# 4-16

*Hold command Mac or Control win as you drag to snap to grid*

*Change Edit / Snap Settings.*

*Note, you can also set the main camera’s background color to black*

Make the Door

* Create a cube and name it frame
  + Make its scale 3, 5, .1
  + Set its position to 7, 3, 0
  + Set its position high enough to clear the floor
* Duplicate the door and call this one Frame
  + Make the scale .1, 5, .1
  + Set its position to 6.4, 3, 0
* Duplicate Frame and call this one Frame Rigidbody
  + Set its position to 9.6, 3, 0
* Add a Rigidbody to it
  + Select IsKinematic

Make the Hinge

* Select the Door
  + Add Component / Physics / Rigidbody
  + Add Component / Physics / Hinge Joint
* With the Door Selected, note the Inspector
  + Drag the object Frame Rigidbody to the slot labeled Connected Body
  + The Anchor is the hinge itself and you need to decide where to put it.
    - You want it to the right and at the edge of the door
    - So, set Anchor to 0.5, 0.5, 0.0
  + The Axis is the direction of the pin in the hinge. You need that to be vertical
    - So set the axis to 0, 1, 0
  + If you have Auto Configure Connected Anchor selected, the next line is filled in
    - It should be something like -1.5, 0.5, 0

Play the game

* Go through the door

Controlling the Hinge

* Select Spring
* Click the arrow to see options
  + Set Spring to 5
  + Set Damper to 5
* Try the door.

# Multiple Scenes

Make a Trigger

* Create a cube
* Call it Scene Changer
* Select is trigger
* Set its scale to 5, 5, 5
* Put it behind the door so that if the FPC will reach it after going through the door

# Save your Scene

# Add Scenes to the list

* File Build Settings / Add Current Scene
  + Scene0 will appear in the box.
  + Note it is scene ***number*** 0
* Duplicate Scene0
  + Call the new one Scene1
* File Build Settings / Add Current Scene
  + Scene2 will appear in the box.
  + Note it is scene ***number*** 1

# Moving Between Scenes

Note, you are now in Scene 1 because you just created it. Change something so you’ll know when the scene has changed.

Create a C# Script and call it GoToScene1

* Add the following:

using System.Collections;  
using System.Collections.Generic;  
using UnityEngine;  
**using UnityEngine.SceneManagement;**  
  
public class GoToScene1 : MonoBehaviour {  
  
    void OnTriggerEnter(Collider other)  
    {  
        SceneManager.LoadScene(1);  
    }  
}

* Drop the script onto the Scene Changer.

Save the scene.

* Test it.
* Going through the trigger should move you back to the starting point, because Unity is reloading the scene.

Create a second script an call it GoToScene0

* Add the following:

using System.Collections;  
using System.Collections.Generic;  
using UnityEngine;  
**using UnityEngine.SceneManagement;**  
  
public class GoToScene0 : MonoBehaviour {  
  
    void OnTriggerEnter(Collider other)  
    {  
        SceneManager.LoadScene(0);  
    }  
}

* **Remove the script GoToScene1 from the trigger cube**
* **Drop the script GoToScene0 onto the Scene Changer.**

Save the scene.

* Test it.
* Going through the trigger should move you to Scene 0.

Stop the game (you’ll be back in scene 1)

* **Drop the script GoToScene0 onto the Scene Changer.**

You should be able to move back and fourth between the two scenes.