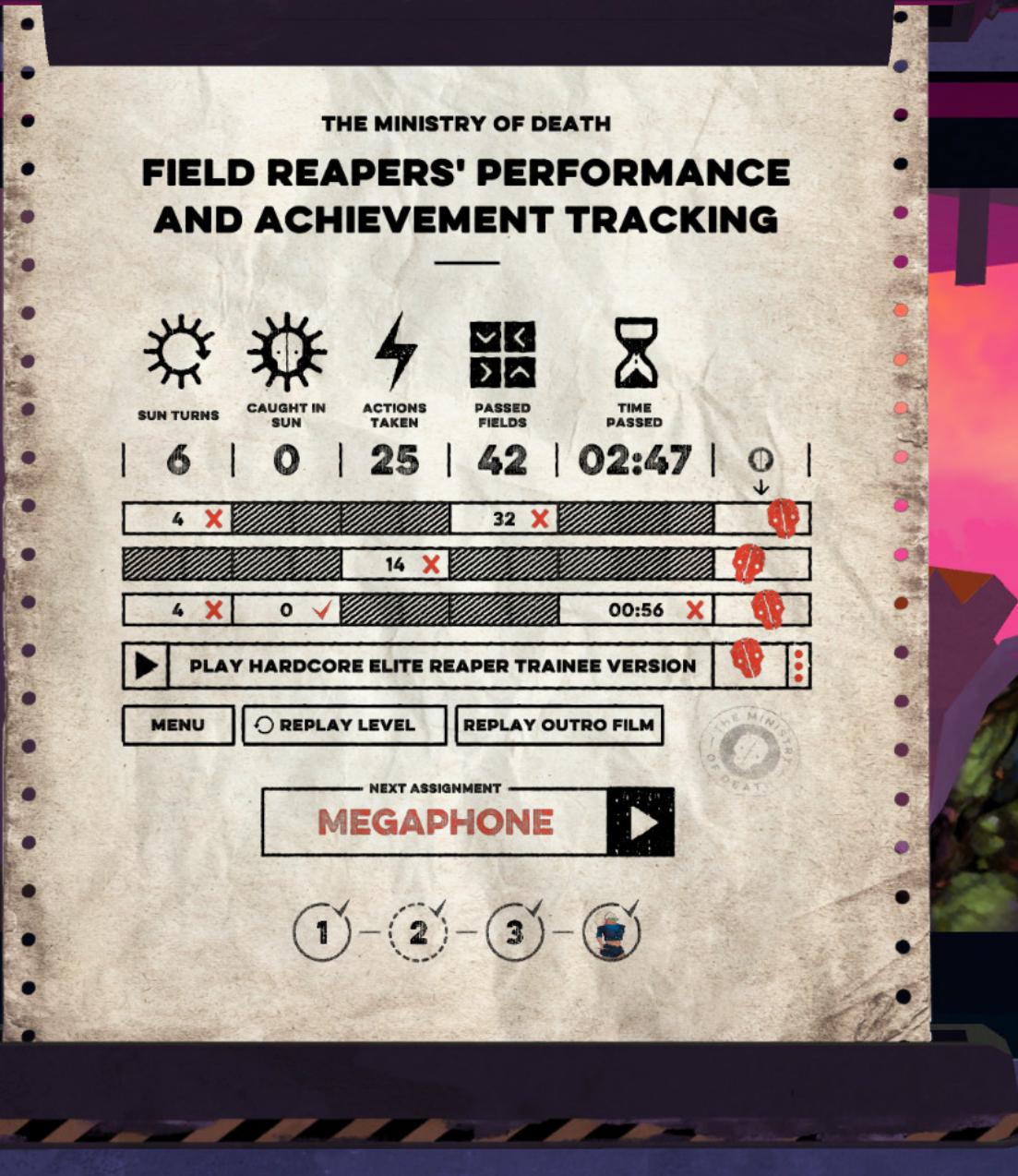
*"The idea for the game itself stems from art history. We actually started with **The Danse Macabre** and **Death and The Maiden** as a basis, and then asked ourselves: How can we make a game about this? Eventually and through several different prototypes, we ended up here."*

# GAME MECHANICS

The mechanics of each level in Felix the Reaper are based on a light/shadow and box moving puzzle set upon a grid-based platform. The player can rotate the angle of the camera to get a better view of the board. The squares of the grid are either lit up or in shadow. Felix may only move (or dance as he listens to music) in the shadows. The grid also has objects on them that cast shadow, enabling Felix to move about the board.

Each level has a starting point and an ending point. When Felix starts a new level and steps on the starting point, time freezes for the living. The endpoint is either where the target who will be escorted to the afterlife is OR where something must be interacted with to trigger a Final Destination or Rube-Goldberg-like chain of events that lead to the target's demise.

As Felix completes a level, he is one step closer to moving from a Ministry of Death Trainee to a full-fledged reaper and hopefully be granted enough freedom to finally see and be with his star-crossed lover, an agent from the Ministry of Life. When Felix completes a level the board lights up like a discotheque and performance statistics are presented to the player.



# GAME MECHANICS

The game records metrics and elements to encourage performance and re-playability with the player. However, these metrics are not inspiring enough to be considered a success. There is a speed clock function, the total number of turns of the sundial, how many times Felix was burned by the sun, the total actions are taken, and how many square Felix stepped on.

# GAME DYNAMICS

The run-time behavior of the mechanics triggered by player input, result in rather rigid **dynamics**. To move safely around in the shadows, Felix can change the position of the sun from 2 points only. By rotating the sun, Felix is able to create new pathways for him to reach the endpoint. Using a sundial, Felix can control the direction that the light is hitting the various objects from two sides of the board's edge. The sundial allows Felix to see where the light will hit before moving to ensure they are not moving into an area that may burn him. If Felix moves into position and changes the sun's direction so he can progress further into the game and the sun burns him, the direction of the sun will revert back, keeping him in the shadows.

# GAME DYNAMICS

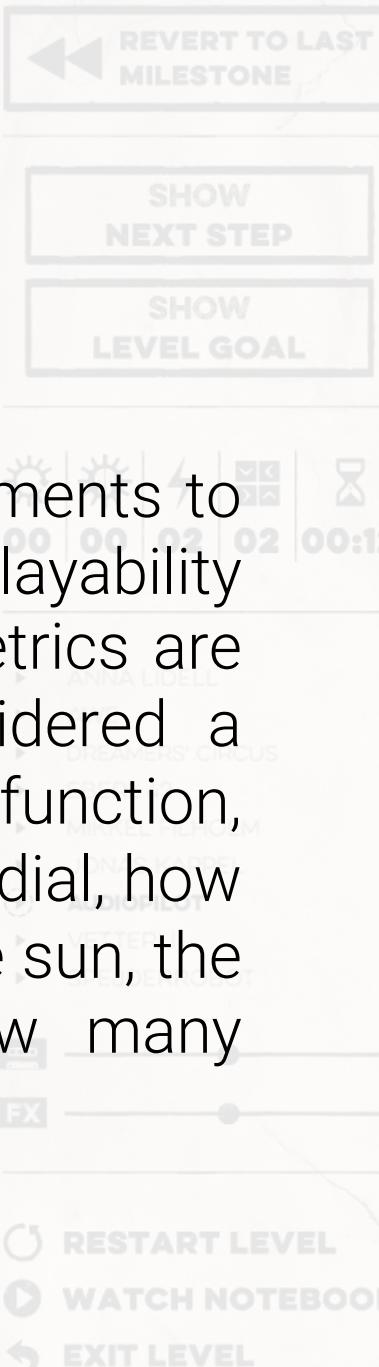
Should a player get stuck, the game has three options to help the player. They can revert to the last successful milestone or step needed to complete the puzzle. They can also see the next step they are supposed to take. This is unfortunately done by only highlighting the square that Felix is supposed to get to and offers no additional hints. The last one is to the overall level goal, in case the player has forgotten what they were supposed to be doing this entire time. The lack of useful hints in the, at times, repetitive gameplay, can make it a needlessly frustrating experience.





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# GAME AESTHETICS: NARRATIVE

The game is set in a fantasy world where Felix, a newbie grim reaper, works with the Ministry of Death as a field agent with the hope of bumping into his crush, Betty the maiden who works for the Ministry of Life. Though warned that their romance isn't meant to be, Felix teaches himself to dance with the dream to one day dance with Betty. During his everyday commute, Felix has fallen in love watching her from the train window over the years. Felix hopes that if Betty can only see him dance she will realize that they are destined to be together. Felix spends his working days dancing through the board as he orchestrates deaths and reaps souls. The entire backstory and construction of the make-believe world sets the tone and adds to the appeal of the puzzle game.

# GAME AESTHETICS: SENSATION

The real **sensation** element of the game lies in how Felix dances across the board performing different moves such as cartwheels, jumps, and ballet twists, nicely complemented by the music. According to the creators, the Danse Macabre song was the original inspiration for the game and a different song of the same name is arguably the best song in the game's soundtrack. In fact, the movement captured for Felix's dance prowess was the result of the motion capture of professional dancers.





## GAME AESTHETICS: SENSATION

The occasional narration that accompanies it, for example after each level, keeps the excitement of the story going. The puzzles are interesting to solve, providing a sense of pleasure and accomplishment in completing each level by lighting the board up like a discotheque and presenting performance statistics to the player. However, at some point, players want to see the interactions between Felix and Betty which never take place and the romantic-comedy element of the game starts to fade out. In our physical implementation of the game, we try to create some of these sensations by asking the players to dance through the board as we play our carefully curated playlist. When a player completes a level, we ask them to do a little victory dance and move the lights (which act as the sun) around to create a disco feel.

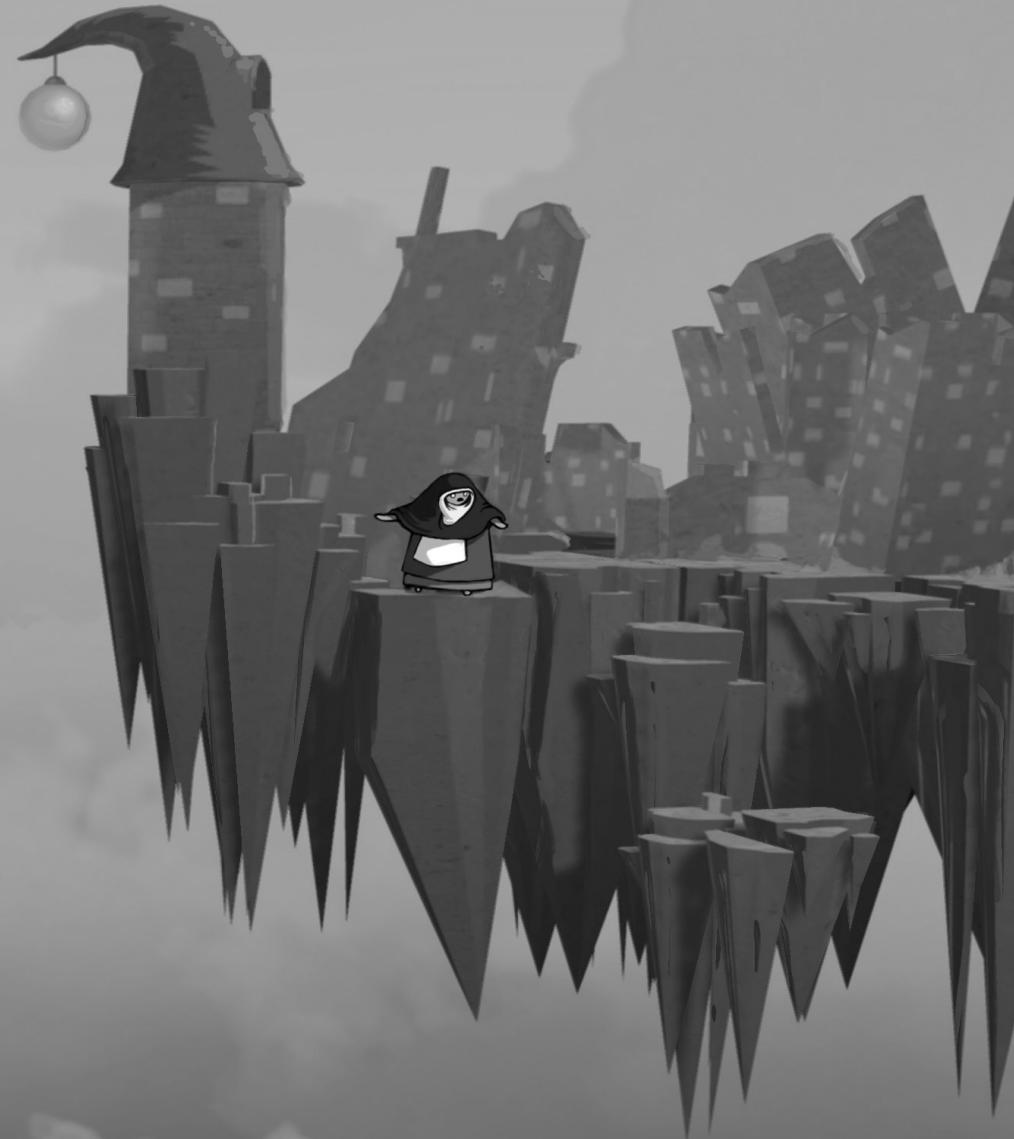
# GAME AESTHETICS: FANTASY

It is perhaps the juxtaposition of the playful overall aesthetic with the themes of death, the afterlife, and the drudgery of a day-to-day job that is one of the more compelling aspects of the game's aesthetics. The production team retained an art historian as a consultant to suggest interesting representations of Death over the past ten centuries. It differs from other games who either try to make death overtly sexy or fall back upon typical horror tropes. Instead, the game relies upon its stylization that achieves the game's unique **fantastical** aesthetic.



# GAME AESTHETICS: CHALLENGE

The **challenge** of this game is to solve the puzzle given the limited resources and time to move Felix through the course. As mentioned, Felix can only move in the shadows cast by different objects which he can manipulate using the sundial. As the player learns and progresses through different levels, the puzzles go onto become more challenging. There are also optional challenge elements such as clearing levels in a certain number of moves. Further, the introduction of more elements such as the ability to move (and stack) items such as barrels to create shadows, adds to the difficulty.



# GAME AESTHETICS: DISCOVERY & FELLOWSHIP

As Felix moves through uncharted territories at each level of the game, the **discovery** element is initially strong. However, though the puzzles become tougher, they are just minor variations of the same theme and don't bring anything new to the table; the discovery element dies down. This often leaves the players' desire for gradual evolution unsatiated, as sometimes easier to restart a level than try to backtrack a mistake.

There is not much room for **fellowship** given that it is a single-player game with no leadership board or online community to track scores. However, there was clear potential during our play-testing of the physical prototype for making it multiplayer with one or more player(s). This was a naturally occurring behavior where onlookers wanted to help the player inside the puzzle to complete the course.



## GAME AESTHETICS: EXPRESSION

Sadly, the player cannot really customize their experience. The player cannot choose the dances that Felix performs. There is no character customization and even the name of the player defaults to the player's account username. Elements like being able to upload your own playlist for Felix to dance to would have been delightful but was not only an option in the physical adaptation of the game. In our physical implementation of the game, each player has to physically move or some even danced across the board. So, some level of **expression** is possible. Along with the path and how to cast shadows, the players can choose their own dance moves and create their own unique and fun experience.

# GAME AESTHETICS: SUBMISSION

The game demands a certain level of engagement and **submission** as the puzzles may take some time to solve. As a player successfully completes a level, the game mechanics and storytelling attempts to keep them engaged and motivated to play further through to the other levels. The game records some metrics and elements, such as the total number of turns of the sundial, how many times Felix was burned by the sun, the total actions are taken, and how many square Felix stepped on, to encourage submission and re-playability with the player. However, these metrics may not be inspiring enough. Because the game does not evolve after chapter 2, the submission element drops even further. In our life-size adaptation of the game, since the player themselves moves around the puzzle, we see a higher level of physical investment with the game. The physical space element appears to be a step up in the level of engagement from the actual video game.

# MAKING DEATH COME ALIVE

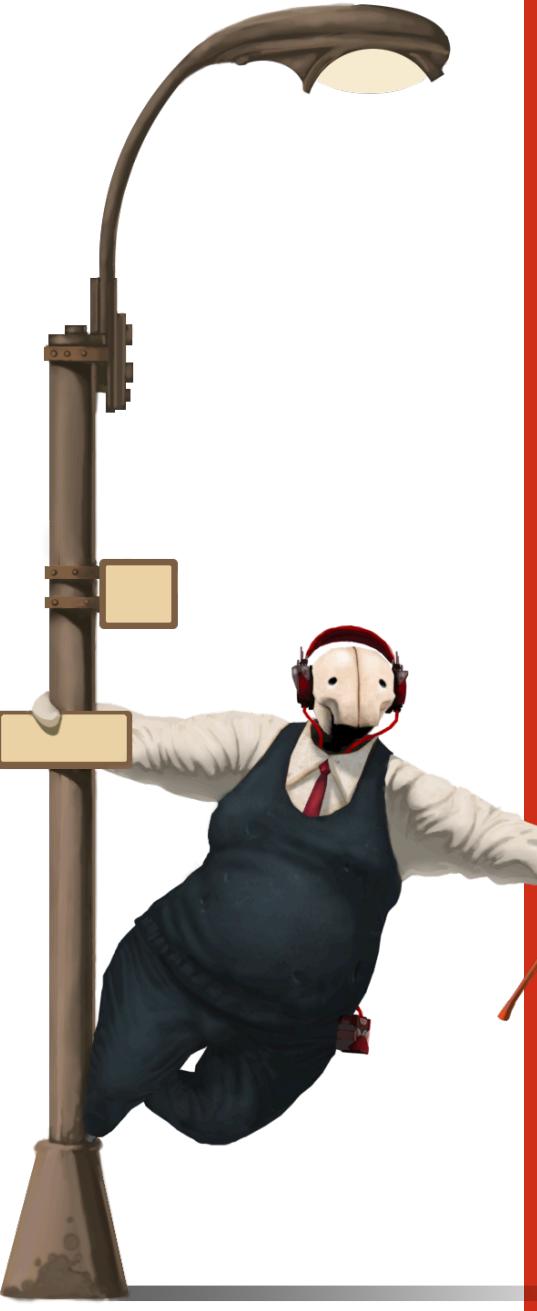
For the physical adaptation, we taped a grid onto the ground using masking tape. We created trees using wardrobe boxes which acted as the permanent objects that cannot be moved and cast up to 4 spaces (where each space is a grid square) of shadow.

## SUPPLY LIST

- Cardboard boxes
- Flashlights
- Markers
- Paper
- Tape
- Music
- Two Left Feet



**FELIX <sup>the</sup> REAPER**



# LET'S GET PHYSICAL

We created tree like shapes using A4 size sheets and stuck them onto the boxes (after initially failing to "paint" trees on the boxes without destroying them). We further created barrels, taping 2 smaller boxes together, that can be easily moved across the grid during gameplay; each barrel casts upto 2 spaces of shadow.

We taped a barrel shape using black tape vertically onto the boxes and also drew a barrel on top of the box on an A4 size sheet so that it was easily identifiable as a barrel by the player in the game. The number of boxes of shadows each tree and barrel cast was also written on them for the players' convenience.

# KEEPIN' IT REAL

We used 2 flashlights which acted as the sun from either direction and used that in an attempt to cast shadows on the grid (worked very well on the weekend when the lights weren't on!). While we earlier taped the start and end points of the puzzle, we shifted to writing them down on A4 sheets so that they were easily movable as we changed the puzzle at each level.



## LOW FIDELITY

We also created a  
**playlist:**

<https://open.spotify.com/playlist/6AwwfWOEIM8Daq1XY58jBb?si=O0DOqbcVRA6qit8FoTBu0g>



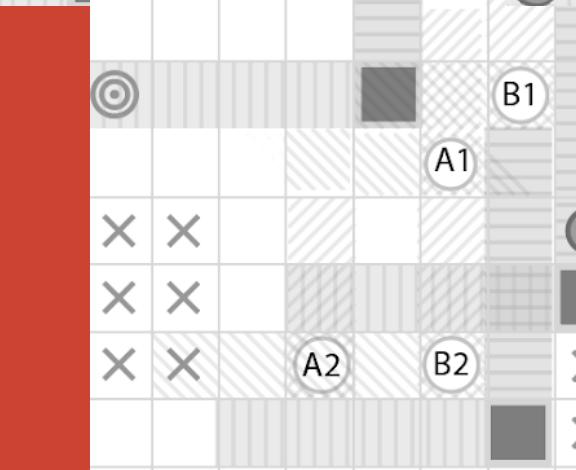
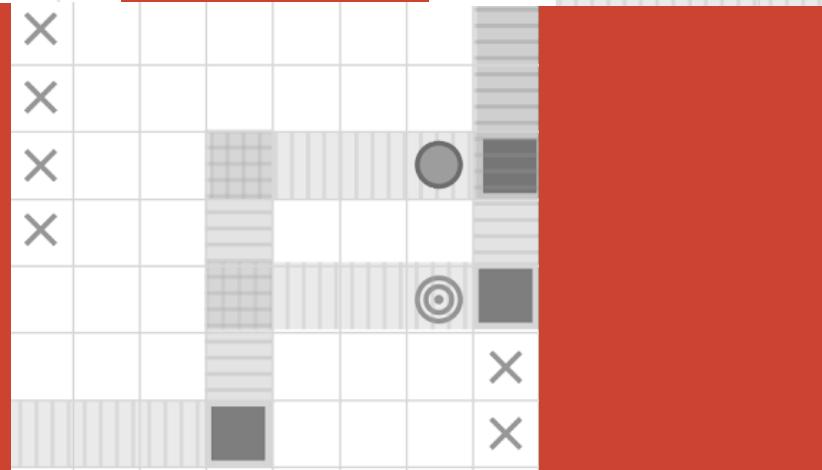
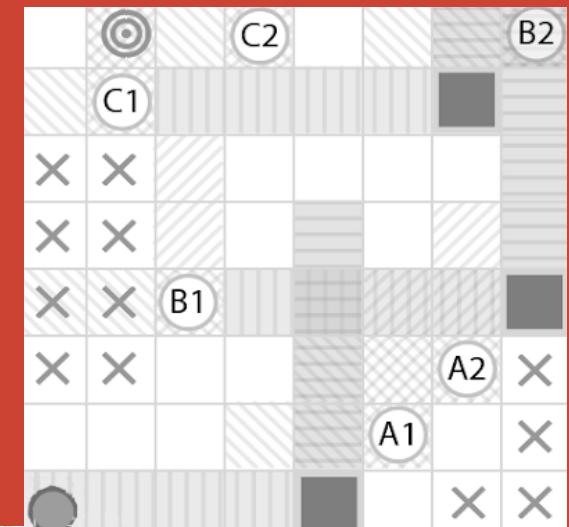
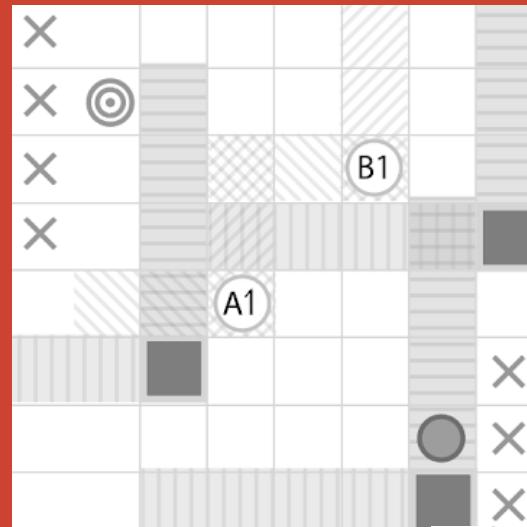
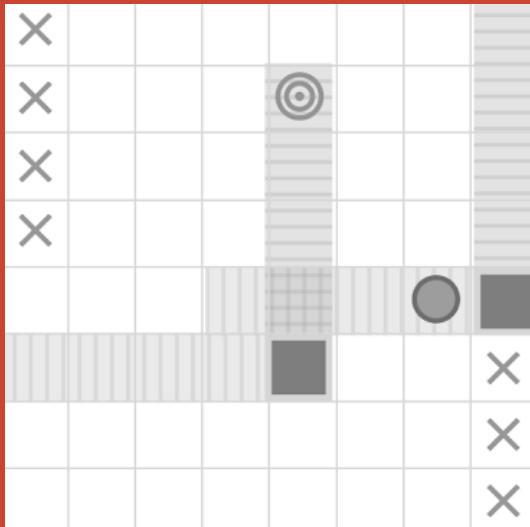


## WALK THIS WAY

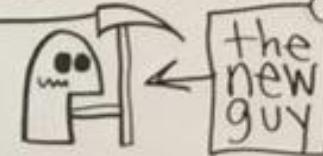
Next, we used the **player training** model to create puzzles with varying level of difficulty. We started off with simpler puzzles using only fixed objects/trees so that players can slowly learn while playing the game. We went onto to create more challenging puzzles with complicated paths and multiple moveable shadows casting on to barrels.

# PUZZLE LEVELS 01- 05

We play-tested multiple iterations of our puzzles before the final demonstration.



# Welcome to the Ministry of Death



You are a Grim Reaper In Training

Get to the X to collect the soul.

The sun will burn you, so stick to the shadows. LUCKILY

You can control the direction the sun hits you! <Point to the direction you want the sun to come from>

You can only move in a straight line Not diagonally.

= 4 Shadows (can't be moved) = 2 shadows (can be moved)

if in square next it  
not diagonally

You can ask for a hint, if you need one.

P.S.: You got to dance and reap!

DONOTERASE



# FELIX THE VIDEO



# **CRITIQUE** DRAGGING BARRELS

The rule about how people cannot just drag barrels along with them to continuously cast a shadow upon them was not made clear to the players at the beginning of the game. Some of the players initially tried doing so until they were told that they weren't allowed to. Another rule which wasn't made apparent to the players was that they could stack up barrels to create longer shadows to move in. While this was done intentionally in order to not increase the complexity of the game, we got feedback on how this rule could be introduced gradually at higher levels of the game. These are two rules we can definitely add to our revised list of rules.

## **CRITIQUE** MORE LEVELS

Our evaluators/players appreciated the level-wise increasing challenge structure of the game. They liked how the initial levels were like tutorial sessions that prepared them to tackle the harder levels. They further liked how we gradually introduced elements like barrels through the different levels of the game and did not overwhelm the player at once. In fact, a couple of players who jumped directly into playing the more challenging levels of the game faced troubles in learning how to play as compared to those who followed the learning curve with each subsequent level. We believe we can build onto this feedback and more levels, with more elements such as stacking up barrels to cast longer shadows. This presented us with the unique opportunity to add the complexity that was lost in the later levels of the actual game for better engagement in the physical version.

## **CRITIQUE** AM I ON FIRE?

One of the biggest challenges our players faced was in understanding when they were in the shadow vs when they were under the torch-light, getting burnt by the sun. This was due to inaccuracy in casting shadows using the torch-light given that the room where our game was set up was very well-lit. Thus, we feel the need for a better feedback mechanism for the position of the sun and how shadows are cast upon the grid. We received constructive suggestions such as using laser lights to point to the cell until which players can go to without getting burnt by the sun. This would work well regardless of the brightness of the room as laser lights are very sharp.

# **CRITIQUE** AM I ON FIRE?

Another suggestion was that we could switch the role of light and shadow and allow “Felix” to move only in the light. While both of these were good suggestions, the essence of the game of moving only in the shadows is lost. Moreover, casting shadows using a torch-light worked well when we play-tested our game during the weekend when the lights of the room were turned off. So switching the game dynamics each time depending on how well-lit the room is does not seem like a sustainable solution. The subsequent section contains a few sketches of how we tried to improve the light and shadow feedback mechanism of our game.

# **CRITIQUE BUT I DON'T WANNA**

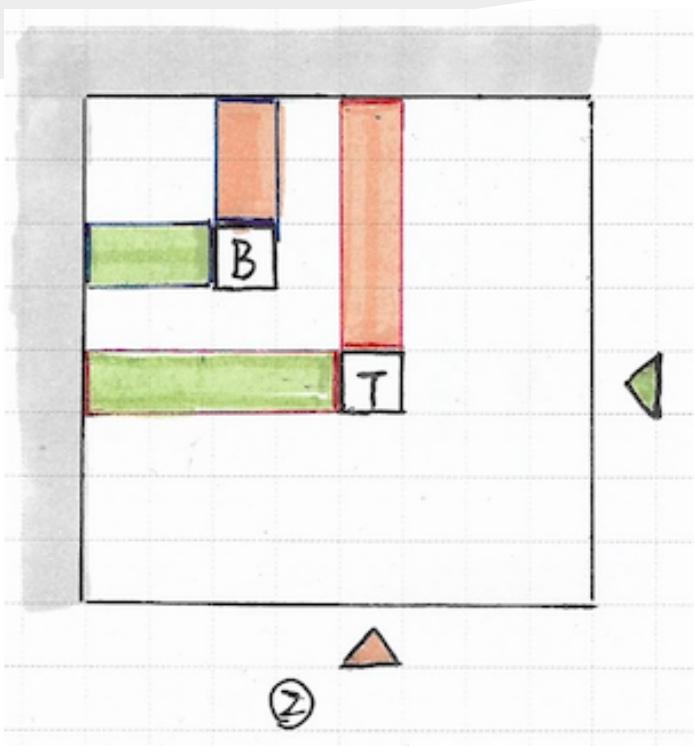
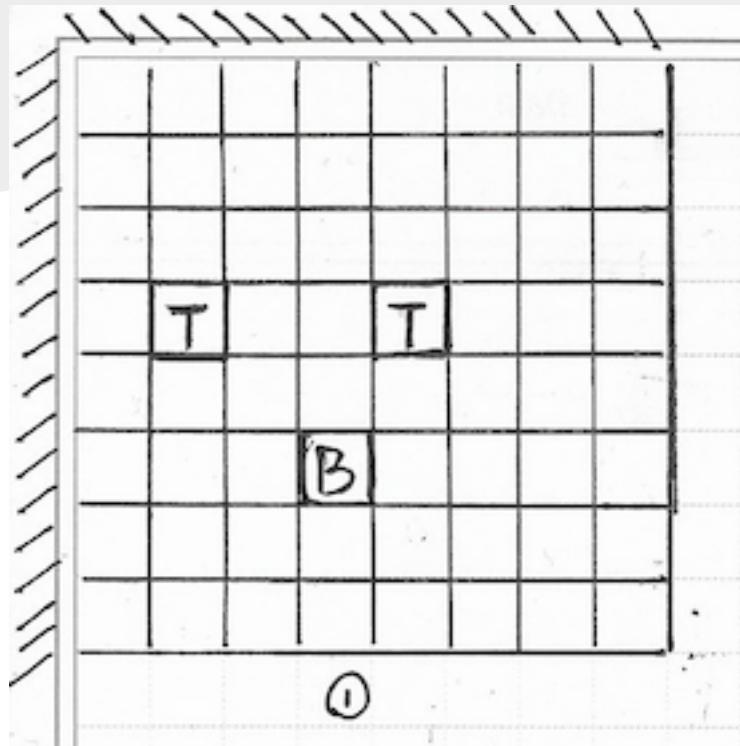
In the digital version, Felix dances throughout the game, switching between different AI-trained dance moves. However, in the physical version of the game, asking players to dance the entire time while playing the game seems a little unfeasible and (mentally and physically) taxing, especially when the complexity of the puzzles increases. Thus, the level of dancing can depend on multiple factors including the cognitive load of solving a puzzle alongside dancing and the dance skills of the player. So in order to reduce the strain, we asked players to dance through the grid at their own discretion but in order to get a hint about solving the puzzle, they had to jive a little. Moreover, on completing each level, we encouraged them to do a little victory dance to keep the aesthetic of the game alive. In fact, dancing became a form of self-expression for each individual player, which wasn't the case in the digital game.

## **CRITIQUE** UP TO ≠ EXACTLY

Another suggestion that we received from the games and learning people was that the idea of taking “up to” 4 steps (in the tree’s shadow) was not inherent in many traditional games so it may end up being a little hard to grasp for players. They suggested that we could adapt the game in such a way that the players had to take “exactly” 4 steps if they stepped in the shadow of a tree. While again, this was a good suggestion, it compromised the essence and dynamic of the game, making the puzzles somewhat straightforward. Thus, we decided to stick with our initial game dynamic.

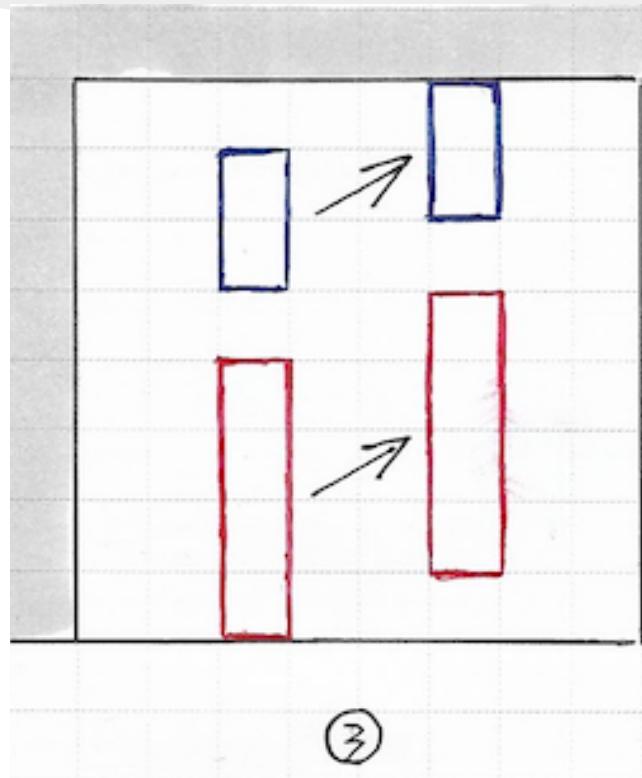
# SKETCHES: IMPROVEMENTS

Originally, this is what our grid looked like. We used white masking tape to create the grid. Given the consistency of the cells, it would become difficult for the players to visually identify the cells till which the shadows are cast. They would have to count each time as each cell looks the same.



To make the shadows more apparent in the grid, we decided to differentiate between the two directions of shadows we had based on the direction of the sun. The same can be seen in the above sketch.

# SKETCHES: IMPROVEMENTS

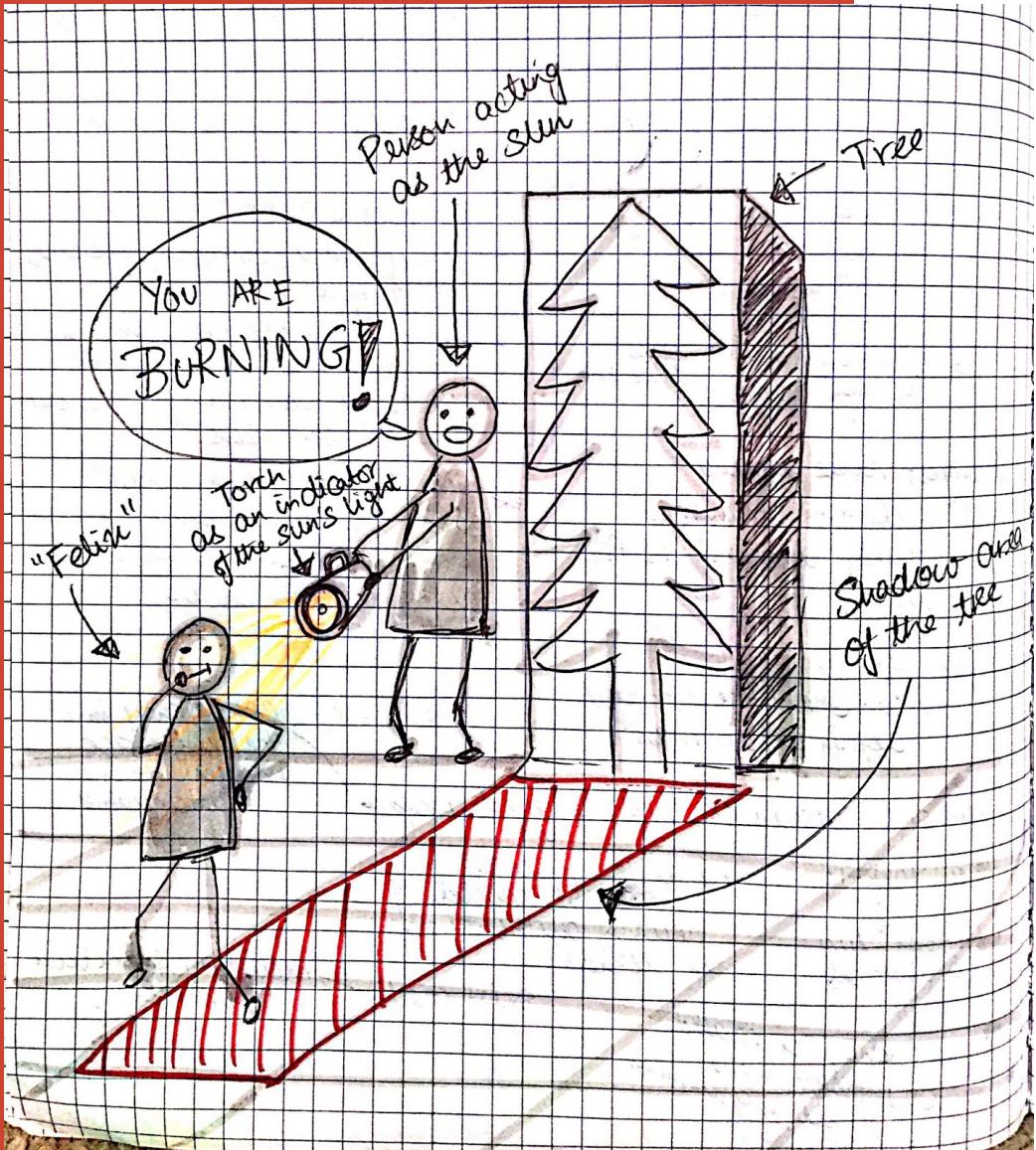


Next, we had two types of objects that casted shadows: the trees which cast 4 blocks of shadow and the movable barrels which cast 2 blocks of shadow. To account for movability of objects such as barrels and facilitate re-layout of the puzzle, we conceived of creating a movable "border" to mark shadows to enhance visual shadow cues. The same idea can be seen in the sketch below.

# SKETCHES: IMPROVEMENTS

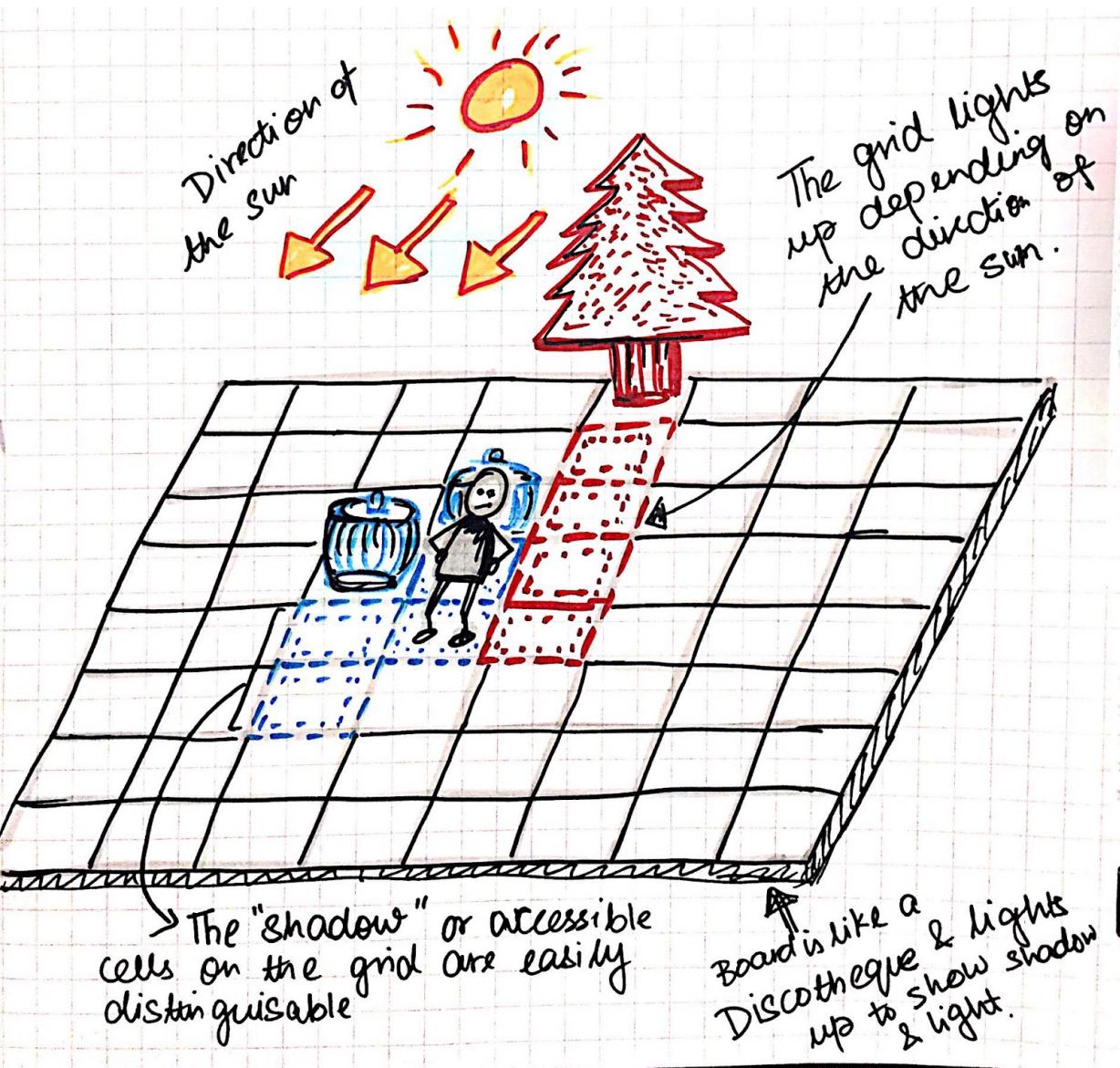
Specifically, we can use paper with the same dimensions as the border of the entire (4 or 2 cells) shadow and attach it to the trees and barrels. Depending on the direction of the sun, the appropriate shadow border can fall onto the grid, guiding the player about the position of the shadow. Moreover, we can color-code the shadows depending on **(i)** whether they are cast by a barrel or a tree or **(ii)** which direction of the sun the particular shadow corresponds to.





## SKETCHES: LIMITATIONS

One limitation of this approach, however, would be that it can disrupt the game play at times as laying out of the bordered shadows would have to be a dynamic process that happens between the game. We can further enhance the feedback mechanism by flashing the light onto the player's face each time they step into the sun, forcing them to go back into the shadow.



# SKETCHES: IMPROVEMENTS

We would create something that looks like an actual discotheque. The grid will be laid out onto the dance floor wherein depending on the positions of the trees and barrels and the direction of the sun, the cells will light up to convey where the shadow falls.

## MONEY'S NO OBJECT

This would give the users immediate feedback about which cells are accessible to them and going where would “burn them alive.” The aesthetic and dynamic of the game would be preserved; players would be able to proceed through the gameplay without any disruption or delays.