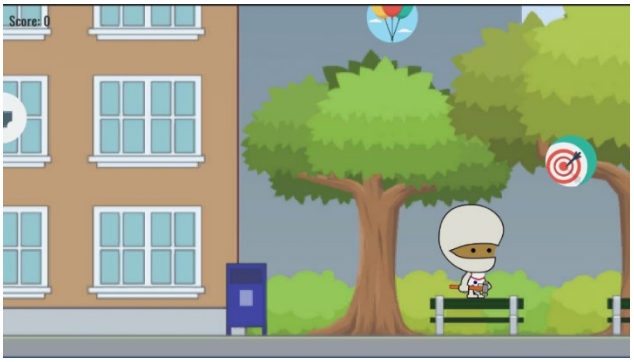
CODE NINJAS®

Bronze Belt Ninja Guide

Activity 02 Prove Yourself: Particle Hunt

Prove Yourself: Particle Hunt



Unity has a simple way to add particle effects to objects. You can make things look like they're on fire, use smoke effects, or any of the dozens of effects Unity has built-in! For this Prove Yourself, you're going to use the glow effect. In the folder where you get your unity files, you'll see one called "**Activity 02 Prove Yourself - glowEffect.unitypackage**"; import it. If you don't have these files, ask a Code Sensei for help. Under the prefabs you will now see a gem asset. Drag this onto a **gameIcon** in the hierarchy.

Select that **gameIcon**, and in inspect under the sprite renderer, change the **gameIcons** order in layer to 1. Now, in the hierarchy, find the glow object and select it. Scroll down until you find "start color" and change the color to match the current **gameIcon** you have selected.

Now repeat these steps until all the **gameIcons** in the scene have an attached particle effect.

Hint: Make sure to reset the transform of the particle effect **GameObject** to **(0,0,0)** to ensure it is properly positioned!

Pro Tip:

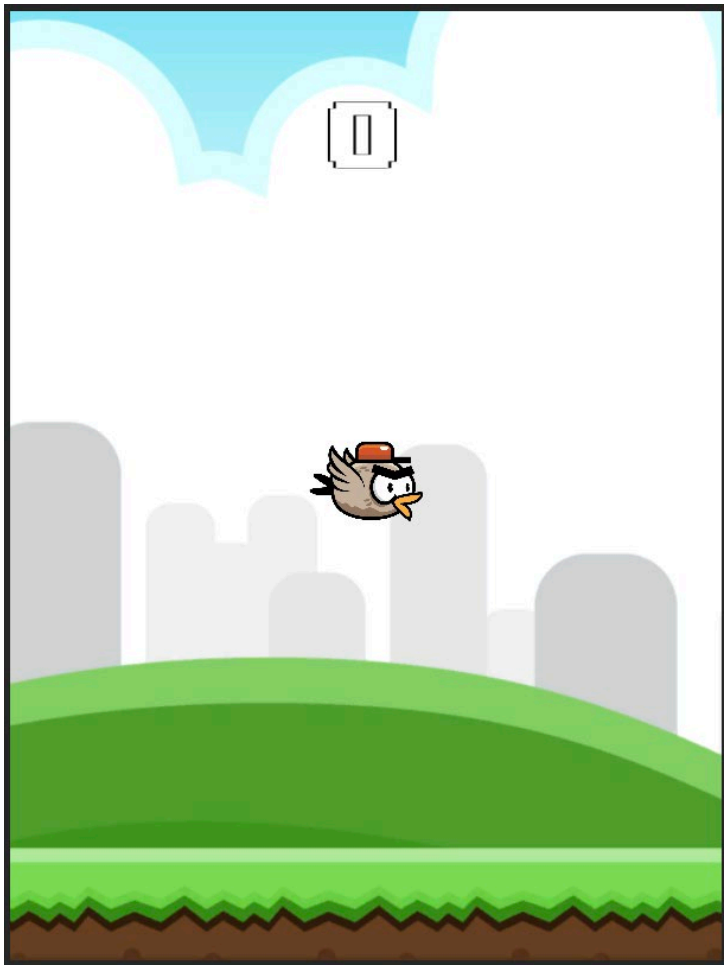
You MUST reset the transform of the gem game object after dragging and dropping the gem prefab onto the game icon object. The glow effect won't show up directly beneath the game object if you don't.

The "Order in Layer" property refers to the rendering order of 2D objects within the same sorting layer. Objects with a higher "Order in Layer" value will be rendered on top of objects with a lower value within the same sorting layer.

Graphics and Animation

In the previous section, we covered how to bring in assets to create a simple platforming game. You also learned how to apply imported images to objects in Unity.

Now, it's time to give the images a little more life using motion and animation, by starting with this simple, yet challenging game.



Making Things Look Good

If a game is fun, why should it look good? The reason has to do with a concept called **User Experience**. The goal of user experience is to make sure that whoever uses the product has a good time. Having something that does what it's supposed to do is only one part of the game experience. Adding in the right graphics can help with "setting the stage" and letting the user know what to expect.

Graphics in Unity

Graphics are displayed in several ways in Unity. The first way graphics are displayed is through rendering, by applying a material to an object and applying light and other parameters to give it a specific look. 2D objects such as sprites are also rendered, using a different method than 3D objects. Another way graphics are displayed in Unity is through visual effects, such as particle systems.

Animation

Games tend to work better with motion, and Unity provides many tools to keep things active and moving. Unity uses physics to simulate realistic events such as objects falling or bumping into each other. Through scripting, code can be used to direct motion within a game. Unity also has animation tools that allow for the creation of visuals like having a character running or causing objects to spin and fly.

Image Source: https://youtu.be/XQlFokCzU6M

Bells and Whistles

In the video game realm, developers have a term for effects that improve the user experience but aren't absolutely necessary. They often refer to these enhancements as "bells and whistles" (it is believed that the term originated in advertising in the 1950's).

This term encompasses more than just flashy graphics and sound effects. It's a combination of sounds and images that assist the user's imagination in taking them to wherever you want them to go when they play your game. The skills required to create stunning visuals take quite some time to develop, but they all begin with some simple questions: "Does it look right?", "What can be done to make it better?"