

Platformer Tutorial, Part 6: Add Enemies to the Game

This part of the tutorial explains how to add enemies to the game that can move back and forth along a set route. The next part of the tutorial explains how the player can kill - and be killed by - these enemies.

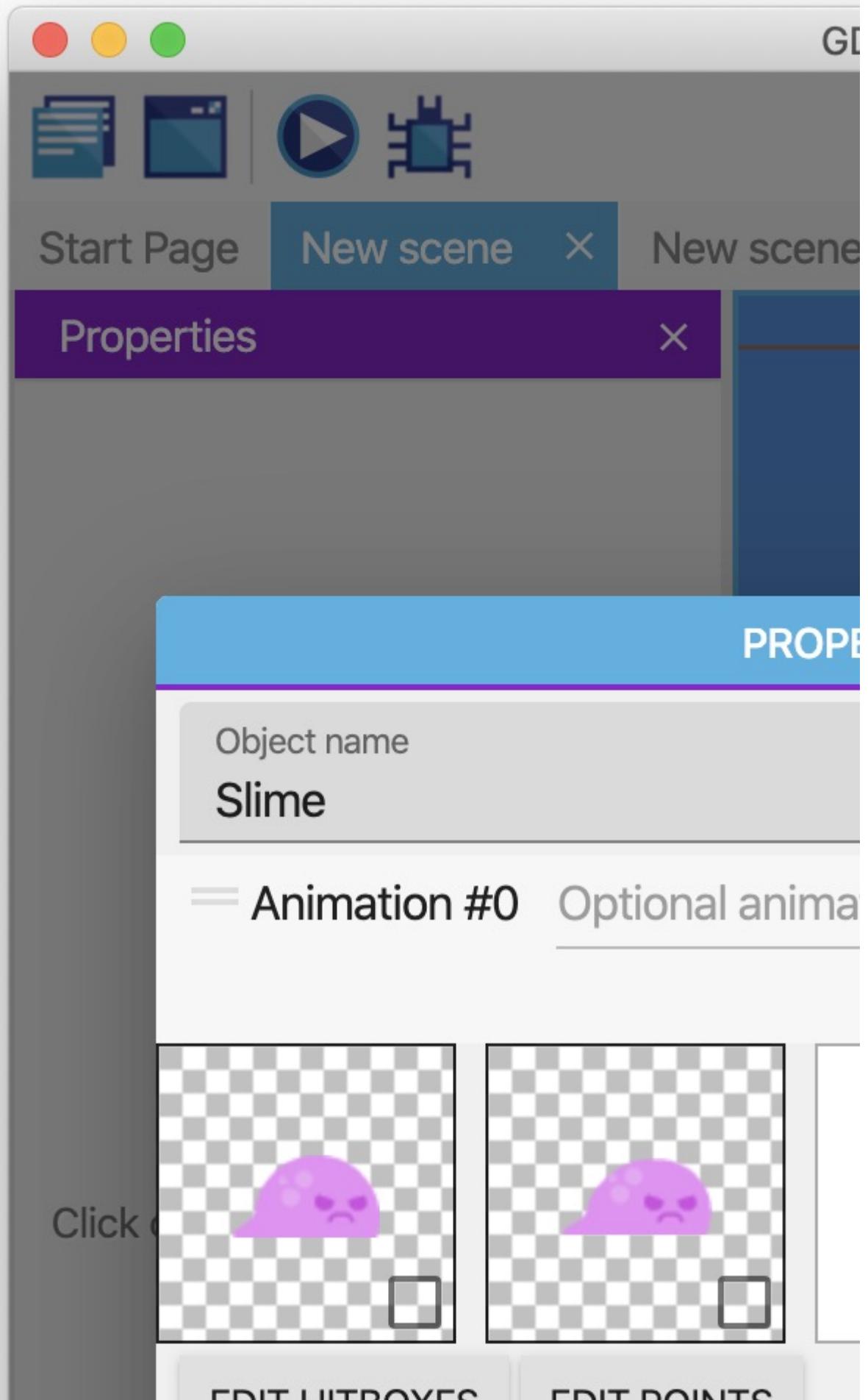
Series

You are reading **Part 6** of the [Platformer Tutorial](#).

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Step 1: Create an object for the enemy

1. Create a Sprite object named “Slime”.
2. Add an animation to the object that uses the following assets: - slimeWalk1.png
- slimeWalk2.png
3. Enable the **Loop** option.
4. Drag an instance of the object into the scene.



EDIT HITBOXES

EDIT POINTS



HELP



RUN A PREVIEW

690;2

If you preview the game, an animated enemy appears on screen.



Step 2: Move the enemy to the right

The previous part of this tutorial mentioned that there were three types of variables:

- Object
- Scene
- Global

An *object* variable is tied to a specific object. This means the variable holds a value that is only available to – and only relevant to – the associated object.

To add an object variable to the “Slime” object:

1. Right click the “Slime” object.
2. Select **Edit object variables**.
3. Add a variable named “direction” with a value of “right”. This is the default value of the variable.
4. Click **Apply**.

This “direction” variable keeps track of the enemy's current direction. In a later step,

you'll be able to change the direction of the enemy by changing the value of the variable.

Object Variables

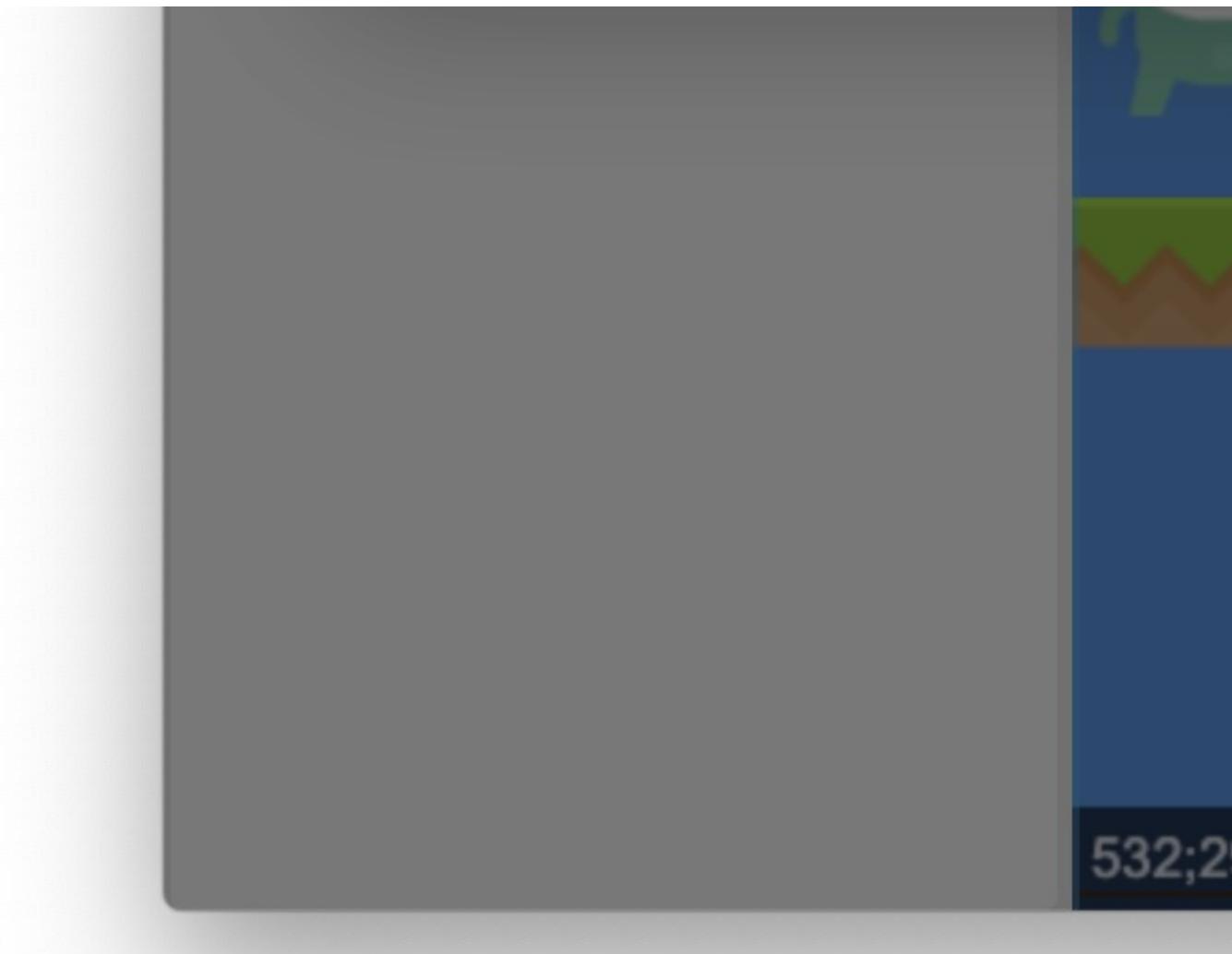
direction



Click to edit



RUN A PREVIEW



532;2

To move the enemy to the right, create an event:

1. Open the Events editor.
2. Create a new event.
3. Add the **Text of an object's variable** condition to the “Slime” object.
4. In the **Variable** field, type “direction”.
5. In the **Sign of the test** field, select **= (equal to)**.
6. In the **Value to compare** field, type “right” (including the quotation marks).
7. Click **OK**.



GD



Start Page

New scene



New scene

Add condition

Player is jumping

Add condition

Player is on floor **Player** is moving

Tex

Var

Text of an object's variable

Variables

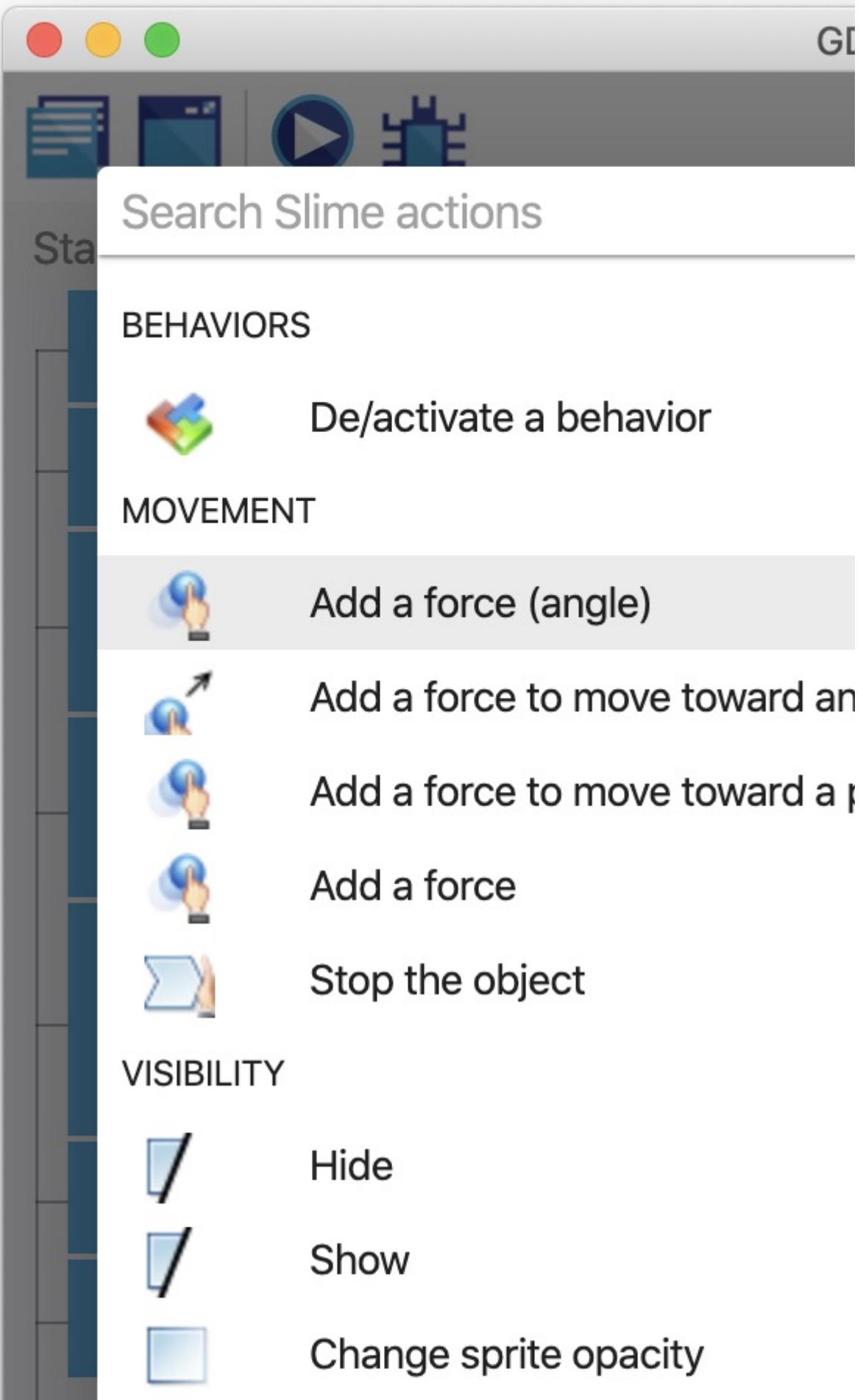
BACK



HELP FOR THIS CONDITION

Then add an action to the event:

1. Add the **Add a force (angle)** action to the event.
2. In the **Object** field, select “Slime”.
3. In the **Angle** field, type “0”.
4. In the **Speed** field, type “100”.
5. Enable the **Instant** option.
6. Click **OK**.



LAYERS AND CAMERAS



Layer

Z ORDER



Z order

OBJECTS

...

BACK



HELP FOR THIS ACTION

This is what the complete event looks like:



GD



Start Page

New scene

X

New scene

Add condition

Player is jumping

Add condition

Player is on floor **Player** is moving

Add condition

Player is on floor **Player** is moving

Add condition

Player is in collision with **Coin**

Add condition

Add condition

The text of variable direction of S

Add condition

└ Add a new event

Based on this event, while the value of the “direction” variable is “right”, the “Slime” object moves right. Because the object never changes direction though, it inevitably falls off the edge of the platform.



Step 3: Change the enemy's direction

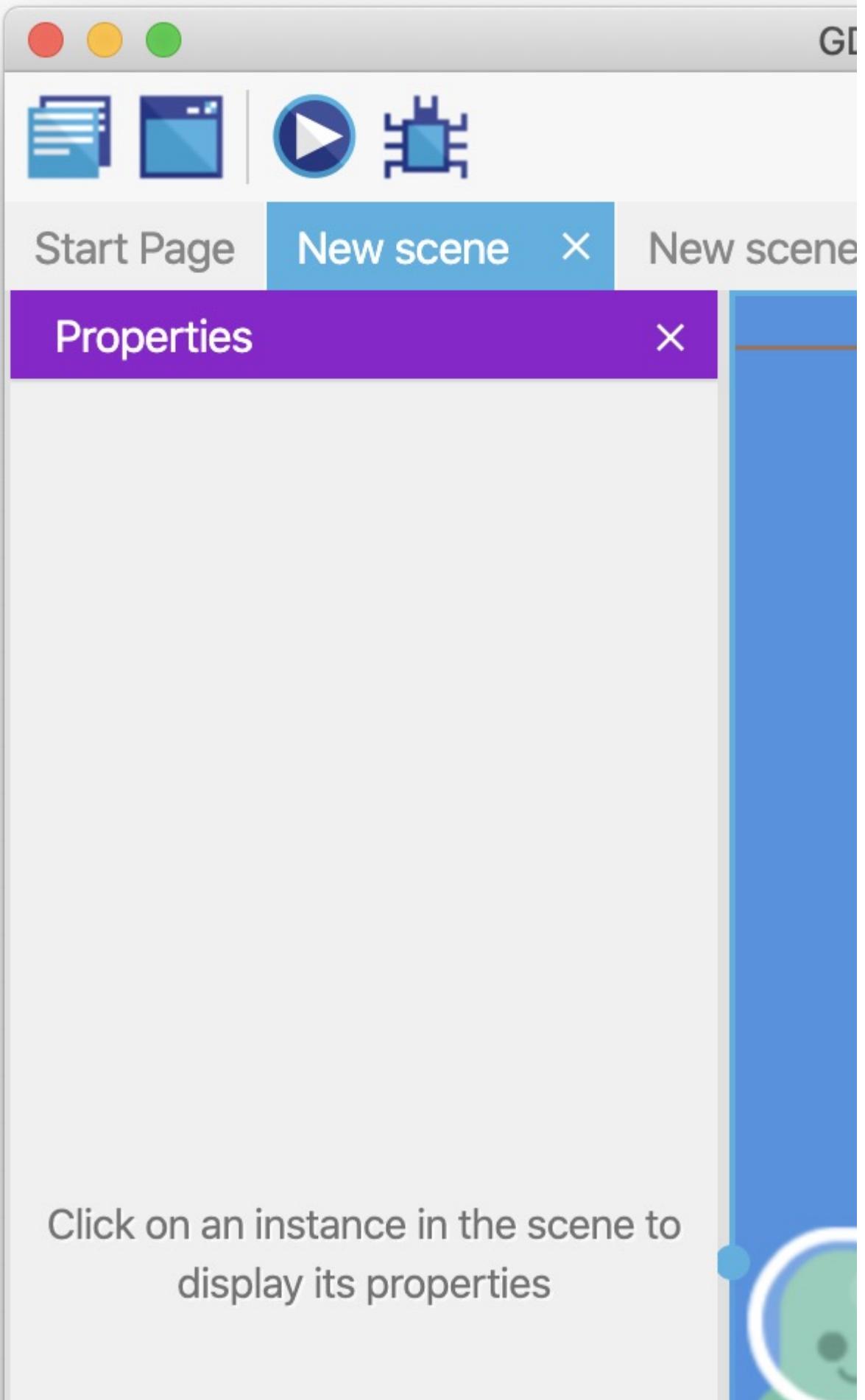
To make the enemy change direction, add two invisible objects to the scene – one called “Left” and one called “Right” – and place them on other side of the enemy.

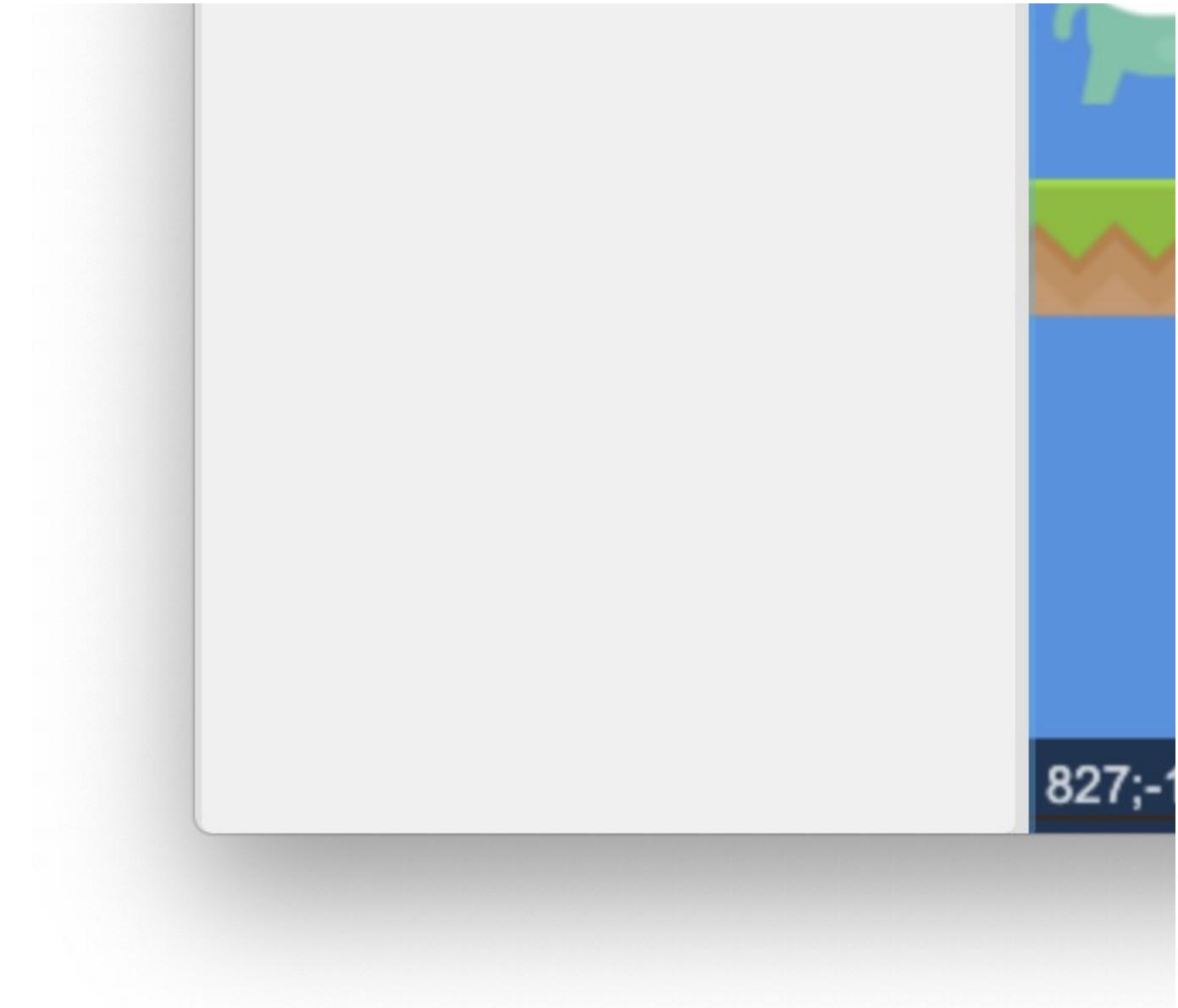
Then, when the enemy collides with one of the objects, you can flip them around and move them in the other direction. This creates the illusion of the enemy following a set route.

This step focuses on creating the “Left” object. When the enemy collides with this object, they'll change direction from left to right. (The step that follows focuses on the “Right” object.)

Create the “Right” object

1. Create a Sprite object named “Left”.
2. As the default sprite, use the “left.png” asset.
3. Drag an instance of object into the scene (to the right of the enemy).





Detect when the enemy collides with the "Left" object

1. Create a new event.
2. Add a **Collision** condition that checks if the “Slime” object is colliding with the “Left” object.



GD



Sta

Search Player conditions

An object is moving toward another object

Behaviors



Behavior activated

Collision



Point inside object



Collision

Layer



Compare layer

Timers



Value of a timer



Timer paused

Variables

Structures

Var

Value of an object's variable

Var

Text of an object's variable

Z ORDER



Compare Z order

POSITION

BACK



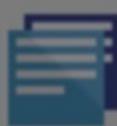
HELP FOR THIS CONDITION

Change the value of the "direction" variable

1. Add the **Modify the text of a variable of an object** action to the event.
2. In the **Variable** field, type “direction”.
3. From the **Modification's sign** dropdown, select **= (set to)**.
4. In the **Value** field, type “left” (with quotation marks).



GD



Start Page

New scene

X

New scene

Add condition

Player is jumping

Add condition

Player is on floor **Player** is moving

Add condition

mod



Modify a variable of an object

Variables



Modify the text of a variable of

Variables



Blend mode

Effects

BACK



HELP FOR THIS ACTION



Add a new event

Flip the "Slime" object

1. Add the **Flip the object horizontally** action to the event.
2. Set the **Activate flipping** option as **Yes**.

This ensures that the “Slime” object changes *and* faces a different direction, rather than just changing directions.

Change the enemy's direction

1. Add the **Add a force (angle)** action to the event.
2. In the **Object** field, select “Slime”.
3. In the **Angle** field, type “180”.
4. In the **Speed** field, type “100”.
5. Enable the **Instant** option.
6. Click **OK**.

If you preview the game, the enemy changes direction when they collide with the “Left” object.



Hide the "Left" object

1. Create a new event.
2. Add the **At the beginning of the scene** condition to the event.
3. Add the **Hide** action to the "Left" object.



GD



Start Page

New scene

New scene

Add condition

Player is jumping

Add condition

Player is on floor **Player** is moving

Add condition

Player is on floor **Player** is moving

Add condition

Player is in collision with **Coin**

Add condition

Add condition

The text of variable direction of S

Add condition

 Slime IS IN COLLISION WITH  Left

Add condition

 The text of variable  direction of  S

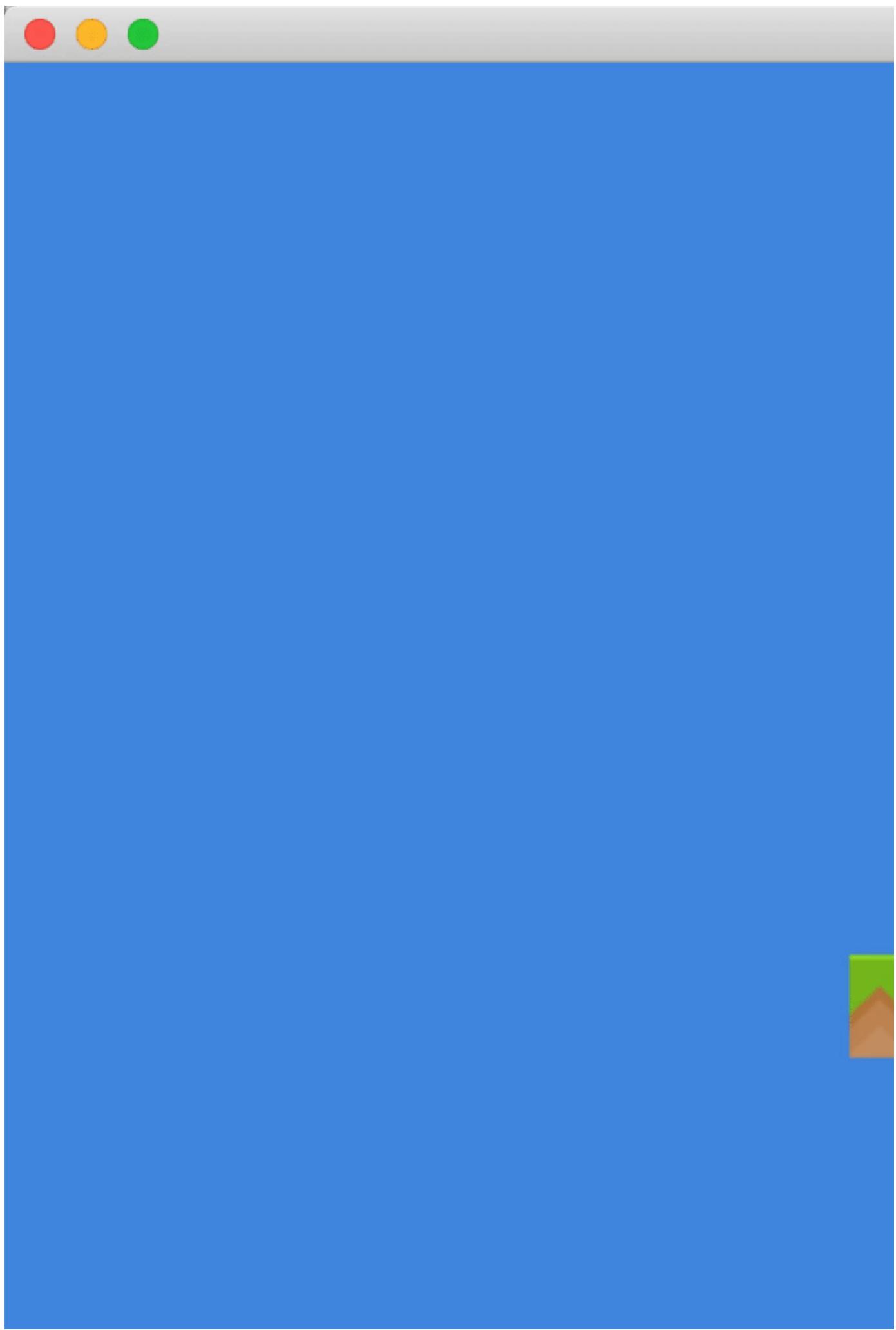
Add condition

 At the beginning of the scene

Add condition

Add a new event

If you preview the game, the enemy appears to change direction by their own “choice”.



Step 4: Change the enemy's direction (again)

After the enemy collides with the “Left” object, they start moving right and never stop moving right. To ensure they change direction again, create an object named “Rright”. This object should be the same as the “Left” object, except for the following details:

- Use the “right.png” asset.
- When the “Player” object collides with the “Slime” object, set the “direction” variable to “right”.
- For the **Flip the object horizontally** action, set **Activate flipping** to **No**.

Then drag an instance of the “Right” object into the scene, to the left of the enemy.



GD



Start Page

New scene



New scene

Player is jumping

Add condition

Player is on floor **Player** is moving

Add condition

Player is on floor **Player** is moving

Add condition

Player is in collision with **Coin**

Add condition

Add condition

 The text of variable direction of **S**

Add condition

Slime is in collision with **Left**

Add condition

Var The text of variable [cube] direction of  S

At the beginning of the scene

Add condition

 Slime is in collision with  Right

Add condition

Add a new event

If you preview the game, the enemy moves back and forth between the invisible markers.



Next step

Read [Platformer Tutorial, Part 7](#).