

SAFE UNLOCK SYSTEM V1.1
DOCUMENTATION

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Introduction

Thank you for purchasing the “**Safe Unlock System**” – this is a complete template for implementing a safe system that allows you to select a combination of the safe, in 3 parts and if those are correct it will play an animation and open the door. [OR] You can then add custom functionality with UnityEvents to either spawn or place items inside. This pack includes 3 PBR textures for the safes: Green, Black and blue with a custom UI and interaction.



The asset includes:

- ▶ 3 PBR Safe Textures at 2048x2048 - Green, black and blue
- ▶ Safe Model: 4000 Triangles
- ▶ First Person Interaction
- ▶ Raycast System
- ▶ Audio, Input Managers added and more
- ▶ UnityEvents for multiple interaction
- ▶ Sprites / Textures Included
- ▶ Basic sound effects
- ▶ Fully prefabricated
- ▶ Full Documentation
- ▶ Full C# Source Code

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Patch Notes

Version 1.1 – November 2020

- Scripting Changes
 - o Added 3 clean PBR texture sets to go with the previously included, damage set
 - o Added third person interaction with the package
- Fixes
 - o Fixed an issue where you could rotate the safe objects and when the dial resets, it resets in an unexpected position
 - o Updated the disable manager to remove redundant code
 - o Refactored the “SafeController” script to get rid of unnecessary variable linking, making it easier for setup
 - o Cleaned the default Unity exceptions in the inspector for private serialized variables, just for peace of mind

Version 1.0 – September 2020

- o Initial Release

FAQ

Q). How do I Import the asset?

A). Go to the Unity asset store and visit your “**Download manager**”. Download the asset if not already downloaded and click “**Import**”, import all required features of the asset for your use. It should have appeared in your project under “**Safe Unlock System**”.

Q). Should I import “Project Settings” when choosing to import this asset?

A). It is always recommend NOT to import project settings unless important for your project, you can alternatively create an entirely new project and import this asset with the project setting, then transfer the package folder over to your current project. To save any issues! Always back up your project before importing any assets – If you have any issues, do let me know!

Q). Before you start / Why isn’t my character moving in the demo scene?

A). I have provided the FPSController in the package, but you can download it from the Unity Asset store, if you so wish. It will be called “Standard Assets”.

Q). Can I use this asset with a different character controller or door interaction?

A). This asset is intended for use with the provided Unity Standard Assets character controller and my included door interaction script provided but can be replaced by doing a couple of simple modifications. See [“Extending the Safe Unlock asset”](#) or send me an email and I’ll be happy to help you out!

Q). Is there an example of this asset working?

A). Yes, you can open the “**SafeUnlock_Demo**” to see the system in action, or use this scene as your initial base of your project.

Q). How can I manually setup this asset?

A). See the manual setup instructions on [“This page”](#).

Q). I’m having trouble getting the interaction to work. What can I do?

A). Make sure your Interactive objects (Chess pieces and/or fuse boxes) have the “**Layer**” at the top right of the inspector as “**Interact**”, and the appropriate tags are added to each, a box collider, the appropriate “**ItemController**” script and “**IndividualController**” script attached.

Q). My raycast goes through walls? I can interact with the items through them. What can I do?

A). If you set the name of the layer you want to exclude, on the main camera and then create a layer named the same thing, add the layer to any object you don’t wish the raycast to pass through!

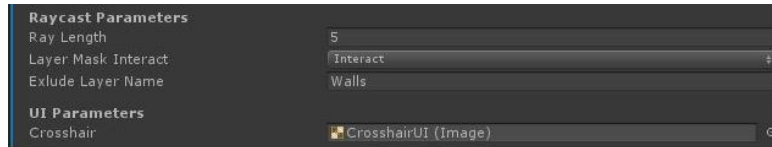
Q). My managers don’t stay between scenes properly?

A). Take make these work best, they should not be in an empty game object, but loose within the hierarchy. This is just how the **DontDestroyOnLoad** works, I only put them with a manager’s parent gameobject to keep it looking neat and tidy!

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Manual Setup – Initial #1

1. When starting your new project please import the “**Characters**” Standard assets or any FPSController you wish. Add an “**FPSController**” to your scene. (Unless you’re using the demo which will already have one added but the package will be required to be imported before use). Make sure your Main Camera has the “**SafeRaycast**” on it!

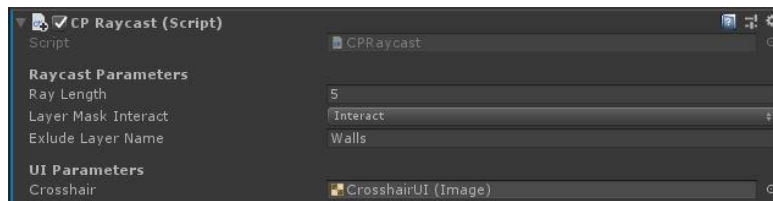


2. Now drag the “**SafeUnlock - CanvasContainer**” – Which will include the Crosshair and an EventSystem, from the “**Prefabs**” folder into the hierarchy.

NOTE: Only drag this prefab into the hierarchy, not the scene.



3. Add the crosshair image from the “**Crosshair_Canvas**” components to the “**FPSController**” > “**FirstPersonCharacter/MainCamera**” - “**SafeRaycast**” crosshair slot in the inspector.
4. On the “**CPRaycast**” - Make sure the “**Layer Mask Interact**” is set to “**Interact**” and the “**LayerMaskExclude**” to a layer you may want to stop your raycast going through (For example, Walls) but can leave it at “**Everything**” by default! **NOTE: If this isn’t available in the dropdown you will need to create it at the top right of the Unity inspector, by choosing the “Layer” dropdown and choosing “Add Layer”. Once you create the layer it should auto fill the LayerMask box in the inspector!**



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5. Add “**AudioManager**” / “**InputManager**” / “**DisableManager**” to your hierarchy or scene from the assets “**Prefabs**” folder. (This will be included in a “**Manager**” prefab in the prefab folder) Add this asset wherever you want in your scene. See the example below:



6. Place a “**Safe_Green_Full**” prefab from the “**Combined Prefabs**” folder into your scene from the prefabs folder.

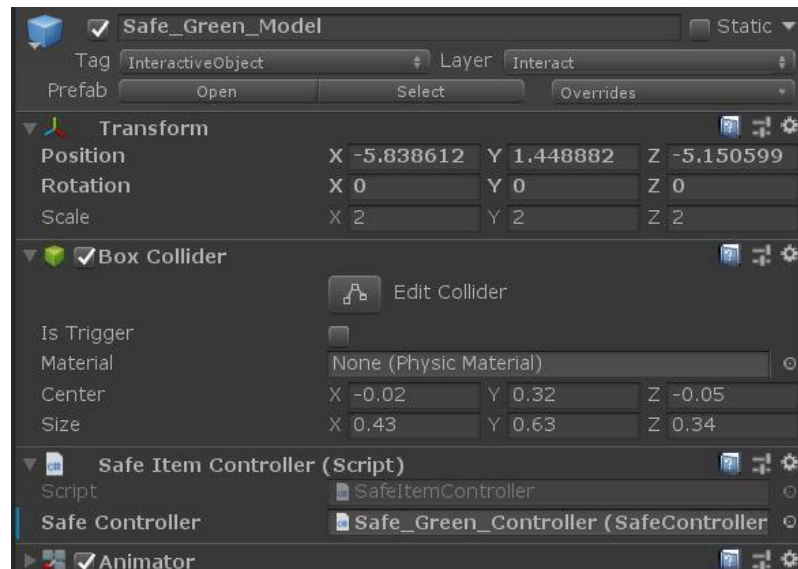
Safe_Model:

Make sure it has the tag of “**InteractiveObject**” and Layer of “**Interact**”.

Make sure this object has a:

- **Box Collider**

- **SafeItemController**: Add the safe controller object to this slot



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Safe_Controller:

Safe Model: Add your safe model to this slot

Safe Lock: Add the “Safe_Dial” to this slot

Safe Animation Name: The default safe door animation is “SafeDoorOpen”

Before Animation Start: The timer before the animation starts. Default: 1 second(s)

Before Open Door: The timer before the door opens. Default: 0.5 second(s)

Safe UI: Add the “Safe_UI” to this slot

Safe Solution 1-3: A number from 0-15 for each of these solutions

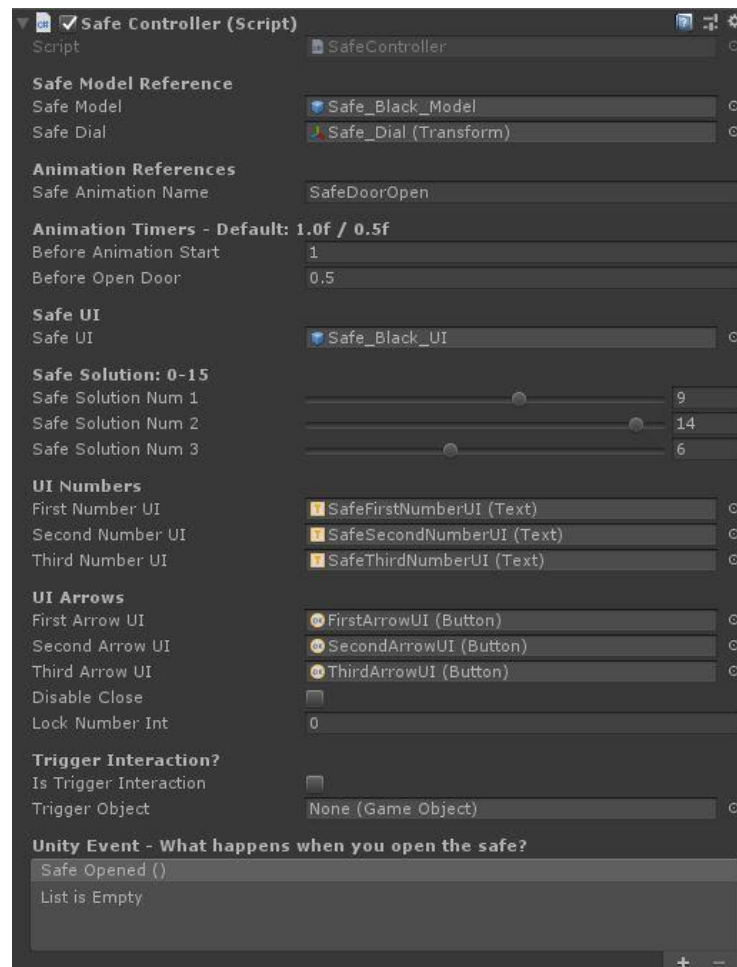
FirstNumberUI: Add the “SafeFirstNumberUI”/”SafeSecondNumberUI” for the safe canvas

UI Arrows: Add the “FirstArrowUI”/”SecondArrowUI” from the safe canvas

Is Trigger Interaction: Set this to “True” if you’re using a trigger event

Trigger Object: Add the trigger event to this slot

Unity Events: This is a UnityEvent to add custom functionality when it’s opened

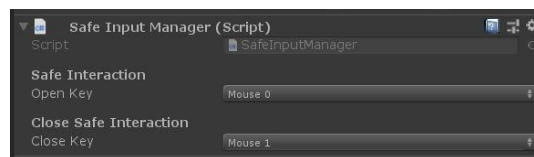


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Safe UI:



7. You should have a **“InputManager”** GameObject which will need setup as per:

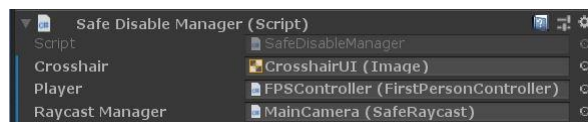


8. You should have a **“DisableManager”** GameObject which will need setup as per:

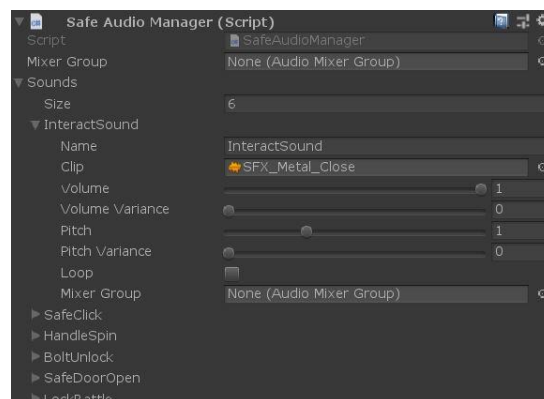
Crosshair: Add the **“Crosshair UI”** to this slot

Player: Add the **“FPSController”**

Raycast Manager: Add the **“Main Camera”**



9. You should have a **“AudioManager”** GameObject which will allow you to increment the **“Sounds – Size”** property to add more audioclips to the array. You can control the name (Which should be referenced in code), volume, pitch, and loop!



Final Notes

Your asset is setup and ready to use in your scene, please remember a few things.

1). If you need to access the Chess Puzzle scripts from another script that isn't in relation to my asset you may need to use a namespace collection at the top of your script: **"Using SafeUnlockSystem;"**

ADDING A TRIGGER EVENT – Using SafeTrigger script for 3rd person Controllers

- 1). Create a box or other 3D Object, make sure this object has a collider set to "IsTrigger".
- 2). Add the **"SafeTrigger"** script to that 3D object and add the safe object to the inspector slot named. (The safe object will have the script **"SafeItemController"**)
- 3). Add your own or the **"InteractPrompt"** gameobject from the Crosshair canvas to the slot, which will have a UI prompt to help you and/or players know when you can interact!
- 4). On the specific note controller scripts make sure to tick the "Trigger object" box and add the trigger to the empty slot in the inspector!

Remember to take a look at the demo scene if you have any troubles, it might give you an idea on how to fix an issue!

If you find the package helpful, please leave a positive review and star rating as it would really help me out! 😊 If you have any problems, feel free to send an email to me!

Extending the Safe Cracking System

I want to do something different when the safe is unlocked:

Using the UnityEvent feature on each controller will allow you to add multiple event types, see the demo scene for a clear example on this! 😊

I want to use a different character controller whilst using this asset:

You can see that we create a reference to the FPSController at the top of the “DisableManager” script. You can create a new reference to the controller you are using and make sure to disable input and mouse look when you disable the player!

```
[SerializeField] private FirstPersonController player;

public void DisablePlayer(bool disable)
{
    if (disable)
    {
        raycastManager.enabled = false;
        Cursor.lockState = CursorLockMode.None;
        Cursor.visible = true;
        crosshair.enabled = false;
        player.enabled = false;
    }
    else
    {
        raycastManager.enabled = true;
        Cursor.lockState = CursorLockMode.Locked;
        Cursor.visible = false;
        crosshair.enabled = true;
        player.enabled = true;
    }
}
```

I can interact with objects through walls, what should I do?

In the raycast script you can add this section to the top of the raycast

```
int mask = 1 << LayerMask.NameToLayer(exludeLayerName) | layerMaskInteract.value;
```

Then at a variable at the top of the script, like so:

```
[SerializeField] private string exludeLayerName;
```

On the Main Camera, find the Raycast Script and in the inspector you should have a place to add a string variable name. Add the name of the layer you want to exclude. You can create layers at the top left corner of the Unity inspector. Then make sure to set every single one of the objects (For example: Walls, doors and other objects to "Walls". To exclude the raycast!)

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How to reference the Audio Manager?

//Add this namespace to the top of the script to reference the adventure kit
using **SafeUnlockSystem**;

//How to play a sound using the name of your audio from the array
SafeAudioManager.instance.Play("YourAudioClip");

//How to stop playing a specific audio clip
SafeAudioManager.instance.StopPlaying("YourAudioClip");

Contact

Thanks very much for downloading! Please be sure to leave a **star rating** and **review** if you liked the package!

Support me on Patreon: <https://www.patreon.com/SpeedTutor>

Make a small donation: <http://www.paypal.me/speedtutor>

If you have any problems with the pack or have some ideas for new models you'd be interested in, please feel free to contact me.

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