

TOOL DESCRIPTION

- **To use your own player, make sure to set the tag to "Player."**
- **If the tag is not set, the elevator functionality will not work.**

Maze Scaler

The *Maze Scaler* script is used to adjust the size and visibility of the maze. With the parameters of this module, the dimensions of cells can be customized.

Parameters:

- **Scaler X & Z** – A Vector2.X variable that sets the size of individual maze cells along the X and Z axes.
 - **Scaler Y (Height Scaling)** – A Vector2.Y variable that sets the cell size along the Y axis.
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Maze Visible Chunk

The *Maze Visible Chunk* script allows defining which parts of the maze will be visible at a given moment.

Parameters:

- **Visible All Maze** – A boolean variable that enables or disables the visibility of the entire maze.
 - If set to true, the player sees the entire maze at once.
 - If set to false, visibility is limited around the player's position.
- **Transform Player (Player Position)** – A GameObject reference representing the player's position.
 - This parameter is only active when *Visible All Maze* is set to false.
 - It dynamically adjusts maze visibility based on the player's location.
- **Visible Terrain** – An int variable that defines the number of visible chunks around the player. The value ranges from **1 to 10** and affects how chunks are rendered.

- **Visible Floor** – An int variable that determines the number of visible floors around the player. The value ranges from **2 to 10**.
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11.3 Maze Generator Manager

The *Maze Generator Manager* script handles the actual maze generation and allows configuration of its shape, structure, and visual elements.

Parameters:

- **Text Interaction** – A TextMeshPro reference used for displaying text interactions, e.g., when a player enters an elevator.
- **Make Roof** – A boolean variable determining whether the maze should have a roof.
- **Wall Prefab** – A reference to the prefab representing the maze walls.
- **Method Generate (Generation Method)** – An enum that selects the maze generation method:
 - Image – Generates a maze based on an image.
 - Default Shape – Standard generation based on a rectangular shape.
- **Shape Maze (Maze Shape)** – An enum defining the shape of the maze cells:
 - Square cells
 - Hexagonal cells
- **Chunk Size** – An int variable defining the size of a single chunk along the X and Z axes.
 - The value ranges from **2 to 150**.
- **Number Of Image** – The number of images used for maze generation (1–12).
 - This parameter is only visible when *Method Generate* is set to Image.
- **Image (Maze Images)** – The images used to create the maze.
 - The alpha channel determines where empty cells will be.

- The number of images corresponds to the *Number Of Image* parameter.
 - **Number Of Floor** – The number of maze levels (1–12).
 - This parameter is only visible when *Method Generate* is set to Default Shape.
 - **Width (Floor Width)** – The size of a specific floor in the maze.
 - It corresponds to the number of floors defined in *Number Of Floor*.
 - **Height (Floor Height)** – The size of a floor along the Z axis.
 - It corresponds to the number of floors in *Number Of Floor*.
 - **Recalculate Maze** – A button that removes all chunks and reinitializes them.
 - Visible only if the maze has been generated and the edit mode is disabled.
 - **Generate Wall** – A button for generating a fully enclosed maze.
 - Useful for manual modifications.
 - **Generate Wall – with destroy Walls** – Generates a maze with guaranteed passability.
 - **Start Edit Mode** – A button to activate the editing mode.
 - When activated, the *Stop Edit Mode* button appears.
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Maze Color

The *Maze Color* script allows setting materials and the color scheme of the maze, including components such as elevators, floors, and wall outlines.

Parameters:

- **Maze Material** – The material (shader) used for the maze.
- **Elevator Material** – The material used for elevators.
- **Edit Material** – The material used in edit mode.

- **Specifications (Style Specifications)** – An array containing visual parameters for each floor of the maze:
 - **Height Floor Texture** – The height of the floor texture (range **0–1**).
 - **Outline** – The size of the outline (range **0–1**).
 - **Height Wall Color** – The height up to which the wall color extends (range **0–1**).
 - **Scaler Texture** – Adjusts the floor texture size.
 - **Color Outline** – The color of the outline lines.
 - **Color Wall** – The color of the walls.
 - **Floor Texture** – The texture used for the floor.
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11.5 Solvable Checker

The *Solvable Checker* script verifies whether the maze is solvable by ensuring there is a traversable path between two points.

Parameters:

- **Start Floor** – Sets the starting floor from which the path is searched.
- **End Floor** – Defines the target floor the player must reach.