

Game Design Document for:



*How do you save a world with a distorted future,
when your only defense is time itself?*

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Version 2.1

Friday, October 22, 2010

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DESIGN HISTORY

The following is the history of updates and adjustments made to the design document. Each version includes a name, date and a list of changes that were made.

VERSION 1.00

April 6, 2010

Initial pass at design

1. Game Overview and common questions added
2. Feature set and details added
3. Camera and Controls added
4. Started work on UI, Menus, Screens and Gameplay Details

VERSION 1.1

April 20, 2010

1. Polished Feature Details and Game Overview
2. Finished Gameplay Details
3. Started on Characters

VERSION 2.0

April 28, 2010

1. Finished Characters
2. Enemies and Obstacles added
3. Gameplay walkthrough and beat chart added
4. Sound and music added
5. Competitive analysis added
6. Game world and detailed level mockup added
7. Finished appendices: interface, story, competitive analysis and resources added

VERSION 2.1

October 22, 2010

1. Document layout improved
2. Control Details improved
3. Enemies have more diagrams

TO DO

1. Finish detailing all the objects
2. Detail every boss battle in the game

GAME OVERVIEW

HIGH CONCEPT

How do you save a world with a distorted future, when your only defense is time itself?

TimeSwitch is side scrolling 2D platform game where the player takes the role of a man that can switch between the present and future at any time. The world is abstract and made out of vector shapes where everything is a silhouette, including the main character. The present is an advanced factory world, while the future is in-ruin and overgrown, even though it is the exact same location as in the present world. The player solves puzzles and avoids enemies in the world by using the time switching ability, machinery in the world and platforming around obstacles, to continue through the levels of the game. The player will have to find out why the future has been destroyed and try to change it. Large actions the player does in the story will change the future world for better or for worse.

PHILOSOPHY

TIME TRAVEL EXPLORATION

My goal is to explore time travel and make the player feel like controlling time is second nature. Time travel in most other games doesn't use it as a strategy. I want to give the player this ability so they can exploit and use it in any way, at any time. I also want the player to think of both time zones they are playing in at once, such as how will the other dimension help the player through an obstacle and what does the player change in the present to alter the future.

PUZZLE PLATFORMING

TimeSwitch is a platform game that's not just about quick reaction and maneuvering, instead one that makes the player think. I want to *combine* both the puzzle and platform genre to give a nice balance of action and strategy. Usually in platform games, your main weapon is jumping on the enemies head. How can you turn defeating a simple enemy into a puzzle? I want to give a variety of answers to that question.

SILENT MESSAGE

I want to communicate a message, history and story to the player using as little words as possible. Games like [Myst](#), [Braid](#) and [Flower](#) show a whole world silently, which causes fans to share their opinions and their theories on what the game means. I find the less the game is in your face, the more immersive the game can be.

COMMON QUESTIONS

WHAT IS THE GAME?

TimeSwitch is a 2D puzzle platform game for PSN, Xbox Live and Steam where the player is able to switch between the present and the future. The switching ability activates fast, has no limit and can be used again right after. The player will need to use the switching ability along with platform skills, to solve puzzles and use the environment to defeat enemies. The challenge in switching is making sure to not switch into anything that can damage the player. The play style is a combination of methodical strategy and traditional platforming. The game also has some stealth elements since you have to avoid enemies instead of fighting them. The game has no timer or point system. TimeSwitch is about how you find your way through the level, not how good you were at it. The goal of the player is to change the destroyed future by finding out what caused the destruction and prevent it in the present. Many actions that the player does will change the future, big and small. Although, some changes the player makes will make the future worse off than it was before.

WHAT DO I CONTROL/ WHO AM I?

The player will control a mysterious human scientist, who never says his name. His main ability is switching dimensions, but he can also jump or duck. The game is abstract, so he is represented as a silhouette.

WHAT IS THE PREMISE/STORY?

Before the events of the game, a company tested a time experiment on the main character, which gave him unexpected time switching abilities. After the test, he escaped the facility by switching to the future and witnessed the destroyed world. The world was destroyed by the company's final experiment to alter time, which backfired, unleashed deadly monsters from another dimension, and destroyed the world.

Now at the start of the game, the player has to stop the final time experiment from ever happening. He has to investigate where the experiment will be, when it will take place and whom he has to stop.

<See "Story" Appendix for more information>

WHERE DOES THE GAME TAKE PLACE?

The present world takes place around 2030 and the future world takes place around 2100. In the present, the player will be on the roofs and highways in one city and 3 different science/military facilities and factories (including one underground facility). In the future, the player will be in the destroyed version of those areas. Most of the environments will be overgrown buildings, deserts, cliffs and caves.

WHAT ARE THE GOALS/OBJECTIVES OF THE GAME?

The *long-term goal* for the player is to change the future by solving what is going to happen in the present. The player changes the future by defeating enemy bosses and shutting down the facility that is conducting the time experiment.

Intermediate goals consist of every level the player completes, finding out of the world's history piece by piece, defeating the boss of the area and changing part of the future level.

Examples of *Moment-to-Moment* goals are switching dimensions to get through obstacles, finding items (such as batteries) to use for machines, using vials to their potential before they run out, reaching to the top of a building and avoiding enemies.

WHAT IS THE MAIN FOCUS?

The main focus for the player is to alter the future and prevent the destruction of the world by using his time switching abilities. The player will achieve this by progressing through puzzles and infiltrating the corporation that is going to conduct the time experiment.

WHAT'S DIFFERENT?

TimeSwitch fully explores one simple mechanic of time travel, to find different ways the player can use this ability and then challenges the player in those different situations. In most games with time travel, the player can't travel through time instantaneously whenever they wish. The different time periods in games are all separate levels, and not one flowing level with two alternate versions of it. Braid had time reversal and other unique time manipulation, but it never took the player to a completely new period, like TimeSwitch. Most platform games are a race to the finish and a test of the player's reaction, while TimeSwitch gives the player a different experience of exploring and solving with balance of traditional action platform mechanics. Some say Braid has platform elements, while you do jump, you can't die (since you reverse death), which makes the platform elements all puzzles. TimeSwitch has parts in the game where the player will have to focus on their platform and reaction skills and less on the puzzles.

WHAT IS SWITCHING?

Switching is the player's core ability that lets the player travel to two different points in time: the present and future. These points in time are the only periods the player can switch to. Both dimensions are always moving forward in time as the player progresses, even the unused dimension move forward.

FEATURE HIGHLIGHTS

The following is a list of the game's features listed in order of priority. The section below gives more details for each feature.

TIME SWITCHING

Switching between both dimensions happens fast, has a fast recharge time and is used any time. The reason the player switches is to use the different environment in each dimension to their advantage. The player also faces dangers when switching, such as switching to where there is no ground (the player is able to see the other dimension so he isn't switching blindly).

SEEING THE OTHER DIMENSION

The player will always see both dimensions, using the vector silhouette style of the game. So as long as the player pays attention, they won't switch into a pit. The current dimension that the player is in will use solid shapes with no outlines and the alternate dimension will have outlines with no fill inside. When the player switches over, the alternate dimension becomes the solid shapes and the original dimension changes to outlines with no fill.

AFFECT THE FUTURE

What the player does in the present dimension affects the future dimension. The player will change the future on a large and small scale. Most small changes will consist of the player moving objects in the present to use the object in the future. On a large scale, the player will change things that will affect the entire environment in the future, such as blowing up a facility that creates a crater in the future.

PUZZLE COMBAT

There is no direct combat between the player and enemies, the player has to avoid everyone and use the environment to defeat them. Finding ways to defeat and avoid enemies will be a part of the puzzles in the game. The player will have to think of both worlds to solve many of the puzzles in the game. The puzzles will require platforming skills, reaction skills and of course problem solving skills.

VECTOR SHADOW VISUAL STYLE

The game will be completely in shapes and shadows. The style will have more of an abstract look, so everything important will be recognizable to the player. The game will look like an **interactive vector painting**. There aren't many vector platforming games, so the style will help set it apart from other games.

SILENT MYSTERY

The feel of the game will have a silent and somewhat lonely feel similar to the Myst series. There isn't any communication between the player's character and the human enemies. The level design and the main characters thoughts give clues to the back-story in the game.

EACH DIMENSION GIVES DIFFERENT GAMEPLAY

The present world is very dynamic with machines and soldiers patrolling the area. The main challenge in the present is all the human soldiers the player has to avoid or find a way to defeat. In the future, the world is desolate. The challenge in the future is the complicated obstacles, since the world is destroyed there isn't as much flat ground the player can walk on.

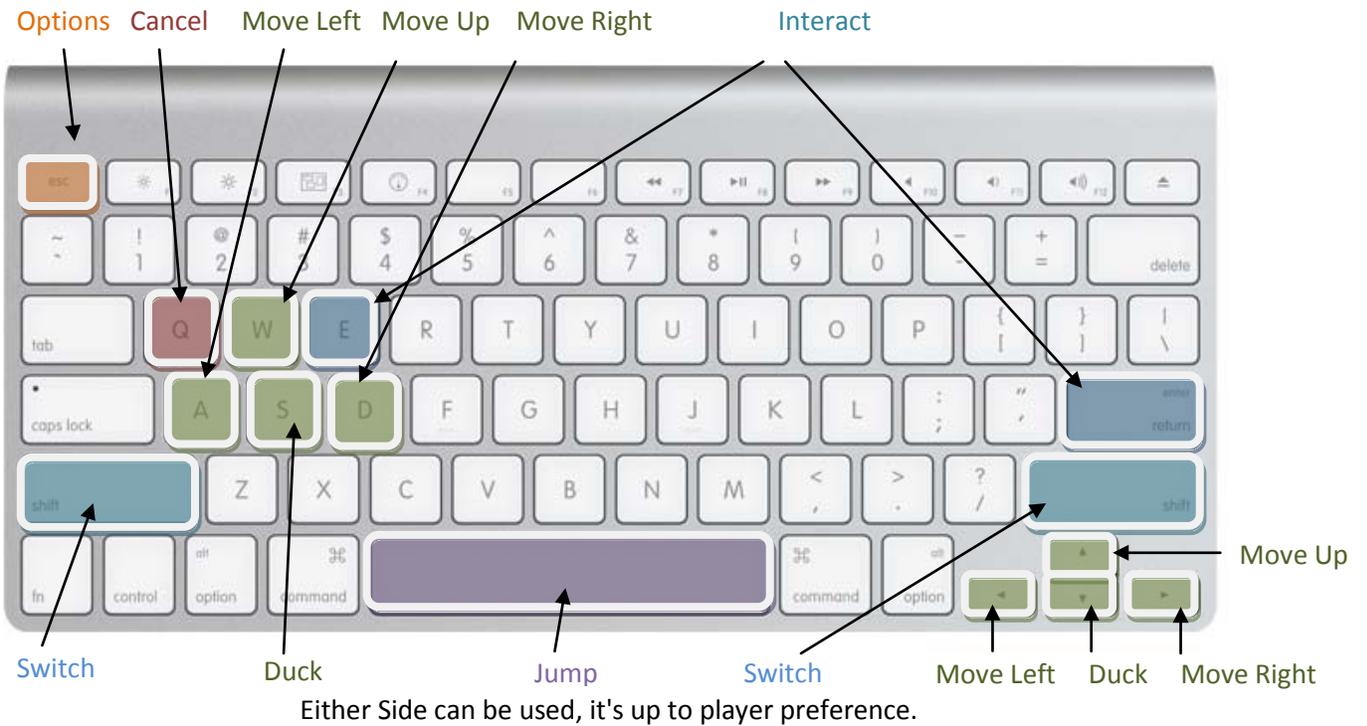
TRANSFER AND USE ITEMS

The player will be able to transfer handheld items from one dimension to the other. These will give the player more small goals in the game. The items can vary from batteries or gasoline that operate machines in the future to vines to use to swing across pits.

CONTROL OVERVIEW

The game uses PC/Mac, PS3, and Xbox 360. Only the PC/Mac and PS3 controls are shown. The Xbox controls use the *exact same* control scheme the PS3.

PC CONTROL SCHEME



PS3 & X-BOX CONTROL SCHEME



CONTROL DETAILS

HUD CONTROLS

Options	Exits out of the options/pause menu and returns to game
Interact	Confirm button in the menus
Jump	Confirm button in the menus
Cancel	Leaves menus (goes back to the game)
Switch	Does nothing
Duck	Moves the selection down in menus
Move Left & Right	Moves selection left or right in menus
Move Up	Moves the selection up in menus

CHARACTER CONTROLS

Options	Pauses the game and brings the player to the Pause Menu, where they can save, exit and resume the game.
Interact	Picks up items and uses machines
Jump	Causes the character to jump
Cancel	Drops items, exits machines and vehicles
Switch	Switches to the other dimension
Duck	Makes the character duck down
Move Left & Right	Moves the character left or right
Move Up	Used for ladders to move up

FEATURE DETAILS

The following are the fine details of all the features in the game, listed in order of priority. Words in **bold and italic** will link to its category.

TIME SWITCHING

The player can switch between the future and present versions of the world throughout the game. The player switches by pressing a button and the environment will fade to the other dimension. **Seeing the Other Dimension** feature details how switching will look. The player will need to switch to avoid enemies and obstacles to survive.

RULES TO SWITCH

The player will be able to switch at any time in the game just by pressing one button. The player can switch while *jumping, falling, walking, pushing, crouching, idling, swinging* and *climbing*.

<Check out the **Control** diagram for a better visual>

Switching will keep the player in the same position that they were in and change the entire environment around him. Switching will take .5 seconds to complete and .5 seconds to reactivate. Essentially, the player could switch back and forth every second.

Both dimensions are constantly *flowing* even if the player isn't in that dimension, therefore non-stationary objects (such as machines) and enemies will always move. The player has to keep track of where the enemies are in the other dimension.

USES OF SWITCHING

The reasons the player would need to switch is to:

1. move an object in the present and see the result in the future
2. get past an object in one dimension if it doesn't exist in the other
3. transferring useful objects from one dimension to the other by switching while holding the object
4. avoid enemies by switching to the dimension they don't exist in

Each level will use these reasons to challenge the player's reaction, strategy and platforming skills (detailed in **Puzzle Combat**).

RISKS OF SWITCHING

The player will have various risks while switching such as switching above a pit, inside a wall or touching an enemy. On the next page, a chart lists the possibilities of penalties that will occur in the game from switching.

When the player switches from solid ground to where there is no ground, penalties follow:

Type	Falling Height	Damage (out of 2)
Falling on Low Ground	0 to Height of main character	None
Falling on Lower Ground	Between the height of main character to 2X height of main character	1 health
Falling on Extremely Low Ground	Greater than 2X height of main character	2 health (death)
Falling on Spikes	N/A	2 health (death)

When the player switches in water or lands in water, penalties follow:

Type	Depth	Damage (out of 2)
Falling/Switching in Shallow Water	0 to 3/4 height of main character	None
Falling/Switching in Water	3/4 height of main character to height of main character	0 entering damage, 1 damage after every 5 seconds
Falling/Switching in Deep Water	Greater than height of main character	1 entering damage, Another 1 damage after 5 seconds (death)

When the player switches to touching objects, penalties follow:

Type	Amount Touching	Damage (out of 2)
Objects	0 to 50% of character in object	None
Objects	50% to 100% of character in object	2 health (death)
Enemies	Any amount	1 health (player gets 3 seconds to get away)

When the player is damaged, the character will blink to 50% transparent and full opacity for 3 seconds and then stay at 50% transparent. If they are damaged again, they will die. The player can get health back from medical packs found throughout the levels.

DISABLED SWITCHING

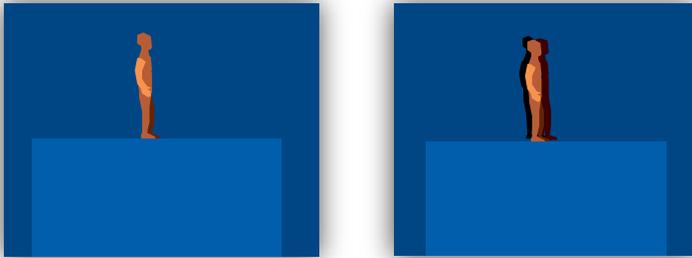
The player will not be able to switch at some parts in the game for two different reasons.

1. Enemies put a status effect on the player.
2. The level's features "prevent" the player to switch. Prevent is in quotes because the player can still switch, but he will just die. For example, a high wall in the other dimension will kill the player if they switch into the wall.

STATUS EFFECT

Some enemies, including bosses, will have the ability to disable the player to switch. The player could be disabled temporary (15 seconds or more) or part of the level (a boss battle for instance).

When the player's switching is disabled, the character will have multiple shadows spinning around the character. When the player tries to press the switch button, an error sound will play.



Normal state shown left and disabled state shown right. The shadows will alter in darkness and move around while following the player. Protoss High Templar's from Starcraft have a similar ghosting effect as they move.

LEVEL FEATURES

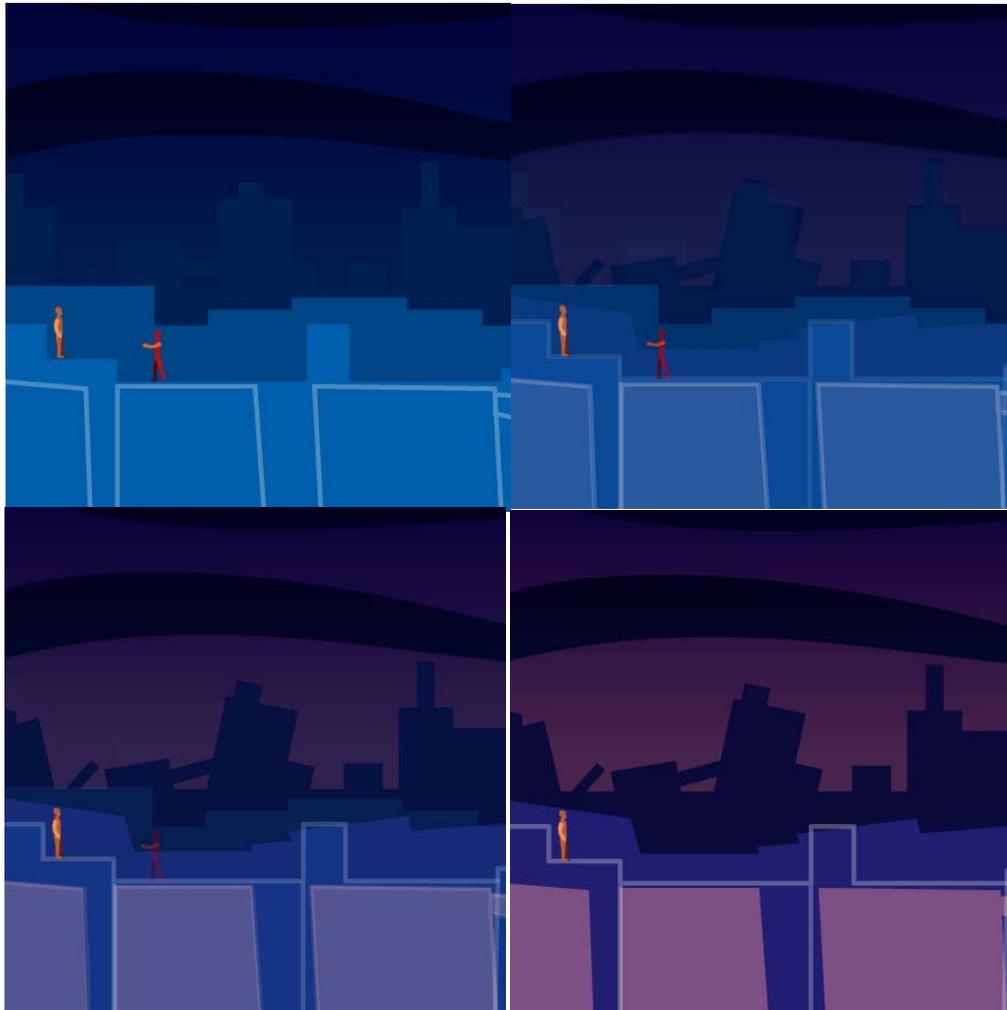
The other way to prevent the player from switching is the level's features (landscapes, walls etc.). The player will be able to switch to the other dimension but will be killed in the process. To know if the player can switch or not is shown in the next section.

SEEING THE OTHER DIMENSION

The player is able to see the land features in the other dimension so they aren't switching blindly. The other dimension uses vector outlines while the current dimension uses vector filled shapes. When the player switches, both dimensions switch using outlines and filled shapes while the main character stays the same.

HOW SWITCHING LOOKS

In the current dimension, switching will fade all the objects' fill to transparent and fade in a white outline around the objects. At the same time, the objects in the other dimension will have their fill faded in and their outline faded away. Enemies in the current dimension will disappear and enemies in the other dimension will fade in.



All of this happens in 0.5 seconds. There will be a "woosh" sound that is played while switching. After the player finishes switching, he would fall until he lands on the pink platform (the last image is just before he falls).

EFFECTING DIMENSION PREVIEW

As seen in the images above, the player can only see the land that he can walk on in the other dimension. The **background, enemies and items aren't seen at all** so the player has to keep track of where they are. The player can gain power-ups to see enemies and get their preview of the alternate dimension removed from enemies.

POWER-UPS

The player will encounter power-ups that temporally show where the enemies are in the other dimension. When the power-up shows the enemies, they will be transparent white, just like the outlines of the landscape. The vials will also enable the player's preview of the other dimension if enemies disabled it from the player.

The power-ups are vials from the company's experiment. There are three different vials with different durations. Some puzzles in the game will require the player to use these vials, if they don't, the player has a high risk of switching into an enemy and dying. The player picks up a vial by walking on top of it and it activates instantly. The player will hear a beep sound once the vial is picked up.

The small vial:

- Is used to help with simple and quick tasks
- lasts 10 seconds
- doesn't re-spawn after use
- rectangle shape
- green colour



The medium vial:

- Is used for puzzles that involve avoiding enemies and acting fast
- lasts 30 seconds
- re-spawns after 30 seconds
- triangular shape
- brighter green colour



The large vial:

- Is used for entire levels that require the player to see enemies (just a few levels)
- Lasts for the whole level
- Doesn't re-spawn
- Circular shape
- Brightest green colour



When the environment is green (such as in foliage environments), the vials will be blue to stand out.

WHERE DO THE VIALS APPEAR

The small vial is common and will appear in places that need to show where the enemies are. The vials are bonuses to make the game easier and shouldn't be required to use for that portion of the game. They are found throughout all the levels in the game except ones with a large vial in them.

The medium vials will be placed at puzzle locations in the level. These locations allow the player to make a mistake in the puzzle and backtrack, then take a vial again.

The large vial will be used in early levels to make the game easier and in levels with many enemies. Some boss battles will also have large vials for the player.

PENALTIES

The player will encounter enemies and traps that can disable the player's preview of the other dimension. This makes switching very dangerous for the player. When the character gets hit by this penalty, the screen flashes a green color that changes to brown. The character also makes a grunt sound.

*<Details on the enemies' attributes can be found in the **Enemies and Obstacles** section.>*

One enemy that can perform this attack is a soldier with a stun gun from the present world. His gun will last for 10 seconds.

There are traps that the player can avoid and ones that the player has to pass through. The traps that can be avoided last 20 seconds. The ones that the player has to pass through are permanent in the level.

The vials also remove the effect of the penalties, including the ones that last for a level. The vials will also give the player vision of the enemies, along with restoring the dimension preview.

AFFECT THE FUTURE

The player can change the future world by performing various actions in the present world. Most actions are simple and used to get through the level, while other actions tie into the story of the game and will change the entire future world. However, the changes aren't always beneficial to the player.

HOW IT WORKS

The player will interact with an object by pressing the *Interact Button* in the present, and then will switch to the future to see the result. Time affects the object from weathering, so it may be different from before. The interaction could be a onetime use or a moveable object that the player has to get it in the right place.

SMALL CHANGES

There are many different changes the player will make throughout the game that have to fit the level design and the puzzle in the game. Some examples the player might come across are:

- The player needs to cross a pit in the future so in the present he climbs a ladder to a crane hanging an I-Beam and lets it loose (by pressing the *interact* button on the machine) to fall down. In the future, the I-Beam is aged but is still there and he can cross.
- Pushing a crate to a wall and using it in the future to climb over the wall
- Lowering a ladder by activating a machine (pressing the *interact* button on it) then using the ladder to climb on in the future
- Detonating a bomb (by pressing the *Interact* button and letting it countdown) to remove any obstacle, then using the opened path in the future
- Activating a machine to raise a platform to use in the future
- Draining water (by pressing the *Interact* button at the valve) so there isn't a pool of water in the future
- Activating a security mechanism to use it in the future
- Pushing an object over a ledge and using it on the lower ledge (to jump on, continue pushing it, or block a pit) in the future.

LARGE CHANGES

The large changes will occur less than the small changes in the game. All the changes are permanent and are part of the story in the game. The main changes are:

Change in the Present	Affect in the Future
Accidentally unleashing an experimental species in the present.	Facing new enemies in the future. The species will also appear in the present but less frequent as in the future.
Pushing a bomb off a ledge to destroy the first time machine and switching to the future to prevent yourself from being killed.	Opened a path to an underground facility. The science facility is now a giant crater.
Turning off a power plant to prevent it from exploding in the future.	The area around the plant has more vegetation than before and machines are still intact
Facing the final boss, the player will have to switch between the present and future.	Since this is an important part of the future of the world, the future will change drastically during the battle for every action the player makes. Some platforms that were there before could disappear in the future.

PUZZLE COMBAT

Avoiding enemies is a large part of the puzzle aspect in the game. The player will have to have a mix of platforming skills, reaction skills and problem solving skills to get past the puzzles in the game. Each puzzle will aim to challenge the player to use the simple time switching mechanic in new and interesting ways. This section gives basic ideas for puzzles to implement in the levels of the game.

REACTION

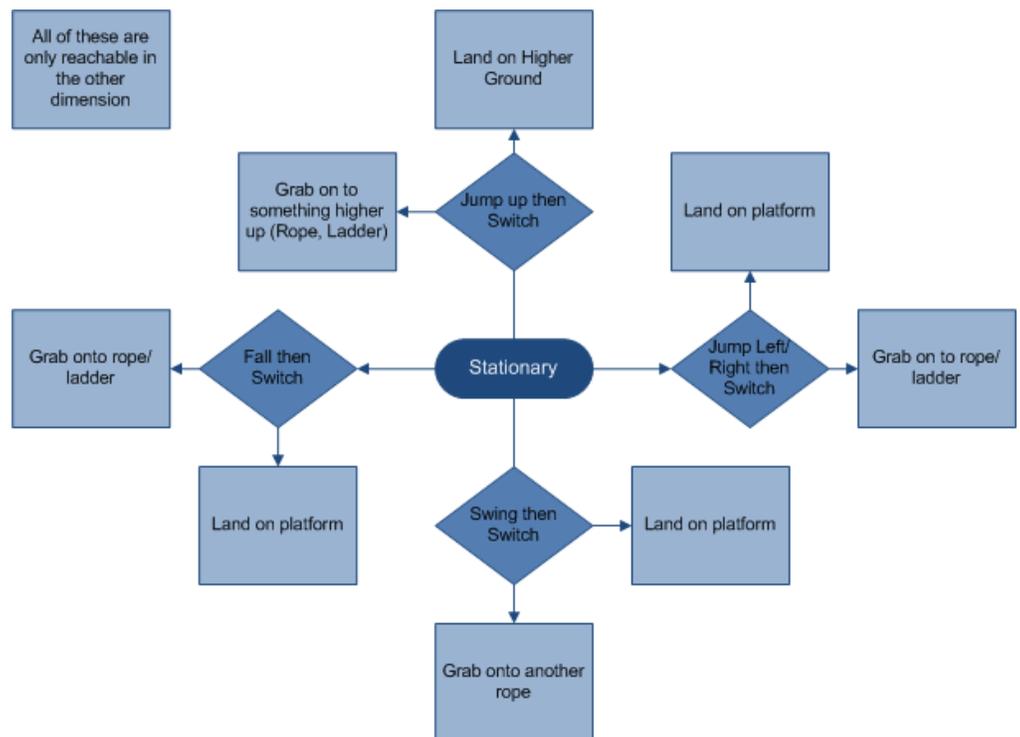
Reaction will test the player in switching at the right time. This requires the player to properly time their switches. The player could:

- switch to avoid objects about to crush or run over the player
- switch before the floor falls
- switch to avoid enemy bullets, and enemies themselves
- switch to avoid timed traps
- the vials will challenge the player to act fast, before they run out
- switch between moving platforms

The objects that can crush or run over the player range from vehicles and machines to boulders and giant beasts.

PLATFORMING

The platforming aspect will challenge the player in the classic jumping with a few twists like swinging across ropes and switching time in mid air. These basic scenarios can be combined with others to make each challenge different.



PROBLEM SOLVING

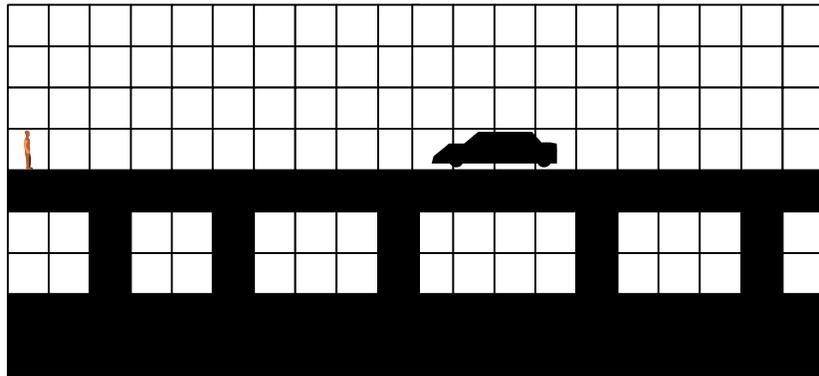
Problem solving will be the bulk of the challenges, but will also use combos of platforming and reaction to solve them. The problems will consist of how the player will get past an enemy and how to get past certain obstacles. Many different aspects make up the puzzle:

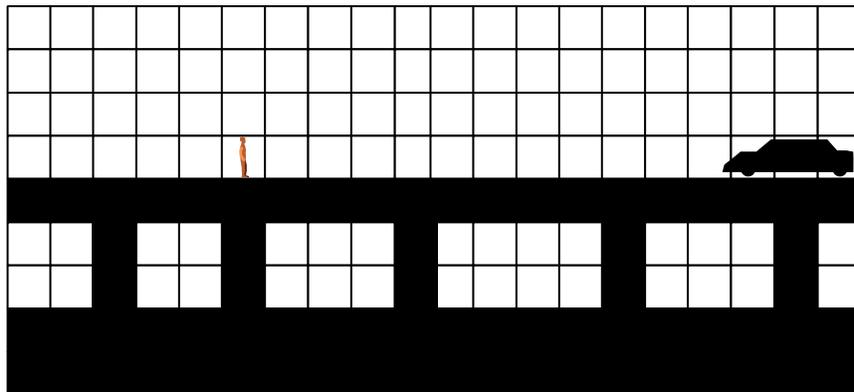
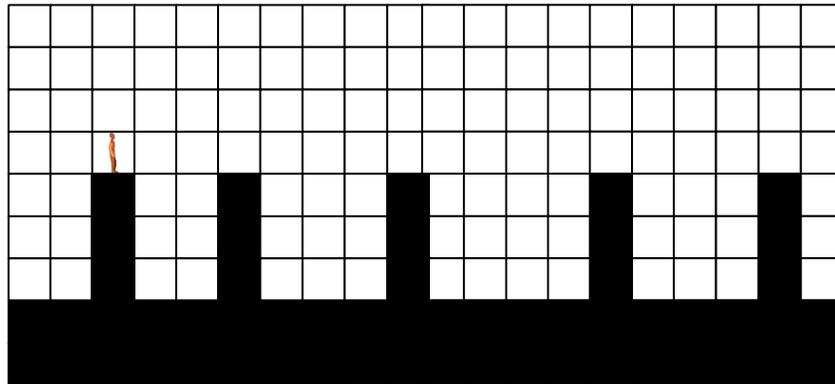
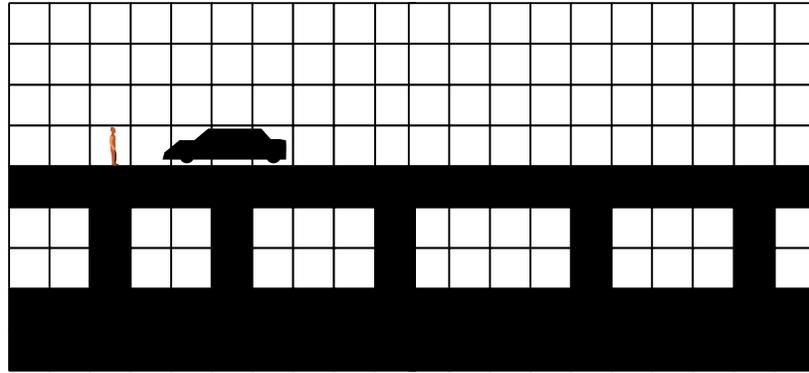
- Machines could be used to collapse on the enemy blocking the player's way
- Machines could be used to unlock doors, or lock enemies in
- Walls could block the player, where in the other dimension the wall doesn't exist
- Changing something in the present to use in the future
- Using small items to transfer them over into the other dimension
- Imputing a code by jumping on different platforms

EXAMPLE COMBINATIONS

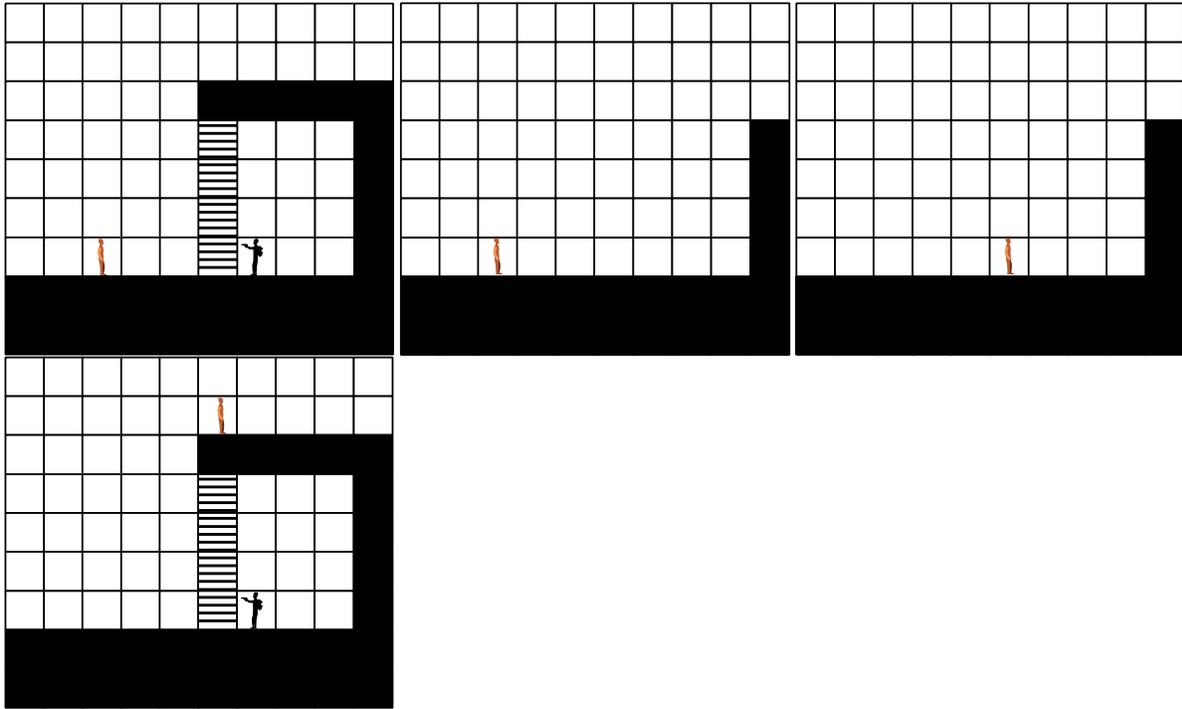
Here are example puzzles to give the general idea of combining the above mechanics.

The player needs to get through a highway in the present, but there are cars driving the opposite way. The player has to switch to the opposite dimension before the cars hit him. However, in the opposite dimension, only the support beams are left. Therefore, the player has to switch at the right spot and the right time.

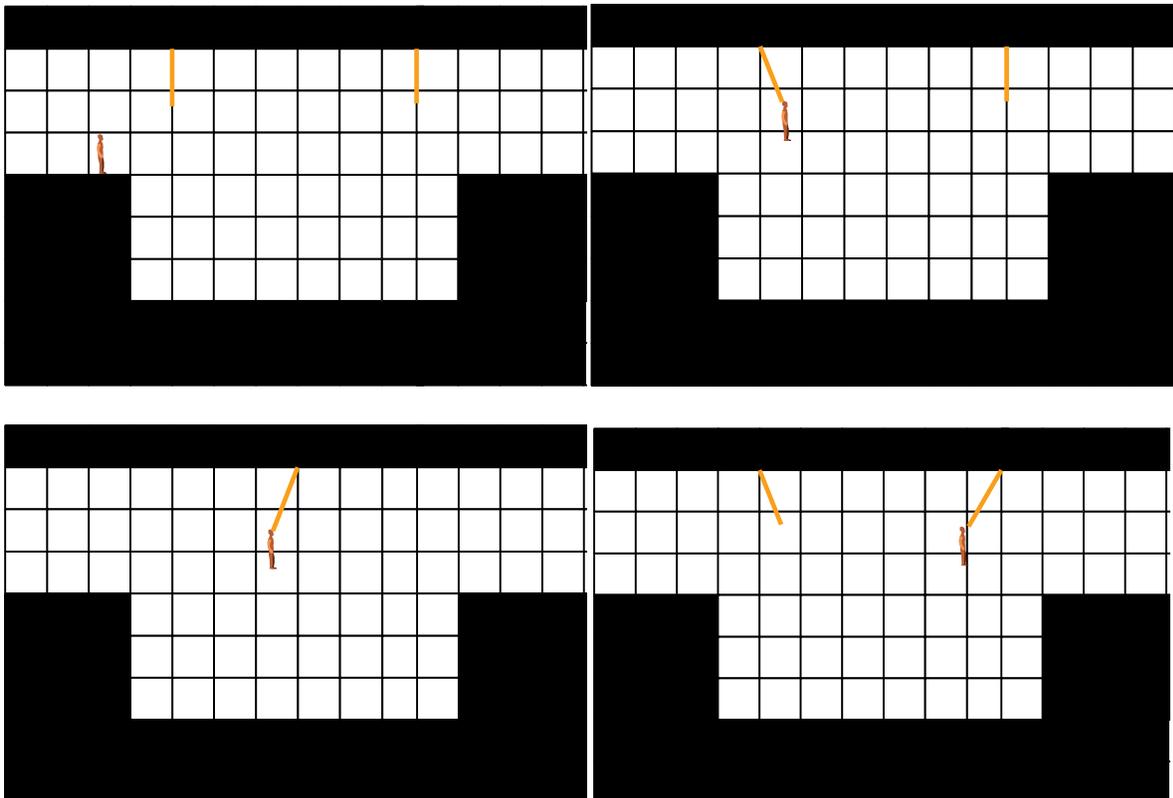


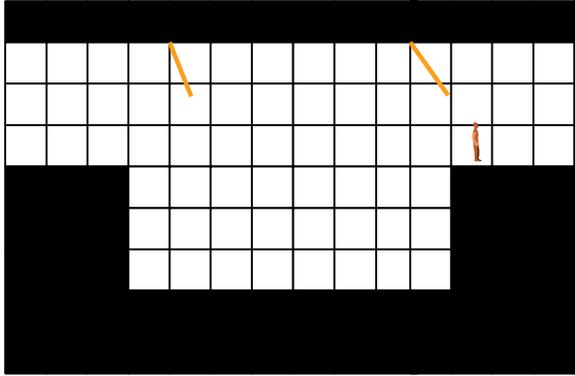


The player needs to get to a ladder in the present, but there is an enemy guarding the ladder, positioned to the right of the ladder. The player has to switch to the future and move to where the ladder would be. Then switch to present and quickly climb up the ladder before the enemy can react to shoot.

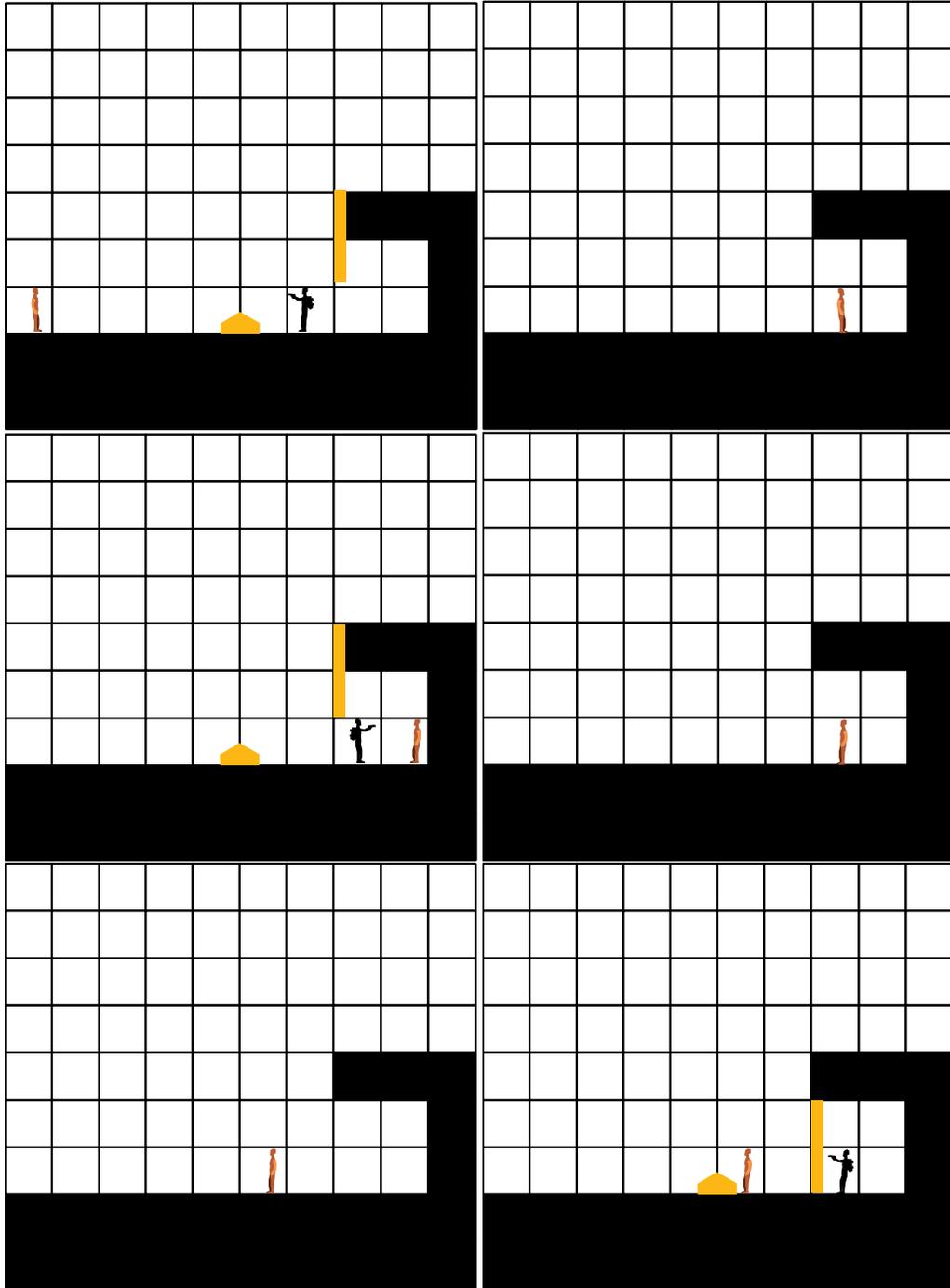


The player needs to swing across a pit. At the start of the pit there are hanging cables in the present, while near the end of the pit, there are hanging vines in the future. The player has to switch while changing cable to vine.





The player needs to get past a guard in a hallway with jail cells. He switches to the future and walks by the now broken jail walls then switches. He is now in a jail cell and jumps to attract the guard. The guard goes in the cell and the player switches back to the future. He then quickly goes back to the hallway, switches back to the present and locks the guard in the cell.



VECTOR SHADOW VISUAL STYLE

The art style in the game will be in a silhouette vector style, with images as the background to give it a punch. The shapes have to be simple one colour shapes so it's easy for the player to recognize objects and enemies. The **Main Menu** mockup I made is close to the visual style. The art style could grab inspiration from FLOW and PixelJunk Eden. The images below show the art style of the game.

The faded sky (excluding the sunrays) in the background and gradient green in the other picture will add to the look of the game. The grass and trees wouldn't have to be as detailed as in the two pictures.

The image with the destroyed buildings matches the future world closely. However, in this game there would be more plant life. If the game has this amount of detail (in the objects and buildings) and still can represent the other world clearly, this would be the perfect amount of detail.





This image of PixelJunk Eden has simple shapes that show how the trees could look in the game. In addition, the background works because it isn't solid shapes like the foreground. They put a filter on the foreground to roughen it up. The shades of blues also work really well.

SILENT MYSTERY

The game has a mystery asking the questions of: whom the main character is, what caused the future to become destroyed, how did the main character get his abilities and what is the corporation's goal to causing the destruction. The questions will be answered in different ways. All the information is optional to the player, if they don't care about the lore, then they don't have to look into it.

THE COMPANY'S COMPUTERS & DOCUMENTS

The company will have information in the present world and information left in the future world. Computers are mainly found in the present world because there is power, they will contain:

Format of Data	Type of Information Held	Information player will find
Video Footage	Videos of experiments, Security footage, Video documentation	The experiments taken on the main character and other people, events happening currently
Images	Pictures of locations, test subjects and tests, prototype machines	Maps of the area, pictures of an upcoming boss, more history on the company and main character
Text Documents	Experiment data, schedules, information on test subjects	Upcoming events, detailed information on the experiments and the people that got experiments taken on them
Email	Employee conversations and announcements (similar to what was done in Assassin's Creed)	Personal information on the employees and what they are doing, gives more personality to the company

Documents are also found in the future world, which are focused on why the future changed, they will contain:

Format of Data	Type of Information Held	Information player will find
Images	Pictures taken by citizens	Show the events of the world been destroyed, pictures of the monsters
Letters	Messages people tried to send	Describes what happened on the destruction day, gives personality to company

Notebooks & Tests Experiment data, Diaries

Info on the final experiment, data on the monsters, destruction of the world and their attempts to prevent it

For the player to use the computers and documents they press the *interaction* button. After they will be brought to a new screen showing the data. The game will pause while the player is browsing the information. When the player wants to exit out of the computer or documents, they press the *cancel* button.

THE FEATURES IN THE LEVELS

Inspiration from *Myst* and its visual storytelling, the game will have objects in the level that give the player a bit of history in the world. The object could be part of a puzzle and the function of the object gives the player information, or the look of the object will tell the player what it's for.

An example, is in a level where the company held tests subjects like prisoners, the player has to lock the guards in the cells to get by. This shows how the company treated the test subjects.

THE MAIN CHARACTER'S THOUGHTS

Used the least of the three, the main character will sometimes have a thought bubble showing his take on the situation. The silent style of the game will be ruined if this is used too much. The thought bubble is a blue, transparent rectangle. The font used in the thought bubble is called Optima. The thought bubble will pop up as the player walks near the trigger for the thought bubble. After 5 seconds, the bubble will disappear. When the player walks around with a thought bubble, it will follow above the character's head. If the sentence takes more than one bubble, when the 1st disappears, the second will appear.



EACH DIMENSION GIVES DIFFERENT GAMEPLAY

When the player switches to the other dimension, they will experience a different style of gameplay. In the present dimension, the player has to avoid enemies and the world is dynamic with moving machines. In the future dimension, the player will experience more challenging platforming and fewer enemies. The future is also quieter and still compared to the present. The details of each enemy and obstacles in the level will be shown in ***Enemies and Obstacles***, the point of this section is to get an understanding of how the overall level works in style.

DIFFERENCE IN ENEMIES

PRESENT ENEMIES

The enemies in the present are human soldiers, robots and vehicles controlled by humans. The human enemies are always on a lookout for the player. The humans are predictable, they have a routine patrol or guard that they have to follow. The humans will sometimes stop at machines to check up on them, at this time they are oblivious to what's happening around them. The humans have different ranged weapons at their disposal.

FUTURE ENEMIES

The enemies in the future are small creatures, flying creatures and giant burrowing creatures. These enemies are more random than the humans are, and "dumber" than the human force. The enemies in the future are unpredictable. Some of the creatures won't even care about the player, unless the player bumps into them. The giant creatures come out of the ground at any time, and there could be hordes of flying creatures that tear through the sky. Some creatures have strange abilities, such as switching when the player switches.

DIFFERENCE IN LEVEL FEATURES

PRESENT FEATURES

The present world has many dangerous machines that can kill the player. Electric beams, trapdoors, cars and machines that can squish the player all serve as dangers. There are also doors that lock behind the player, conveyer belts, raising/lowering platforms and pumping water that doesn't harm the player. Some levels will have darker rooms, with lights that turn on and off.

FUTURE FEATURES

The challenge in the future is the rubble and destroyed ground that the player has to maneuver around. In the future, there aren't moving machines that can harm the player, instead the player could cause harm to himself by setting off traps. An avalanche of rubble or rocks could trigger from a poor landing,

or the platform the player is on could start to crumble. In the jungle wilderness, the player has many vines to use. In the desert, a storm can come in and reduce the player's visibility.

TRANSFER & USE ITEMS

The player can carry over items into the other dimension if the main character can hold the item in his hand. These items will help the player get through an obstacle.

HOW TO USE/TRANSFER ITEMS

The player picks up an item with the *interaction button*. The player will then carry the item until they drop it by pressing the *cancel button*, or until they use the item by finding where it should be used and then pressing the *interaction button* again. The player can hold only one item at a time.

ITEM DETAILS

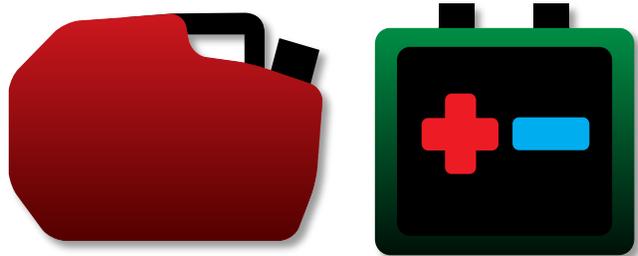
KEYS AND KEY CARDS

Keys and key cards are used on locked doors. The cards are used in the present and the old keys are used in the future. Keys only work on compatible doors, and work multiple times. The compatible doors are displayed as the same color as the key. Both keys to the right are only compatible with yellow doors. The key picture on the key card always stays dark blue to avoid confusion for the player.



BATTERIES AND GASOLINE

Batteries and gasoline are used on vehicles and machinery. Once either is used, they can't be used again. When the player is holding the battery or gas, the player walks *20% slower* than usual.



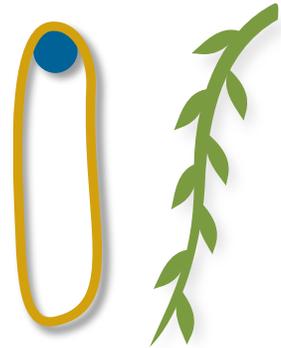
Depending on the situation, the machine or vehicle that was activated will run:

- **Forever** - The machine will last the entire level. This works well for things like conveyor belts.
- **Once (one shot)** - The machine will complete an action and will turn off/break. This works well for opening a path.
- **Timed** - The machine will run out of power/gas after a set time (15 seconds and up, depending on the situation). This works well for when the player has to hurry, if they didn't make it, they have to restart the puzzle. A resupply of batteries/gas is needed for this puzzle.

VINES AND ROPES

Vine and ropes are used to hook onto objects. Then the player uses the vines or ropes to climb or swing to their goal. Vines are found in the future, while ropes are found in the present.

<To see all stats on vines and ropes go to **The Rope and Vine** in *Gameplay details*>



THROWABLE OBJECTS

Throwable objects, mostly rocks are used to distract enemies and bring their attention to the thrown object. They are found in both dimensions. Thrown objects can also be reused.

<To see all stats on throwable objects go to **Throwable Objects** in *Gameplay details*>



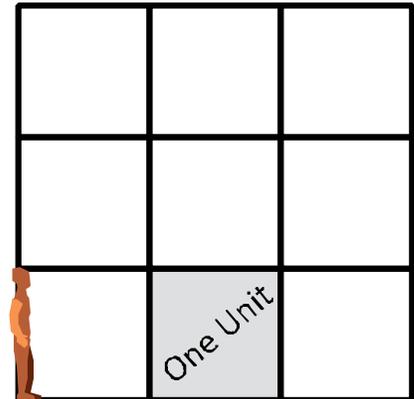
GAMEPLAY DETAILS

Here you will find the breakdown of all the actions the player can make in the game.

MOVEMENT & NAVIGATION

One unit in the game is a square the length and width of the main character's height, this will be used to measure everything in the game.

One unit would measure 128x128 pixels on screen, at the normal camera zoom.



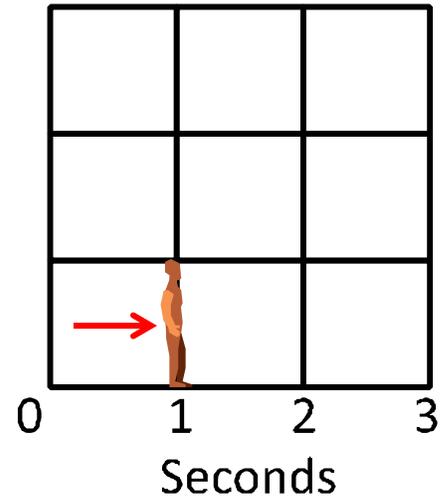
MOVEMENT CONTROLS

The player can move left or right in the game.

Control: Movement is done with the D-Pads, arrow keys, or A+D keys.

Animations:

- Walking - The player walks in the game at a fixed speed of 1 unit/second. The character has a standard walking animation.
- Turning -The player will take 0.2 seconds to turn around. In this animation the character will "spin" his legs around and continue in the opposite direction.
- Standing - The character will stay in the standing position, similar to the diagram shown.
- Idling - After 5 seconds of standing, the character will look up and down, face foreword instead of sideways and lean to his side.



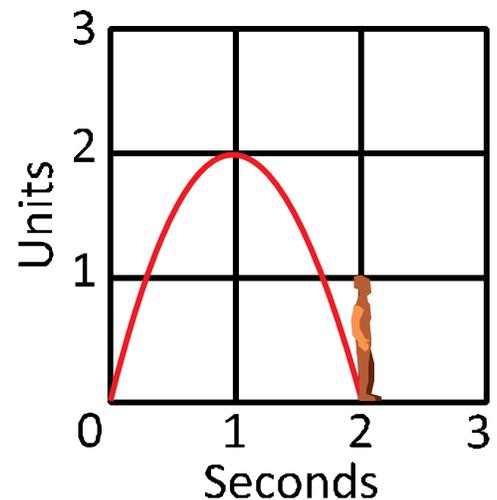
JUMPING

The player can jump straight up, forwards or backwards.

Control: Spacebar, X (PS3), A(Xbox)

Animations:

- Crouch before jump - This takes 0.2 seconds of the jump.
- During Jump - Reaches max height of 2 units at 1 second in.
- Lands - At 1 second in. Landing animation that is similar to crouching. Max distance traveled foreword is 2 units.



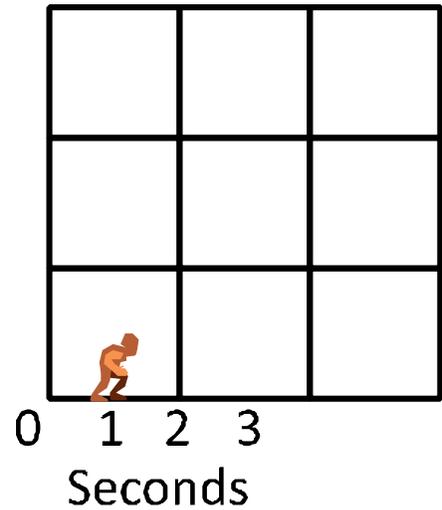
DUCKING

The player can duck and walk while ducking.

Control: Down on arrow key or D-Pad, and S key. Combo of duck and walk to move while ducking.

Animations:

- Ducking Transition - Player will transition from standing to ducking. Takes .2 seconds.
- Ducking - When the player ducks, he is half a unit tall. When the player walks and ducks, he moves at 0.5 units/second. The player will walk with knees bent.
- Standing Transition - Player will transition from ducking to standing. Reverse of ducking transition may work fine. Takes .2 seconds.



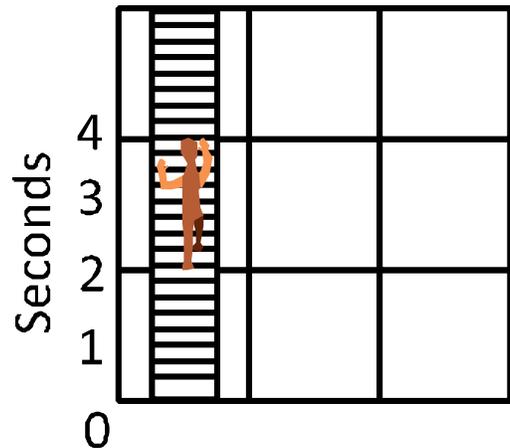
CLIMBING

The Player can climb ladders.

Control: Up on D-Pad, W key, or Arrow keys climbs up ladders

Animations:

- Grabbing on - Player will take hold of the ladder. Takes 0.2 seconds.
- Going Down - Player places feet on ladder. Takes 0.2 seconds.
- Climbing - Climbing animation up the ladder, going down can be the reverse. The player climbs at a rate of 0.5 units/second.
- Climbing Rope - Climbing a rope has a similar animation. The player climbs ropes at 0.5 units/second.
- Reach Top - The Player reaches the top of the ladder, animation of getting up. Takes 0.2 seconds.
- Reach Bottom - The player reaches the bottom of the ladder, animation of placing feet on ground. Takes 0.2 seconds.



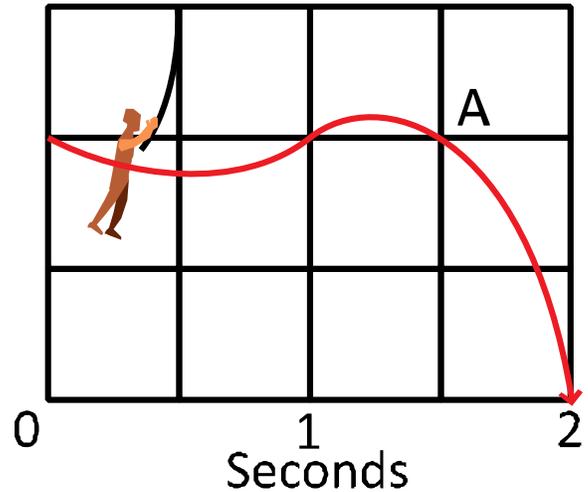
SWINGING

The player can swing across ropes and vines in the game.

Control: Automatically grabs rope in air. Press jump (X, A, Space) to let go of rope.

Animations:

- Jump to Grab - The animation will merge from the jump animation, and the player will reach his arm out to the rope. This takes 0.2 seconds.
- Holding on and leaning - After grabbing on, the player will lean from side to side as the rope swings back and forth. Each swing from side to side will take 1 second. The rope will travel 2 units, when the player jumps and lands the distance traveled is 4 units.
- Hold to land - After the player lets go he will merge back to the landing from the jump animation. The player can also grab on to another rope at this time. Depending on the height, landing takes 0.5 seconds to 1 second.
- Point "A" in the diagram, is a good spot to put another rope or a platform for the player, since it's the same height as where the player grabbed the rope.



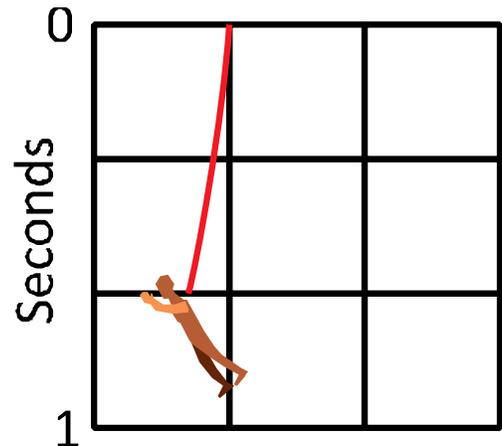
FALLING

The player will fall in the game from ropes and off platforms.

Control: Left and right arrow/d-pad and A+D Keys will lean the player to either side while falling.

Animations:

- Fall from jump - The landing jump animation will merge into the falling animation. This will take 0.1 seconds.
- Falling - Falling is a loop where the player looks down and tries to keep his balance. The player will face and tilt whatever way he is leaning. The player falls at 3 units/second. The speed of moving left or right while falling is 0.5 units/second
- Falling to Death - The player will transition from falling to hitting the ground. The death animation takes 1 second.
- Falling to Safety - The player will transition from falling to landing safely. The player will squat and then change back to the standing animation.



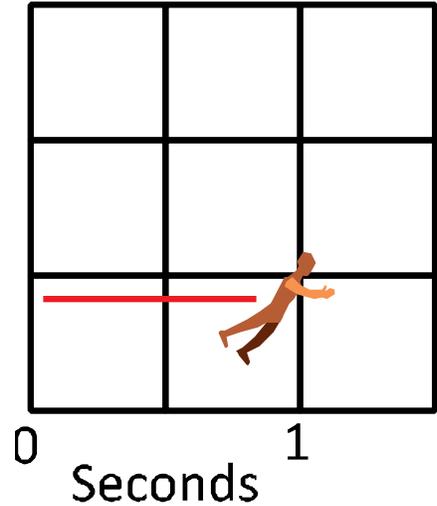
SWIMMING

The player can't swim well in the game, he will either walk through the water or "dog paddle" through deep water. Deep water will damage the player, as seen in the **Time Switching** feature.

Control: Left/Right arrow/d-pad and A+D keys will move the player back and forth. The player can't go under water.

Animations:

- Fall into water - The falling animation will transition to the player landing in the water. After landing the player will float to the top. This will take 0.5 seconds.
- Idle - The player will float around in the water with a 1 second loop.
- Walk - In shallow water the player will walk in the water in water below his neck). His arms will be spread out and walk slower than usual. The player will move at .5 units per second.
- Swim - The player will dog paddle across the water (in water neck height and above). His head will always be above the water. The player will also move at .5 units per second.



COMBAT SYSTEM

GETTING DAMAGED

The player will die in two hits.

Rules:

- When the player is hit, he will have 3 seconds of invulnerability to get away. In water the player has 5 seconds.
- The things that can damage the player are enemies, water, and traps.
- Enemies are 1 damage, water is one damage per 5 seconds, and traps could be instant kill or one damage (depending on the trap).
- The player will permanently be 50% transparent after the 3 seconds of invulnerability until death or getting a health pack (which would make him opaque).

Animations:

- The player will blink from opacity to 50% transparent when he is damaged to show they are invulnerable. This will stop after 3 seconds. In water, it will stop after 5.
- The character will also make an "AH" sound when he is damaged.
- Start of Damage - The character will flinch from been hit, and then change back to the walking/standing/swimming animation. This will last for .5 seconds.

<"HUD/On Screen Displays" Appendix Shows the player with one health compared to two health.>

DEATH

After the second hit, the player will die, or he'll die instantly from things that do 2 damage.

Rules:

- After the Death animation, a menu asking "Would you like to try again?" pops up. If the player says "Yes" the game will load from the last checkpoint. If the player says "No" the game will exit to the menu.
- The player can die on ladders, on ground, in water, and in air.
- The player must never be damaged while he is swinging, since he has no control of his movements. However, the player can be damaged while jumping to another swing, as long as it's possible to do so without been damaged.

Animations:

- The character will scream as he's dying.

- Death on ground - The player will fall to the ground, lie down, and disappear. This lasts 3 seconds.
- Death in water - The player will sink under the water and disappear. This lasts 3 seconds.
- Death on ladder and in air - The player will go to the falling animation and then the death on ground animation. The falling animation lasts until he hits the ground, and the death animation lasts for 3 seconds.

TOOLS

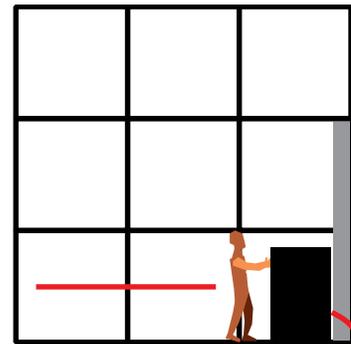
PUSHABLE OBJECTS

The player can push objects by walking into them.

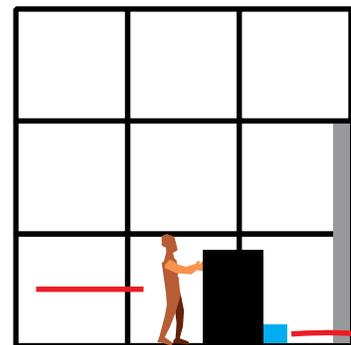
Control: Moving left/right on d-pad or arrow keys, A+D Keys

Rules:

- The player moves into the object and has to move into it for 2 seconds before it starts moving.
- The player can tell its moveable from its different colour compared to the environment.
- The player can only push objects. Level design has to prevent an object to get stuck where the player can't push the object on the other side (such as putting a bump in the ground the player can't push the object over) unless the spot the object gets stuck at is where it's supposed to be.
- Pushable objects are small enough for the player to jump over.
- Pushable objects from the present appear more weathered down in the future. If the situation needs that pushable object to disappear in the future, that is allowable.



Object Stuck



Prevent Getting Stuck

Animation:

- Contact with object - When the player gets in contact with the object, the character will have his arms at the object in a "ready stance". He'll stay in this stance for 2 seconds and then will start pushing.
- Pushing - The character will push the object with his legs at an angle and arms stretched forward. Pushing will move at 0.5 units per second. Pushing will also have a scraping sound played.
- Stop pushing - When the player lets go of the direction, the character will stop pushing. The animation will change back to the standing animation. This takes 0.5 seconds.

Type of Pushable Objects:

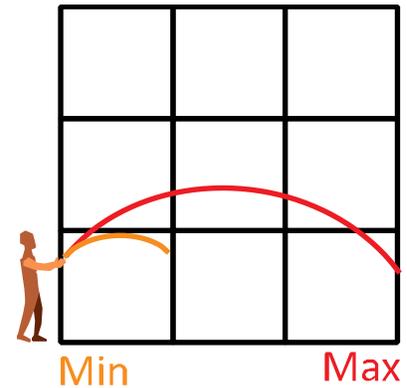
- Large rocks, crates, rubble, storage carts
- All have same stats (movement speed, etc.), just with a different look and size.

THROWABLE OBJECTS

The player can throw small objects that they are carrying.

Control:

- Pick up with *Interact Button*: Square (PS3), X (Xbox), E or Enter (PC).
- Throw by holding and releasing same button.
- Drop by pressing *Cancel Button* Circle (PS3), B (Xbox), Q (PC)



Rules:

- Player can have one object at a time
- Does not damage enemies, distracts them
- The maximum throwing distance is 3 units, minimum is one
- Dotted line shows how far object will be thrown
- Player can't move while about to throw
- The player holds down the *interaction button* and the longer the player holds, the farther the object will be thrown.
- When the distance is maxed, everything will reverse to minimum distance and cycle back. The cycle is 2 seconds long.
- Thrown objects can be picked up again.
- Player can only throw objects in a horizontal plane

Animation:

- Pick Up - When the player finds the object, the character will bend down and pick it up. This animation lasts 1 second.
- Ready to throw - Character will move his arm backwards and forwards as player is getting the right distance. This animation loops every 2 seconds.
- Throw - The character releases the object and goes through a throwing motion. After, transfers back to standing or walking. This is 0.5 seconds long.
- Drop - When the player wants to drop the object, the character will bend down and put the object on the ground. This takes one second.

Types of Throwable Objects:

- Small rocks, pipes, small machines, tools (drills, hammers)
- All work the same, just look different

THE ROPE AND VINE

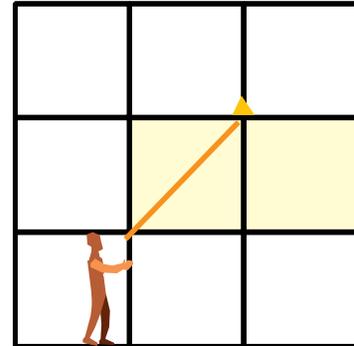
The player can use ropes and vines to hook on to something and use as ladders or swings.

Control:

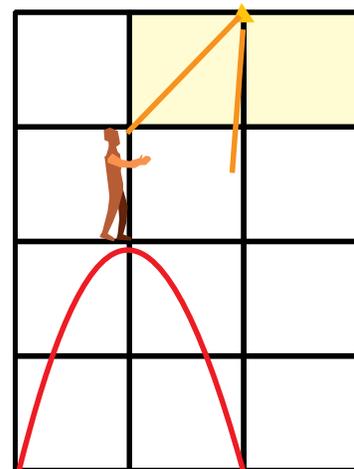
- Pick up with *Interact Button*: Square (PS3), X (Xbox), E or Enter (PC).
- Use by pressing same button near a "hook spot".
- Drop by pressing *Cancel Button* Circle (PS3), B (Xbox), Q (PC)

Rules:

- Player can have one object at a time
- The player can tell where they can use the vine and ropes by hooks sticking out of the ground.
- Hooks will be in a different colour than the environment around it.
- Can only use object when player is near a "Hook Spot"
- "Hook Spot" Determines if the rope/vine is a swing or a ladder.
- Once a vine or rope is used, it stays in that spot and can't be reused.
- Maximum toss range is one unit
- Reach could be increased by jumping and tossing the rope
- After the rope/vine is on the hook, it will hang 1 and 1/2 units down
- In the diagram, the light yellow squares is the tossing area for the hooks



Rope/Vine Hook



Rope/Vine Hook

Animation:

- Pick Up - When the player finds the object, the character will bend down and pick it up. This animation lasts 1 second.
- Throw to hook - The player throws the rope at the hook. This takes 0.5 seconds.
- Drop - When the player wants to drop the object, the character will bend down and put the object on the ground. This takes 1 second.
- They use the ladder and swing animation when the player uses the rope and vine

SWITCHES, LEVERS, VALVES

The player can activate machines with switches, levers and valves.

Control: *Interact Button*, Square (PS3), X (Xbox), E or Enter (PC).

Rules:

- Player must be standing 1/4 unit away from trigger
- Depending on the situation, the trigger can be activated multiple times, a few times or one time.

Animation:

- Presses Button - The character will press a button on the machine. Takes 1 second.
- Pulls Lever - The character will pull a lever. Takes 1 second.
- Twists Valve - The character will twist a valve. Takes 1 second.
- Machine gives feedback, pumping sounds, hisses, gear sounds whatever fits.
- The machine will run and the player can move around.

What the Trigger Sets Off:

- Conveyor belts (turns on/off, reverses)
- Moving platforms
- Cranes
- Presses
- Releases object
- Vents Steam
- Opens/Closes Doors
- Turns on/off water pipes
- Raises/Lowers Chains and Ladders
- Raises/Lowers floors
- Turns on/off lights
- Turns on/off security cameras
- Activates Elevators

CAMERA



The camera is side scrolling that follows the position of the player. The player has no control over it. When the player reaches a certain point like the edge of a wall, the camera will stop moving until the player moves away. That will show that either they are at the edge and can't go farther or there is a door, which will bring them to a new area. When the player goes through the door, the screen will fade out black then fade to the new room. Typically, the player moves left to right in the world. The image above is the standard zoom amount for the game.

The player will only travel on one layer in the environment. To make the game look more 3D, other layers will be in front and behind the main layer. Each layer will move at different speeds depending on how close it is to the camera. The camera and objects in the camera shake in special cases such as explosions.

When the player shifts, the camera will stay at the same position and have the same zoom amount.

ZOOMED OUT CAMERA



When the player faces a large, complicated puzzle, the camera will zoom out so they can see all of the puzzle's features. While the camera is in this mode, it won't follow the player around. Once the player gets close to the edge of the camera zone it will start panning to the player's direction. When the player leaves the puzzle area, the camera will change back to the default mode.

ZOOMED IN CAMERA



The zoomed in camera is used when the player has to see something up close, whether it's an item, machine or person. This mode is rarer than the other two, most of the time it is for special events in the game, so the player can get a better look at the character. The camera will follow the main character in this mode.

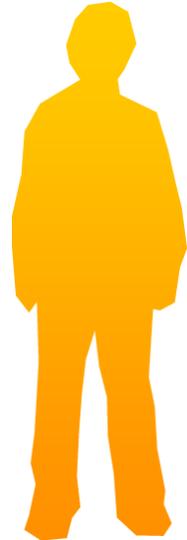
FIXED MOVING CAMERA

This camera mode constantly moves forward and the player has to make sure to keep up with it. This type of camera is used for special times in the game such as been chased by a machine, or escaping a collapsing building. The camera will vary in speed, the minimum movement amount is half the speed of the player and the max is double the speed of the player. The camera can't last at double speed for long, since it would easily catch up to the player.

GAME CHARACTERS

MAIN CHARACTER'S LOOK

The main character in the game is nameless and is represented as a shadow. His colour will change to contrast with the background environment. The player will never be red in colour, since it will communicate that he's an enemy. His real height would be around 5'9".



Background Colour	Character Colour
Red	Green
Orange	Blue
Yellow	Purple
Green	Orange
Blue	Orange
Purple	Yellow

MAIN CHARACTER'S BACKGROUND

He was a lead scientist in the cooperation studying time. Eventually, his experiments hit a breakthrough and the cooperation made his studies top priority. They began testing on people sending them through time and never seeing them again. The main character objected to all of their brutal experiments. He became a prisoner to the cooperation from disagreeing with them and they had enough. Similar to the scientist that discovered the atomic bomb, he now fights against the use of it.

The main character had an experiment tested on him that had strange results. He was sent to the future, with the ability to switch between the future and the present time periods. He then witnessed what the time experiment has done and shifts back to the present.

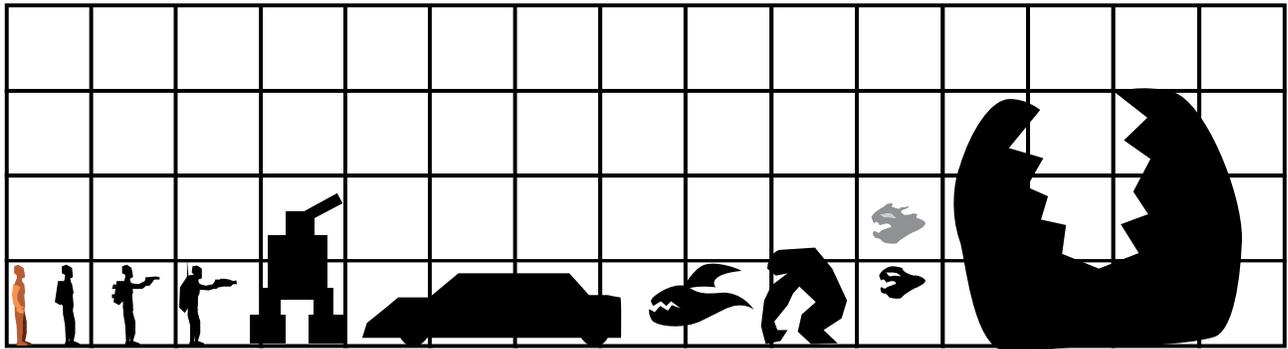
His new goal is to stop the cooperation from causing the destruction of the world.

CREATING A CHARACTER

The default character is male. However, the player will be able to choose if they are male or female. When the player chooses female, all that would change in the game is

- The silhouette character sprite
- The character's reaction sounds
- Few cut scene videos that have dialogue
- The dialogue text will need to be change to he/she, him/her etc. this could be done by storing each in a variable.

CHARACTER SCALE



From left to right (in black) are the Charger, Shooter, Specialist, Robot, Vehicles, Flyer, Wanderer, Chaser (black), Shifter (grey) and the Giant. All of these are enemies detailed in the next section.

ENEMIES AND OBSTACLES

By default, most enemies and obstacles that can cause damage will cause 1 damage when they are touched. The player will then have 3 seconds to get away from the damage source. Different enemy characteristics are decided by the level designer to best fit the challenge or puzzle in the level. Unless otherwise stated, enemies will only see and attack in a horizontal line. Difficulty is a number 1-5.

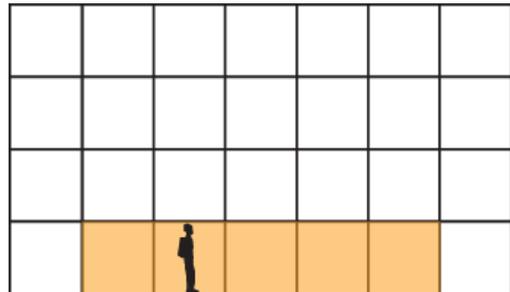
HUMANS

Humans are all the same size as the player (excluding their machines). All the humans are the same colour in the level, usually red to stand out as the enemy. They are found in the present dimension.

CHARGING GUARDS

Human guards have no weapons and will chase the player if they spot him.

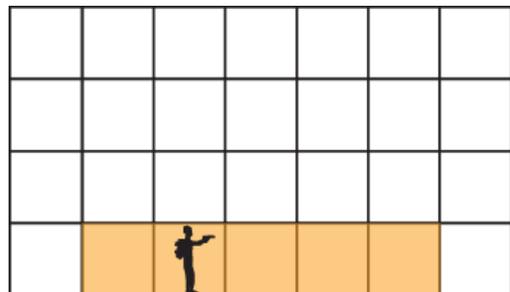
- **Difficulty:** 1
- **Spotting Distance:** 3 units in front, one unit behind
- **Movement Speed:** 0.5 units per second
- **Charging Speed:** 2 units per second
- **Characteristics:** The guard will have three different characteristics
 - **Stand Still:** The guard will face the same direction and stay there.
 - **Rotate:** The guard will face different directions every 5 seconds.
 - **Patrol:** The guard will move back and forth. When he reaches patrol limit he will pause for 3 seconds then head back.
- The guard will stop chasing the player after he is three units away.



SHOOTING GUARDS

Shooting guards have a gun and will shoot at the player if they spot him.

- **Difficulty:** 2
- **Spotting Distance:** 3 units in front, one unit behind
- **Movement Speed:** 0.5 units per second
- **Shooting Speed:** One bullet per 0.5 seconds
- **Bullet Speed:** 1 unit per 0.2 seconds
- **Bullet Range:** Bullet will move 10 units until disappearing, the bullet will disappear if it hits a wall.

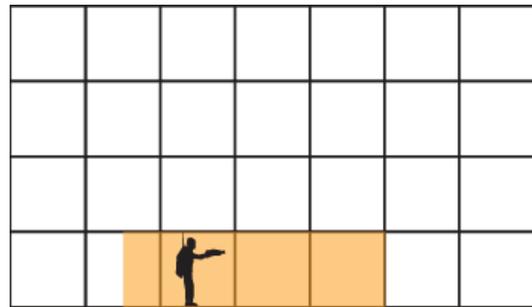


- **Characteristics:** The guard will have 4 different characteristics
 - **Stand Still:** The guard will face the same direction and stay there.
 - **Rotate:** The guard will face different directions every 5 seconds.
 - **Patrol:** The guard will move back and forth. When he reaches patrol limit he will pause for 3 seconds then head back.
 - **Shoot and Move:** When the player is spotted, the guard can shoot and chase the player. He will move at the same speed (0.5 units per second) and will stop when 3 units away. This characteristic is combined with one of the above 3.
- The guard will stop shooting the player after he is three units away.

SPECIALISTS

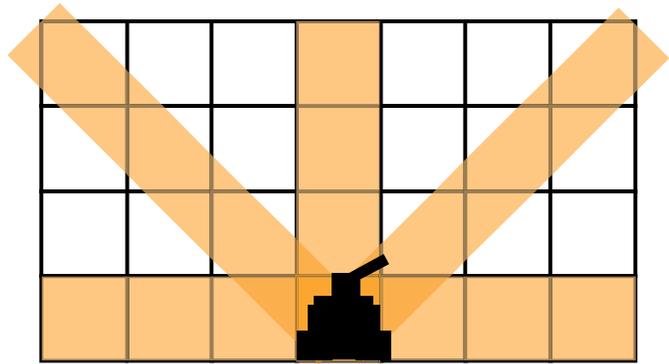
Specialists have a weapon that disables the player's view of the world.

- **Difficulty:** 3
- **Spotting Distance:** 2 units in front, 0.5 units behind
- **Movement Speed:** 0.4 units per second
- **Shooting Speed:** One bullet per 2 seconds
- **Bullet Speed:** 1 unit per 0.5 seconds
- **Bullet Range:** Bullet will move 4 units until disappearing. The bullet will disappear if it hits a wall.
- **Characteristics:** The specialist will have 4 different characteristics
 - **Stand Still:** The specialist will face the same direction and stay there.
 - **Rotate:** The specialist will face different directions every 5 seconds.
 - **Patrol:** The specialist will move back and forth. When he reaches patrol limit he will pause for 3 seconds then head back.
 - **Shoot and Move:** When the player is spotted, the specialist can shoot and chase the player. He will move at the same speed (0.5 units per second) and will stop when 2 units away. This characteristic is combined with one of the above 3.
- The guard will stop shooting the player after he is three units away.
- **Special Ability:** The Specialist is able to disable the player's view of the other dimension. This affect lasts for 10 seconds. The player is affected when hit with the Specialist's bullets.

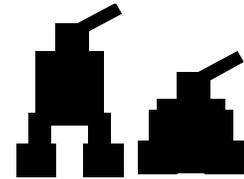


ROBOTS

Robots can rotate where they are facing, unlike the above enemies.



- **Difficulty:** 4
- **Spotting Distance:** 4 units where turret is facing, 0 units any other angle
- **Movement Speed:** 0.5 units per second
- **Shooting Speed:** One bullet per second
- **Bullet Speed:** 1 unit per 0.2 seconds
- **Bullet Range:** Bullet will move 10 units until disappearing, the bullet will disappear if it hits a wall.
- **Bullet Radius:** The bullet will damage anything 0.5 units around the bullet (total area of 1 unit)
- **Characteristics:** The robot will have 4 different characteristics
 - **Stand Still:** The robot will face the same direction and stay there.
 - **Rotate:** The robot will face different directions every 4 seconds. Instead of facing left and right, the robot will face left, left diagonal, up, right diagonal then right.
 - **Patrol:** The robot will move back and forth. When he reaches patrol limit he will pause for 3 seconds then head back.
 - **Angle and Shoot:** When the player is spotted, the robot rotates to face the player and will shoot. When the player is out of that line, the robot has to rotate (he can only rotate in the 5 different directions) then shoot again. The robot will take 2 seconds to rotate in each angle. The robot does not move while attacking.
- The robot “sits down” while it is attacking. This aligns it with the player to hit him. Sitting down takes 2 seconds.
- The robot will stop shooting the player after he is 4 units away.
- **Special Ability:** The Robot can sound an alarm when the player is spotted that will make nearby humans move +.2 units per second.



VEHICLES

Vehicles move constantly in a straight line at a fixed speed.



- **Difficulty:** 3
- **Movement Speed:** 5 units per second
- **Characteristics:** The vehicle will have 2 different characteristics
 - **Patrol:** The vehicle will drive back and forth to certain points. It will pause for 3 seconds then move in the opposite direction. The vehicle accelerates from 0 units per second to 5 units per second in 2 seconds.
 - **Move Constantly:** The vehicle will constantly move left or right. It will spawn and disappear from and into tunnels or places the player won't see.

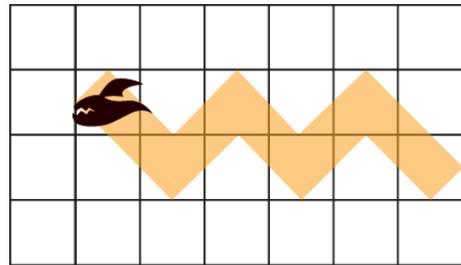
MONSTERS

Monsters vary in size and shape. They are usually black in colour to give a shadow look. If the world is too dark, they will be dark red. Monsters have more unique abilities such as moving through walls, coming out of the ground and switching dimensions. Most monsters won't chase the player.

FLYING MONSTERS

Flying monsters are like giant bats. They won't chase the player, he will just get damaged if he hits them. Flying monsters can also appear in swarms.

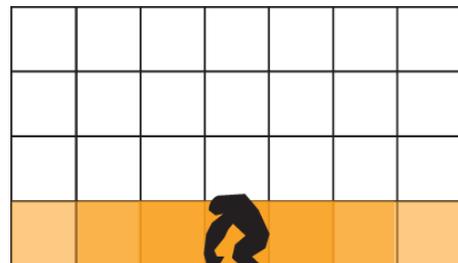
- **Difficulty:** 2
- **Movement Speed:** 1.5 units per second
- **Characteristics:** The flyer will have three main characteristics
 - **Fly Straight:** It will fly in a horizontal plane.
 - It can patrol to certain points. it will pause for 2 seconds
 - It can fly in a direction endlessly
 - **Fly Up/Down:** It will fly in a vertical plane
 - It can patrol to certain points. it will pause for 2 seconds
 - It can fly in a direction endlessly
 - **"Zigzag Flying":** It will fly in a zigzag motion while moving left or right.
 - It can patrol to certain points. it will pause for 2 seconds
 - It can fly in a direction endlessly
- **Special Ability:** The flyers will sometimes appear in swarms of 10 or even greater. The player will have to dodge the flyers or switch out of the area. The flyers from swarms can constantly be spawning from a point in the level.
- **Sound:** The creatures make a flapping sound from their wings and bat like screeches.



WANDERING MONSTERS

Wandering monsters randomly walk on the ground in the level. If they stood straight, they would be double the height of the player.

- **Difficulty:** 2
- **Movement Speed:** 0.4 units per second
- **Characteristics:** The monster will have one main characteristic
 - **Wander:** The monster will move around in the world and stop, change directions, and start walking randomly. They are unpredictable compared to humans.

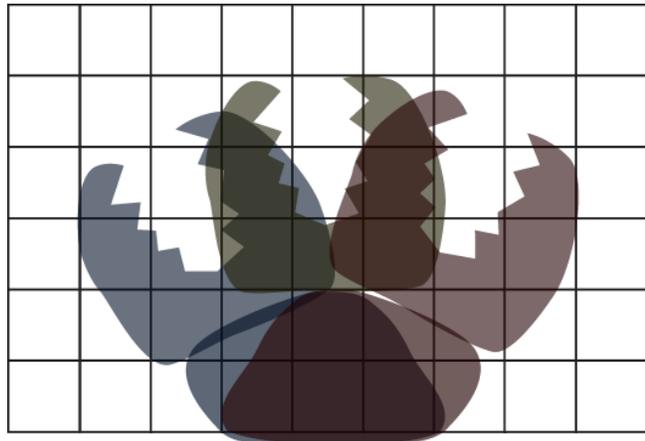


- **Stop:** The monster will stop for a random range of 0.5 seconds to 3 seconds.
- **Walk:** The monster will walk for a random range of 1 second to 5 seconds. If the monster hits a wall, he will instantly walk in the opposite direction.
- **Reach:** Reaches at player and damages him when he tries to jump over the monster.

GIANT MONSTERS

Giant monsters appear from out of a predetermined spot in the ground. They are worm like creatures, where only their head is fully shown. Their head is 3.5 units wide.

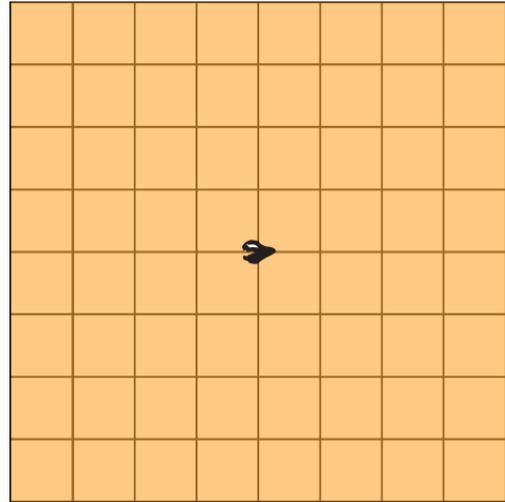
- **Difficulty:** 3
- **Characteristics:** The giant will have three main characteristics
 - **Rise:** It will rise from out of the ground (max height of 5 units). The camera will shake. This motions takes 2 seconds to complete.
 - **Turn:** it will start to lean 2 units left or right then will start to sink. This motion will last for 4 seconds.
 - **Sink:** It will return to underground. It takes 2 seconds to return. The giant can appear again after 10 seconds.
- **Special Ability:** When the giant comes out of the ground, he can cause rocks to fall off cliffs that can damage the player or open up new areas.
- If the player is in the mouth of the giant he will die. If the player is touching the edge of the giant, he will lose one health.
- **Sound:** When the giant surfaces, the player will hear rumbling sounds. The giant makes a very low pitched roar when it is turning.



FLOATING CHASERS

Floating Chasers are slow moving monsters that hover in the air. When they spot the player they move towards them.

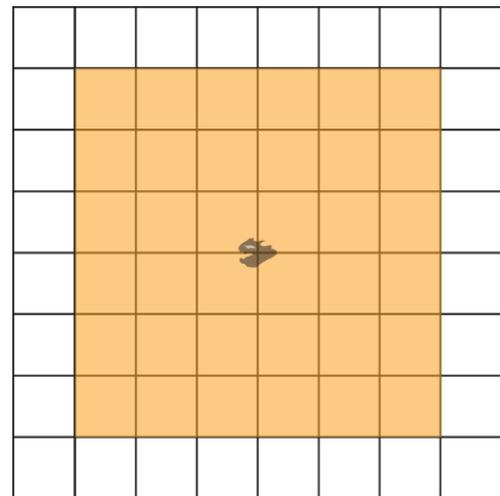
- **Difficulty:** 3
- **Spotting Distance:** 4 units all around
- **Movement Speed:** 0.3 units per second
- **Characteristics:** The chaser will have three main characteristics
 - **Hover:** It will hover in one spot.
 - **Chase Player:** It will chase the player in any direction. It will stop chasing after the player is 4 units away
 - **Float Around:** It will move around randomly in a certain area (average area is 3 units square). It's direction is chosen randomly on both x and y axis. If it reaches the edge of its area, it will turn around. The chaser pauses every 3 seconds and moves 2 seconds after pausing.
 - **Thrown Objects:** The chaser will be distracted by any objects thrown at it. It will attack the object and try to eat it. The distraction lasts 4 seconds.
- **Special Ability:** The chaser can move through all walls in the game.
- **Sound:** The floater makes a ghostly squeal sound



SHIFTERS

Shifters are like chasers but when the player shifts dimensions, they will follow in that dimension.

- **Difficulty:** 5
- **Spotting Distance:** 3 units all around
- **Movement Speed:** 0.3 units per second
- **Characteristics:** The shifter will have 5 characteristics
 - **Hover:** It will hover in one spot.
 - **Chase Player:** It will chase the player in any direction. It will stop chasing after the player is 3 units away
 - **Float Around:** It will move around randomly in a certain area (average area is 2 units square). It's direction is chosen randomly on both x and y axis. If it reaches the edge of its area, it will turn around. The shifter pauses every 3 seconds and moves 2 seconds after pausing.



- **Thrown Objects:** The shifter will be distracted by any objects thrown at it. It will attack the object and try to eat it. The distraction lasts 4 seconds.
- **Attack Humans:** The shifter will attack any human soldier that it's near. The shifter will win every battle against human soldiers. When the two are fighting, they are completely distracted from the player. The shifter will kill a human in 7 seconds.
- **Attack Robots:** The shifter will attack any robot that it's near. Both sides will kill each other at the end. When the two are fighting, they are completely distracted from the player. The battle will end after 10 seconds.
- **Special Ability:** The shifter can switch to the other dimension when the player switches. Shifters cannot move through walls.
- **Sound:** The shifter makes a ghostly growling sound
- Shifters blend from 50% transparent to fully opaque every 2 seconds.

Details on each boss to be completed after graduation.

OBSTACLES

CONVEYOR BELTS

Conveyor belts will move the player and enemies in a direction when they walk on it. It appears in the present world.

- **Speed:** The conveyor belt will move everything on it at +0.5 units per second. At this speed most other humans won't be able to walk against the belt
- **Controlling:** Some belts will be able to be turned on, off or in the opposite direction. The player can do this by finding a control button and pressing the *interact* button.
- The belt can have damaging traps placed on it. Such as at the end of the belt there are crushing machines that the player can run into
- The player can push objects on to the belt.
- **Sound:** Belts will have a running machine sound.

ELECTRIC BEAMS

Electric beams will damage the player and kill other enemies when touched. These appear in the present world.

- **Damage:** The player will be damaged of 1 health. Other enemies will die instantly.
- **Controlling:** Beams will be able to be turned on or off. The player can do this by finding a control button and pressing the *interact* button. Beams can also automatically alternate on and off. They cycle on and off every 3 seconds (this number can be changed).
- Beams can align vertically or horizontally. The beams can be any length.
- At the end of the beams is the electric emitter. The emitter is just a visual cue to the player that the beam comes from there. The emitter is a different colour than the environment around.
- **Sound:** Beams will have an electric power sound

TRAP DOORS

Trap doors will blocks the player and other enemies by crossing. They appear in the present.

- **Controlling:** The player controls the doors at a control button and pressing the *interact* button. Other enemies can open and close the door the same way. Some doors will automatically close once the player walks past them.
- Doors can also be on the floor. When the player walks over them, they open and the player falls into the next floor.
- **Sound:** When the door opens, it makes an unlock sound. When it shuts it makes a slam/locking sound.

FALLING ROCKS

The player or other enemies trigger falling rocks. They appear in the future world.

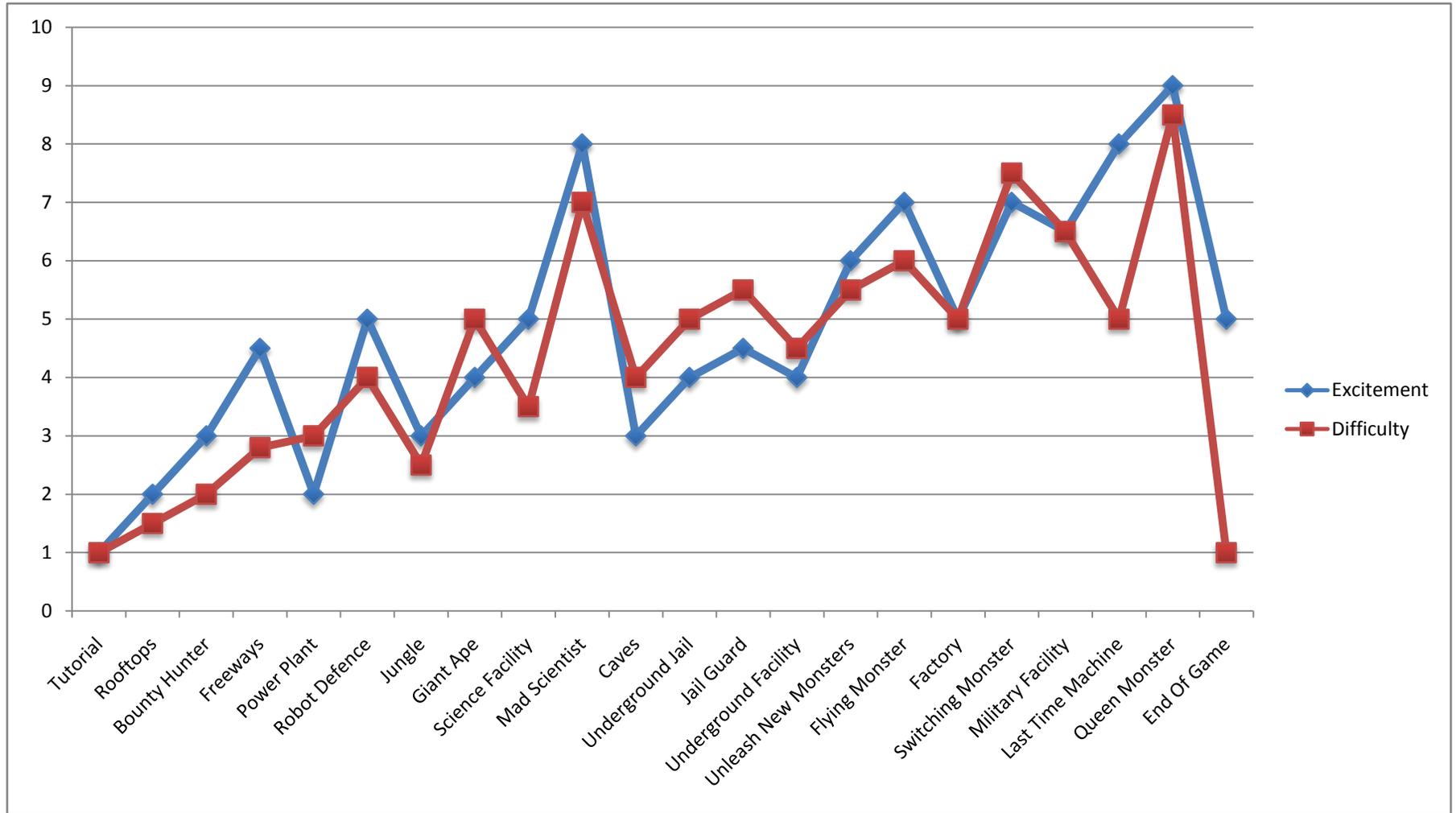
- **Damage:** The player will be damaged of 1 health. Flyers and wanderers will die instantly from falling rocks, other enemies aren't affected.
- **Controlling:** The player can push falling rocks off cliffs and other objects. When the player lands on ground balancing a falling rock, it will trigger and fall towards the player. The giant can trigger the rocks when it rises out of the ground.
- Rocks will be 1/4 units squared to 1 unit squared.
- The rock wiggles so the player will know it is a different rock.
- The rock bounces when it lands on objects. It only bounces 1/4 units up.
- **Sound:** When the rocks fall, they will make smashing sounds

BALANCING RUBBLE

The player can walk on objects that are balancing like a teeter-totter. They appear in the future world.

- **Controlling:** The player walks on the rubble and it leans towards the player's side. If it leans too far, the player will fall off.
- When the player falls, the rubble will go back to its regular position. If the rubble needs to last one time, it can also fall when the player falls.
- Enemies can walk on rubble, it leans the same way as for the player and they can fall off.
- Rubble can be a wooden board, I-Beam, metal rods or long pipes.
- The rubble slowly leans side to side, so the player can tell it isn't solid ground.
- **Sound:** When the player walks on the rubble, it makes a squeaking sound.

BEAT CHART



HOURS OF GAMEPLAY

The game would last around 9 to 12 hours, depending on player skill. Each level is long (around 1 hour) with checkpoints for the player that they can continue from.

VICTORY CONDITIONS

The goal of the player is to stop the time experiment to prevent the future from being destroyed. The player has to find where the time machines are to destroy them. The player will get new info on where it is throughout the game. Each level has a boss at the end. When the player defeats the boss, he can progress to the next level. The player will win the game once the last time machine is destroyed and the queen monster is gone.

THE GAME WORLD

The player will always be in areas controlled by the time organization. At the start of the game he is in a city then the game moves on to inside facilities, caves and military bases. The game is a continuous level system, where everything is put in separate levels and checkpoints.

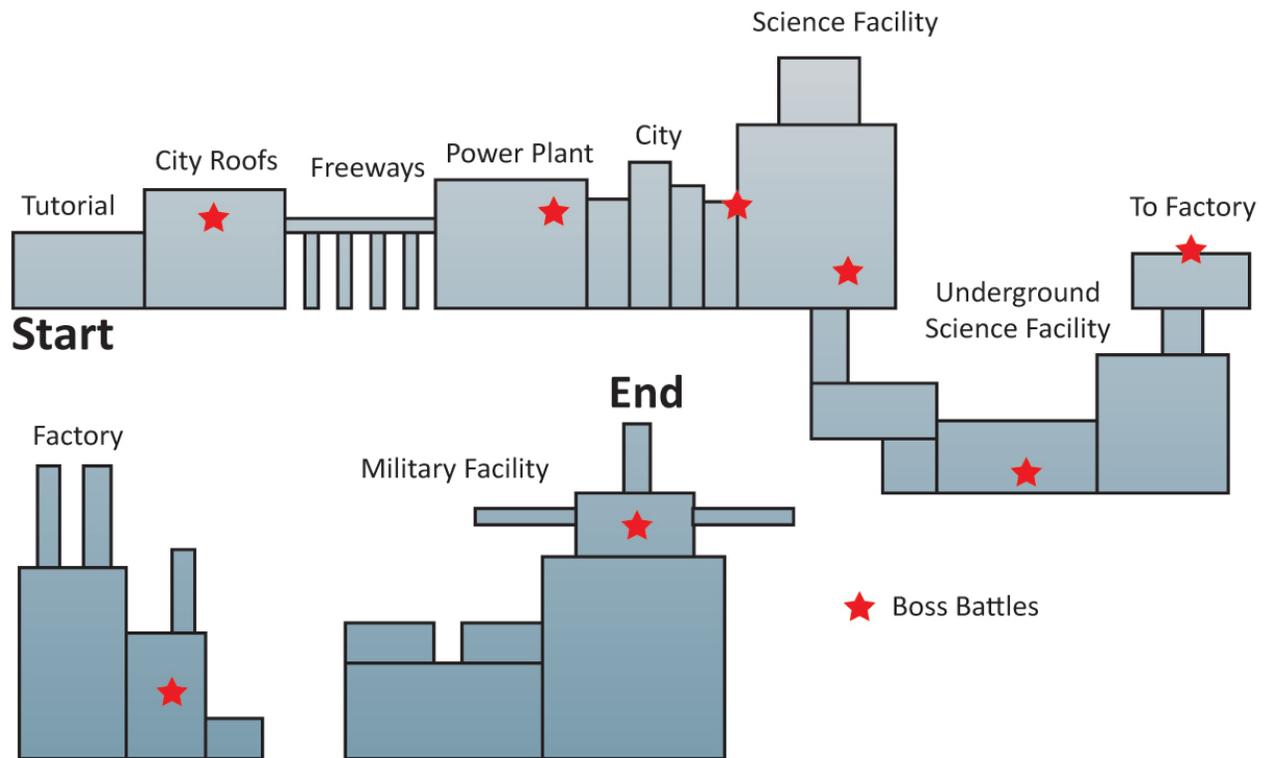
TWO VERSIONS OF THE SAME WORLD

The world will always have the present and future version of the same world. This will give a lot of variety and even higher replay value for the player. Every level will have to be carefully planned out so unexpected things won't happen when the player switches. For example, the player could be stuck at a spot and won't be able to switch or they'll die. The 2 different worlds will also have to be familiar to make sense that this is the same place, but not a clone so the player won't get board of the same thing.

INTERACTIVE WORLD

Many objects in the world are physics enabled. The player can push crates, lower ladders, push rocks and cause rockslides that can harm the player or enemies.

THE WORLD LAYOUT



Each section is one continuous level. The size of the buildings reflects the size of the level. Levels are broken down in an average of 6 sections. Each section has a checkpoint for the player to continue from. The level naming convention is: Level (level number) - Section (section number). An example is Level 2 - Section 3.

The player starts at a tutorial area then make his way to the science facility. After setting off the bomb, the player will travel underground. When the player surfaces from the underground facility, he will be taken to the factory then the military facility.

TUTORIAL LEVEL

- **Size:** Around 300 units in length (see *Scale* to understand the measurements)
- **Difficulty:** 1 (very easy)
- **Goals:** Find a hidden spot from military, Learn basic skills
- **Challenges:** None
- **Enemies:** None
- **Obstacles:** None
- **Skills Used:** Switching, Climbing, Ducking, Jumping
- **Rewards:** Player finds a document introducing the science facility and the world. Switching for the first time is pretty rewarding too.

The game starts in the tutorial level. The player will slowly learn what abilities he has. The directions for an action are part of the level's environment, such as telling the player "to press Shift to switch" will be printed on a street sign. Complicated actions like swinging and throwing will be taught in later levels.

LEVEL ONE: CITY ROOFS

- **Size:** Around 500 units in length
- **Difficulty:** 1.5 (easy)
- **Goals:** Find info on the Science Facility
- **Challenges:** Falling off roofs
- **Enemies:** Charging Guards, *Bounty Hunter Boss*
- **Obstacles:** Building Edges
- **Skills Used:** Switching, *Climbing*, Ducking, Jumping
- **Rewards:** Player Finds Location of Science Facility

The player will make his way to the roofs of the city. The puzzle mechanic used the most in this level is the ladders to get around. The player has high risk of falling off roofs or been chased off by Chargers. The player will get some chargers to run off buildings so the player can continue. One example is, a charger is coming and the player jumps up to a ladder (or switches), the charger then runs off the building.

The bounty hunter will shoot at the player. He also will climb ladders and jump. The bounty hunter keeps his distance from the player. When the player moves towards him, he will back up and shoot. The player will defeat him by walking towards him and he'll back up and fall off the roof. The player will dodge bullets by switching, jumping and ducking.

LEVEL TWO: FREEWAYS

- **Size:** Around 500 units in length
- **Difficulty:** 2.5 (medium)
- **Goals:** Head towards science facility
- **Challenges:** Getting hit by cars, Act fast before vial runs out
- **Enemies:** Charging Guards, Cars
- **Obstacles:** Edges of support beams
- **Skills Used:** *Switching*, Climbing, Ducking, Jumping
- **Rewards:** Player finds out the plant blows up in the future

The player will walk against car traffic on a freeway. Switching is used to its potential in this level. The player will have to switch to avoid the cars that will hit him. The challenge is that the freeway is partly broken in the future, so the player will have to switch in the right spot or he'll fall.

The player is introduced to the medium vials (that last 30 secs). The player will have to act fast while on the freeway so he'll see the cars in the other dimension.

LEVEL THREE: POWER PLANT

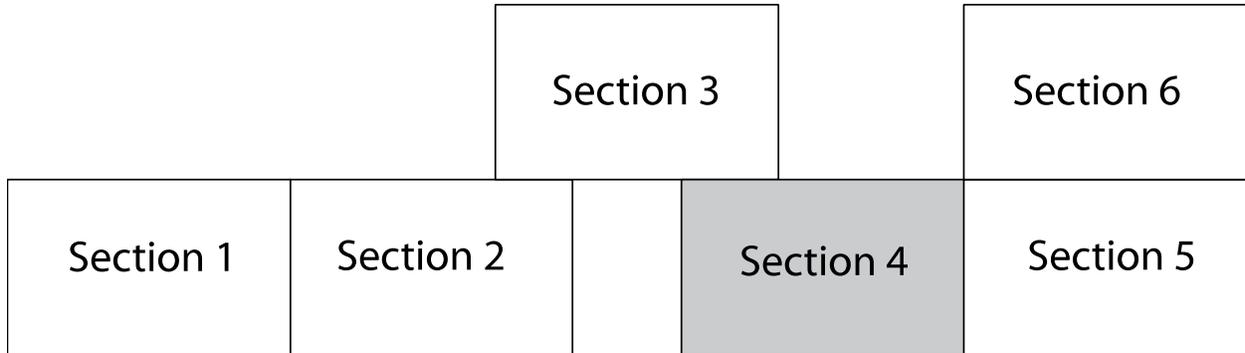
- **Size:** Around 600 units in length
- **Difficulty:** 3 (medium)
- **Goals:** Shut down power plant, shut down electric beams
- **Challenges:** First enemies in other dimension, Electric beams
- **Enemies:** Charging Guards, Shooting Guards, Wandering Monsters, *Robot Boss*
- **Obstacles:** Electric Beams, Pits
- **Skills Used:** Switching, Climbing, Ducking, Jumping, *Pushing*
- **Rewards:** Player shuts down power and future has more vegetation (still destroyed though)

This level introduces Pushing to the player. He will push crates to block, distract and squish enemies. The player will also use machines to turn the electric beams on and off.

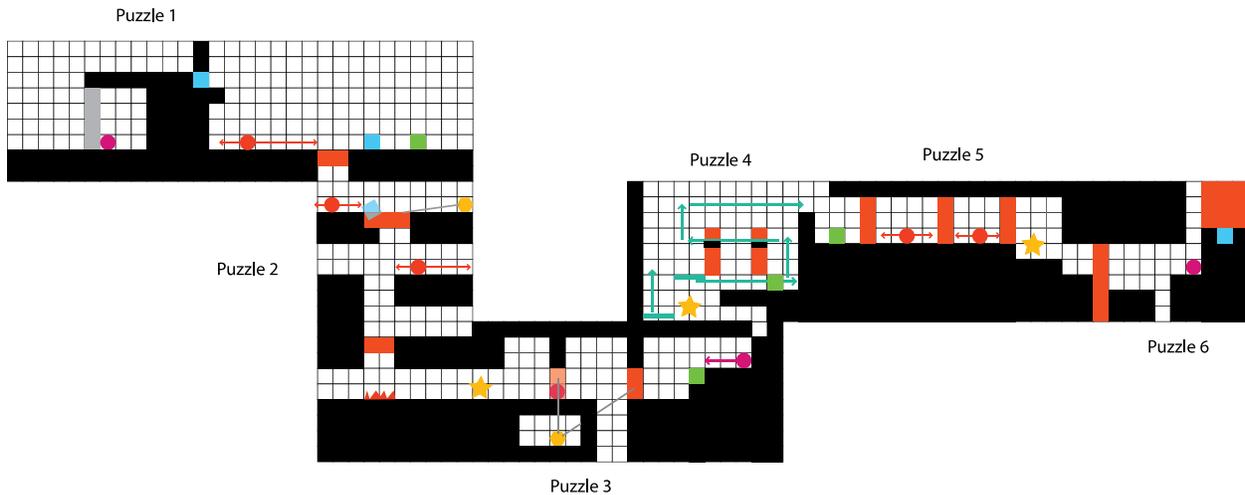
The player will have to defeat a Robot boss at the end of the level. The boss will hover, land, and then shoot missiles at the player. The player will have to push crates near the robot while missiles are been shot. When the robot shoots a crate beside it, the robot will take damage.

LEVEL THREE - SECTION FOUR DETAILED

The following is section 4 of the factory level. The diagram below is an overview off all the sections in level. 3.

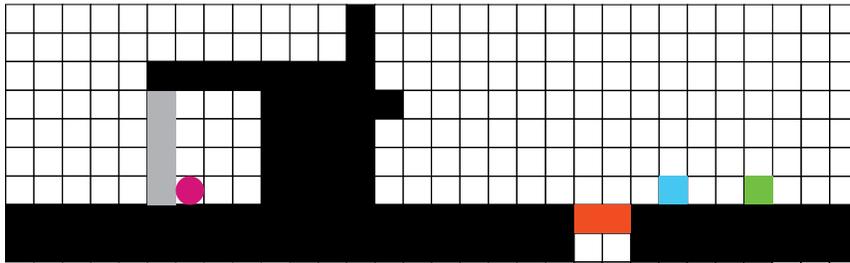


This diagram is a zoomed out version of section 4, showing the features of both dimensions.



The next images will show both dimensions in separate images. The first image of the two is the present dimension while the second one is always the future dimension. All of the squares represent one unit (the height of the player).

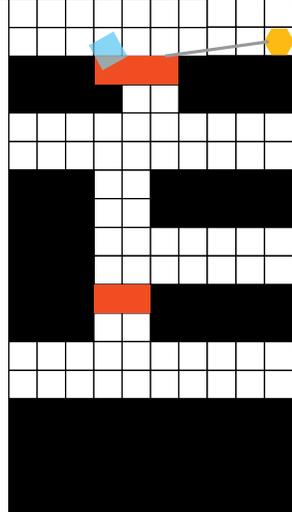
Puzzle 1



In puzzle 1, the player has to get close to the ladder in the future. Then he switches to the present and climbs up it before the enemy can shoot. The enemy is a human shooter.

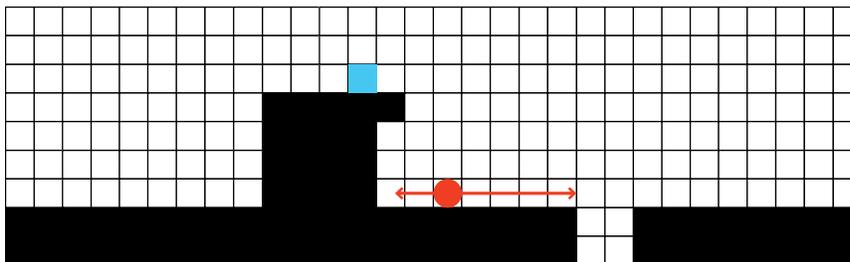
Puzzle 2

- Present Enemy
- Future Enemy
- Energy Beam
- ◆ Beam Switch
- Pushable Block
- ★ Checkpoint
- Dimension Vial
- ▬ Ladder
- ▲▲▲ Spikes
- ▬ Moving Platform



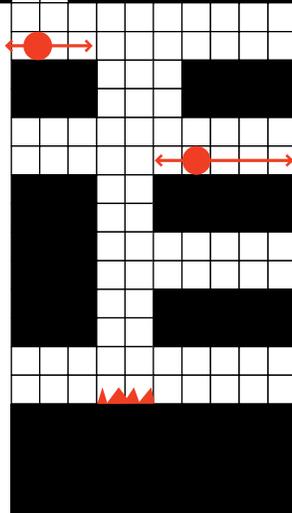
Then, the player will have to push the blue block in the future dimension. The block can land on the Wanderer and kill it. If the player misses, he has to use the block to jump over the Wanderer.

Puzzle 1



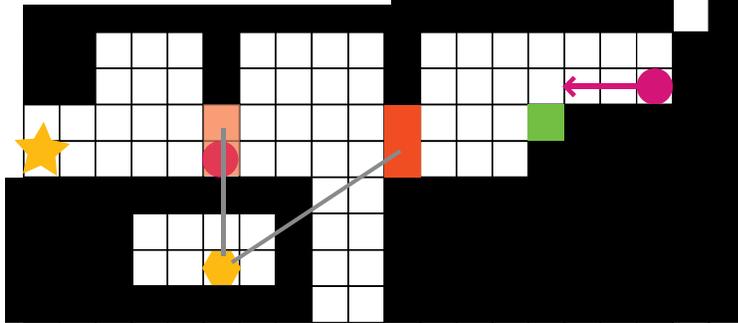
In puzzle 2, the player takes the green vial to see enemies (it lasts 30 secs so he has to hurry). The player pushes the blue block down, switches to the future, then jumps down. The player switches back, then pushes the block to where the transparent blue block is. The player can now jump across to the switch.

Puzzle 2



The switch turns off the electric beam. Now the player can fall to the next level. The player falls again to the level below. Then the player switches to the future, falls to where the last beam would have been. While the player is in the air, he switches back to the future to avoid the spikes.

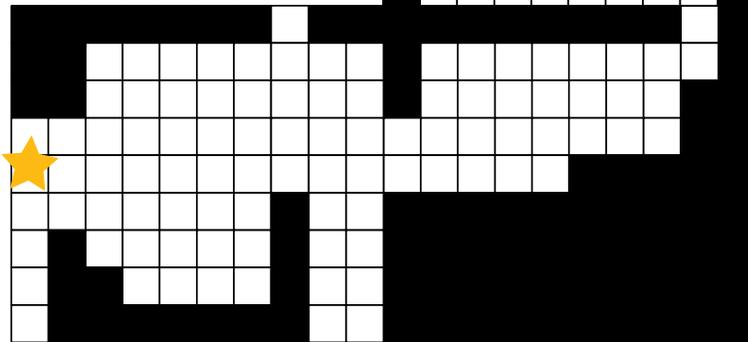
For puzzle 3, the player switches to the future aligns with the switch, then switches to the present. The player activates the switch to turn on the beam and kill the guard. The right beam turns off. The player uses the switch again turn off the left.



Puzzle 3

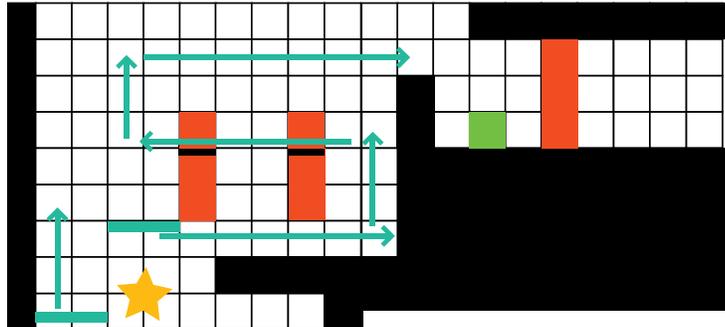
In the future, the player jumps up to the ledge. The player jumps then switches to land on higher ground. Now the player can jump up and reach the checkpoint.

The first platform rises to the second. The player jumps to the second



Puzzle 3

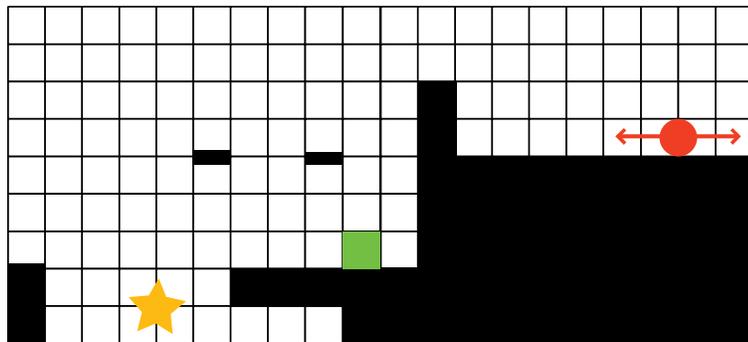
Puzzle 4



The player goes back to the second level then positions himself at the edge (the right beam is activated again from using the switch a second time). At the edge, the player switches to the future and is on the long pole. The player then jumps across to the other side.

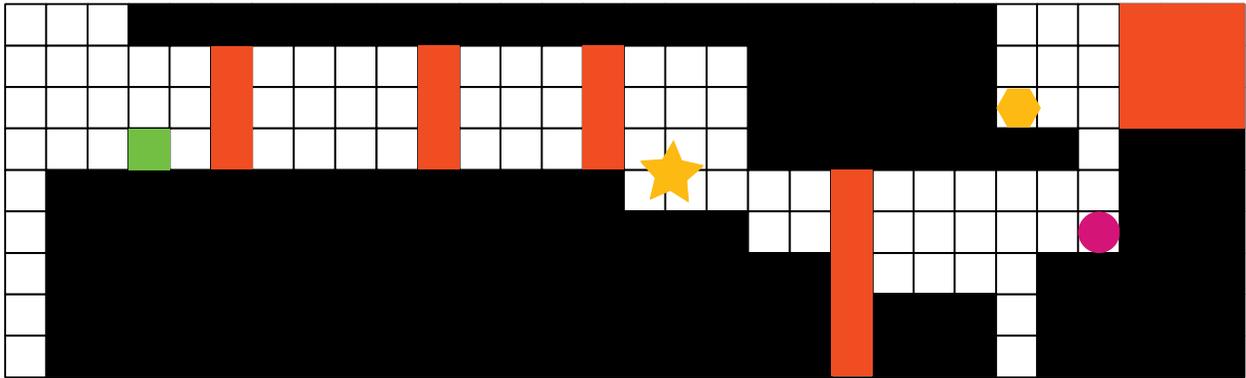
The player takes the green vial jumps to the next level. The Charger runs at the player. The player switches then the Charger runs off to the next level.

Puzzle 4



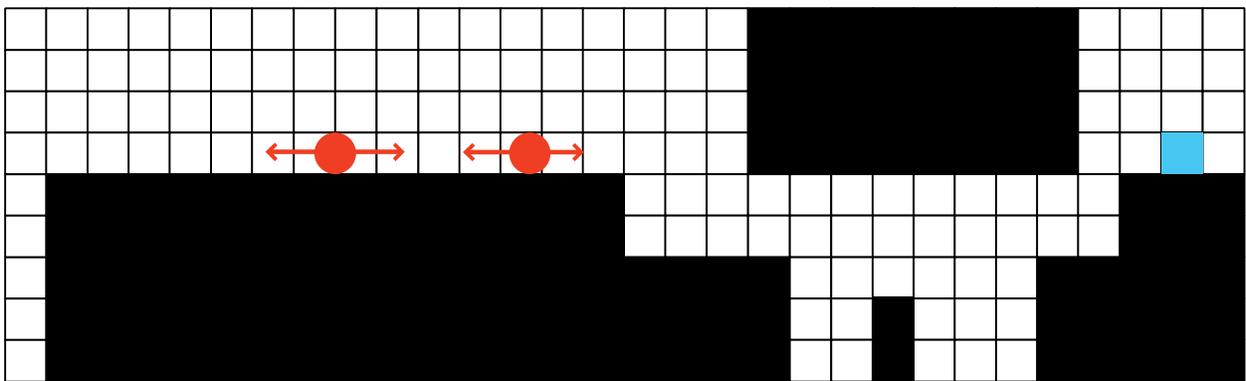
On the second platform, the player jumps and switches to land on the ground with the green vial. He waits for the platform to reach the right. The player jumps and switches on the platform. Then the player jumps over the small beams. The platform then takes the player to the next area.

Puzzle 5



Puzzle 6

Puzzle 5



Puzzle 6

- Present Enemy
- Future Enemy
- Energy Beam
- ◆ Beam Switch
- Pushable Block
- ★ Checkpoint
- Dimension Vial
- Ladder
- ▲▲▲ Spikes
- Moving Platform

The player takes the green vial (lasts 30 seconds) then waits for the right time to switch to cross the beams. The player has to avoid the Wanderers, if they get too close the player switches out. The player can't jump over wanderers without being injured.

Once the player passes the three beams, the player switches to the future and jumps on the small pole. The player then switches to the present and jumps to the spot near the charger and switches. The player jumps to the second level and pushes the block below. He switches to the present, then jumps on the block and uses the switch to turn off the beams. Section 4 complete!

LEVEL FOUR: CITY AND JUNGLE

- **Size:** Around 500 units in length
- **Difficulty:** 2.5 (medium)
- **Goals:** Reach the Science Facility, Find vines and ropes
- **Challenges:** New Flying enemies, tricky swinging introduced
- **Enemies:** Shooting Guards, Wandering Monsters, Flying Monsters, *Giant Ape Boss*
- **Obstacles:** Pits, Falling Rocks, Balancing Rubble
- **Skills Used:** Switching, Climbing, Ducking, Jumping, Pushing, *Swinging*
- **Rewards:** Player arrives at science facility at the end

Swinging is introduced to the player. The level is very jungle like and for the first time the player will be in the future dimension more often than the present. This level focus on the player's timing skills by having less puzzles and more ropes to use. The player will also have to find ropes and vines to use in some parts of the level.

The boss is a giant ape like monster. The boss area is al vine and some platforms. There is no solid ground at the bottom. It will swing around the level and land on the player to attack. When it lands on a platform, the platform will fall. The boss will then grab a rope to prevent falling. The player has to get it to land somewhere that there are no ropes to grab onto. The player will then switch out and the boss will fall below.

LEVEL FIVE: SCIENCE FACILITY

- **Size:** Around 600 units in length
- **Difficulty:** 3.5 (hard)
- **Goals:** Get to the time machine
- **Challenges:** Both worlds are equally dangerous, Specialists introduced (they take away player's dimension preview)
- **Enemies:** Shooting Guards, Robots, Specialists, Wandering Monsters, Flying Monsters, Giants, *Mad Scientist & Snake Boss*
- **Obstacles:** Pits, Falling Rocks, Balancing Rubble, Electric Beams, Trap Doors
- **Skills Used:** Switching, Climbing, Ducking, Jumping, Pushing, Swinging
- **Rewards:** Player finds out a lot about his history, and the company history. New areas opened at end of level.

This level tests the player in all areas. The player will have to use combinations of all the skills they learned. They will get surprises from the giants rising out of the ground. The vials will be very important in the level, since the specialists will take the dimension preview away from the player. Before the player switches, he will have to get a vial since a risk of switching into enemies is high. The level has a lot of moving machines that can help or harm the player. The robots give a new treat by their sirens that increase human movement.

The boss battle has 2 bosses in each world. The player will have to get vials in order to see the other boss in the other dimension. The scientist is in a robotic armor while the snake is 2 times the length of the player, burrows underground, and pops out. The snake is like a smaller version of the giants. Both bosses aren't working together, they're just both after the player in both dimensions. The player has to defeat the scientist to win the battle. This is achieved by using the time machine and switching the snake into the present. The snake will last for 3 seconds then disappear. The player has to lure both of them together then switch in the snake.

LEVEL SIX: CAVES

- **Size:** Around 500 units in length
- **Difficulty:** 3 (medium)
- **Goals:** Find a way out of the facility
- **Challenges:** Low visibility, enemies that move through walls
- **Enemies:** Charging Guards, Shooting Guards, Wandering Monsters, Chasing Monsters, *Jail Boss*
- **Obstacles:** Trap Doors, Falling spires
- **Skills Used:** Switching, Climbing, Ducking, Jumping, Pushing, Swinging, *Throwing*
- **Rewards:** Player finds out more about the company's subjects

The player is introduced to throwing objects at enemies to distract them. Light is scarce in the level, the player will need to turn on lights from control panels. The future world has the least light from been in caves, the present world has many jail cells the player can trap guards in. The player will use the jail cell to lock enemies in.

The jail guard will try to get cages to land on the player then kill him. The player has to throw objects to distract the guard. The player then has to switch to the future navigate in the dark and switch back to the present to activate cages to land on the guard.

LEVEL SEVEN: UNDERGROUND SCIENCE FACILITY

- **Size:** Around 450 units in length
- **Difficulty:** 4 (hard)
- **Goals:** Free people in the facility
- **Challenges:** Low visibility, enemies that move through walls, giants cause rocks to fall
- **Enemies:** Shooting Guards, Robots, Specialists, Wandering Monsters, Chasing Monsters, Giants, *Giant Flying Boss*
- **Obstacles:** Trap Doors, Conveyor belts, Falling spires
- **Skills Used:** Switching, Climbing, Ducking, Jumping, Pushing, Swinging, Throwing
- **Rewards:** Player talks to some prisoners, gets new information.

The player will have to find many batteries in the level to power up machines. Conveyor belts will be turned on that can force enemies in a different direction. Giant monsters will cause rocks to fall down

on the player. The player will come across a giant tube containing a monster. The player will accidentally free the monsters (who are the switchers).

The player will fight a giant flyer that will drop rocks on the player. The player will have to get spot lights from the present and bring them from the future to blind the flyer. The player will then have to tie the flyer with vines to a machine that will electrocute it.

LEVEL EIGHT: FACTORY

- **Size:** Around 600 units in length
- **Difficulty:** 5 (very hard)
- **Goals:** Shut down the factory
- **Challenges:** Environment always moving, risk of been crushed by machines, shifters
- **Enemies:** Charging Guards, Shooting Guards, Robots, Specialists, Wandering Monsters, Flying Monsters, Switchers, *Switching Boss*
- **Obstacles:** conveyor belts with crushing machines
- **Skills Used:** Switching, Climbing, Ducking, Jumping, Pushing, Swinging, Throwing
- **Rewards:** Player puts an end to the company's weapons, more info on company history

The player will have to use the switchers to defeat enemies. When the player needs to get rid of a switcher and a robot, he would lure both together and they'll kill each other off. The player will have to control conveyor belts and walk on them. The conveyor belts will have machines crushing that the player will have to doge.

The switching boss will be a number of stages. Unlike the regular shifters, the switching boss can switch to whatever dimension it wishes to go in. The switching boss can go in the other dimension then switch on to the player. The player will need to find vials to survive the battle. The only vials that are created are the small ones that last for 10 seconds, which randomly spawn in different areas. The player damages the boss by bringing it near enemy robots that attack it. The player will have to bring it to 5 robots to defeat it.

LEVEL NINE: MILITARY FACILITY

- **Size:** Around 700 units in length
- **Difficulty:** 6.5 (extremely hard)
- **Goals:** Destroy the final time machine
- **Challenges:** Constantly changing future environment
- **Enemies:** Charging Guards, Shooting Guards, Robots, Specialists, Cars, Wandering Monsters, Flying Monsters, Giants, Chasers, Shifters, *Queen Boss*
- **Obstacles:** Pits, Falling Rocks, Balancing Rubble, conveyor belts, crushing machines, trap doors, electric beams
- **Skills Used:** Switching, Climbing, Ducking, Jumping, Pushing, Swinging, Throwing

- **Rewards:** Seeing the future restored

The final level tests the player in all skills they learned throughout the game. It also has all the enemies in the game. The level will start with the easy enemies used in a more tricky way. Then the level will add more enemies and mix them all up. The shifters will cause a lot of havoc for the player and the enemies. In the future giants appear often compared to other levels. The cars will drive in and unload enemy humans.

At the end of the level, a scientist puts the time experiment into action and the machine brings the queen monster to the present. The player will have to fight both versions of the queen monster in the two dimensions. The first thing the player has to do is get the queen in the present to weaken the ground so the future one won't be able to sit on the nonexistent ground. This is done by getting the queen to attack the ground the player is at. After the queen in the future doesn't exist in that area anymore, the player can use shifters from the future to kill the present queen. The player lures the shifters to where the queen would be then the player runs out of the way and shifts. The shifters then shift into the queen, die, and damage the queen. The player couldn't do this before because the queen from the future was in the way. In the second phase where the future queen is gone, the ground consists of small platforms. The player will have to use ropes and jump to get around.

THE PHYSICAL WORLD

The physical world of TimeSwitch is all made up of abstract vector shapes. The world mainly takes place in a city and buildings inside that city.

KEY LOCATIONS

The player is in one city for the first part of the game. In the city, the player will travel on top of buildings, on freeways and in power plants.

The next key location is the Science Facility. It has the first time machine in the building. The facility goes underground where they hold prisoners to test on. In the future, the underground facilities are caves.

The next key location is the factory. This is where the company produces all their robots, weapons and materials for the time machine.

The final location is the Military Facility. It is heavily secured because the last time machine is there. In the future the area is the central spawning point of the monsters. The queen monster lives there.

TRAVEL

The game is a linear level based system. The player travels in the world by completing each level. When the level is completed, the player will be brought to the next level. The game has no in-between world map that the player moves on, like in Donkey Kong or Super Mario World.

When the player is transferring to the next level, there will be a loading screen showing the level name with a short description and image of it.

SCALE

1 unit is the length and height of the player.

The average screen size will have around 10 units in it. Levels have to last around 1 hour (with check/save points every 5-10 minutes). The player will spend 30 seconds to 2 minutes in every screen depending if there is a puzzle or not. Therefore, an average level will have 50-60 screens and 500-600 units to last an hour. The player travels 1 unit per second, so walking in a straight line with no interruptions will take an average of 10 minutes.

OBJECTS

The player can interact with the following objects.

*<See **Power-Ups** for info on the vials the player can get in the game. See **Item details** for other items the player can use in the game>*

CHECK POINTS

Checkpoints will allow the player to continue from that spot no matter how many times they die. When the player loads their game, the game will start at the last checkpoint reached (even if they saved a bit after the checkpoint). Checkpoints appear every 5-10 minutes in a level. Checkpoints are activated once the player is standing in front of them.

HEALTH PACKS

Health packs will give the player +1 health. If they are already at 2 health, nothing will happen. Health packs are used when the player walks on them. Health packs won't re-spawn after they are used.

FLASHLIGHT

The flashlight is found in the caves and underground facility. It gives a radius of light around the player when he is holding it. The radius expands 2 units out from the player, and is a full circle. The player drops the light by pressing the *cancel* button. The flashlight is automatically picked up when the player walks on it. The player will see the main character holding the light in his hand.

*<See the "**Objects**" Appendix for a list of all the objects found in the world.>*

TIME

The game doesn't have a timer and there is no day night cycle. The time of day in areas is predetermined.

MUSICAL SCORES AND SOUND EFFECTS

The game will have a quiet, lonely, mysterious feel. A lot of that feel will come from the ambient soundtrack and the environment sound effects.

SOUND DESIGN

The player will need to hear things coming to warn them. A perfect example is the fast moving vehicles will have a quiet sound panning from one side. When the vehicle crosses the player, the sound will move to the other side.

When the player is in the caves, his foot prints will echo as he walks.

SFX

- City SFX such as ambient city sounds, car engines, and honking
- Common SFX such as wind, birds, crickets, water and waves
- Jungle SFX such as moneys, big birds, roars and insects
- Cave SFX such as water drops, ambient cave hums
- Animal SFX for Monsters such as, growls, grunts, low pitches roars, low crow sounds
- Military SFX for humans such as bullet sounds, reloading sounds, sirens
- Machine SFX such as beeps, smashing, ambient factory sounds, gear turning, clanks
- People SFX such as footsteps, knocking, landing

VOICE-OVER

The game will need simple grunts for when the character is hit. The voice will need to be male and female. Other voice-overs would be laughs and shouts from enemies. The player will also make a sound as he's jumping.

MUSIC

The music is an ambient, trance synthesizer soundtrack. During the levels the music is more laid back and mysterious. In boss battles, the tracks faster and uses fast tempo techno style songs.

Different versions of the same track will be useful to change the feel of the level without changing the song. An example is when Mario gets Yoshi the background music gets drums added. When the player gets in a more dangerous area the music will get different instruments. When the player is in a puzzle area, the music will get simpler.

EXTRA MISCELLANEOUS STUFF

Here are some ideas I am still unsure of to add to the game. They either would add too much work for development or don't fit the vision enough.

SWITCHING IN WALLS

Exploring possibility of when the player switches and there is a wall in the way, they will switch back to the dimension they were in originally and get one health taken off. The current way is the player automatically dies when he switches into a wall. This doesn't add much more work to add the feature, adding it would just change the flow of the game a bit.

ROPES CAN TIE UP ENEMIES

The player can also use ropes and vines to tie up human enemies. Tying up works similar to tossing objects. The player tosses the rope like a lasso and catches the enemy. The enemy would be permanently tied up. This doesn't fully conflict with the vision of "No direct combat". It does require new animations and code.

DRIVE VEHICLES AND RIDE TAME MONSTERS

Possible bonus rounds in the game where the player can fly helicopters and on the back of tame monsters. This will give the player a nice action sequence in the game and a nice break from always avoiding enemies. In these rounds the player will be able to be destructive similar to those helicopter assault flash games. The bonus rounds would fit well before and after the factory level.

The problem with this idea is that it would need a new set of movement controls, new vehicle models, new animations, more units to balance and it doesn't fit the vision well.

FREE PRISONERS

The player gets to free prisoners throughout the game. A prisoner could tell the player about the company or give the player an item (like health pack or ropes)

PUSH

Player can push enemies from behind. The enemies could fall off roofs when their pushed off. While this would be fun and opens new gameplay opportunities, it also doesn't fit the vision of "No direct combat with the enemies". However pushing the enemies has to be done from behind only, so you could make a puzzle situation out of that. When the player pushes an enemy and nothing happens to the enemy the player will be attacked by the enemy and will most likely die.

OVERVIEW

The UI in TimeSwitch is very simple and clean. The main menu screen has Options, Credits and File Load Select screen. During the game, when the player pauses, an options pause menu will be brought up. It takes one click to start a new game and two to load a game.

UI DETAIL

The game starts out showing the publisher logo, then fading to the developer logo. After, the game logo is shown and the menu fades in behind the logo. The player can skip the intro logo by pressing any button. If there is no load file detected, *New Game* will be selected and *Load Game* won't be accessible. When a load file is detected, for convenience, *Load Game* will be selected at the start.

IN GAME UI

During the game, the player will encounter three different screens.

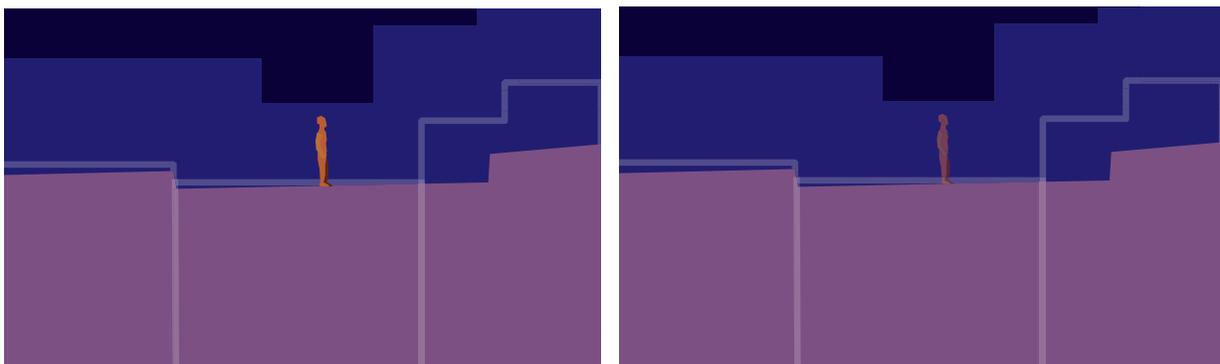
The first is the *Pause Menu*, where the player can save their game (which will bring them to where they want to save the file), exit to the *Menu*, exit the game entirely, or resume back to the game.

Then the other is the *Document/Computer* screen that pops up when the player finds data in the game shown in *Silent Mystery*. Here the player will read info, watch a video or look at an image and can navigate around. After, the player exits the screen by pressing circle.

When the player dies in the game, the *Player Death* screen will pop up. The player will choose to quit the game or load their latest file.

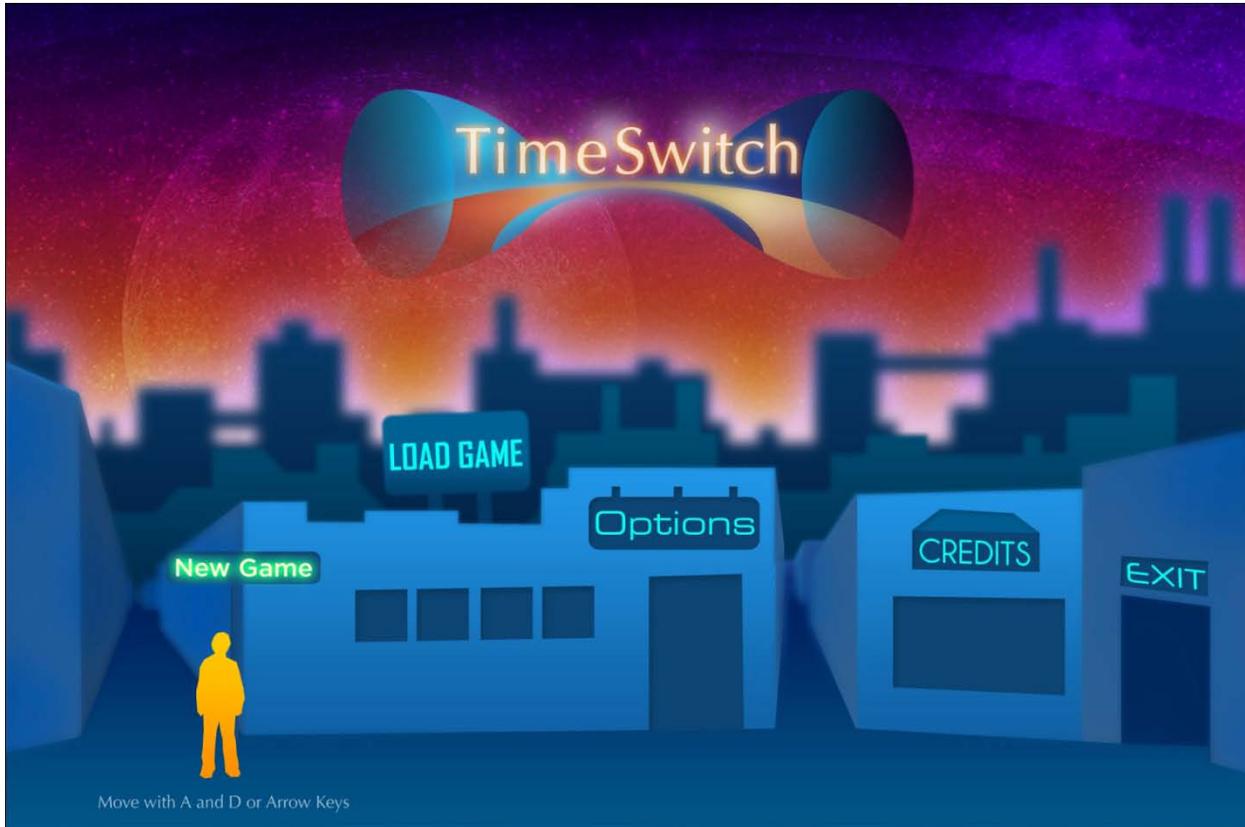
“HUD/ON SCREEN DISPLAYS” APPENDIX

Technically, the game has no HUD, since the game isn't about score and time. The player's health is displayed using the main character. When the player is hit, the main character will be 50% transparent. If the player is hit again, he will die. The item that the player is holding will be shown in the main character's hand.

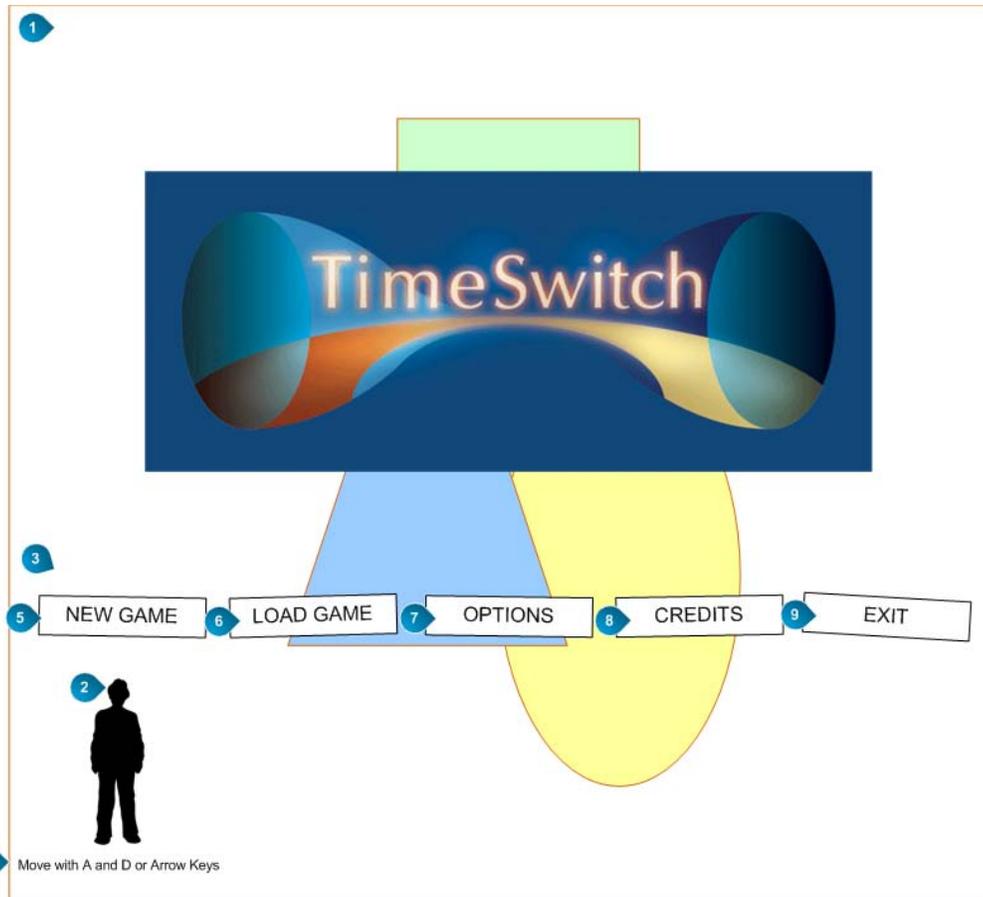


“GAME INTERFACE – WIREFRAMES” APPENDIX

MAIN MENU

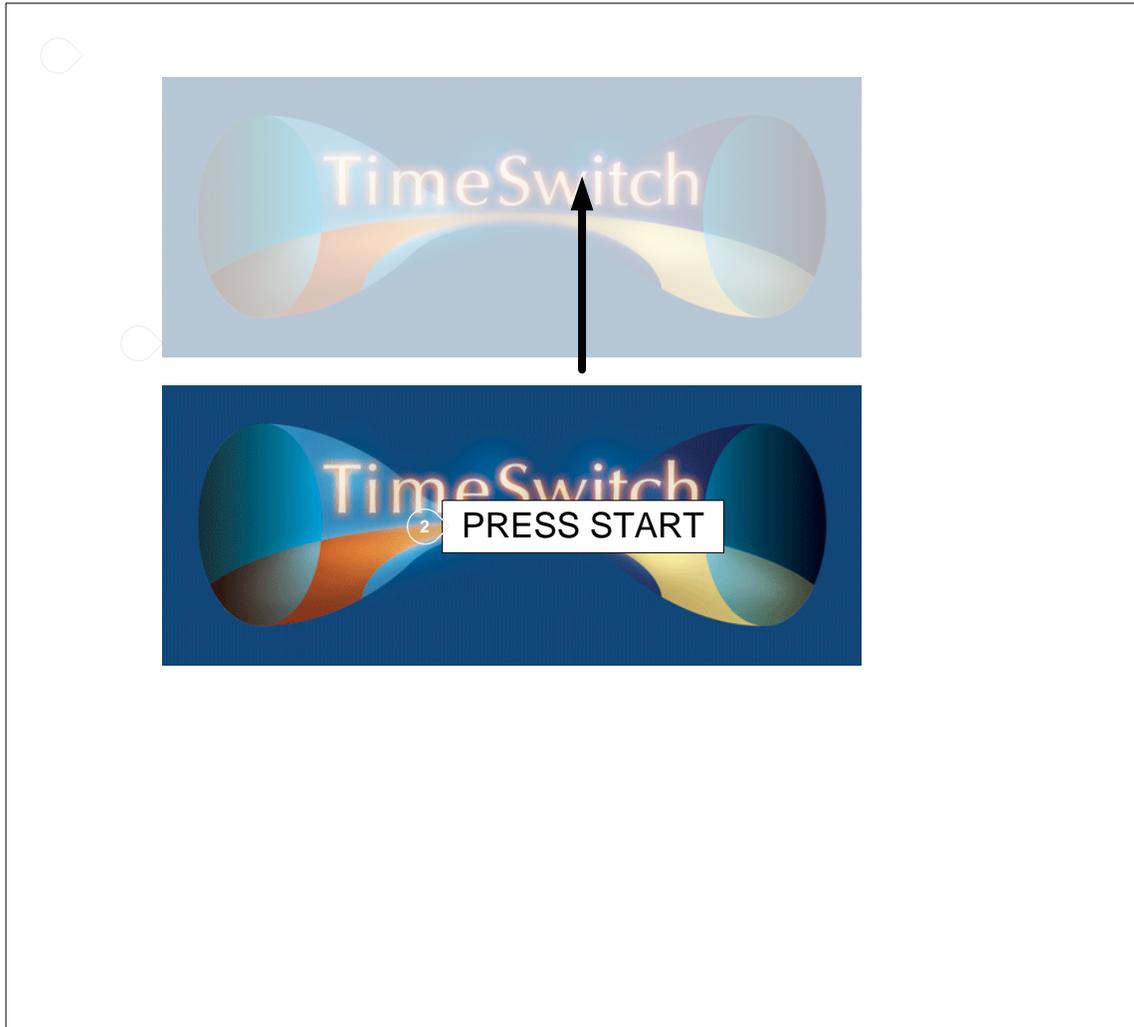


The main menu communicates the whole look of the game. The player will look like the silhouette character and the background will blur into an image. The only exception is the 3D alleys and buildings, in the game, the buildings will look more like the background buildings.



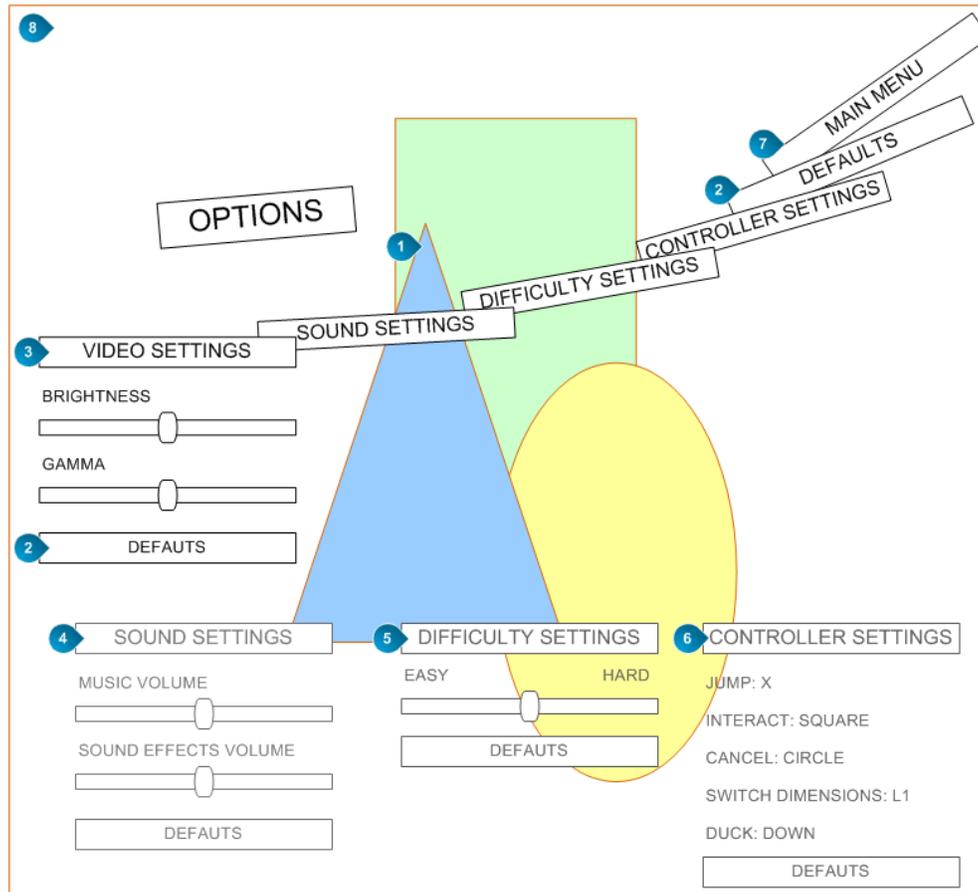
1. Background is an animated scene of the factory environment. When the player Switches dimensions (with L1, LB or shift) the background will change to the destroyed future environment. The screen starts with the logo and black background, then the environment will fade in. If any button is pressed, the environment fades in fast.
2. The main character is controlled by the player. When the player moves, the button he's under will highlight. When no save files are detected, the character will be under NEW GAME and when some are detected, the character will start under LOAD GAME.
3. The buttons are integrated into the environment in the background (and don't have to all be aligned perfectly). For example, Exit could be an exit sign above a door.
4. This description will only be on the PC version. The text follows the character and fades away after 5 seconds. It also will tell the player to press a button to select a menu item.
5. NEW GAME will start the game on default difficulty. A loading screen will pop up showing the control scheme
6. LOAD GAME will bring up a pop-up selection for the player to choose the file to load. When the file is chosen a loading screen will so an image of the world the player is in.
7. OPTIONS will bring up a screen showing sound, video, controller and difficulty settings.
8. CREDITS will fade the background 50% black and show scrolling text of the credits. If the player moves or presses any button the credits will exit.
9. EXIT exits the game.

TITLE SCREEN



1. The screen will first start out with just the logo and the background. The logo will then move towards the upper portion of the screen.
2. After the logo is in the upper position, PRESS START will appear. The player can skip the animation of the logo by pressing start right away. After the player presses start the background fades into the menu background. The logo will be in the exact spot it is in the menu, so it will look like the background is the only thing that changed.
3. The background will start out as black then will fade to a gradient blue and purple colour as the logo is moving up. When the player presses start it fades to the menu background.

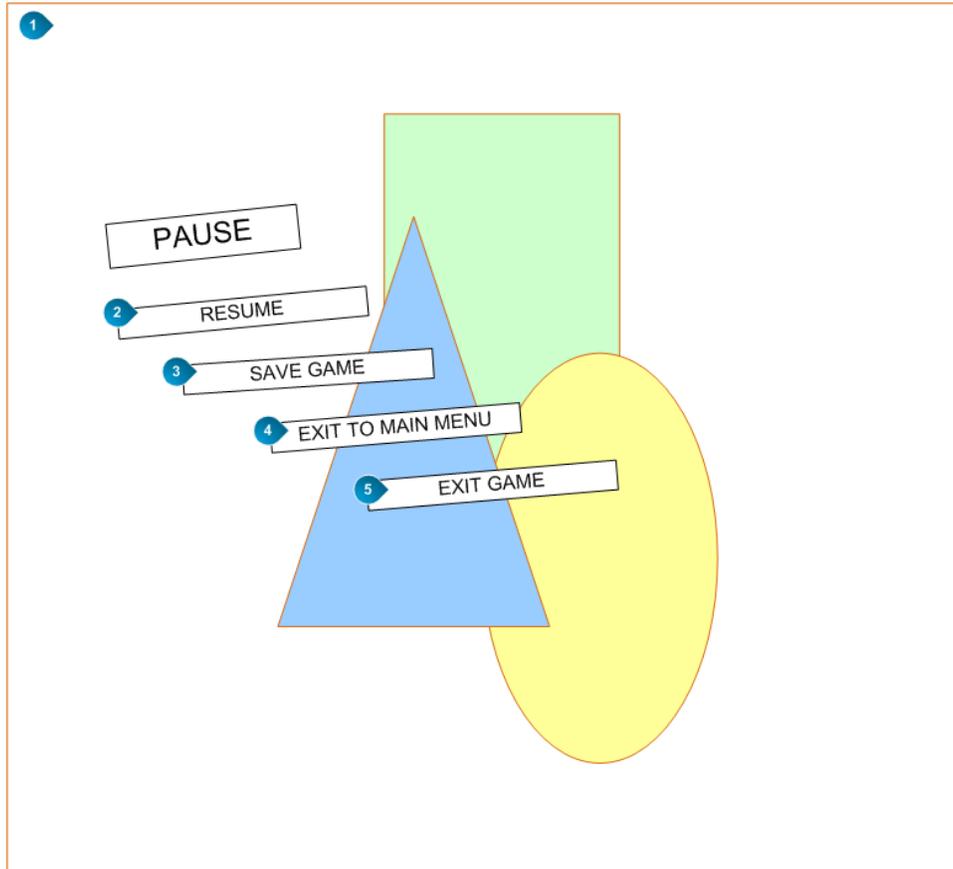
OPTIONS MENU



1. To select each setting, the player moves them left to right. The highlighted one will pull down like the VIDEO SETTINGS. The selected buttons will move towards the center, be brought to the front and rotate to be straight like the VIDEO SETTINGS. To alter the sub menu options the player moves down to them. To select a new main option, the player moves up to highlight video settings then moves left or right.
2. Each separate setting has a DEFAULTS button that affects those separate settings. In the menu there is also a DEFAULTS button to turn everything to default settings. When they choose any of these buttons a message pops up to confirm.
3. The VIDEO SETTINGS has brightness and gamma options. To alter them the player moves down to highlight one, then moves left or right to alter them.
4. The SOUND SETTINGS has music volume and sound effects volume to alter. When music volume is altered, the background music will change. When Sound FX is altered, a scrolling sound will change in volume.
5. DIFFICULTY SETTINGS will change in increments of 3. Right now the difficulty is normal.
6. CONTROLLER SETTINGS will allow the player to change all the controls. They change them by pressing the confirm button (X in this case) and then pressing the button they want. Then they can move up or down to highlight the other options they wish to change.

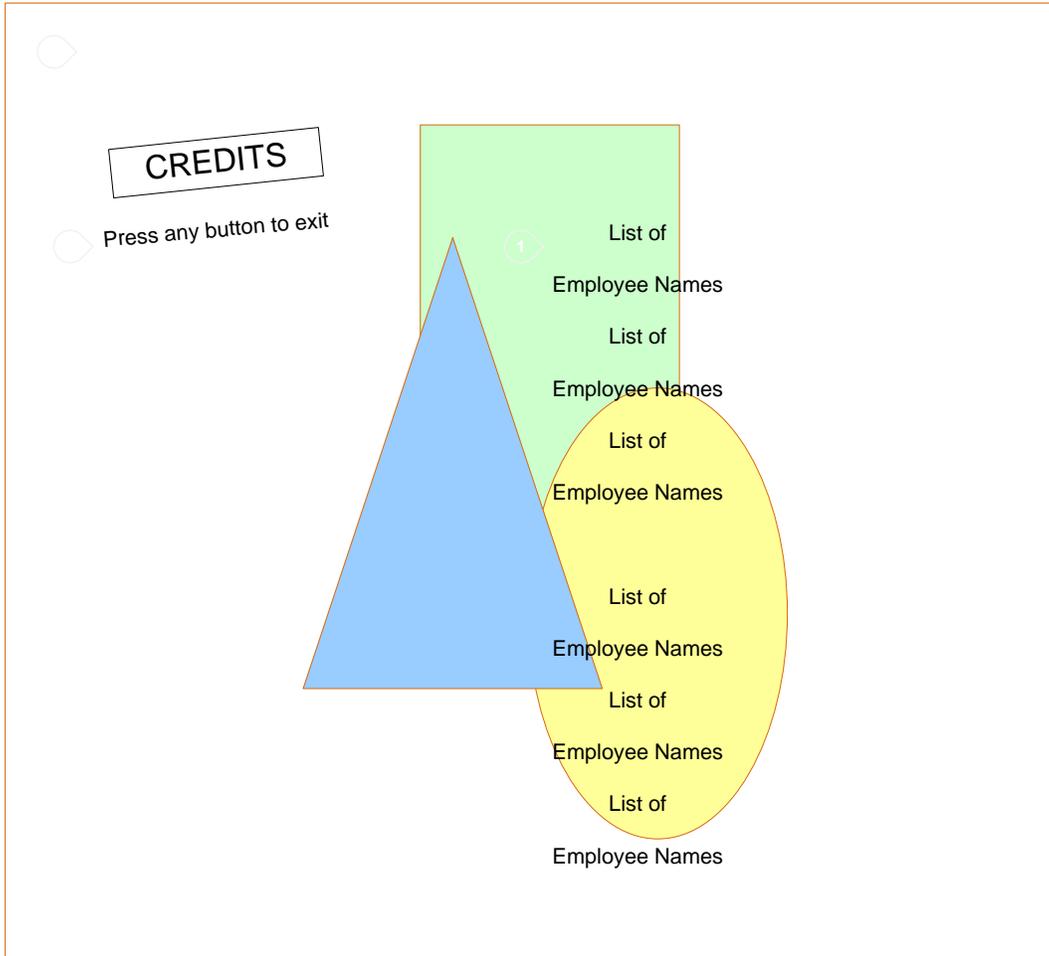
7. MAIN MENU will bring the player to the main menu. All the menu buttons will pile on top of each other then fade to the main menu background.
8. The background will be another environment like the main menu. If the player Switches dimensions (by pressing L1 in this case) the environment changes to the altered dimension.

PAUSE MENU



1. The background will be the screenshot of the paused game faded, 50% darker and blurred. When the game is paused the pause menu fades in. When each button is selected they will glow to tell the player.
2. RESUME will fade back to the game. This is the default button that is highlighted.
3. SAVE GAME will save the current level the player is at. The player won't be able to start at the same position in the level, they start at the beginning or a checkpoint.
4. EXIT TO MAIN MENU brings them back to the main menu. The screen will fade to the main menu environment. A message will pop up confirming that they want to exit (the game won't save).
5. EXIT GAME will exit the game entirely. A message will pop up confirming that they want to exit (the game won't save).

CREDITS MENU



1. The credit list will move up from the bottom of the screen. It will fade out as it gets close to the top of the screen.
2. The background image is the same style as the other backgrounds, except it is inside a restaurant looking place.
3. When the player presses any key or button, the credits will exit to the main menu.

LOAD GAME MENU



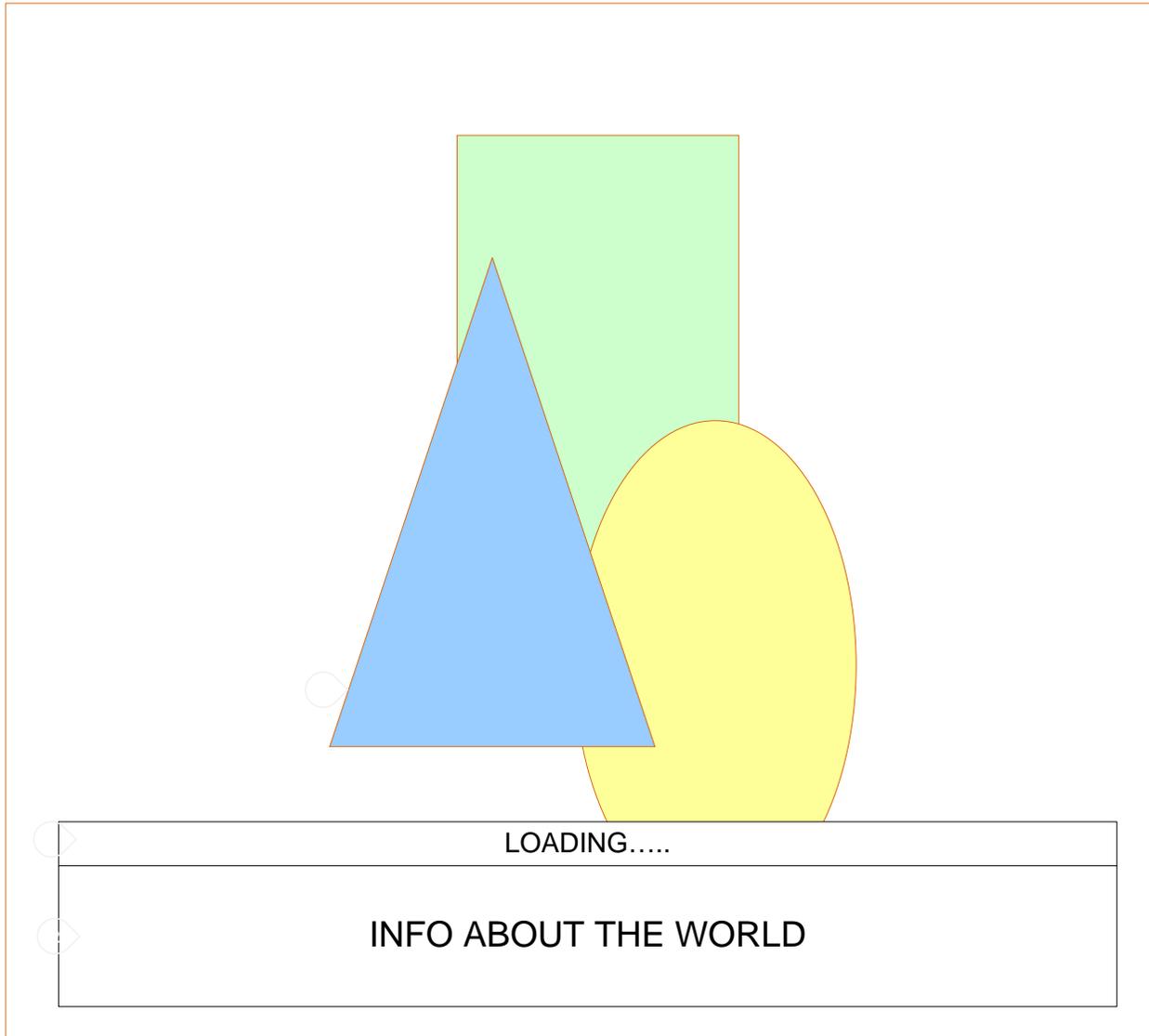
1. The files are displayed as poster images on a billboard (since this menu is a zoomed in version of the LOAD GAME button on the main menu). The posters have a picture of the area the player was in the time the game was saved. There is also text telling the hours played, the area the player is in and the last time saved. The first file is always the most recent. The other files stay at the same spot from where the player saved them last.
2. MAIN MENU will bring the player back to the main menu. The fade will zoom out from the billboard, back to the street menu view
3. MORE SAVES will change all six slots to other slots. These slots will be used rarely. The limit of save slots is 24.
4. The background is the billboard shape with tops of buildings, in the same vector art style used throughout the game.

SAVE GAME MENU



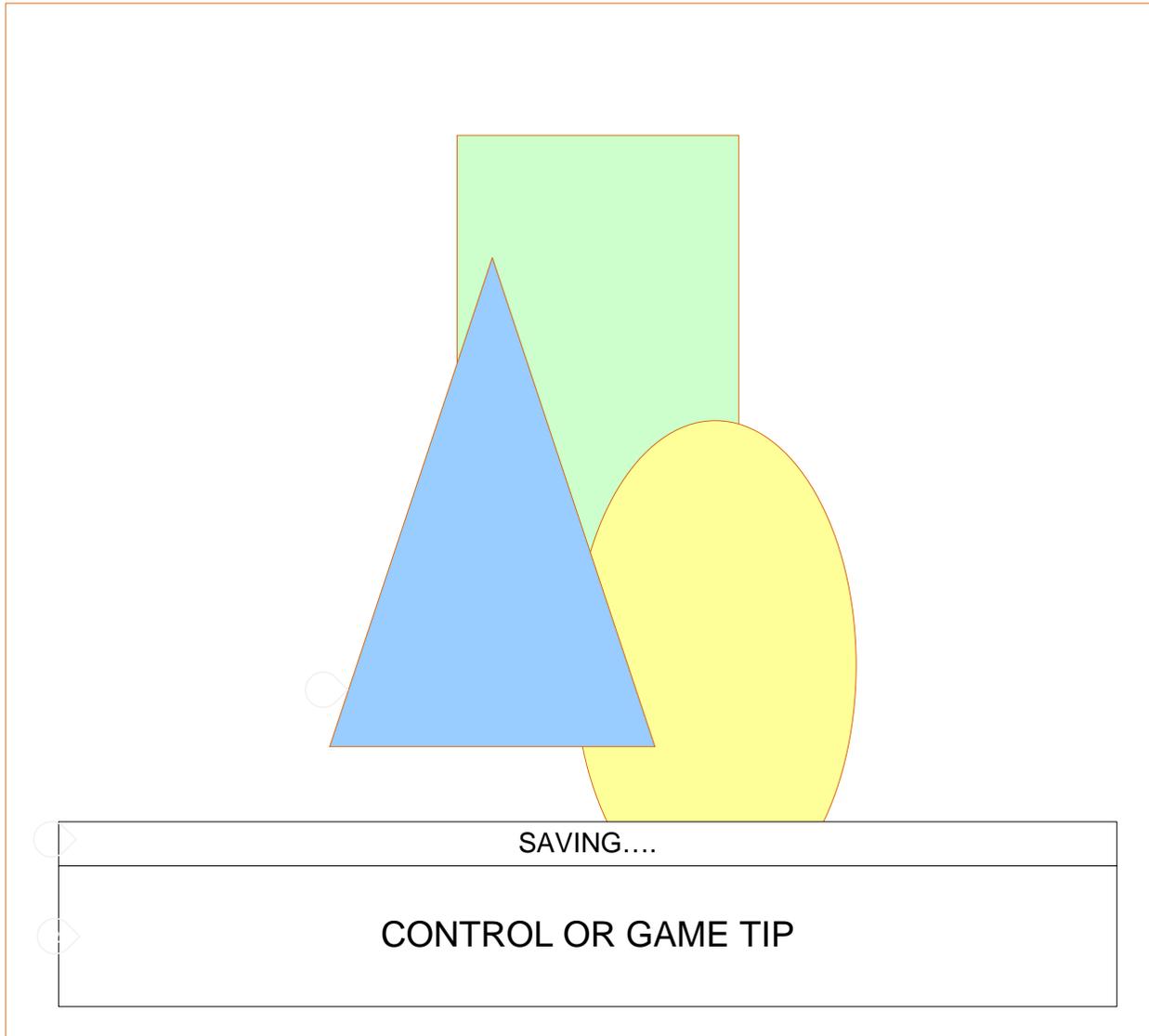
1. The slots are displayed as posters on a billboard. A slot that has no data in it is a blank poster paper with the text NEW SAVE. Slots that have a save file in it, have an image displaying the area the save is in. Used slots also show the date saved and hours in the game. The top left square is taken away because that slot is used to show the most recent save.
2. CANCEL will bring the player back to the pause menu.
3. MORE SLOTS will change all five slots to other slots. These slots will be used rarely. The limit of save slots is 24.
4. The background is the billboard shape with tops of buildings, in the same vector art style used throughout the game.

LOADING SCREEN



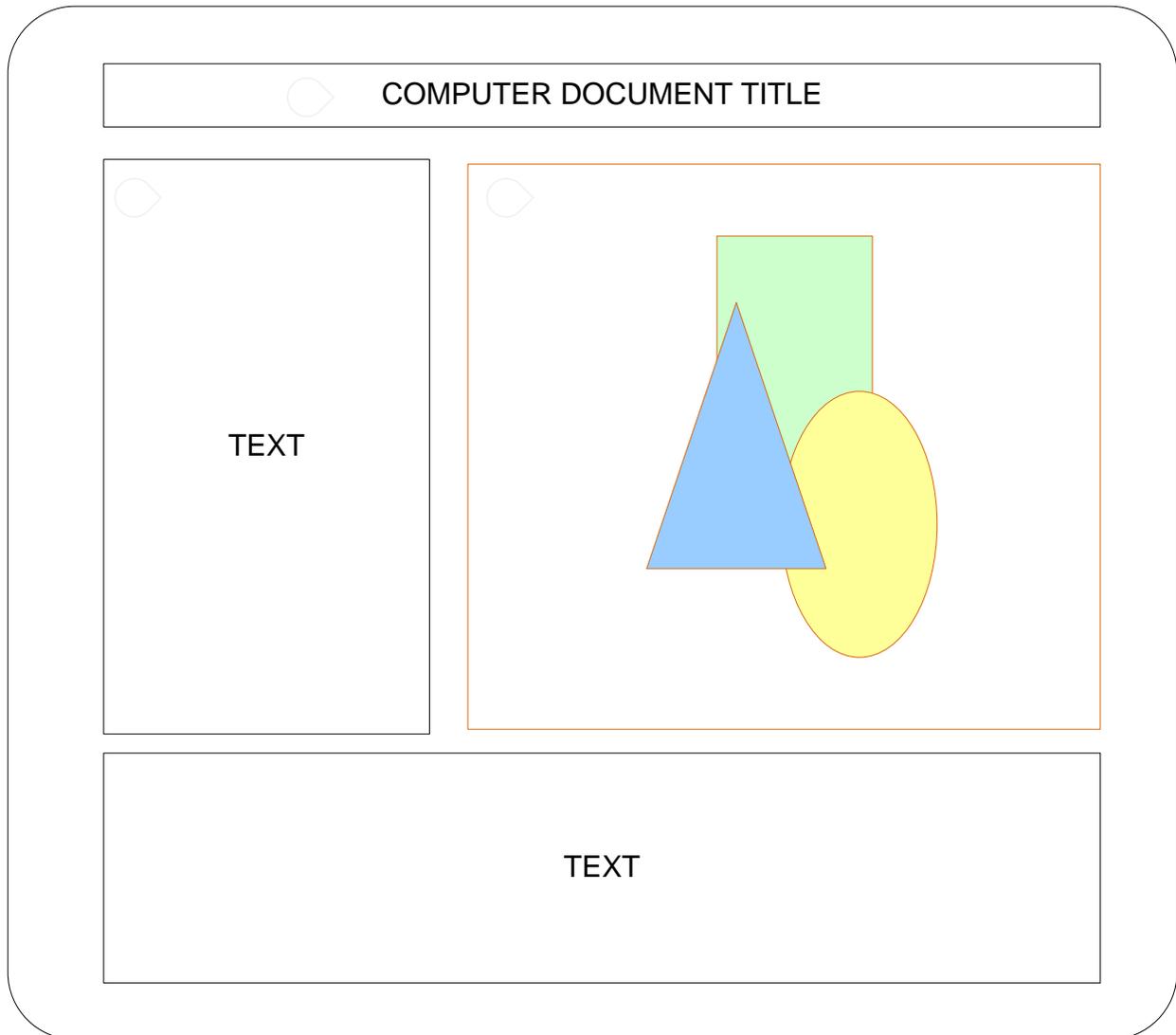
1. The **LOADING** bar shows the loading progress. It also has the text "Loading..." on it. Once it is finished loading, the text changes to "Finished, press any key to continue." The text blinks to get the player's attention.
2. **INFO ABOUT THE WORLD** gives a brief description of the level the player is about to play in. The info also gives any important story that the player took part in.
3. The background is a screenshot of the level the player is going to join.

SAVING SCREEN



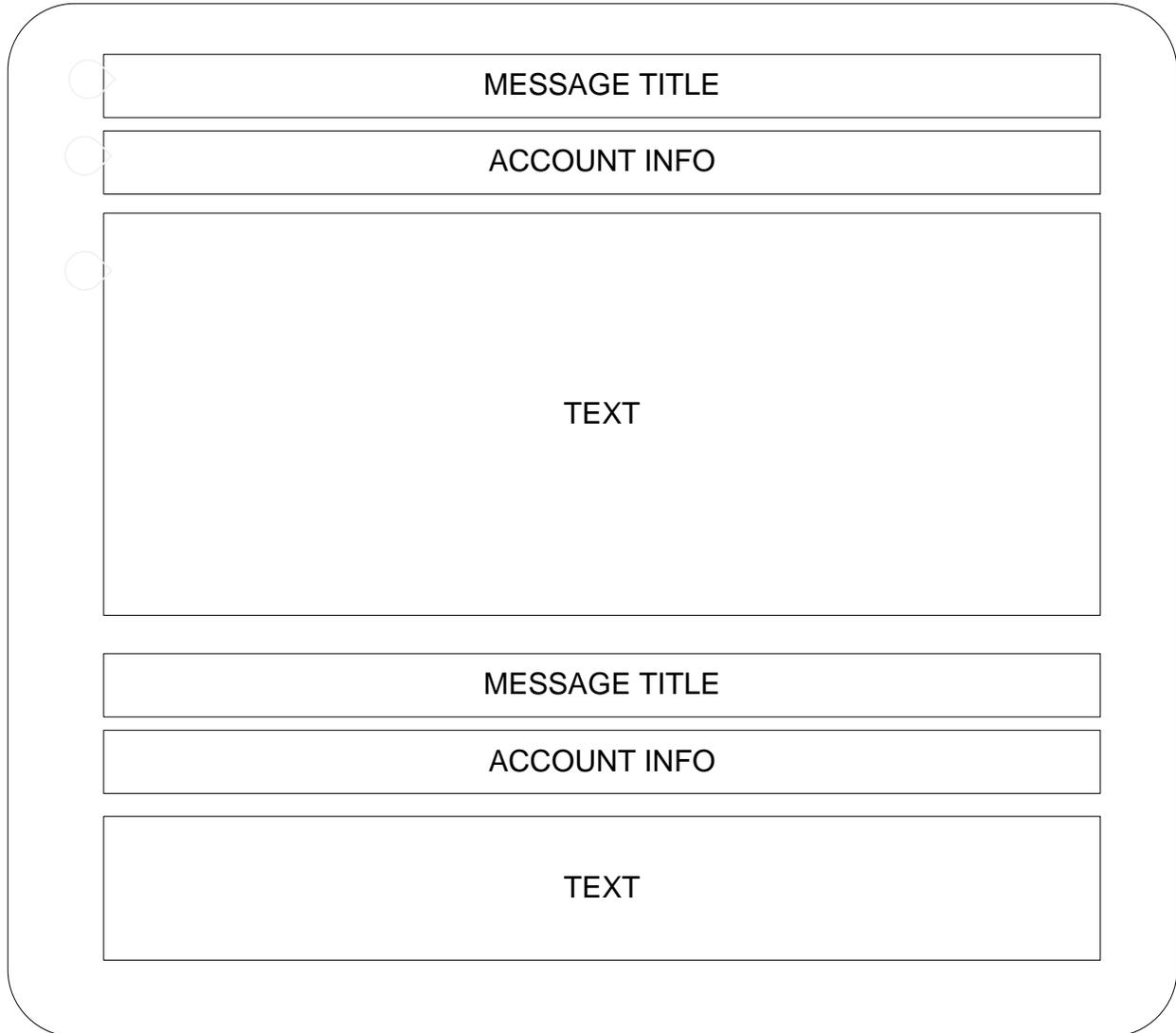
1. The SAVING bar shows the saving progress. It also has the text "Saving..." on it. Once it is finished saving, the text changes to "Finished, press any key to continue". The text blinks to get the player's attention.
2. CONTROL OR GAME TIP tells the player about some mechanics in the game or controls in the game. It chooses the tips randomly.
3. The background is a picture relating or to help describe the tip.

DIGITAL DOCUMENTS



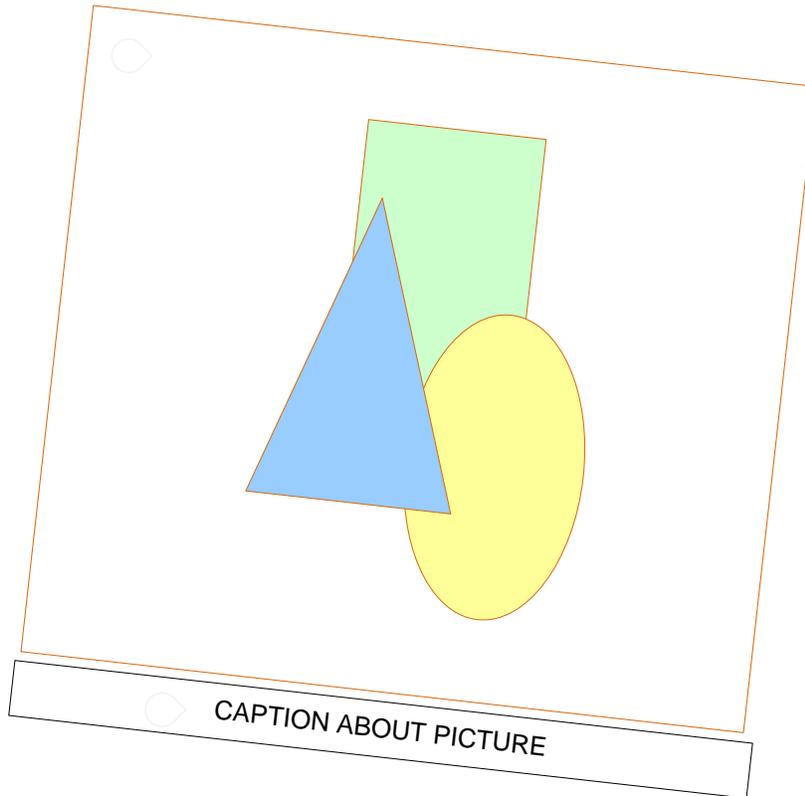
1. The title relates to what the document is about.
2. The text gives more in depth info on the media file. Text is not always required. For instance, you wouldn't need text for a security camera footage. In that case, the video takes up the whole screen.
3. The media file can be images or video footage.

EMAILS



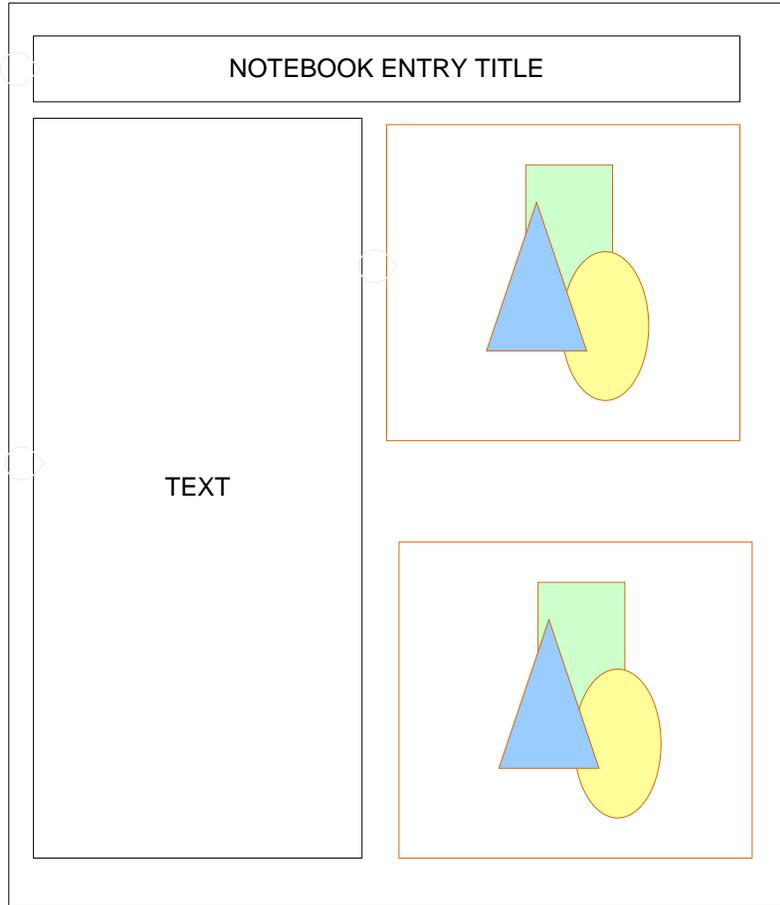
1. The TITLE relates to what the email message is about. It also tells the player if it's a reply or forwarded message.
2. The ACCOUNT INFO shows who sent the message to who. It also tells when the message was sent.
3. The TEXT is the bulk of the message. The writing in emails is more casual compared to writing in documents.

PHOTOGRAPHS



1. The picture is a still picture taken by someone. The pictures from the future are more gritty and torn compared to the present pictures.
2. The caption is something handwritten by the photographer. A caption is not always needed with the image.

NOTEBOOKS



1. NOTEBOOK ENTRY TITLE is the title of the study or journal entry. It can also have the author of the entry.
2. The images are still pictures or drawings.
3. The text is the in-depth data of the entry.

“STORY” APPENDIX

The main character was a lead scientist in the cooperation that conducts the time experiments. His own experiments led to a breakthrough and the company put his research at top priority. The company went too far though and started testing on people. The main character couldn't stand this abuse to people and objected to the research. His objections caused him to be a prisoner in the cooperation.

The company decided to test the experiment on the main character which produced abnormal results. The main character was sent to the future and saw the destroyed world. He was able to get out of the now destroyed company building and then he switched back to the present.

The game starts right after he switches back. His sole mission is to find out what happened to the future and prevent it from ever happening.

The player starts out hiding from the company's men. The player then moves to the roofs to hide and finds some information left behind from the company's men. The player then has to fight off a bounty hunter sent after him.

The player takes his journey towards the secret science facility. He arrives at the power plant that powers the company. The plant also blows up once the time experiment is conducted. So the player turns off the plant and has to fight off a robot attacking him.

The player switches to the future and sees the lush jungle that has grown from turning off the power plant. He then heads to the jungle and fights off an ape like monster, after he is at the science facility.

In the facility the player makes his way to the time machine. The scientist is about to turn the machine on and the player interrupts. The scientist is one of his coworkers that helped the player with the discovery. The scientist betrayed him and cared more about the experiment than the people sacrificed. The player uses a monster from the future to defeat the scientist. The player then finds an explosive crate and pushes it off the ledge. The facility explodes and the player switches out.

The player is in a giant crater and the only way out is down into a cave. Here the player comes across strange monsters that can travel through walls. The player finds all tons of prisoners trapped in cells and frees them. The jail guard comes and fights the player. After the player defeats the guard he moves on. The jail turns into another facility that conducts even worse experiments on people. The player comes across a room with a bunch of creatures in glass tubes. The player accidentally pushes a button and the creatures are released. The future now has a large amount of these enemies.

The player gets out of the facility and is on the surface. He has to fight a giant flying monster that is attacking. After the player gets help from one of the prisoners and is taken to the factory. The player shuts down the factory to cut off the raw materials for the company's experiments and war machines. One of the monsters that the player released comes and attacks. The monster has the ability to switch dimensions too. After the battle the player finds that the last time machine is in a military facility.

The player gets help again to be taken to the facility. The player sneaks his way to the time machine and the company owner is about to turn it on. The player tries to talk him out of it, and the owner says "they can make the wring things right, we're too close to give up now." He turns on the machine and the giant queen monster comes shooting out of the time machine and crushes it. The monster was brought from an alternate dimension and it is the source of destruction.

The player has a lot of trouble with the queen since an older version of her is in the same spot in the future. The player uses her minions against her and causes them to switch into the queen and give her damage. After the queen is killed, she starts to explode.

The player switches to the future to avoid the explosion and the entire area has no buildings, the explosion took them out. However, the world is lush with vegetation, there are no monsters and everything looks like it's at peace.

“COMPETITIVE ANALYSIS” APPENDIX

Competitor	Their Features	Comparable Features	TimeSwitch Strengths
Braid	<ul style="list-style-type: none"> -Different ways to use time: <ul style="list-style-type: none"> --Reversing --Alternate reality of the player --Warping time in an area --Moving time by walking forward -The player never dies -Wide variety of puzzles -Painting art style -Some enemies can be jumped on to defeat them -2 different kinds of enemies -Puzzle based 	<ul style="list-style-type: none"> Different ways to use time: <ul style="list-style-type: none"> --Switch between 2 different dimensions --Change the future of the game --Use items from different time zones -The player can die -Wide variety of puzzles -Vector art style -All enemies have to be avoided to survive -Many different enemies and obstacles in both worlds -Mix of puzzle, platforming and reaction 	<p>TimeSwitch will offer the player two different worlds to explore that the player can change.</p> <p>TimeSwitch also has more traditional platforming compared to Braid's puzzle focus and a good amount of puzzle elements. This will attract a wider audience that likes Super Mario and Donkey Kong. The game also has stealth elements that could attract Metal Gear Solid fans.</p>
Echochrome	<ul style="list-style-type: none"> -Change physics and reality based on perspective -Drawing art style -Variety of puzzles -56 levels (small) 	<ul style="list-style-type: none"> -Switch between 2 different dimensions -Vector art style -Variety of puzzles mixed with platform mechanics -9 long levels, separated 	<p>TimeSwitch is a whole world while, Echochrome is only separate levels where each level is a small puzzle.</p> <p>TimeSwitch also has a rich story that helps increase replay</p>

	-Uncontrollable character (like lemmings)	into smaller parts -Controllable character	value. In Echochrome once you finish it, you know all the puzzles and it will be dull.
The Misadventures of P.B. Winterbottom	-Manipulate time to 'clone' yourself -sacrifice past selves so future selves can live on -5 levels with 75 puzzles -Charlie Chaplin art style with Victorian character style -Play the hero and villain at the same time -Multiple approaches to a puzzle	-Switch between 2 different dimensions -Change the future of the game -2 hits and the player dies, health can be found in the world -9 long levels, separated into smaller parts -Vector art style -Multiple approaches to a puzzle	TimeSwitch has a wide range of enemies and obstacles to throw at the player. TimeSwitch also has a unique way of telling the story of the game. Winterbottom has a simple story that won't attract as much people seeking games with story.

“RESOURCE/RESEARCH” APPENDIX

The following can be used for extra information and inspiration.

Books

- ***From Eternity to Here*** talks about the theory of time and could provide some interesting details to add to the game. (http://www.amazon.com/Eternity-Here-Quest-Ultimate-Theory/dp/0525951334/ref=sr_1_10?ie=UTF8&s=books&qid=1269287168&sr=1-10)
- ***The Time Machine*** could provide inspiration on how time affects the world.
- ***Time Travel in Einstein's Universe*** - http://www.amazon.com/Time-Travel-Einsteins-Universe-Possibilities/dp/0618257357/ref=sr_1_1?ie=UTF8&s=books&qid=1272156881&sr=8-1
- ***The Best Time Travel Stories of the 20th Century*** - http://www.amazon.com/Best-Time-Travel-Stories-Century/dp/0345460944/ref=pd_sim_b_5

Movies

- ***The Time Machine*** (1960 and 2002)
- ***Back to the Future*** (1985)
- ***The Butterfly Effect*** (2004)
- ***Planet of the Apes*** (1968 and 2001)
- ***Timecop*** (1994)

- **12 Monkeys** (1995)
- **Road Warrior** (1981) - Apocalyptic Desert Environment
- **Blade Runner** (1982)
- **Predator** (1987) - Jungle Environment

Documentaries

- The documentary **Life after People** shows city environments overgrown from not been maintained.
- **Parallel Universes** - Explores the possibility of alternate universes existing
<http://topdocumentaryfilms.com/parallel-universes/> (low quality)

Websites

- The website <http://www.smashingmagazine.com/> features vector artists and tutorials.
- Industrial photos can be found at **Fotosearch** such as, (<http://www.fotosearch.com/photos-images/industrial.html>)
- http://en.wikipedia.org/wiki/Time_travel
- http://en.wikipedia.org/wiki/Predestination_paradox
- http://en.wikipedia.org/wiki/Ontological_paradox
- http://en.wikipedia.org/wiki/Grandfather_paradox
- <http://www.tenthdimension.com/medialinks.php> - Imagining the 10th Dimension

Games

- The flash game **Canabalt** (<http://adamatomic.com/canabalt/>) has a good style for the different movement of buildings as they are closer to the camera.
- **Myst** for the soundtrack and the style of storytelling
- The song *Don't Look Behind* from **Final Fantasy 8** is the style of the boss battle theme
- **FIOw** - uses vector style characters
- **Flower** - use of silent gameplay (made by Jenova Chen)
- **PixelJunk Eden** - uses vector style worlds
- **Braid** - Simply amazing use of time in different ways
- **Singularity** - uses time on objects to manipulate them (FPS)
- **Metal Gear Solid** - Stealth gameplay inspiration