

CECS 528 2020 HW2 (3) Unity game project notes - 1

Game Genre: 2D Side Scrolling with endless level _____ game

Import HW2Assets to your Unity project.

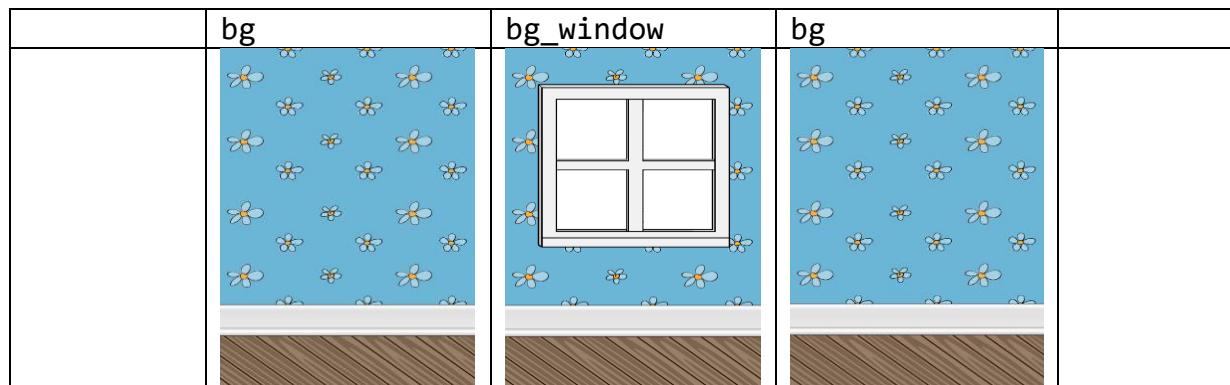
1. Basic scene (room, decoration objects, player, etc.) and camera set-up

Sprites/Background_Images/RocketMouse

bg 480x640

bg_window 480x640

Using 2048x640 screen space of this layout:

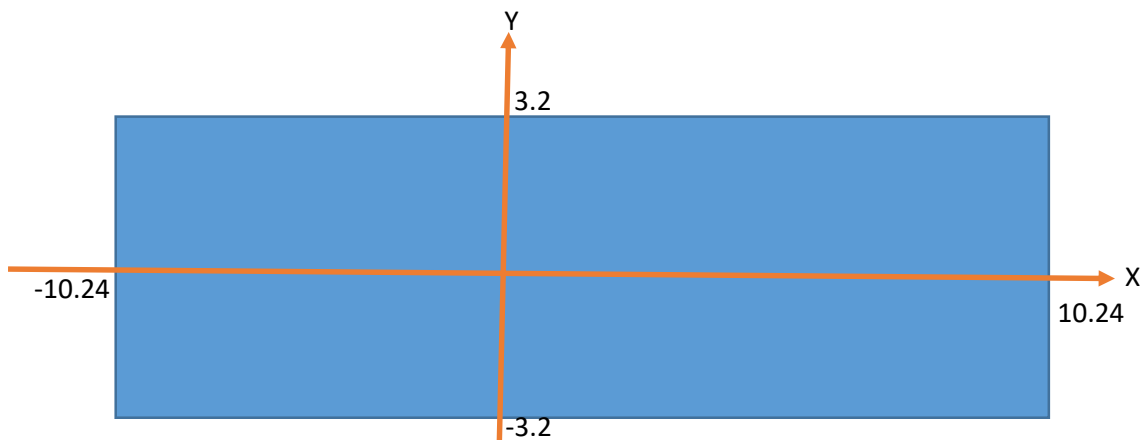


1.1 Pixel-perfect orthographic projection (camera) settings

Position (0, 0, -10)

Size 3.2 (pixel-perfect)

X and Y extents are [-10.24, 10.24] X [-3.2, 3.2]:



1.2 Add background, decoration objects, and Player sprites to the scene

Create an empty game object (call `room1`) and add `bg`, `bg_window`, and `bg` sprites to the scene as child game objects of `room1` and position them appropriately. There are three methods to position these sprites as described below.

Method 1 Interactive move or adjustment

Method 2 Entering position (x, y, z) in the Inspector

Method 3 Using vertex snapping

Follow these steps to use vertex snapping:

- A Select the sprite (mesh) you want to manipulate and make sure the Move tool or the Transform tool is active.
- B Press and hold the V key to activate the vertex snapping mode.
- C Move your cursor over the vertex on your sprite (mesh) that you want to use as the pivot point.
- D Hold down the left mouse button once your cursor is over the vertex you want and drag your sprite (mesh) next to any other vertex on another sprite (mesh).
- E Release the mouse button and the V key when you are happy with the results (Shift+V acts as a toggle of this functionality).

1.3 Set Sorting Layer settings in the Sprite Renderer component of each sprite game object.

For example, define the following sorting layers in the given order:

Background
Objects
Player

Set all background sprites' Sprite Renderer component - Sorting Layer to Background

1.4 Apply a skybox so it will be seen through the window (`bg_window`).

1.5 Add a brick wall (3D box with Brick material) on the left-edge of the scene.

1.6 Add a `RobotBoyIdleSprite_0` sprite (renamed to `player`) to the scene. Set the Sorting Layer of the `player`'s Sprite Renderer component - Sorting Layer to `Player`.

1.7 Add decoration objects to the scene as child game objects of `room1` and set their Sprite Renderer component - Sorting Layer to `Objects`.

The scene looks like this:



1.8 Player's movement and animation

Add `Walk.cs` to the player and set the public fields as needed in the Inspector.

1.9 Camera control

Static camera

Dynamic camera

First-person camera

Third-person camera

In this project, we make the camera follow the player. To do that, add `CameraFollow.cs` to the `Main Camera` and set the public fields as needed in the Inspector to follow the player.