

Lesson 2: Background & Adding a Camera

Objective: Add decorative Background Elements and a Camera to expand the game's visible area.

 **Time:** 15 Minutes

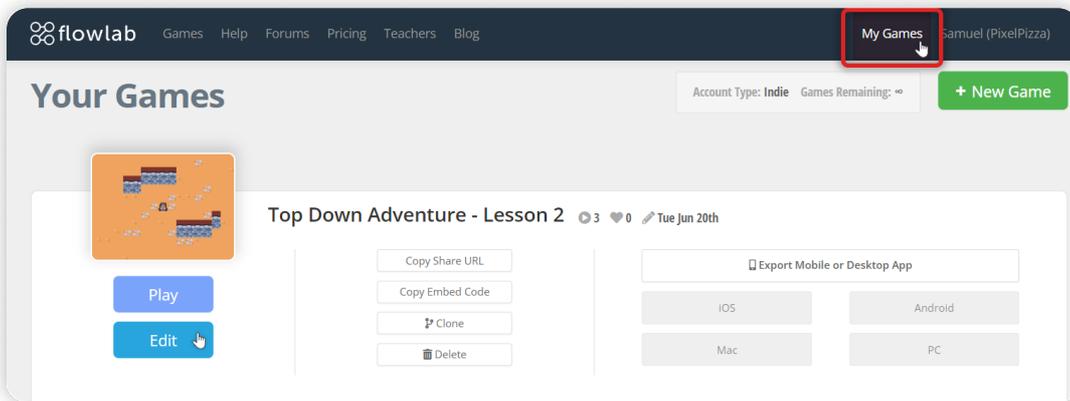
 **Level:** 2.5 - Beginner/Intermediate

Description: Introduction to using the Background layer and setting the Level's background color. Using a Camera behavior, make the game's view scroll and follow the Player object.

Step 1

Edit your Game

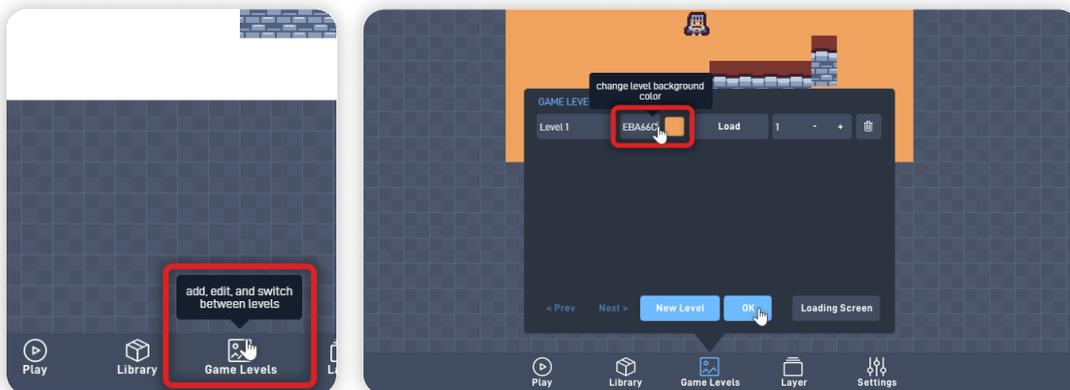
Log in and start at your "My Games" page <https://flowlab.io/game/list>. Then, click "Edit" next to your game to open the game editor.



Step 2

Set the Background Color

Click on "Game Levels" on the bottom toolbar to open the Levels panel. In the Level 1 row, in the Background Color area, type in the HEX code for this **Ground Color: EBA66C** (Light Orange-Brown)



We are using this color as it is the determined background color from the Asset Pack we are using. Click on the "OK" button to close the levels panel and save your changes.

Step 3

Add a Background Object

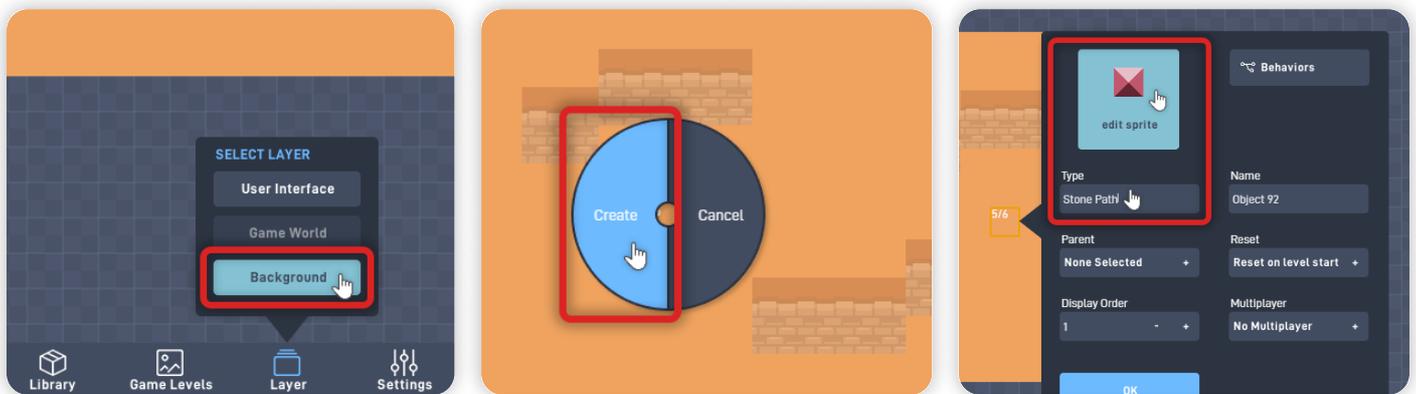
Next, let's add a decorative background element so the game doesn't feel so empty and further convey the location of our game.

Click on "Layer" on the bottom toolbar to open the Layers panel, and change from the "Game World" layer to the "Background" layer.

Inside this layer, we create objects with no physics and no collisions. These objects stay in the Background layer and are separate from the other layers.

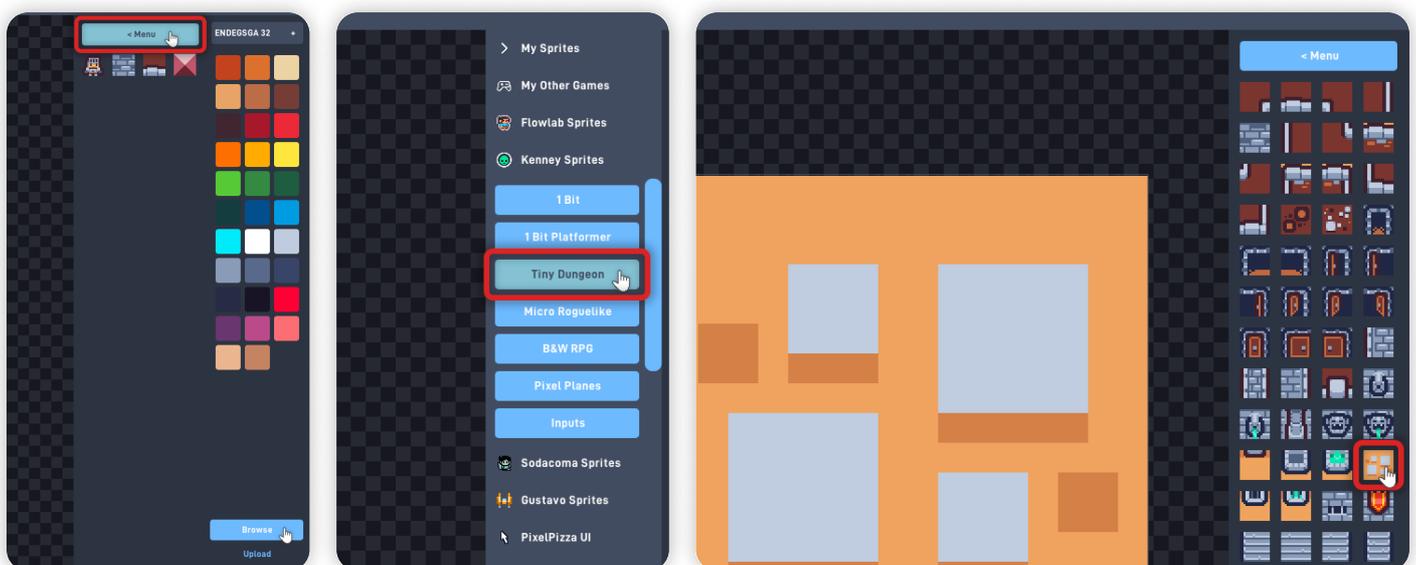
Click anywhere inside the game's viewable area and "Create" a new object.

It's always important to name our objects, so let's set this object "Type" to "Stone Path". Then, click on "edit sprite" to change this object sprite.



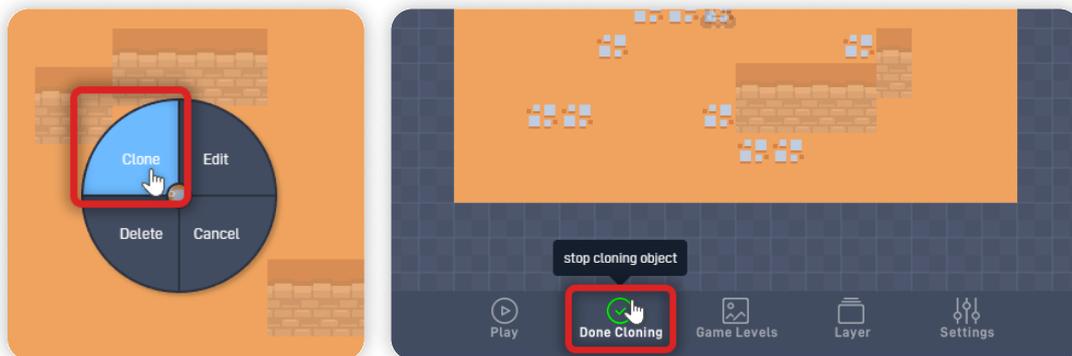
Inside the Sprite editor, open the "Browse" panel and click on "< Menu" to open the Sprite collections. From the "Kenney Sprites" collection, select the "Tiny Dungeon" pack.

As shown below, pick the Sprite with the "Dirt background and Stone tiles".



Once you select the sprite, press "OK" to save your changes and close the Sprite Editor. Press "OK" on the object properties panel to close it.

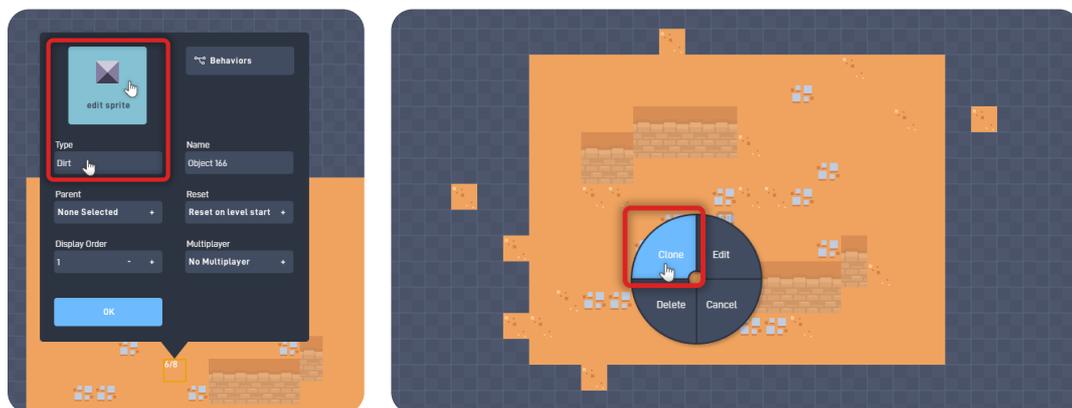
Still in the background layer, click on the “Stone Path” object, select “Clone,” and place these tiles across the level area.



Feel free to add these objects outside the game’s viewable area, as we will add a Camera in the next step.

Once you finish cloning the background object, click “Done Cloning” in the bottom toolbar. Open the “Layer” panel again and switch back to the “Game World” layer.

By repeating this step, you can add more background objects to your level: Create a new object in the “Background” layer, select a different sprite, and clone it.

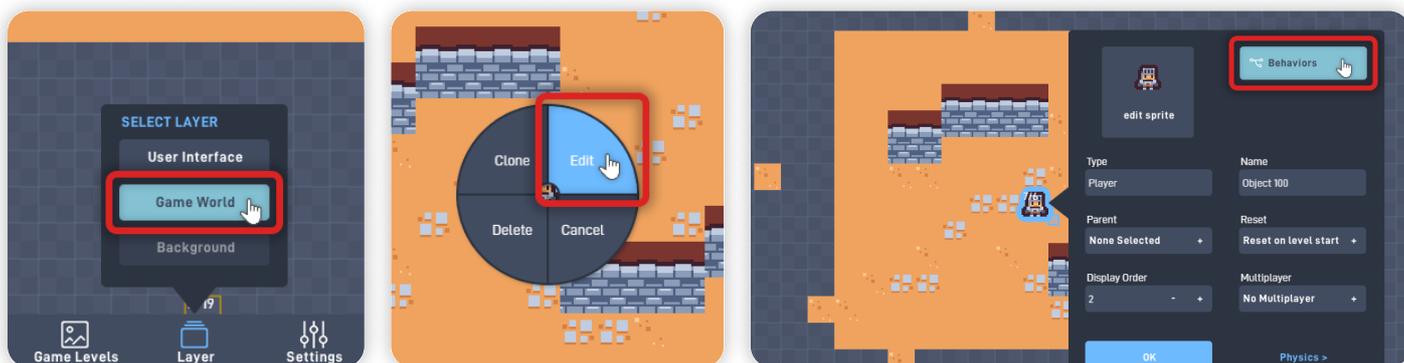


Step 4

Add a Camera to the Player

Let’s add a camera that scrolls the game view to follow the Player character across the level. We can do that by opening the Behavior Editor inside the Player object.

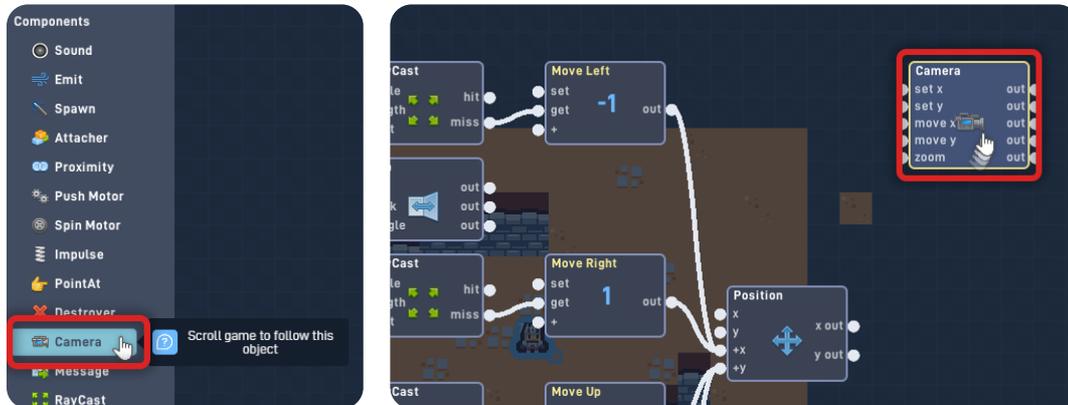
Open the “Layer” panel again and switch back to the “Game World” layer. Click on the “Player” object, then select “Edit” on the pop-up circle menu. Click on the “Behaviors” button to open the Behaviors editor.



Inside the behavior editor, open the “Components” behaviors section and click on the “Camera” behavior to add it to the workspace.

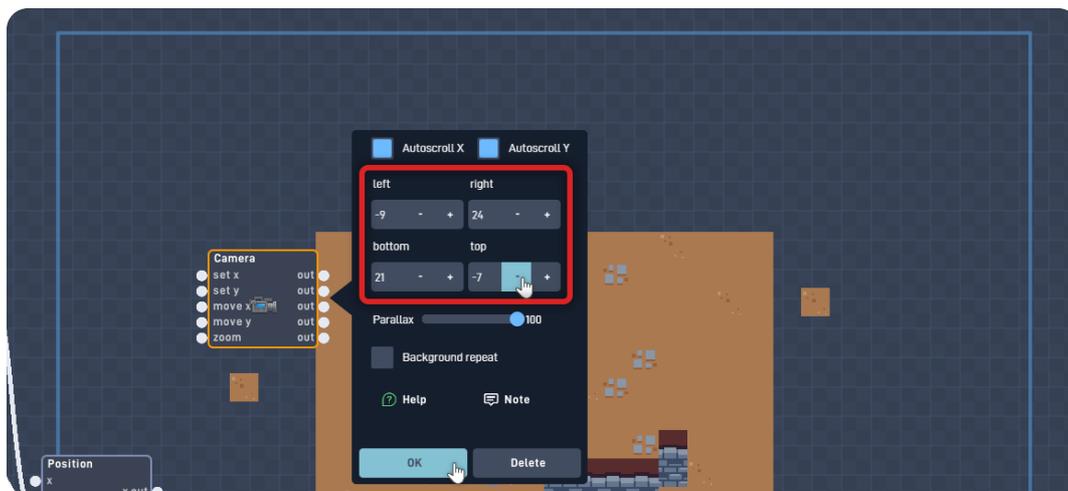
Click and hold the newly added Camera behavior to move it so it doesn’t overlap other behaviors. Place it somewhere near the already existing logic.

Click on the camera behavior to open its behavior panel.



In this game, we want the camera to follow the Player object in both directions, so keep “Autoscroll X” and “Autoscroll Y” selected.

Now use the “-+” buttons to adjust the camera boundaries.



Camera boundaries set the area the camera can display - anything outside these boundaries won’t appear in the game viewable area.

You can check this **Camera-Area** by looking at the **Blue-outlined Rectangle**.

Once you’ve set your Boundaries values, press “OK” on the camera behavior panel to save your changes.

Remember, you can always come back to adjust the camera boundaries by opening this panel again.

Click “OK” to close the Behavior Editor, and click “OK” again to close the “Player” object properties panel.

To test your game so far, click the “Play” button in the bottom toolbar to switch from “Edit” mode to “Play” mode.

When in Play Mode: You will be able to see the camera in action. The game view will follow along by moving the player, and the background objects will scroll alongside the other objects.

If you have problems, check the troubleshooting section.

Troubleshooting

A big part of game development is figuring out why things sometimes do not behave as expected. If your game is misbehaving, check the following points:

- **If the game’s view doesn’t scroll** when moving the player, make sure that the camera behavior has the “Autscroll X” and “Autoscroll Y” selected; *(Step 4)*
- **If your Stone Path background object is solid** or not behaving as expected, ensure you created the object on the “Background” layer and not on the “Game World” Layer; *(Step 3)*

Top Down Adventure - Part 1

Nice work!

You’ve now finished **Lesson 2 out of 6.**

