

## Project 3: Building a Compound Mechanic around an Anchor

### Resource Name

Time

### Resource Description

Time is the anchor resource in our game. It could run out. It serves as a limitation for the players to complete each level. Players will spend time playing the game. It could also be a resource for the players to collect and add to the timer.

### Mechanic name

Platforming

Decision making

### Mechanic description

#### Platforming

- Each game level is based on platforms that the players interact with. Players need to move and jump to another platform to finally reach the goal and go to the next level. Platforms are the game objects for the players to stand and keep them safe from falling.

#### Decision Making

- In general, decision-making is a cognitive process for the players while playing the game. They need to make a choice between different options, usually under a certain amount of time.

### Implementation description

#### Timer

- A timer is used to count the seconds elapsed
- Players get 10 seconds initially
- Each time the player steps on a platform, the player gets the reward in time
- When time goes to zero, the game ends
- Time resets to 10 seconds at the beginning of the game

#### Player Movement

- Players can use the left and right arrow keys to move
- Players can push the space button to jump

#### Platform Interaction

- When the player touches each platform, the color of the platform changes
- When the player touches each platform, it will add 1 second to the timer

- Platforms are not connected but they are close to each other, which requires the players to jump on each platform.

### Decision Making

- In our game, players need to decide which direction or which platform they go or land on during the gameplay. Sometimes the short path can't earn you time, and sometimes a detour can help the player collect more time.

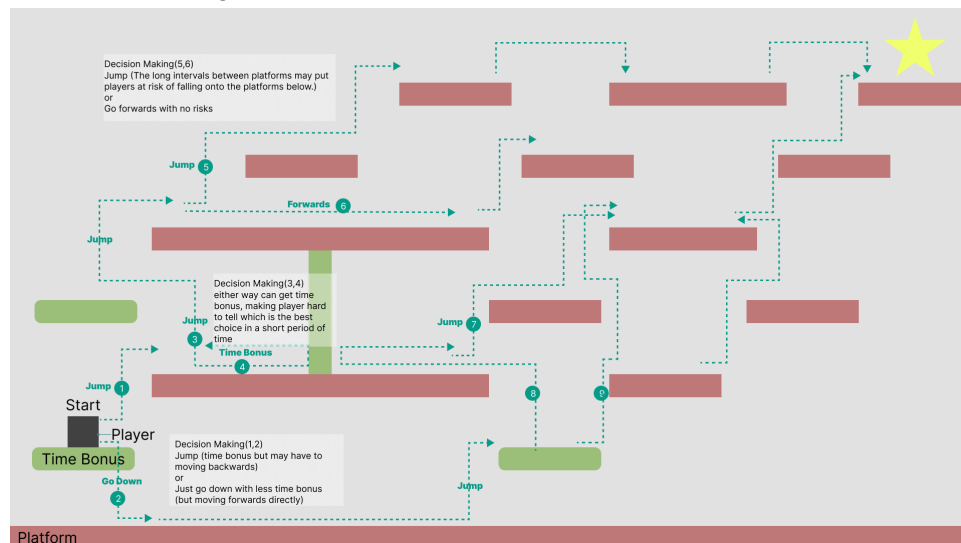
### Level Scene Transition

- The game starts at the beginning spot on level 1
- When the players reach the end spot on each level, they will be randomly transferred to another level.
- When the time on the timer runs out, the game is over.

### Description of how your pattern(s) relate to the prototype.

- <https://patternlanguageforgamedesign.com/PatternLibraryApp/PatternLibrary/2346>
- Our pattern focuses on allowing the player to make decisions under time-limited conditions, increasing the randomness of gameplay. Consequently, in the process of crafting levels, we concentrate on designing multiple paths for the player to make decisions.

For example in the following level:



When starting the game, players need to decide whether they will go upwards or just go down. Choosing to take the path above means more time bonuses, but players may need to jump back and forth, which can be a waste of time moving around. Players start with only 10s, so the time for decision-making is very limited. Moreover, we endeavor to eliminate any clear superiority of one path over the other among the decision-making options for the player. Both paths offer distinct advantages, ensuring that the player's choices are meaningful and the outcome remains unpredictable to the highest extent possible.

Analysis describing the implications of the resource and mechanic explored in your playable prototype.

- Time is the anchor resource. Players start with a 10-second timer. If players run out of time, the game is over. Players receive a 1s time bonus for jumping onto certain platforms during gameplay.

Link to an Itch.io page

<https://xinyichen.itch.io/think-fast>

Link to and summary of Patterns Used.

<https://patternlanguageforgamedesign.com/PatternLibraryApp/PatternLibrary/2346>

Link to a GitHub repository hosting the unity project for this assignment.

<https://github.com/MechanicsF24-Team2/MechanicsT2P3>

Link to a Trello board

<https://trello.com/b/8sPoplHI/project-3>