



# SMART DOOR TOOLKIT

**Documentation**

**By-Finite Machine  
Studios**

# Script Analysis

The project contains the following scripts:-

- **Door System**: The DoorSystem script controls door interactions based on three types: Basic, Key-Based, and Pin-Based. It uses a HingeJoint for movement and supports key or PIN entry for unlocking. The script also handles locking, unlocking, and UI feedback for PIN-based doors.
- **Key Inspection**: The KeyInspection script allows players to inspect keys by rotating them with the mouse.
- **Key Inventory**: The KeyInventory script manages the player's key collection and interactions. It allows picking up, storing, dropping, and inspecting keys.
- **Key Pickup**: It is the script attached to the Key pickup game object.
- **Pin Pad**: The PinPad script handles player interaction with a numerical keypad for PIN-based door unlocking.
- **Key UI**: The KeyUI script manages key icons in the inventory UI



# Door System Fields

## General Door Settings:

### doorType (Enum)

- Defines the type of door:
  - Basic – Opens without any restriction.
  - KeyBased – Requires a key.
  - PinBased – Requires a PIN.

### anchorPosition (Vector3)

- Manually sets the pivot point (anchor) for the door's hinge.
- Example: (0,1,0) sets the pivot 1 unit above the door's origin.

### hingeAxis (Vector3)

- Defines the rotation axis for the door.
- Example:
  - (1,0,0) – Door rotates around the X-axis.
  - (0,1,0) – Door rotates around the Y-axis (default for most doors).



### openAngle (float)

- Sets how far the door opens, in degrees.
- Example: If set to 90f, the door opens to a right angle.

### motorForce (float)

- Determines the power applied to the door's hinge motor.
- Higher values make the door swing faster and more forcefully.

### motorSpeed (float)

- Controls how fast the door moves, measured in degrees per second.
- Example: If motorSpeed = 90f, the door takes about 1 second to swing open 90°.

## Key-Door System:

### requiredKey (KeyItem)

- Used if doorType is KeyBased.
- The player needs this key to unlock the door.



## Pin-Based Door System:

correctPin (string)

- Stores the correct PIN for unlocking the door.



# Setting Up The Scene

- Drag and Drop the following prefabs from the 'prefabs' folder into the game scene.
  - i. Player (or you can use your own player; just add the Key Inventory script to it, make the canvas prefab a child of it, and assign the necessary GameObjects to the fields of the Key Inventory script).
  - ii. Doors, Pin Pad
  - iii. Blue Key, Red Key
  - iv. Key Inspection camera
- In the Door System field of the Pin Pad assign the Pin based door

**Now, you have successfully set up your scene!**



# Create Keys

- **Create a Key Item Scriptable Object**
  - In Unity, go to Assets → Create → Smart Door Toolkit → Key Item.
  - Assign a name and icon for the key.
- **Create the Key Prefab**
  - Add a 3D model.
  - Attach a collider and rigidbody.
  - Add a KeyPickup script and assign the key item scriptable object.
  - Create its prefab.
  - Now go to the same key item scriptable object and assign the prefab to it.
- **Assign Key to a Door (Optional, for Key-Based Doors)**
  - Select the door and assign the key item into the required key in the DoorSystem component.

**Now, you have successfully created keys for your doors!**



# Now You Are All Good To Go!!

Thank you for purchasing Smart Door Toolkit! I truly appreciate your support and hope this asset helps you create better and more interactive doors in your projects.

This toolkit was designed to be easy to use while offering flexibility for different types of doors. Whether you're making a horror game, a puzzle game, or any other experience that requires advanced door mechanics, I hope this asset saves you time and effort.

If you have any questions, feedback, or suggestions, feel free to reach us out on:

[finitemachinestudios@gmail.com](mailto:finitemachinestudios@gmail.com)

Your input helps improve future updates!

Happy developing, and best of luck with your projects!

Thanks For Choosing Us

-Finite Machine Studios

