

# Game Design Document

## DigiPen Institute of Technology

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### **NERDHERD**

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Producer | AI Programmer | Audio Programmer

#### **Sidhant Tumma**

Engine Programmer | Graphics Programmer | Level Designer

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Physics Programmer | Gameplay Programmer | Level Designer

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Graphics Programmer | UI Programmer | Gameplay Programmer

#### **Sairaj Padghe**

Tools Programmer | Script Programmer | AI Programmer

#### **VY Pham**

Artist

# DESIGN OVERVIEW

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The game is a 2D math puzzle platformer, targeting kids. The game is about a school kid who is weak in math and crazy about games. He dreams that he is solving questions in the exam. The idea is to help the kid solve the math questions. Each question would represent a level and the player get the overall score after the game ends. The player must help kid manipulate numbers using math operations to solve the problems.

**TARGET AUDIENCE:** Kids (6-8 yr old )

**RATING:** EC

## Art:

The main game character has to pass through the door to enter to the next question. The player has to help the character get the required number on the final door and clear the level.

Game characteristics:

- The character is in his dream world, with rulers and other geometric tools as the platforms.
- The enemy(Professor) will try to stop the player from reaching the goal.
- The boxes display the number which is can be used by the player to add or subtract the value of the his answer.

Selling point:

- Awesome kid friendly art.
- Makes math FUN!
- Platforming and exploration.

# COMPETITIVE RESEARCH

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The game idea branched off of various platforming games. We thought of the idea to combine platforming with math so that kids can learn. Couldn't find other references as our game idea.

# MECHANICS OVERVIEW

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- Game will have platforming and puzzle solving.
- Character will have 2 tools with which he can add or subtract the number he's thinking of using the number boxes in the world.
- Character will have jump and double jump mechanics
- Pushing certain boxes in environment will be allowed which will be used to solve puzzles
- Boxes can be dropped from a height and be used to reach hard to reach places in the level.

# CHARACTER OVERVIEW

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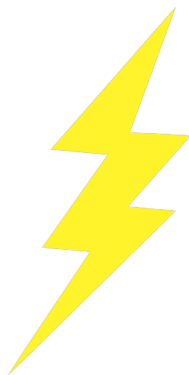


- Main character a human with different math abilities such that the kids can play and evaluate the solution to the problem.
- Professor Enemy: Patrol certain areas in level and will try to stop the player
- BeeBee: The tutorial or helper companion that would help the player in the game as the game proceeds.

# RESOURCES OVERVIEW

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- Tool charges: Charges to restore the number of use
- Number boxes: Numbers to collect from the box using tools to manipulate the number
- HUD : The doors indicate the number to achieve to clear the level



# ENVIRONMENTS OVERVIEW

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- The game will be in a dream world, different environments
- Planets, stars in the background
- School corridors
- Ruler platforms

## NARRATIVE OVERVIEW

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The main story of the character is conveyed using comic strips.



## AUDIO OVERVIEW

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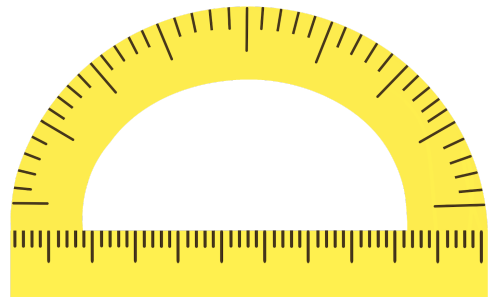
The game will have soothing background music enabling the user to enjoy the game play experience.

Every action will have sound effects for

- Jump
- Running animation
- Tool use
- Level complete
- BeeBee (tutorial)

## ART OVERVIEW

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- Math themed 2D cartoon art
- Rulers, Set Squares and Protractors as platform and elevators.
- School kid character as the player
- Doors as classroom doors
- UFO(BeeBee) as the helper/tutorial
- Lightning bolt to reactivate inactive box

# INTERFACE OVERVIEW

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- Arrow keys will be used to move character.
- Spacebar to jump and tapping it again makes the character double jump
- E to pick the value in number boxes
- F to recharge the inactive box
- A to add with the cloud value
- S to Subtract with cloud value

## Level Design

