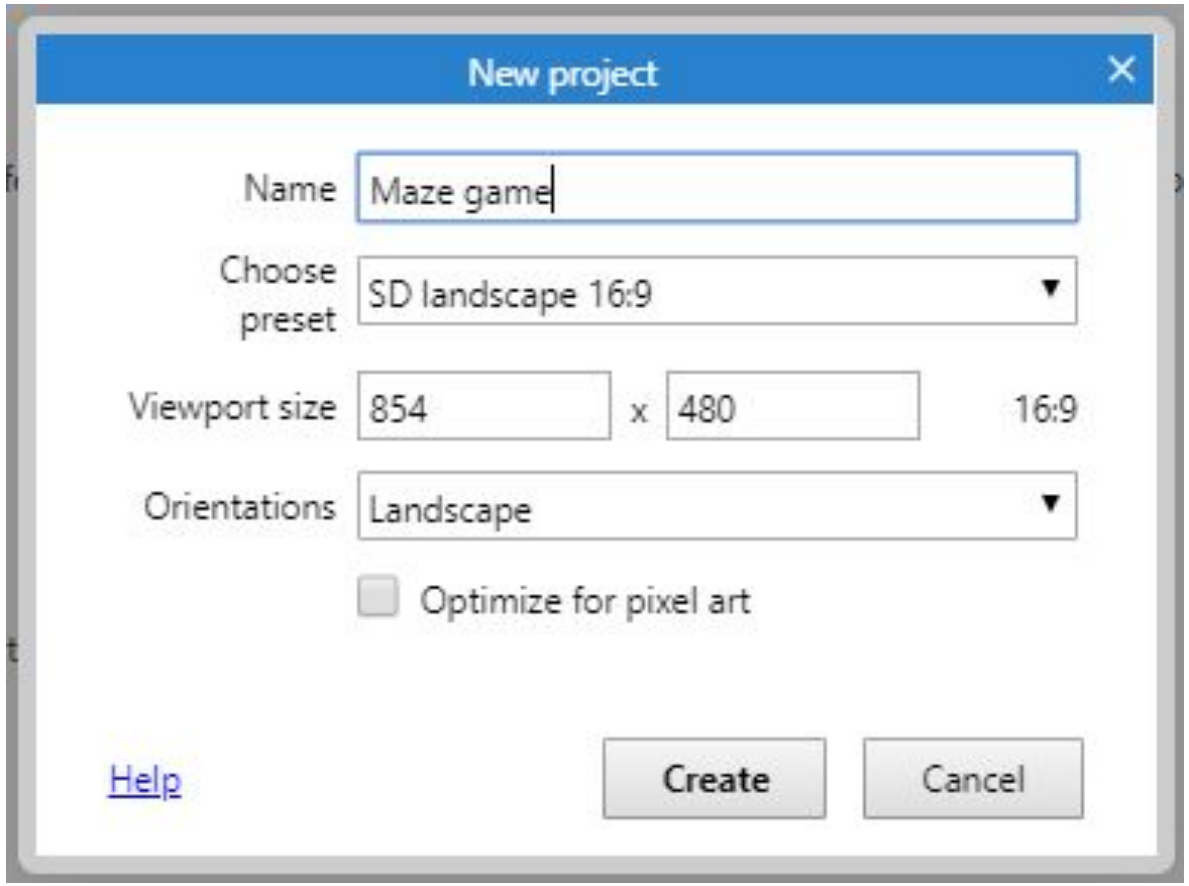
Creating a maze game

Part 1 – The basics

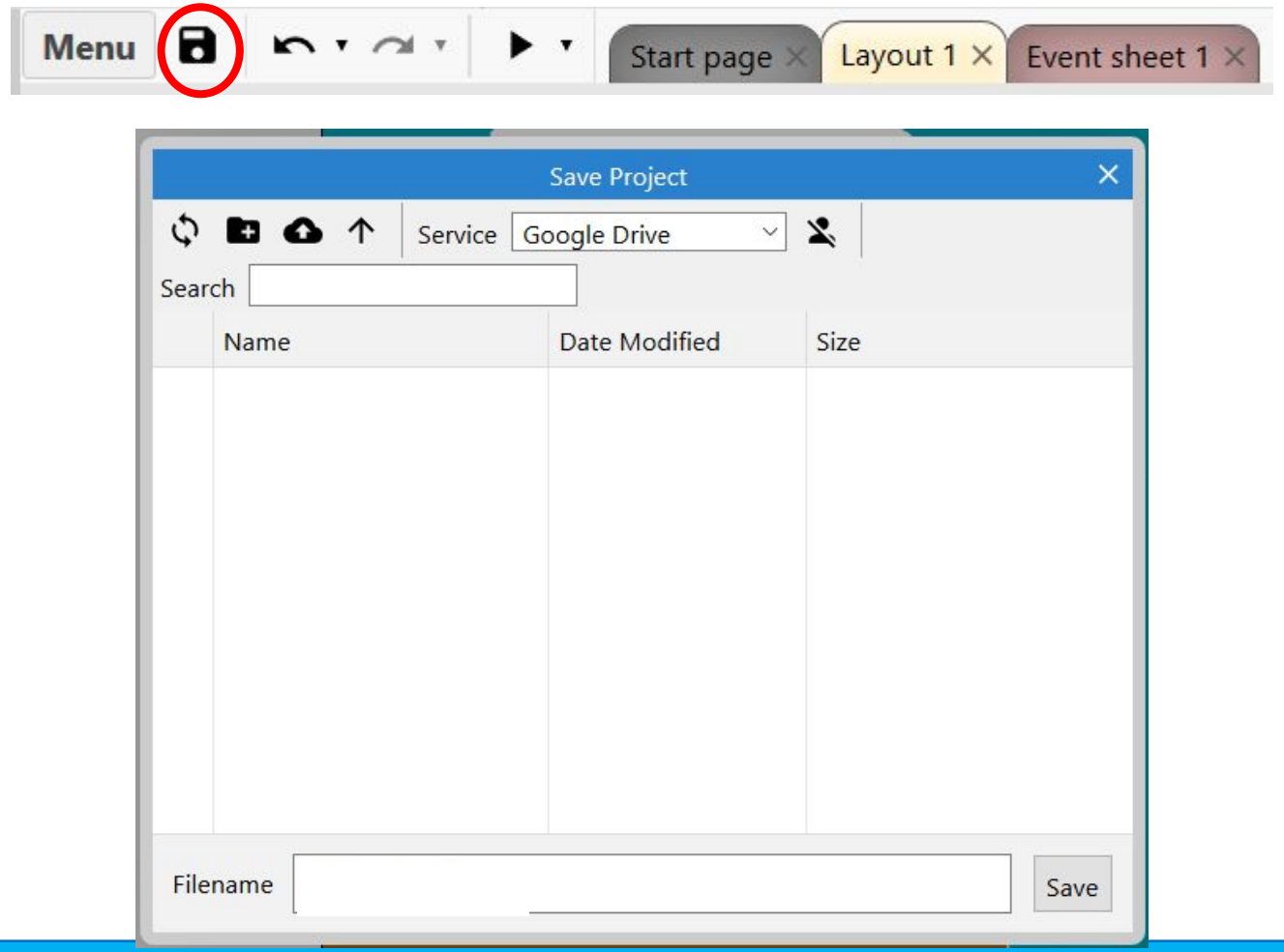
https://editor.construct.net/

Setting up the project



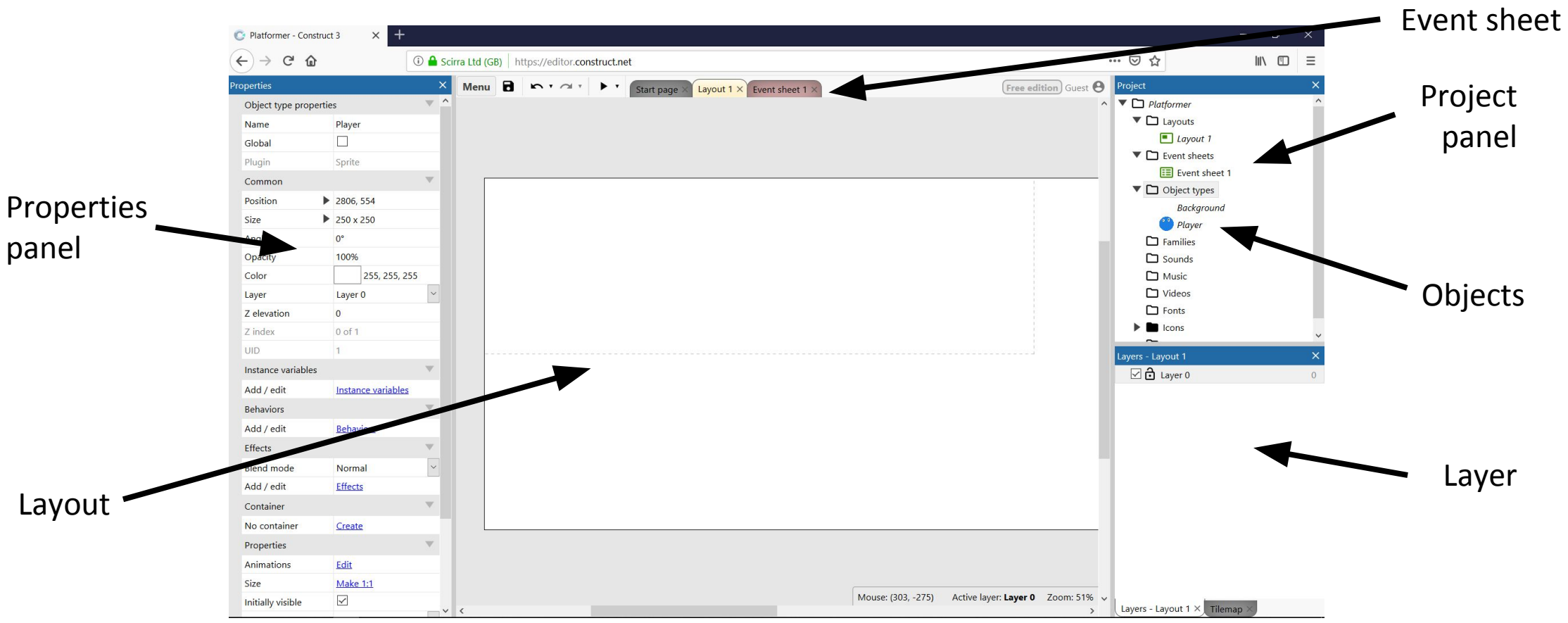
- Create a brand new project with a width of 854 and height of 480.
- (this will be how much of the screen your player will see. Your level will be twice the size)
- Name your Project

Saving our Project

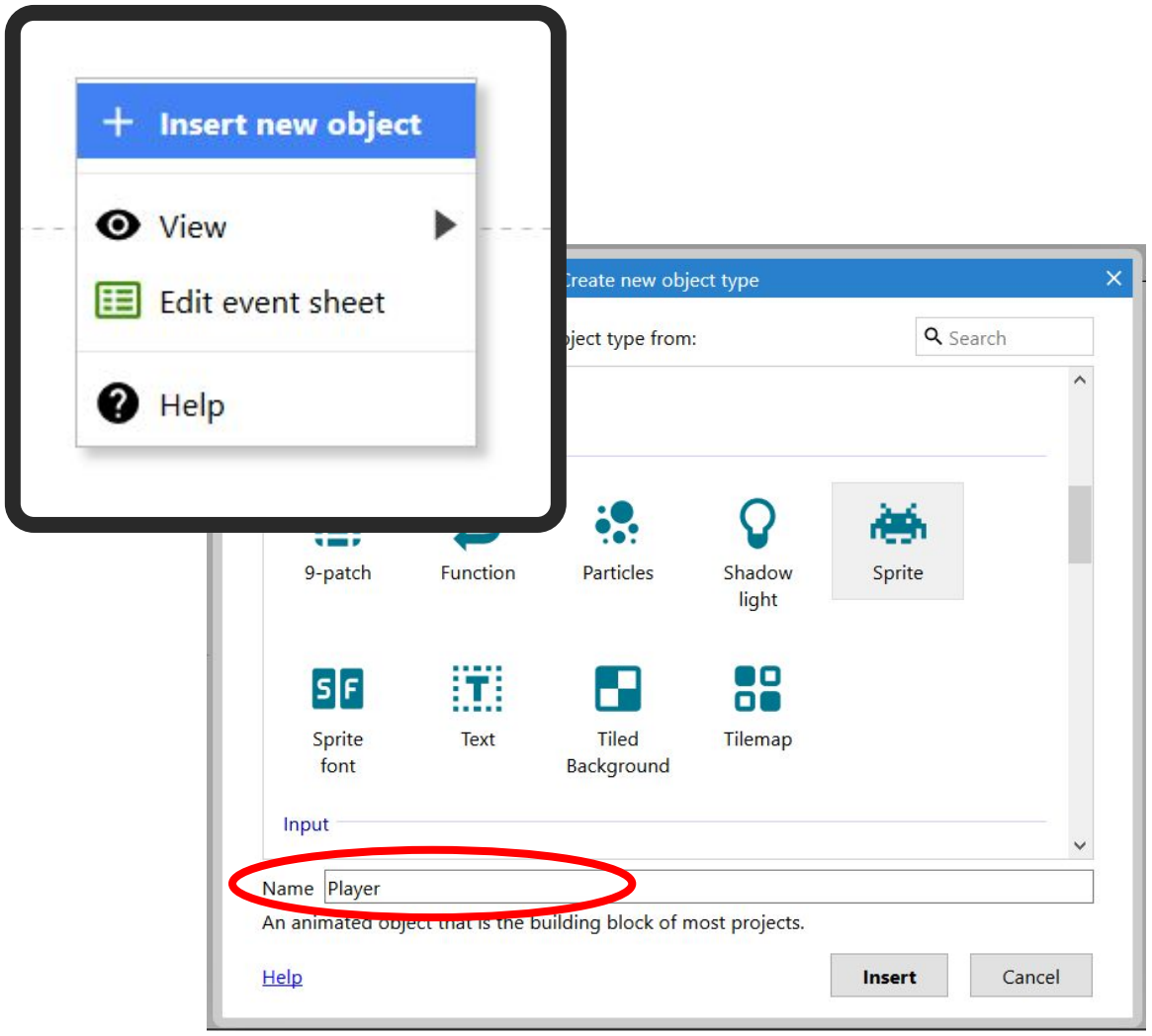


- Click on the Save icon at the top of screen.
- Change service to Google Drive and sign into your Google account
- Name the file and click save

Basics on Construct 3

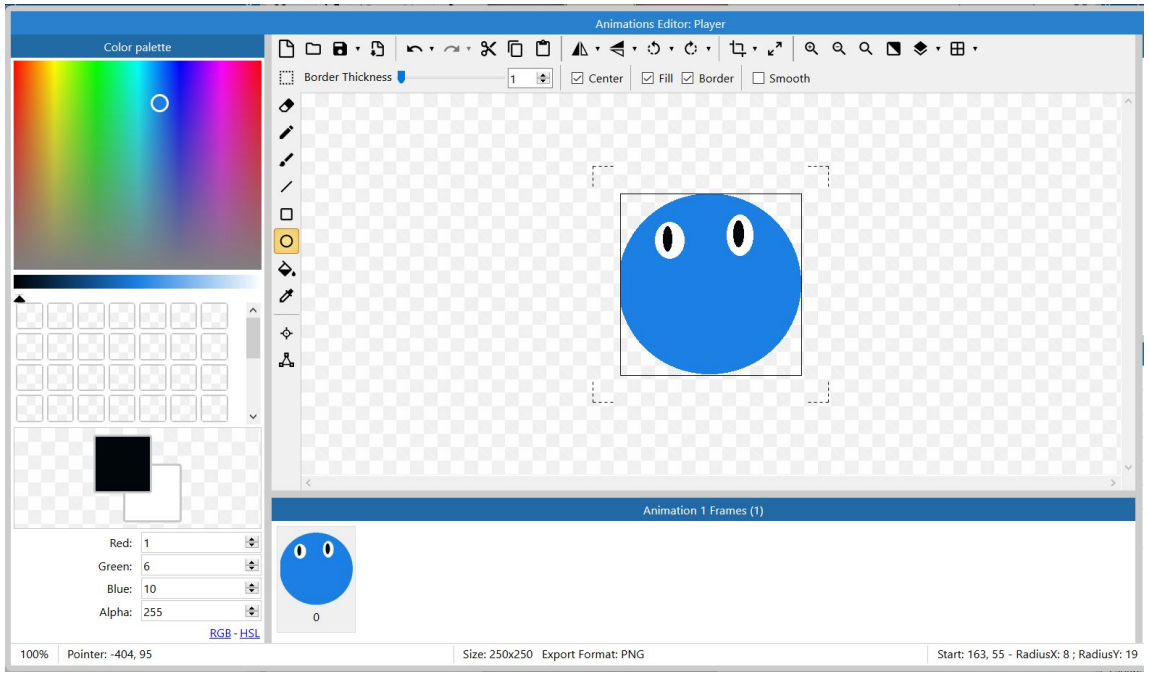


Creating a Sprite



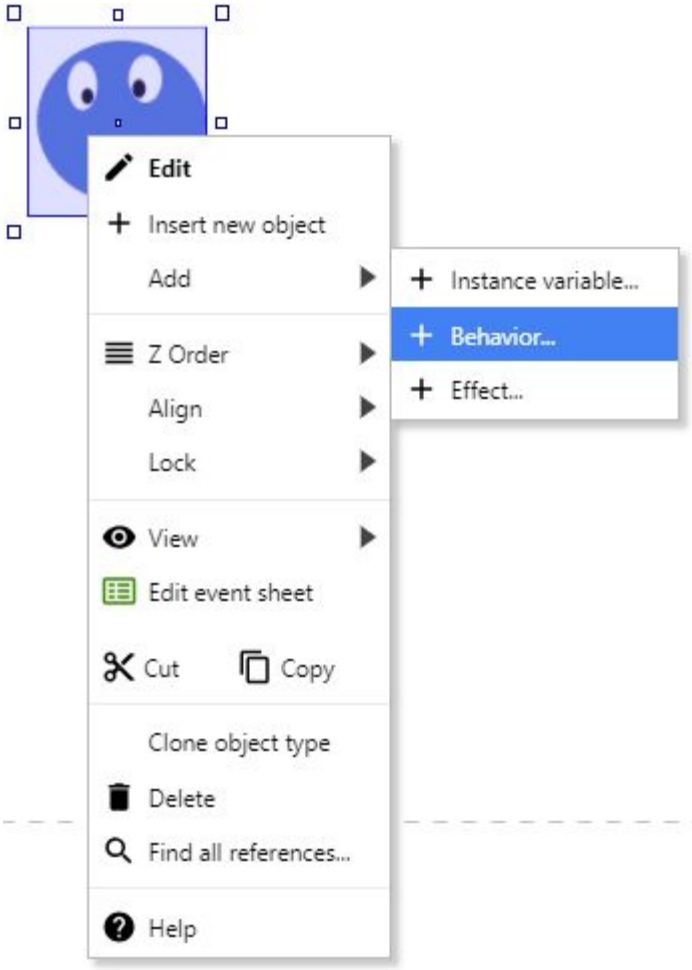
- Right click anywhere on the Layout (white page) and insert new object
- Scroll down and click on Sprite
- Give the Sprite a name
- Click insert

Drawing a Sprite



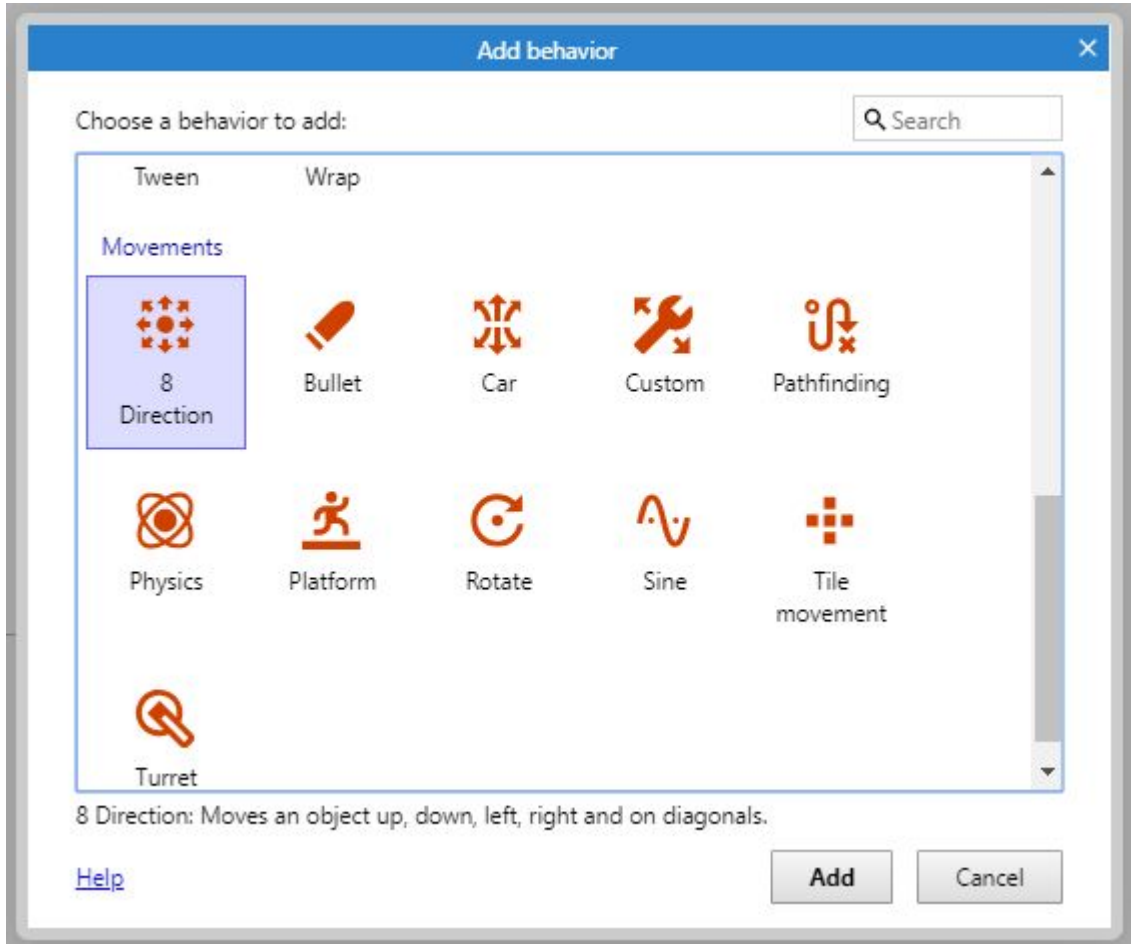
- Click anywhere on the Layout
- Draw your Player in the square of the screen (it does not have to look like mine)
- Close the window using the X in the top right hand corner

Adding behaviors



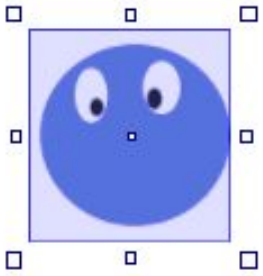
Right click on the sprite and click add a new behavior

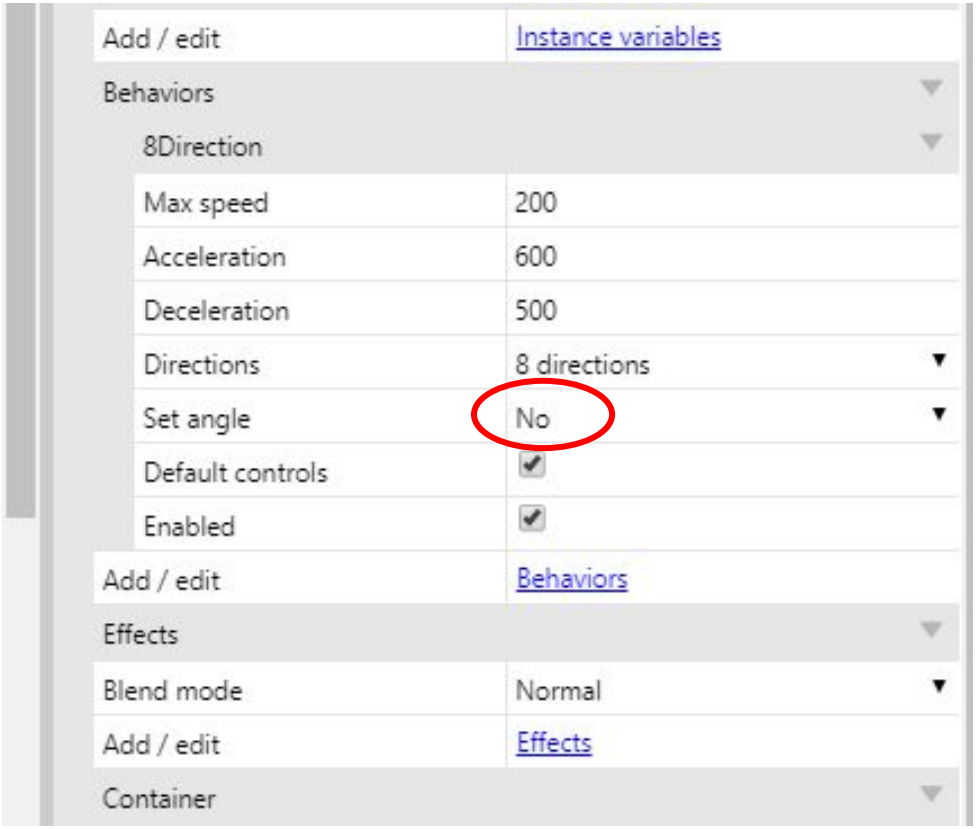
Moving the player



- Click on the 8 direction behavior and click add
- This means our player now moves and we can run and test our game using the green play button at the top of the screen

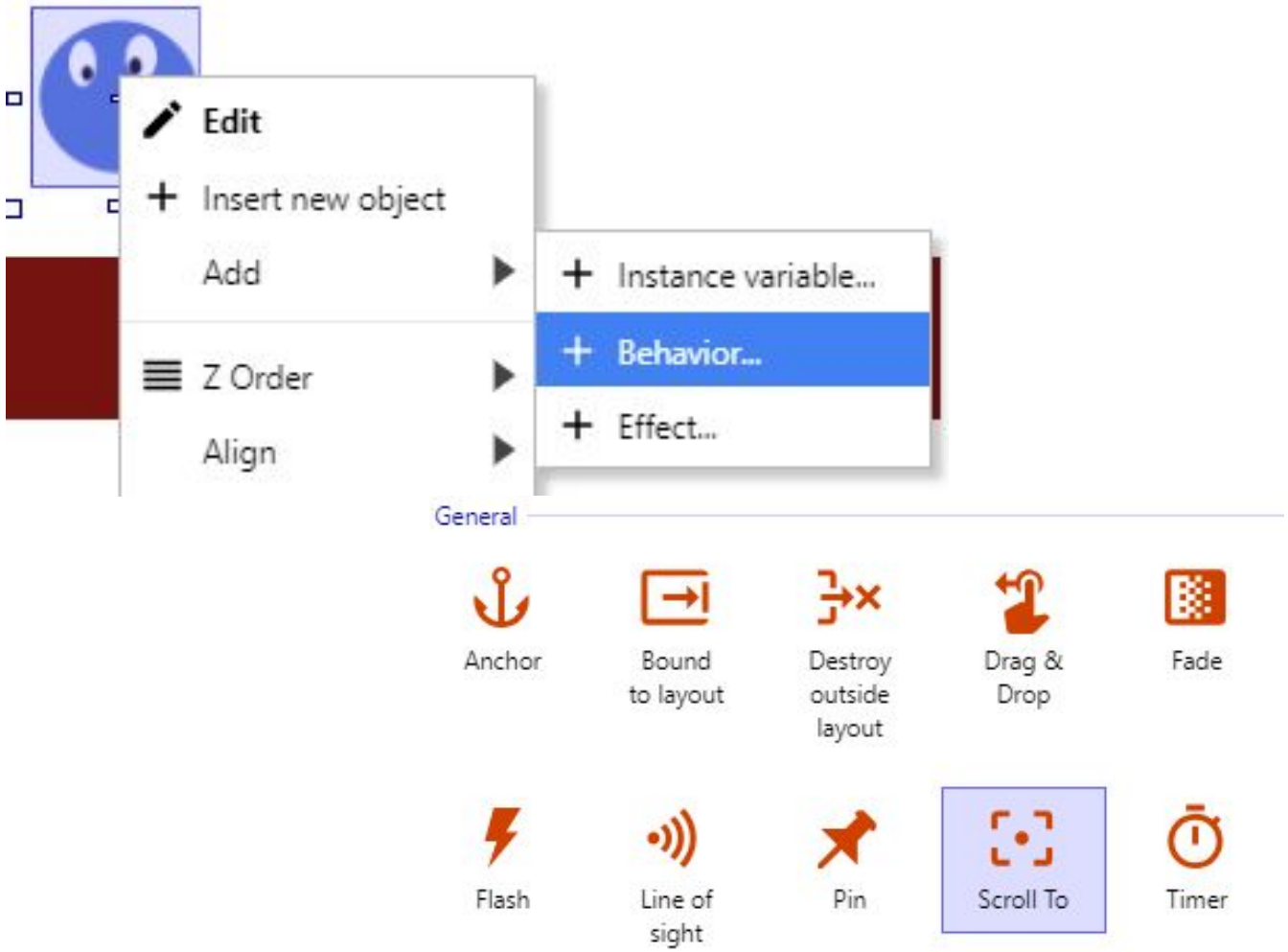
Movement options





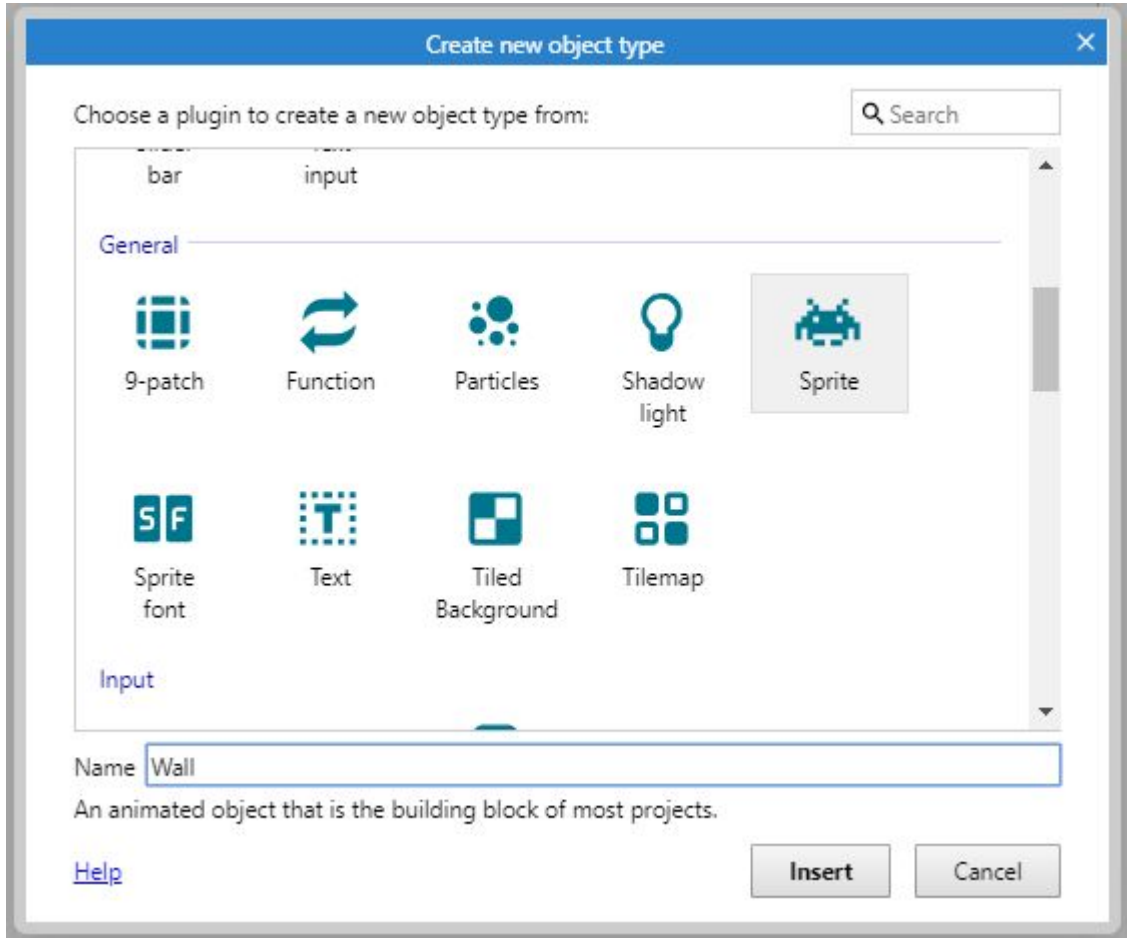
- Click on the sprite and look at the properties pane located on the right of the screen.
- This will let you further control how the player moves, including speed of the character and rotations
- Click on the set angle option and change it to “NO”

Following the player with the camera



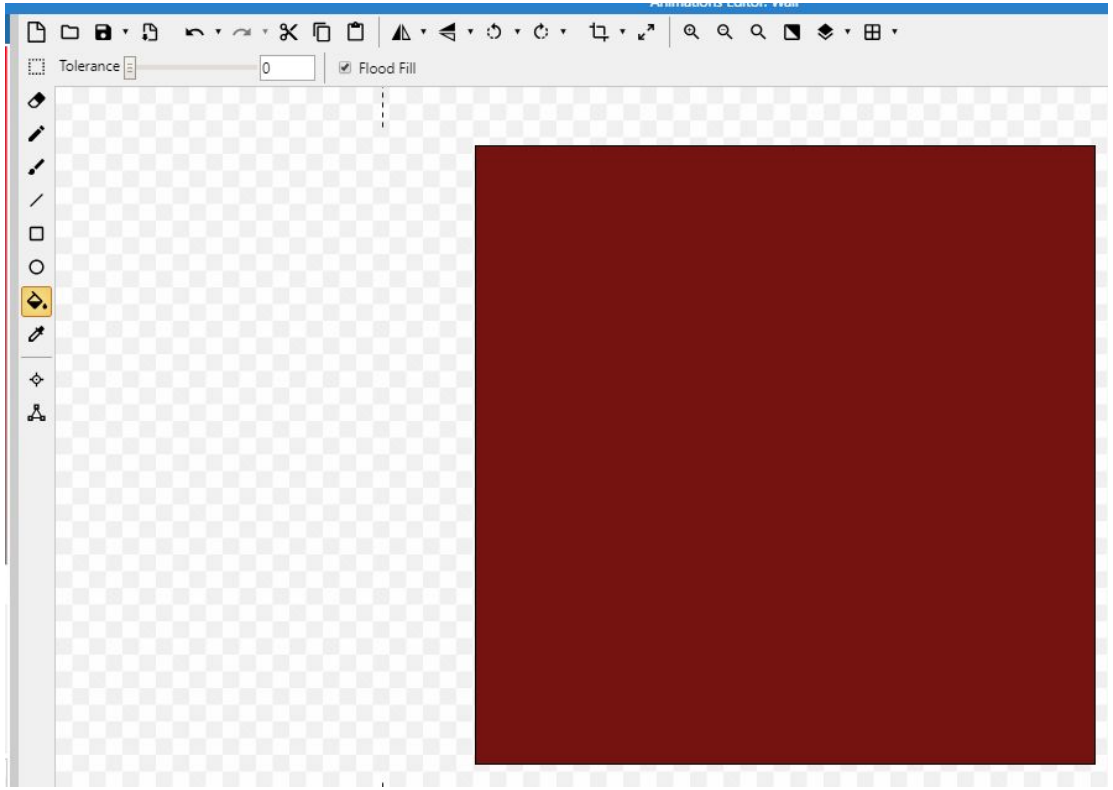
- Right click on the player and add a new behavior
- Click the Scroll To option
- The camera will now follow the player

Creating a wall



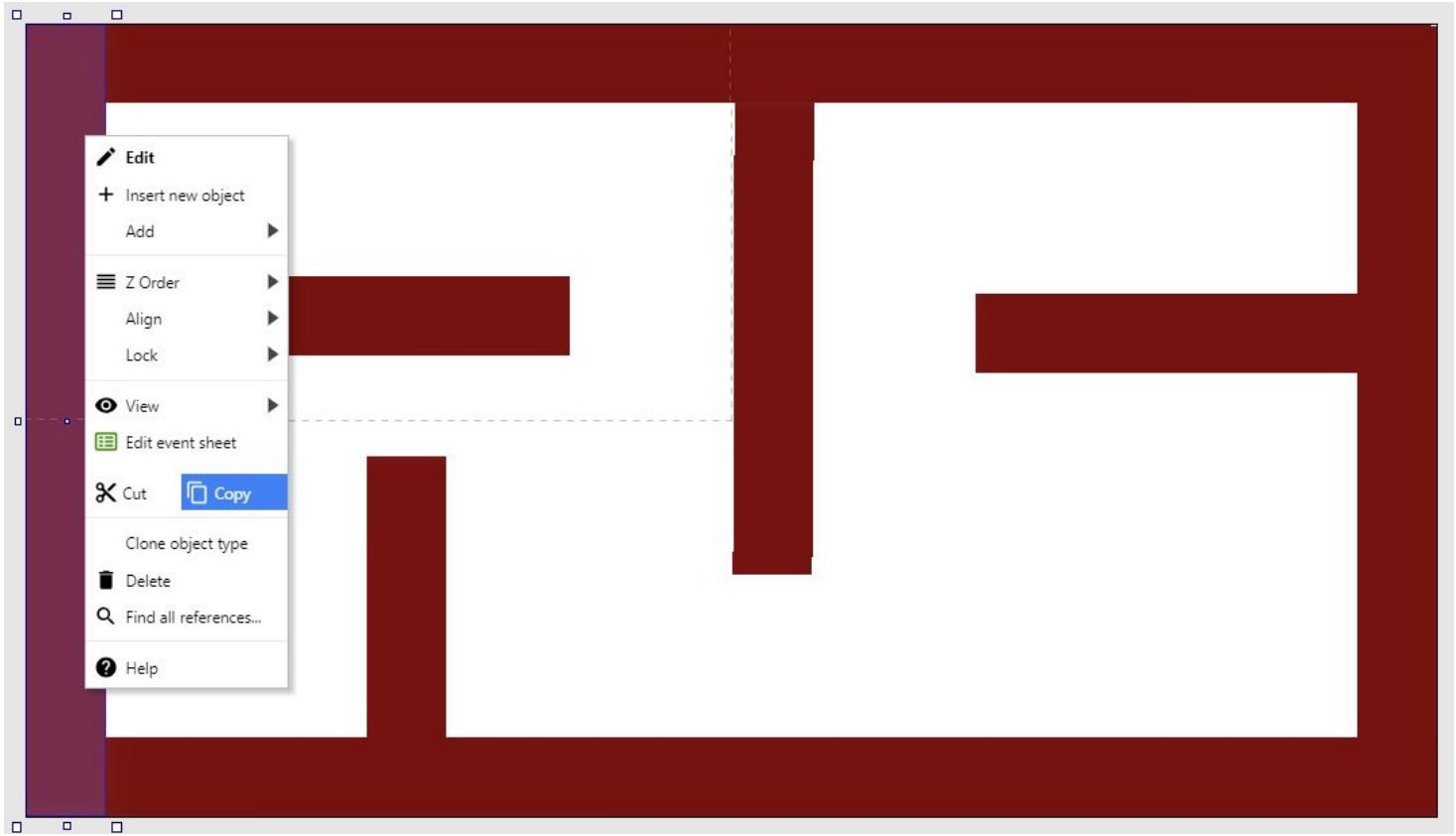
- Right click on the layout and create a new Sprite
- Remember to name the Sprite

Drawing the wall



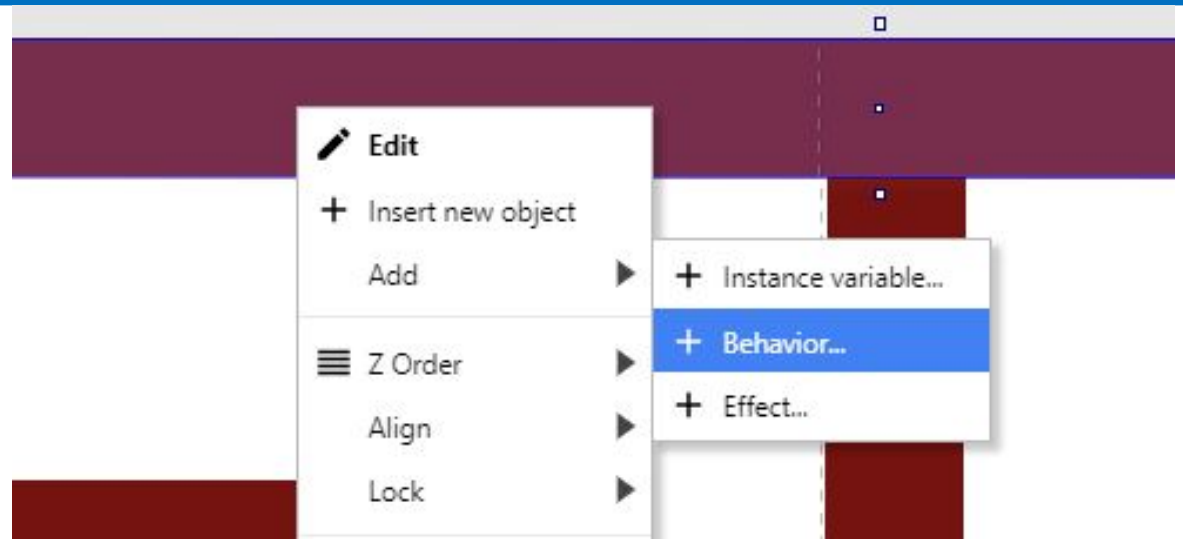
- Use the bucket tool and fill the space in with any colour

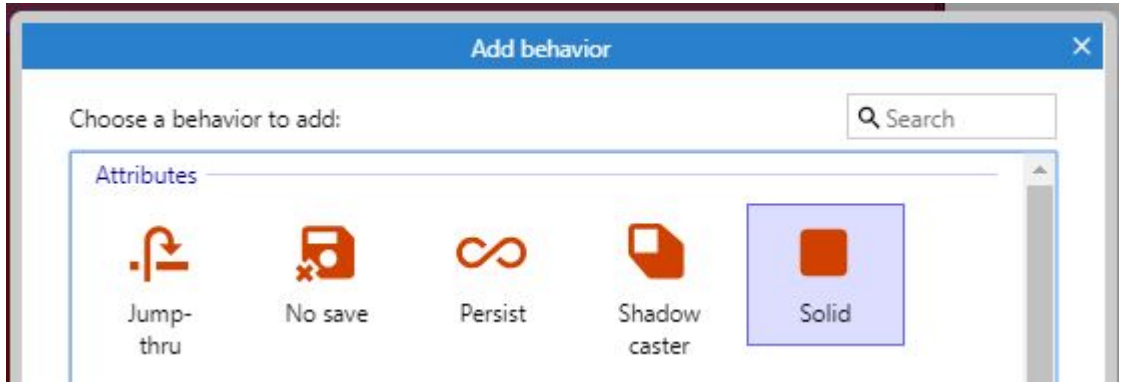
Creating the maze



- Copy and paste the new sprite and create a simple maze.
- You can rotate and resize the sprite to fit the need.
- Hint: Right click > view > zoom out to see the whole screen.

Solid walls





- Right click on any of the Walls and add a new behavior
- Click on the solid behavior
- This will stop are player being able to walk through walls
- Remember to save

Creating a maze game

Part 2 – Enemies

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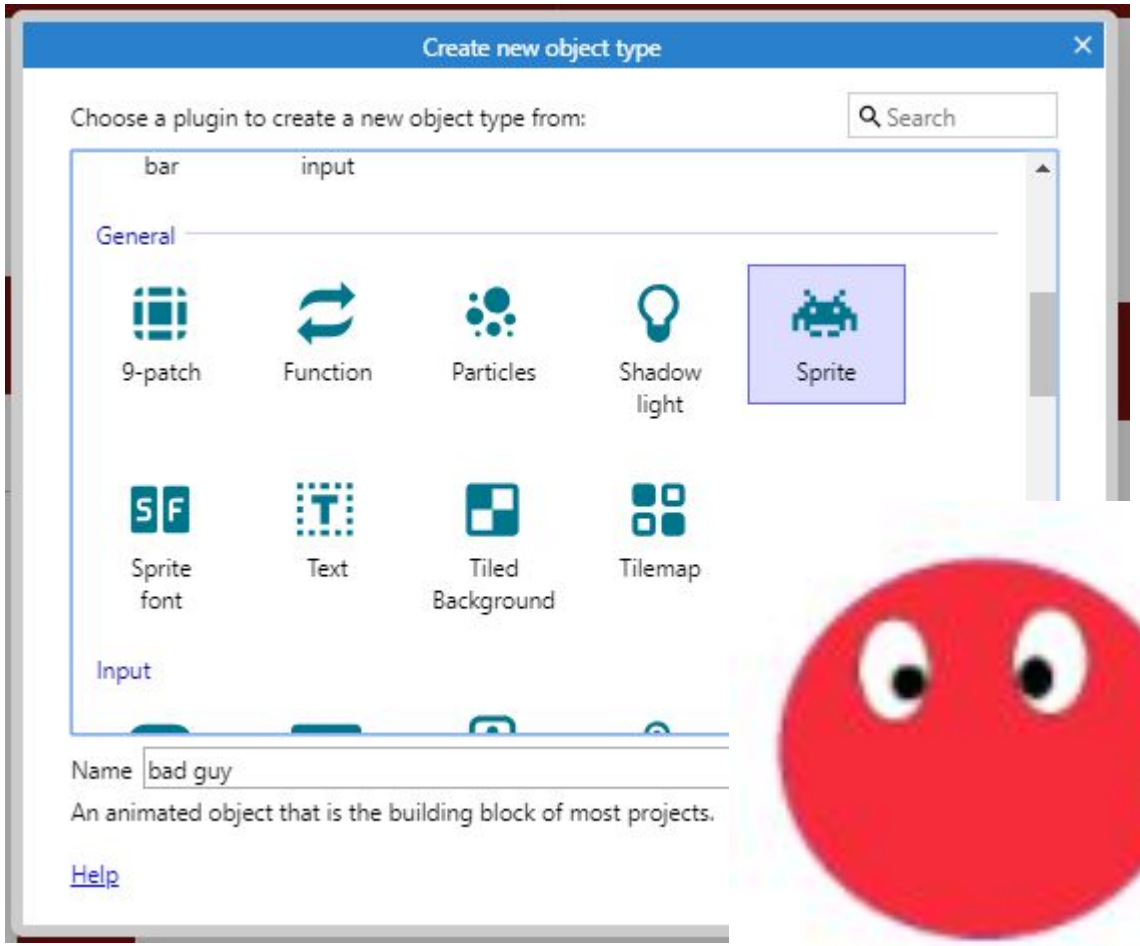
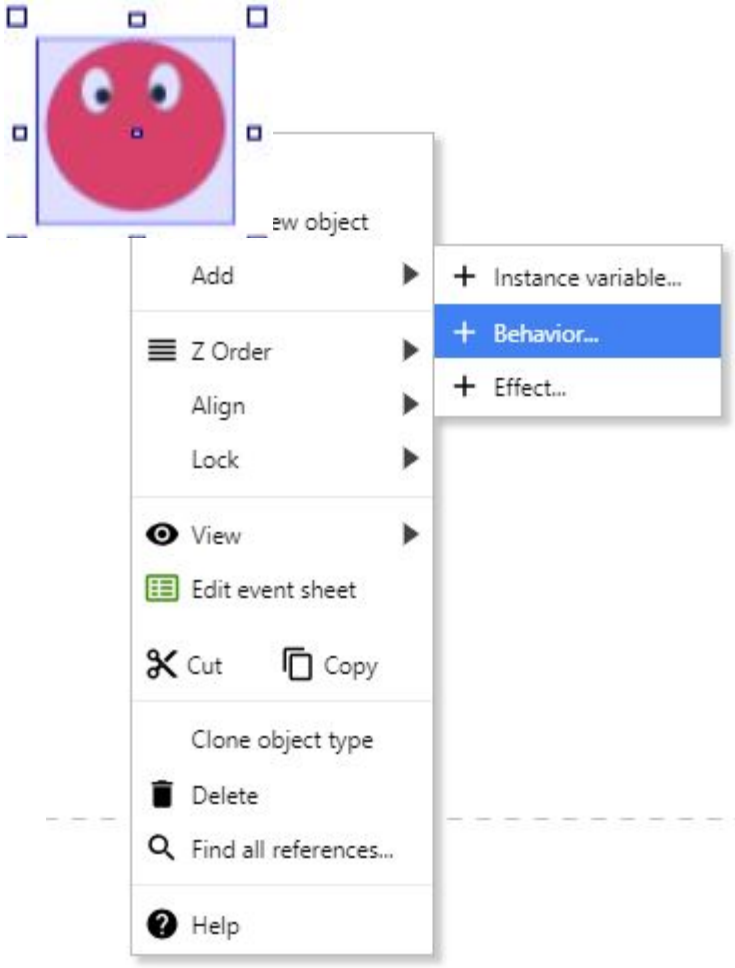
Creating a new enemy sprite



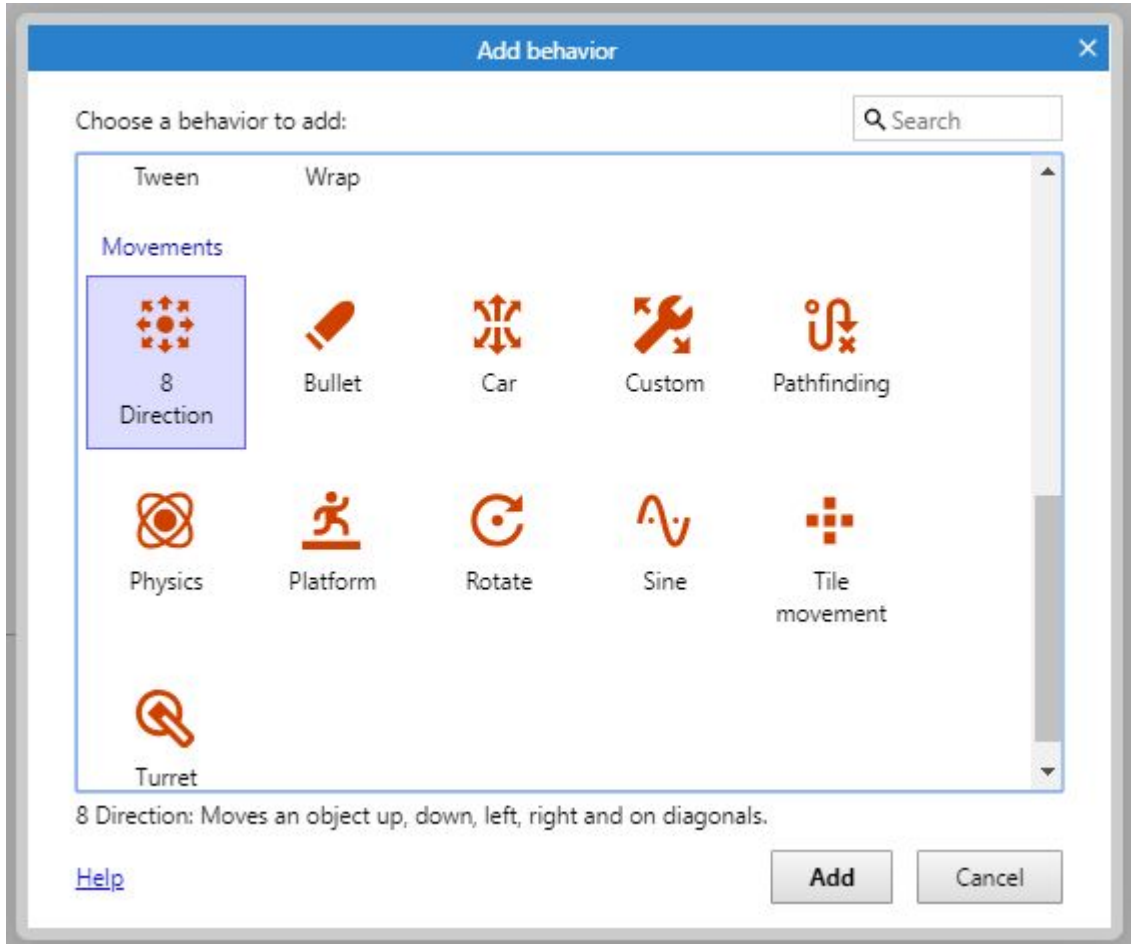
- Right click on the layout and create a new sprite
- Remember to name it
- Next draw your enemy (he does not have to look like mine)

Adding behaviors



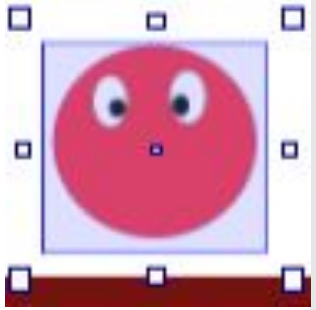
Right click on the sprite and click add a new behavior

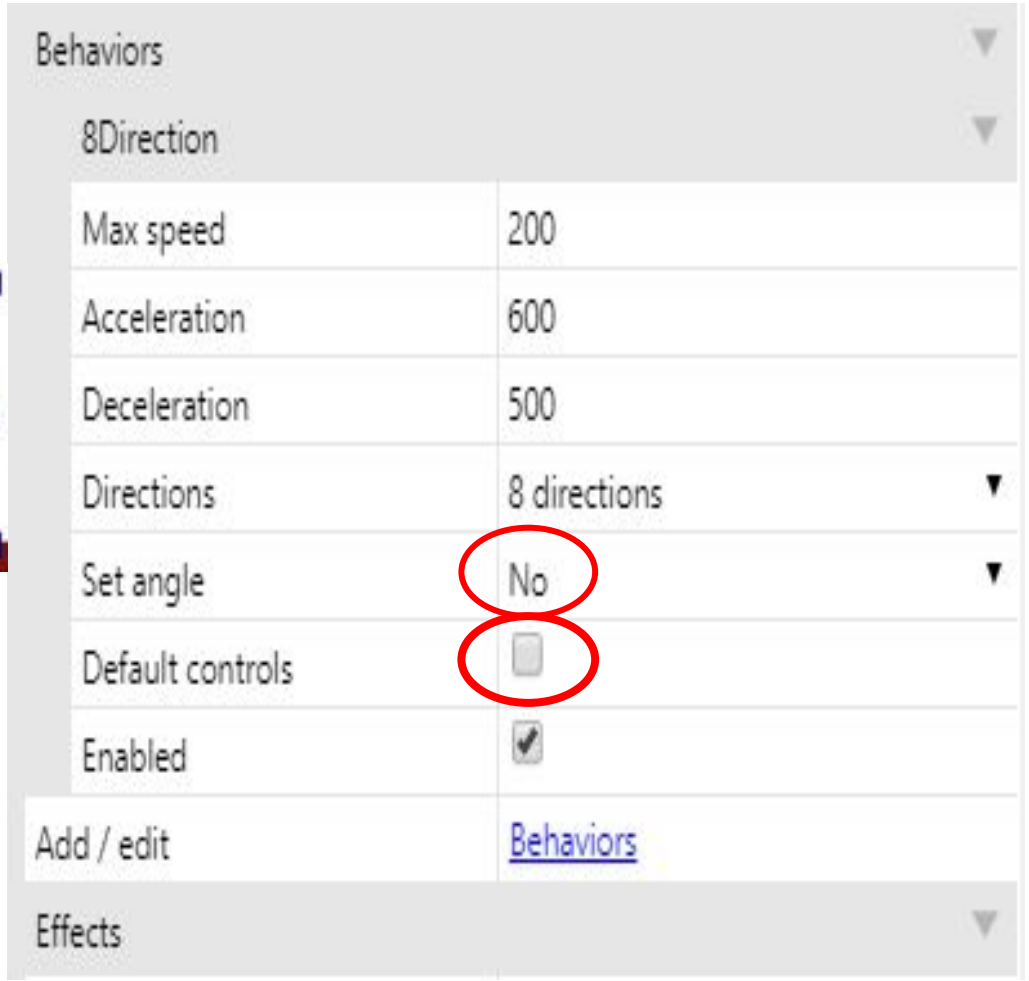
Setting up enemy movement



- Click on the 8 direction behavior and click add
- This will make our enemy move like our player

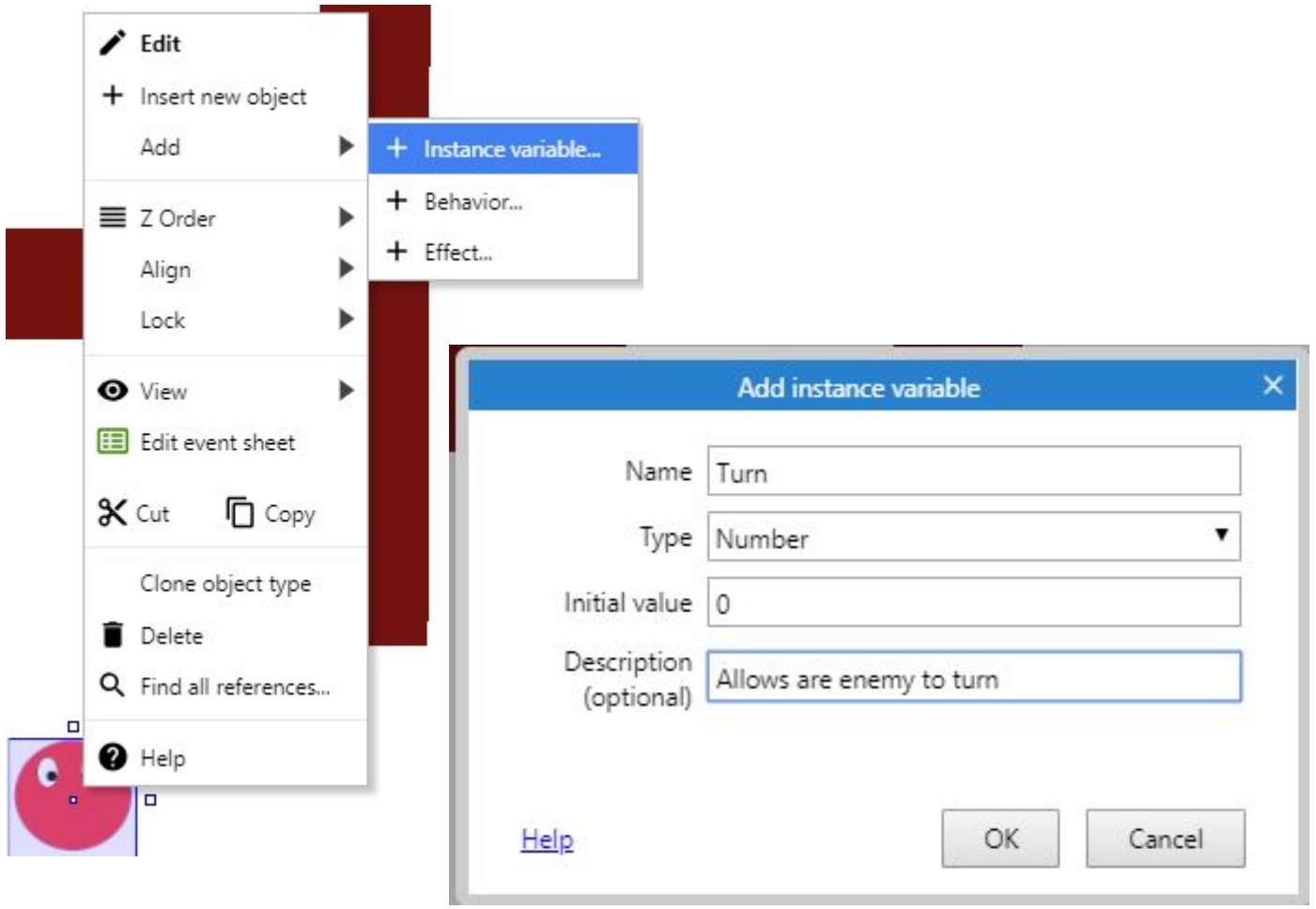
Movement options





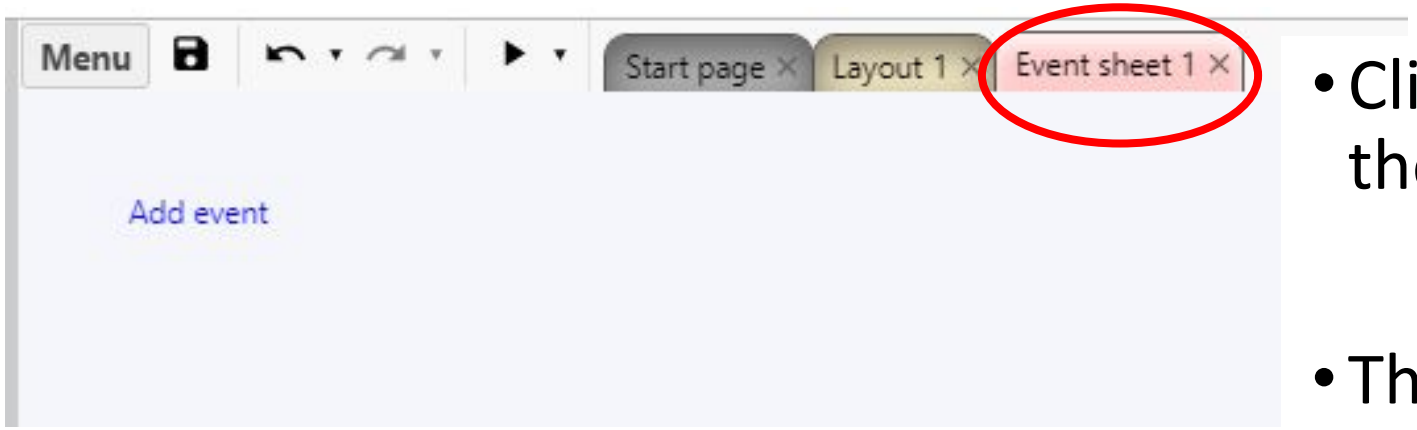
- Click on the sprite and look at the properties pane located on the right of the screen.
- This will let you further control how the player moves, including speed of the character and rotations
- Click on the set angle option and change it to “NO”
- Make sure default control is NOT checked

Creating a variable



- Right click on the sprite and add an instance variable
- Create a new variable with the name “Turn”
- We will be using this variable to allow are enemy to turn

Event sheet



- Click on the vent sheet tab at the top of the screen.
- This will allow your program your game in more depth
- The event sheet work by cause and effect so if when something happens, what is the effect of t

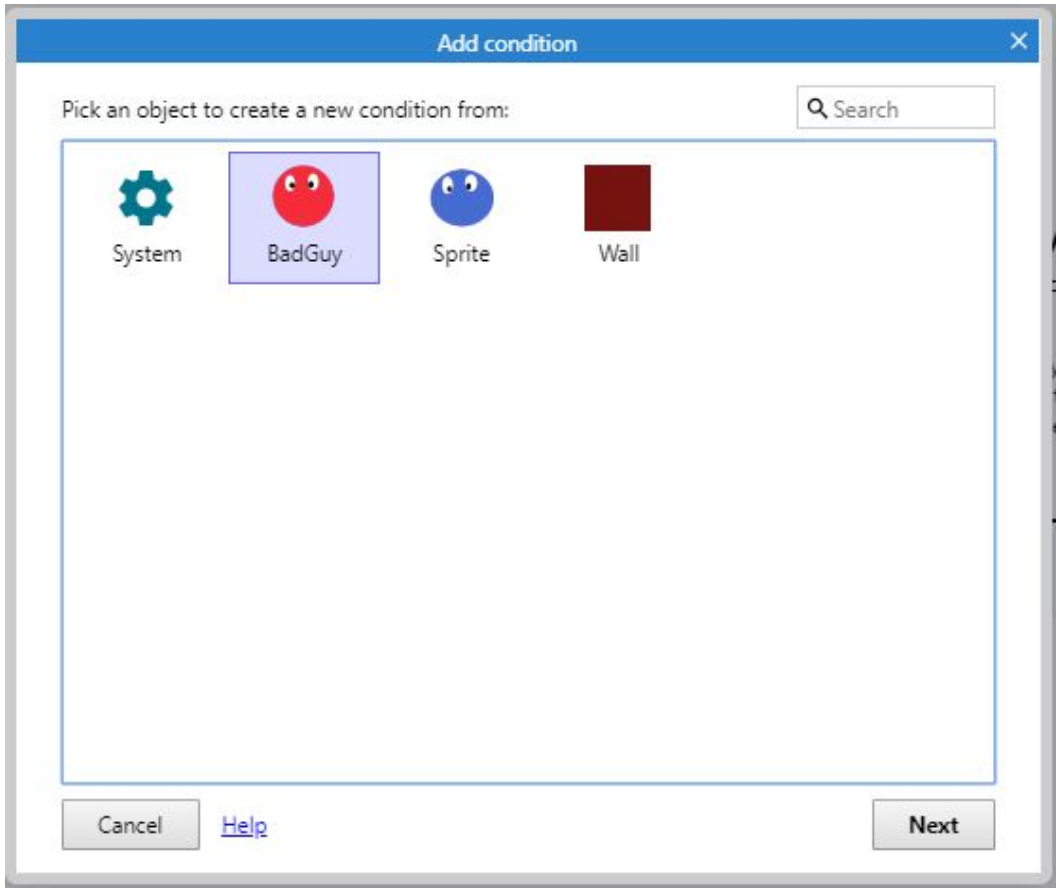
Cause

It has started raining

Effect

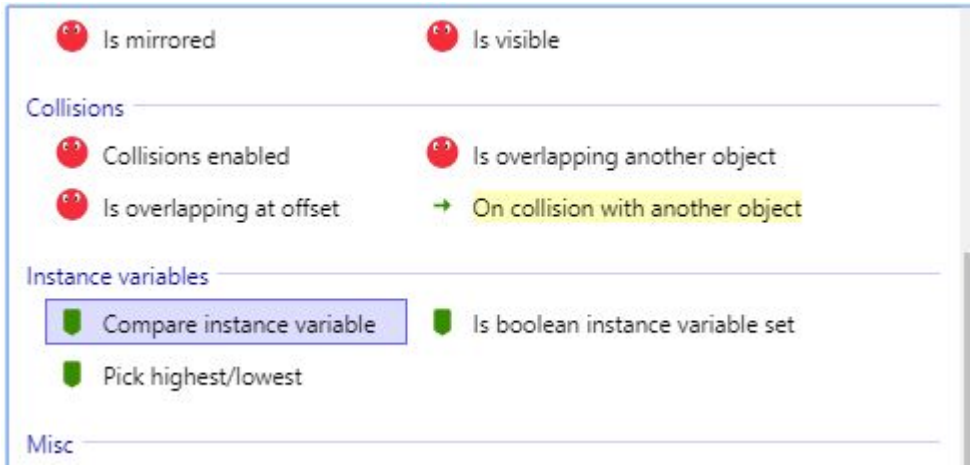
Grab an umbrella

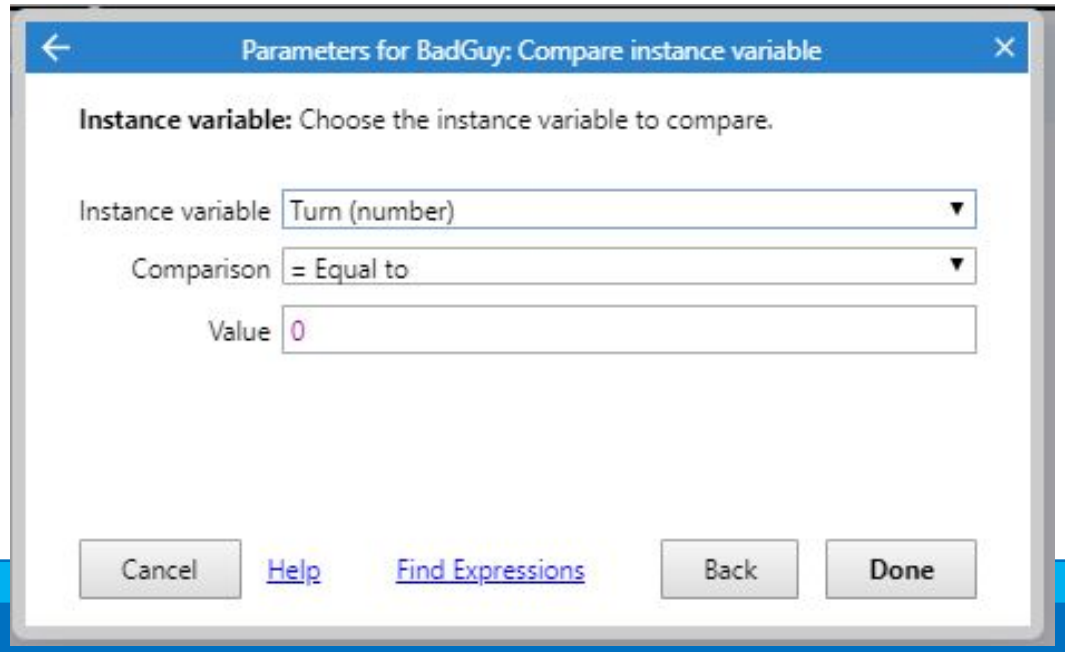
Creating our first event



- Click on add event
- Now we are going to decide the cause
- Click on the Bad Guy for your level

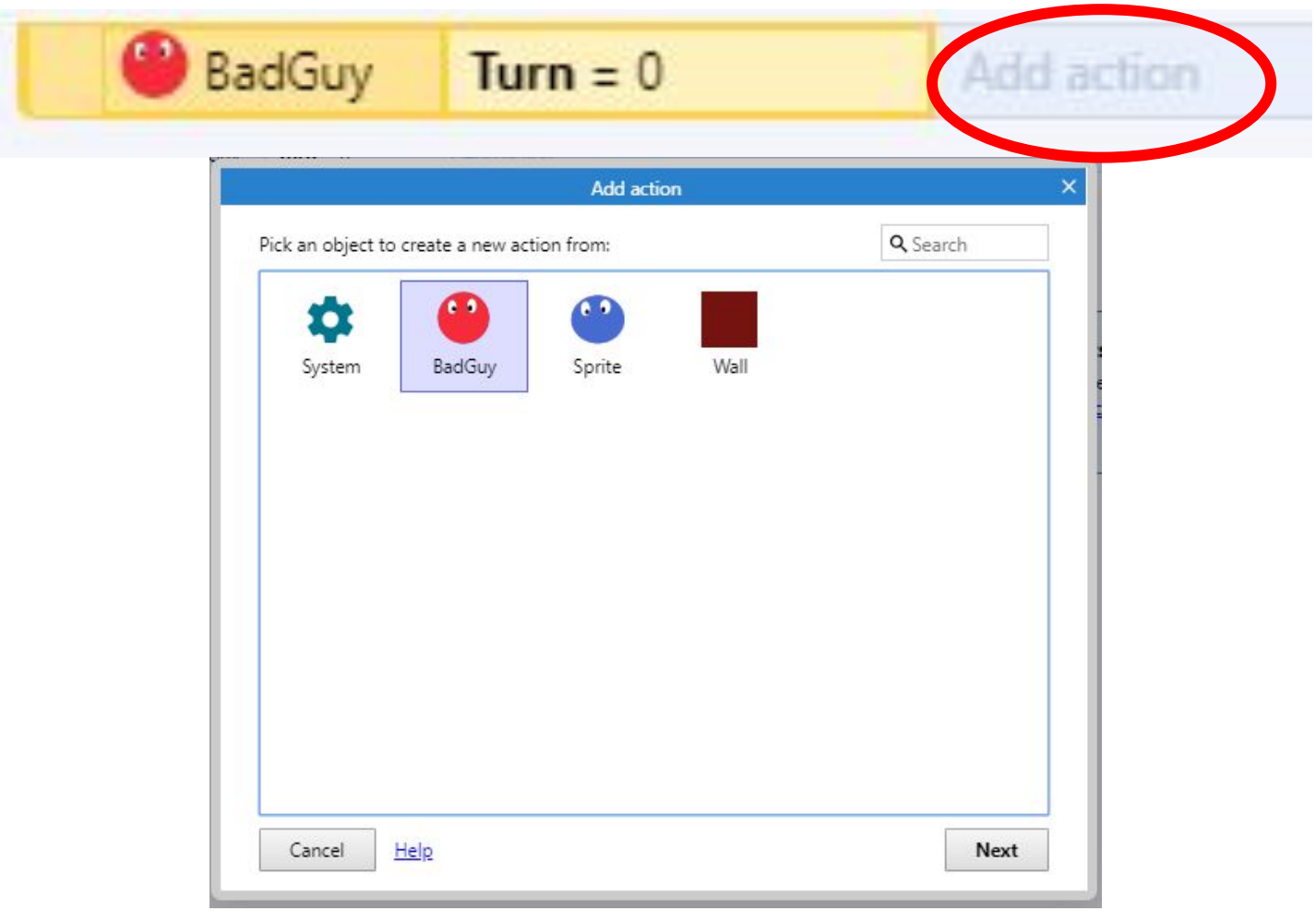
Setting up the cause





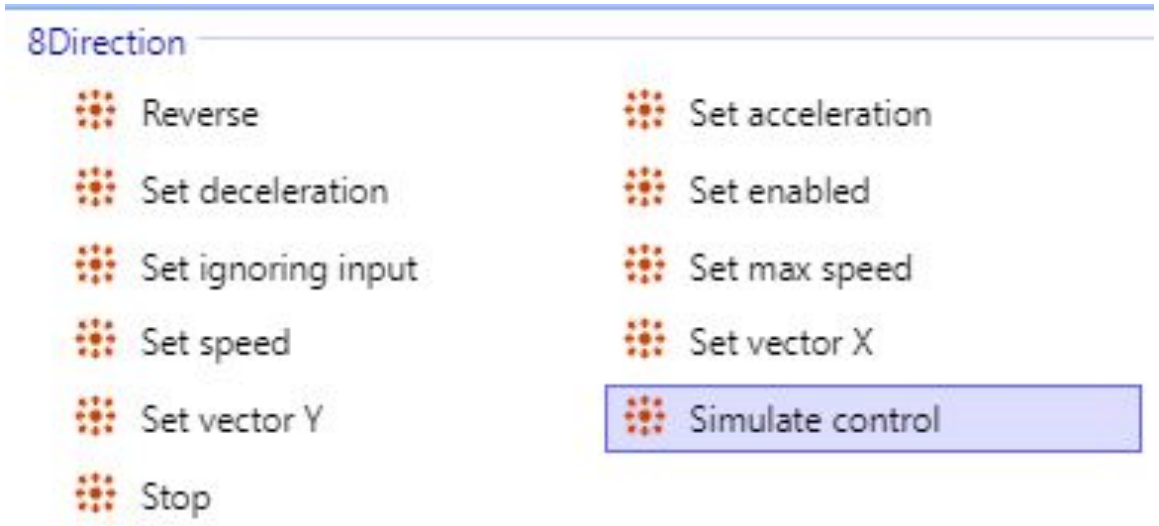
- Click on compare instance value and then click next
- We are going to check which way the bad guy is facing and then use that information to make him move in the other direction

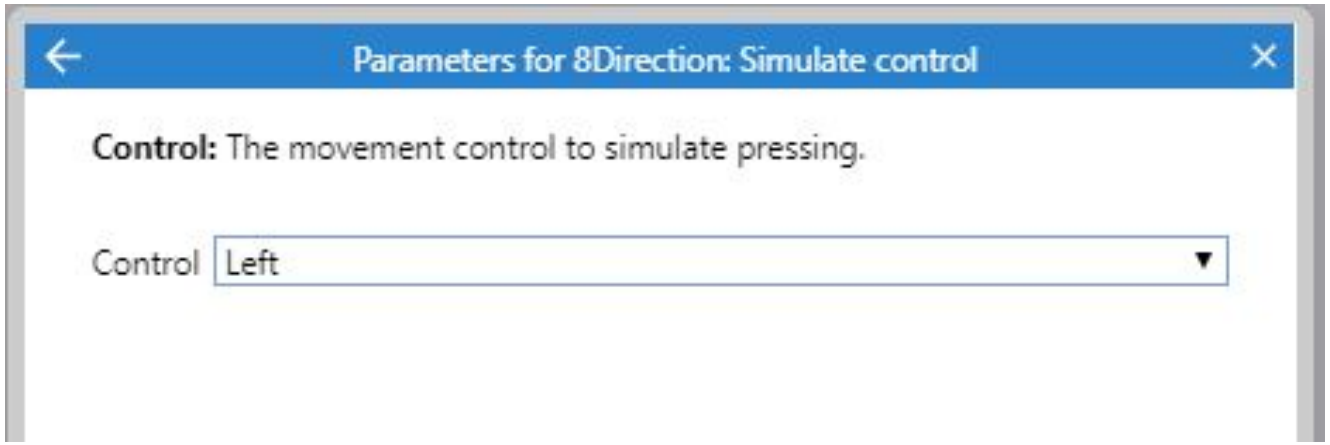
Adding an action



- Next to the event we have created, click add action
- We want to add the action to our bad guy

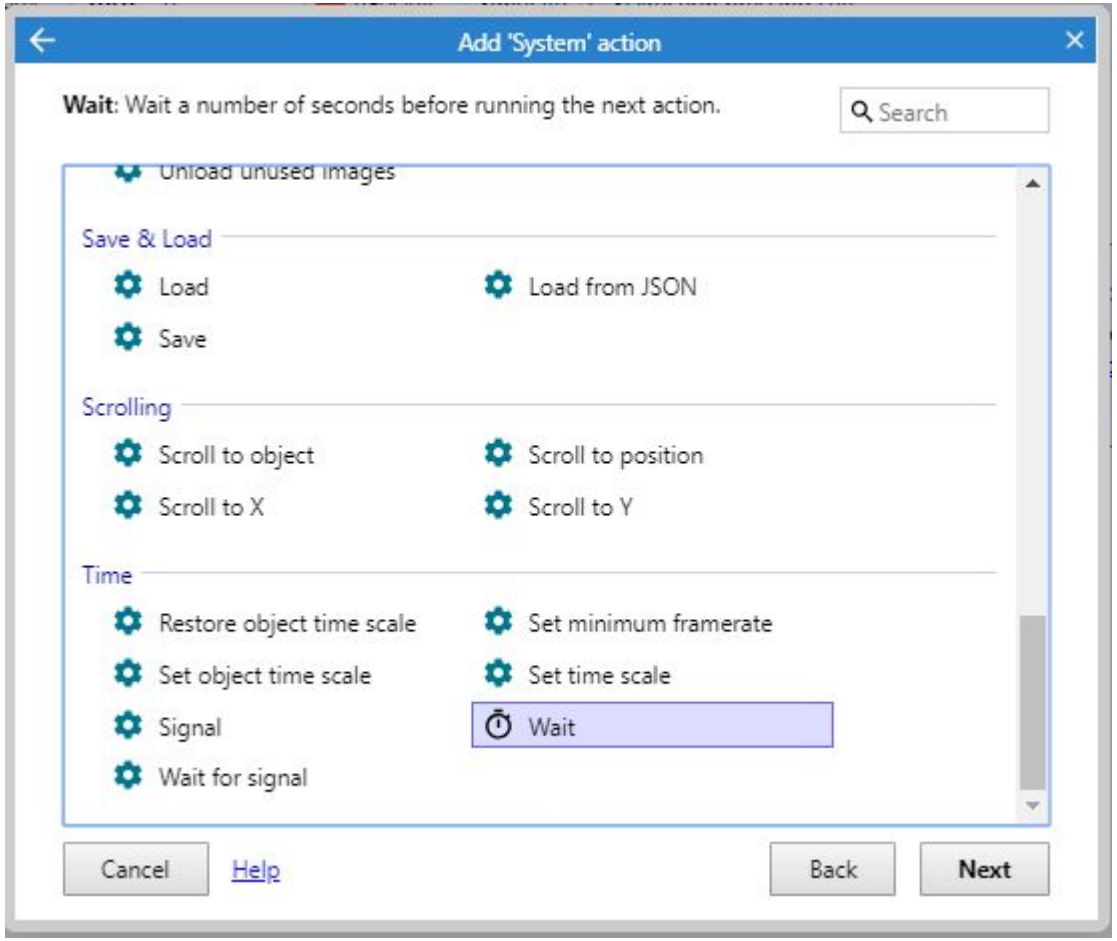
Effect 1





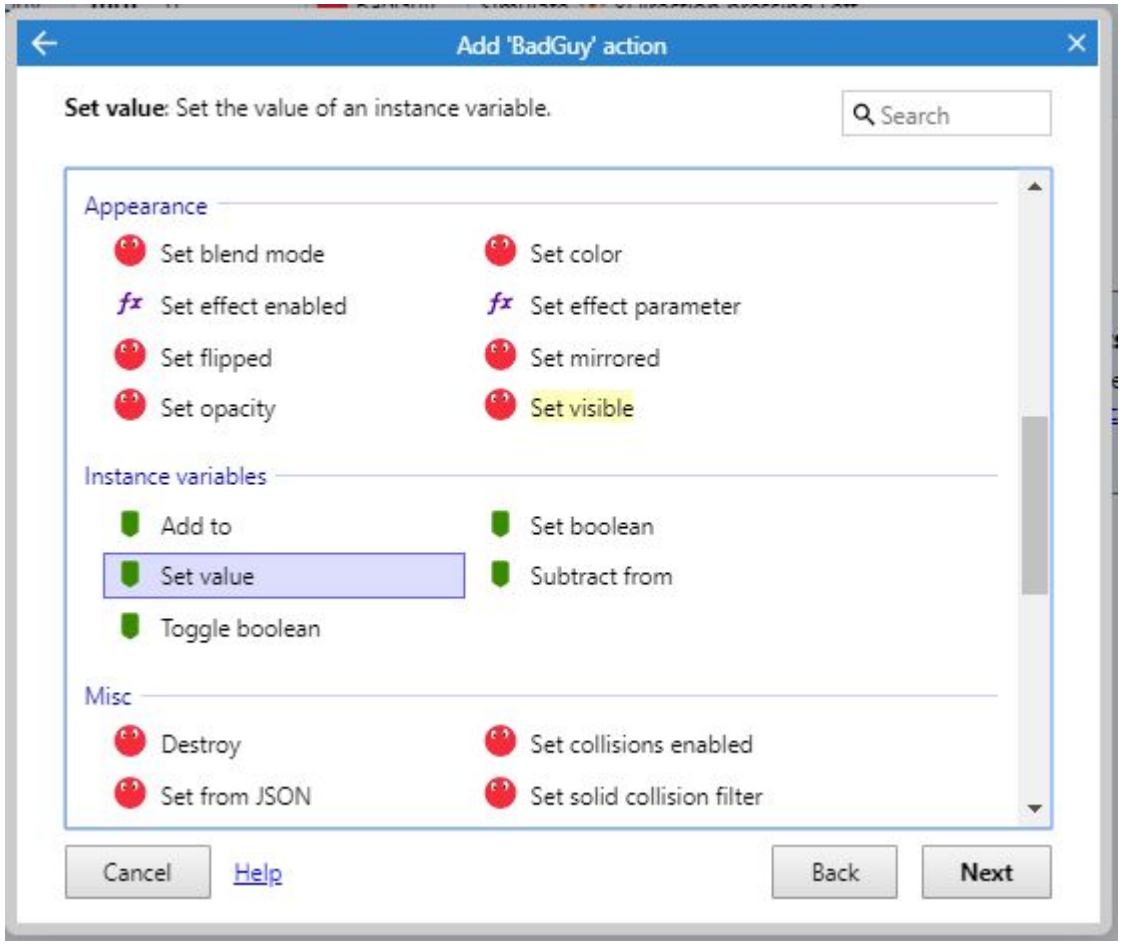
- The first action we are going to add will move are bad guy to the left

Effect 2



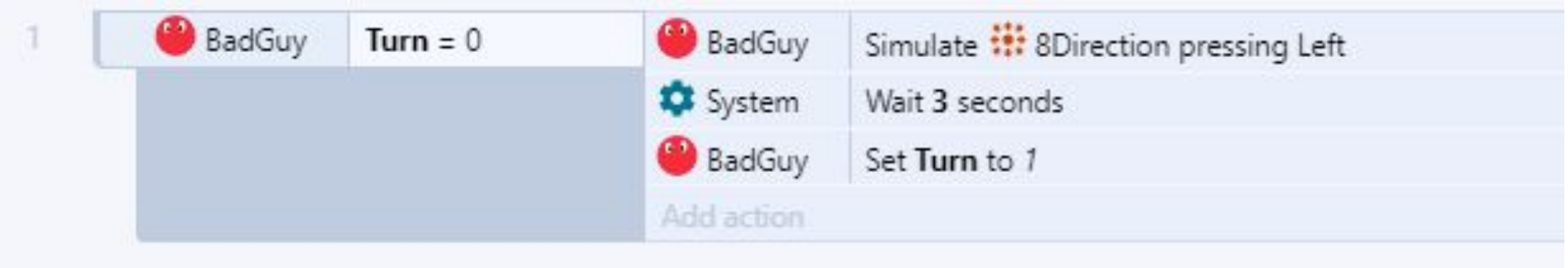
- For the next action we are going to create a SYSTEM action
- Add a new action for the event and click on system and then wait
- Set the wait time to 3 seconds

Effect 3



- The final action will be for the bad guy
- Click on set value and change the value to 1
- Remember to save

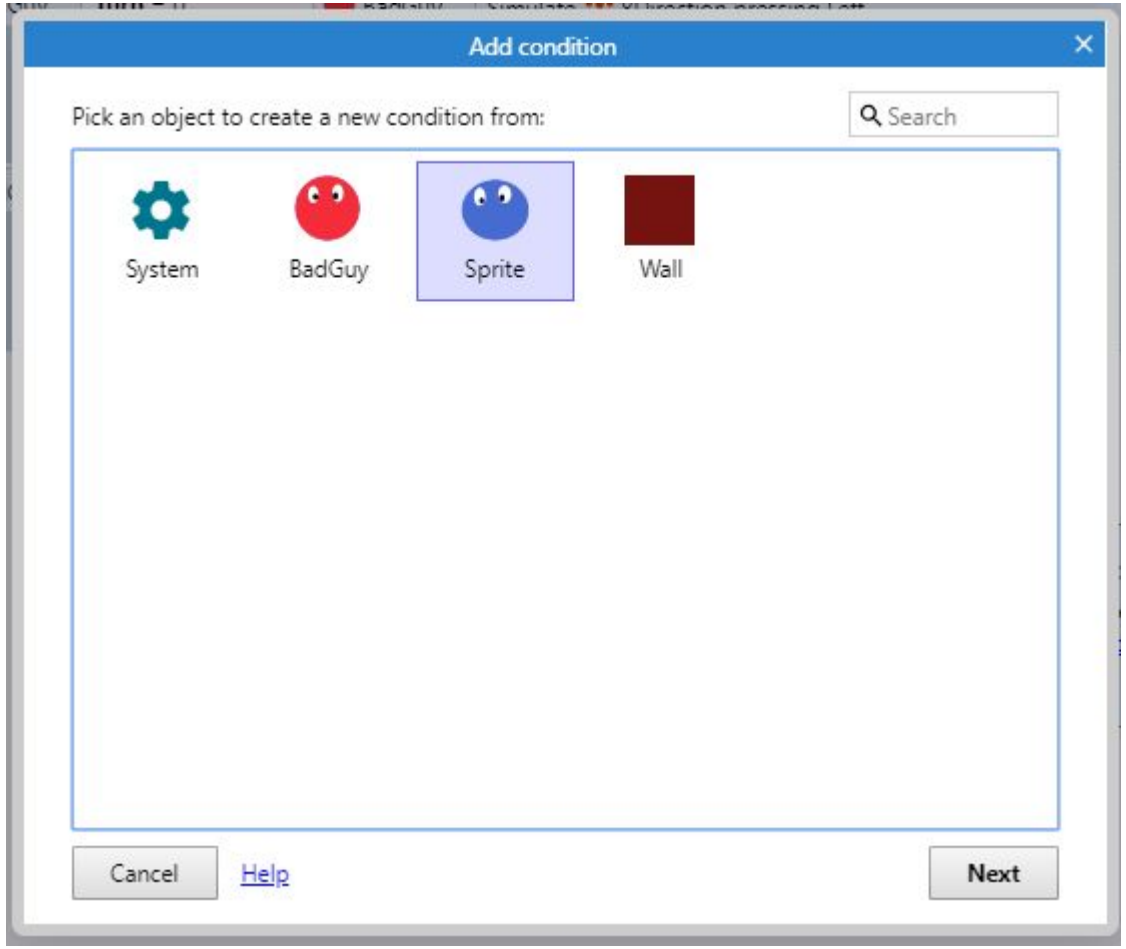
What your event should look like



- You final event should look the same as the above one
- This will only move the bad guy in one direction, we need to create a new event which repeats above but for the instance value 1 and moving right
- If you stuck check the next slide

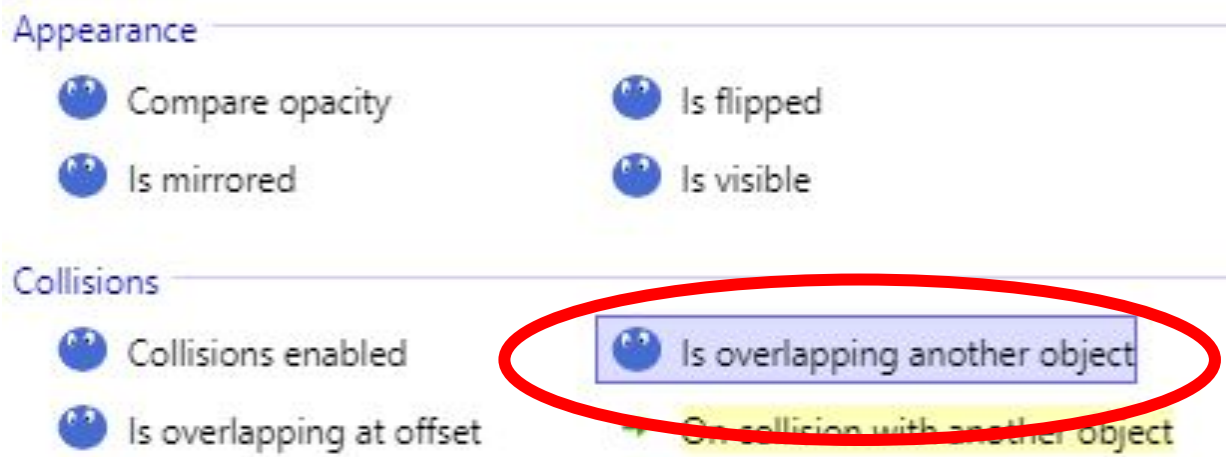
Final movement

Player and enemy collision



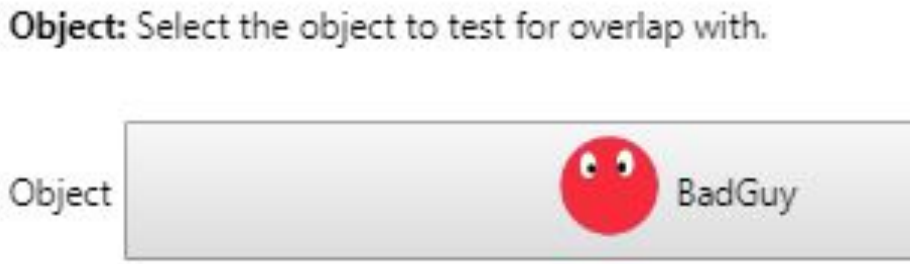
- For the final part of this section, we need to do something when are player touches the enemy
- Create a new event and click on the player

Player and enemy collision

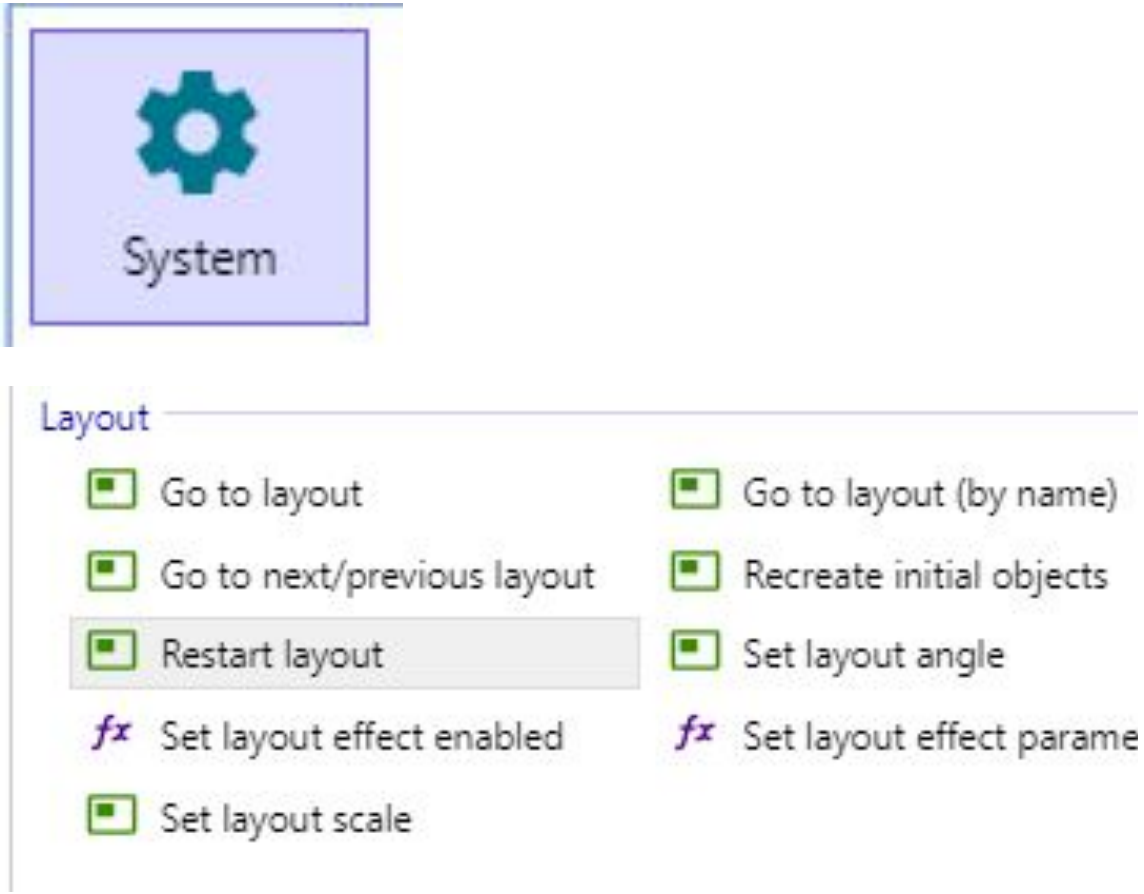


Click on the “is overlapping with another object option”

And on the next page click on the bad guy

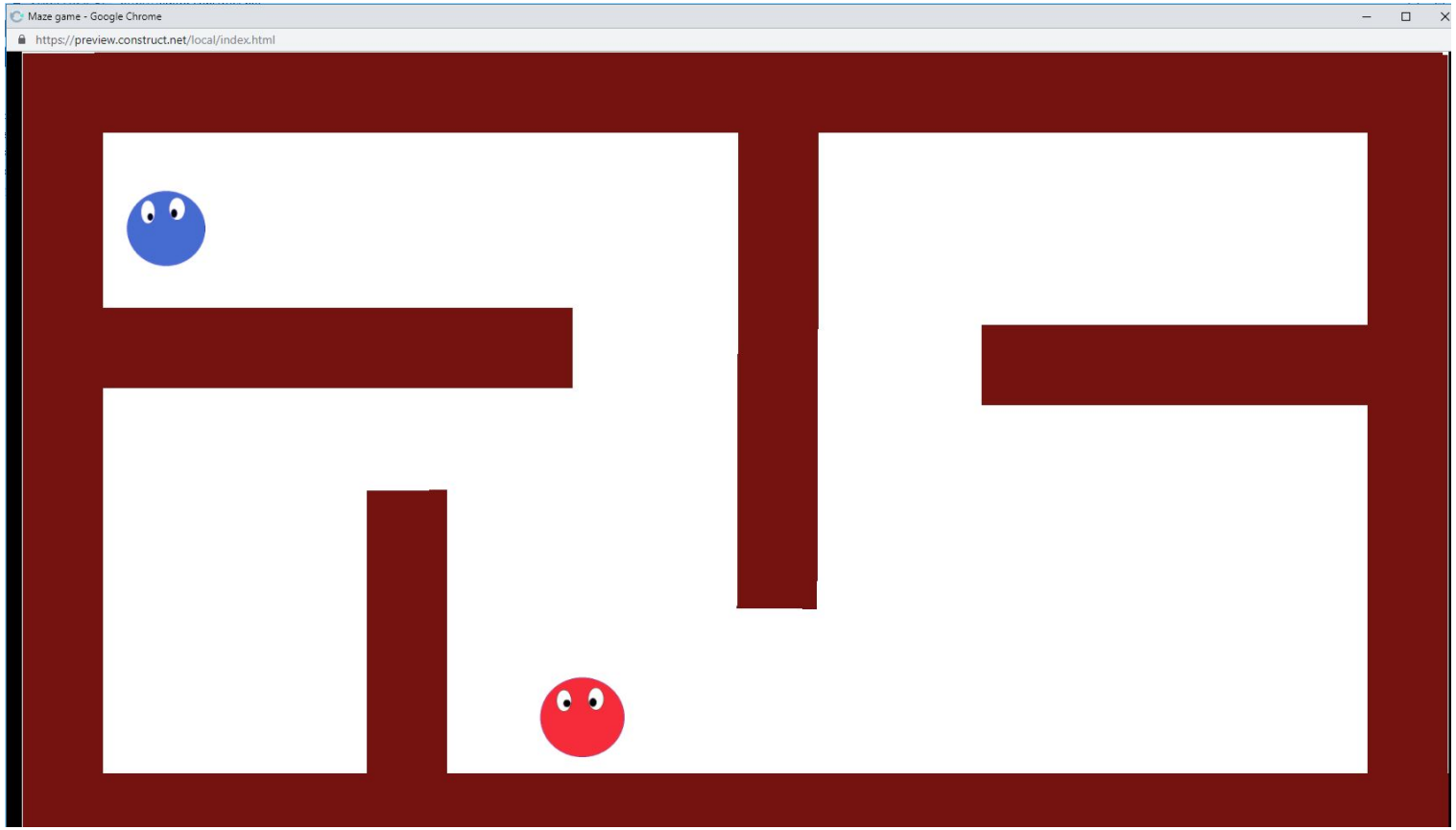


Restarting the game



- Create an action for the newly created event
- Create an action for system
- Select “Restart layout”
- Test your game

What your game should look like



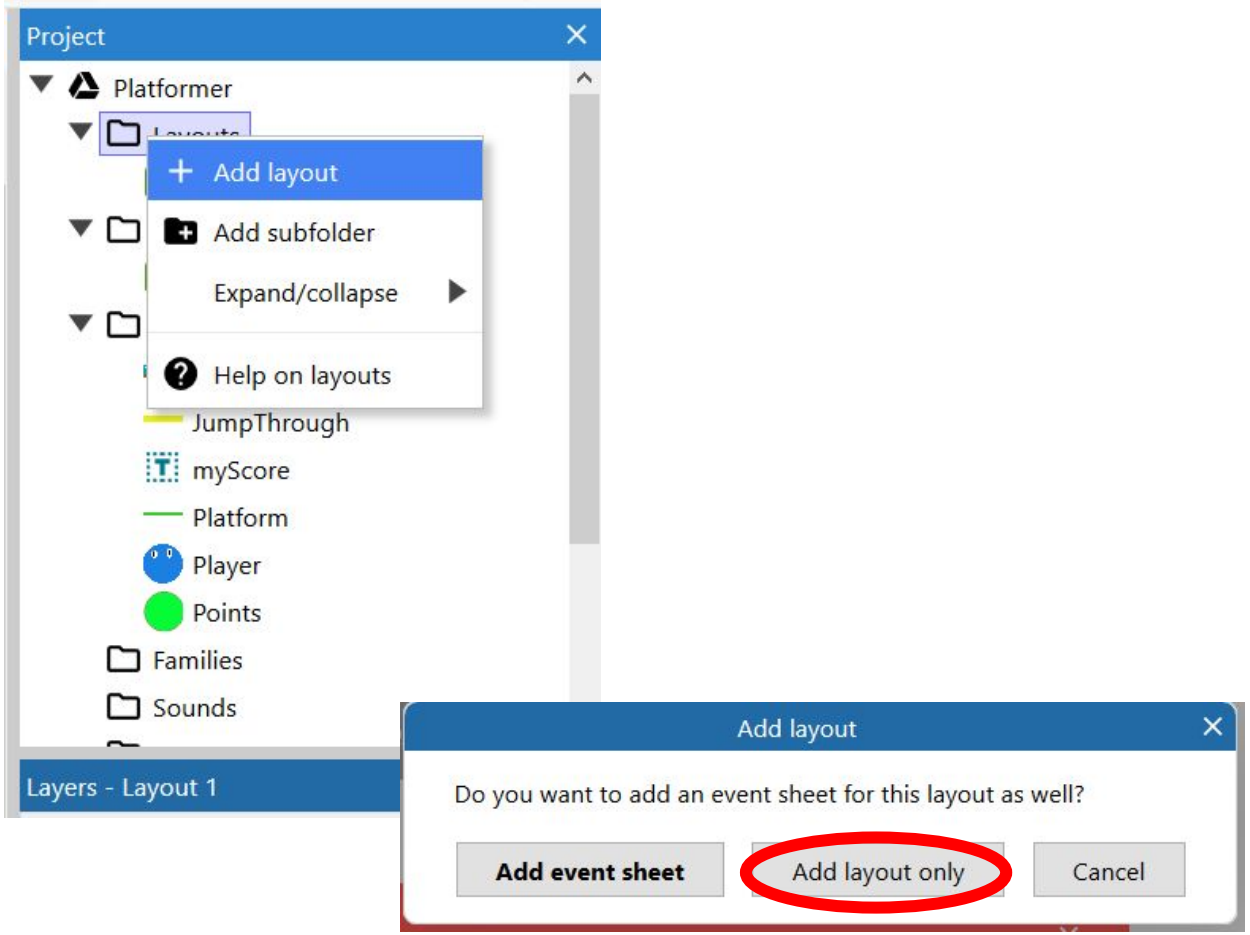
- You should have
- A player who can move
- The player can not leave the level
- A bad guy who can move left and right
- Level reset when the player touches the bad guy

Creating a platformer

Part 3 – A second level

https://editor.construct.net/

Creating a new Layout



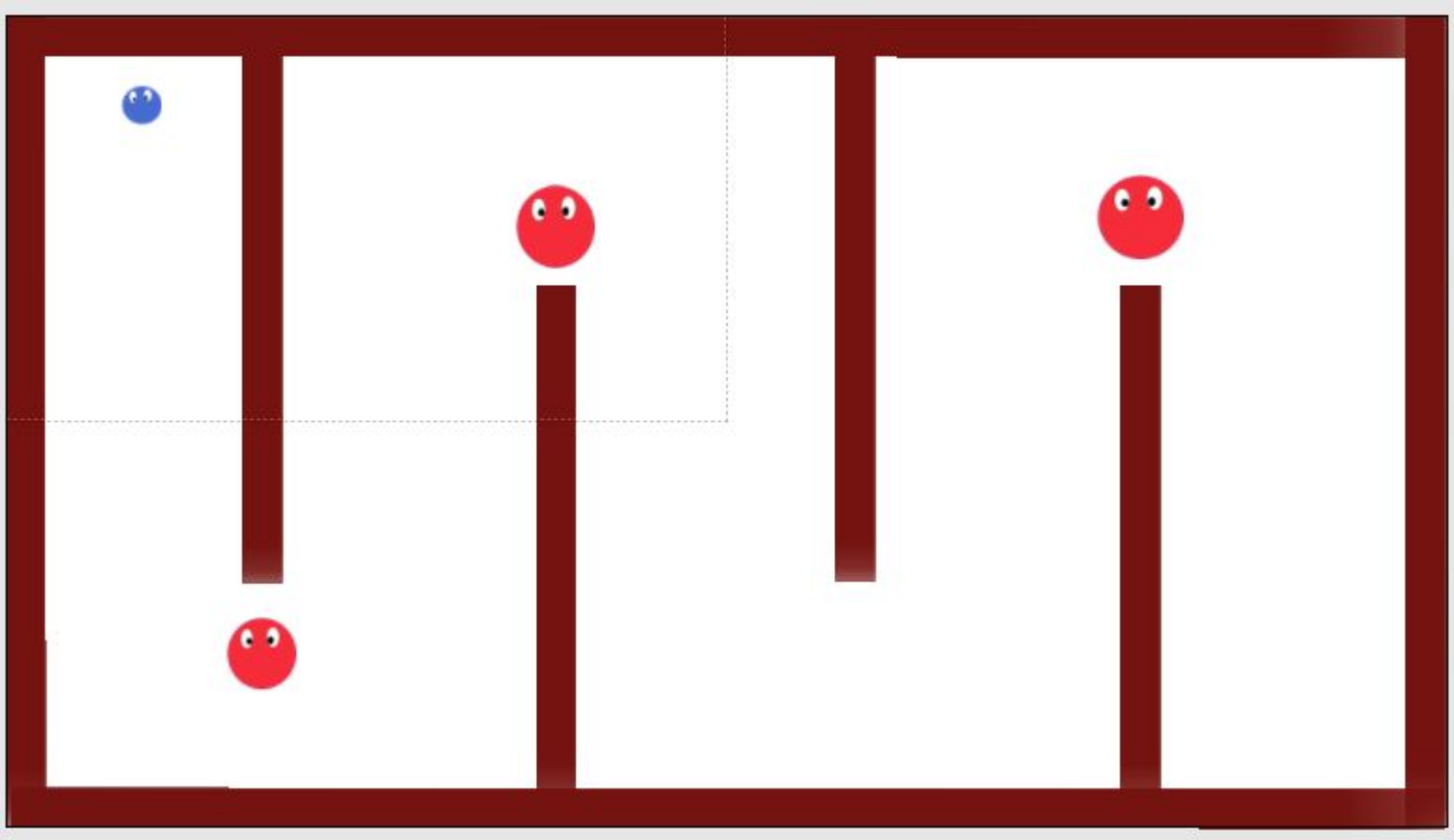
- Right click on the Layout folder (top right of the screen)
- Click add layout only

Creating a new level

- You now have a second level but it is very empty
- You will add your Player, walls and enemies into this level

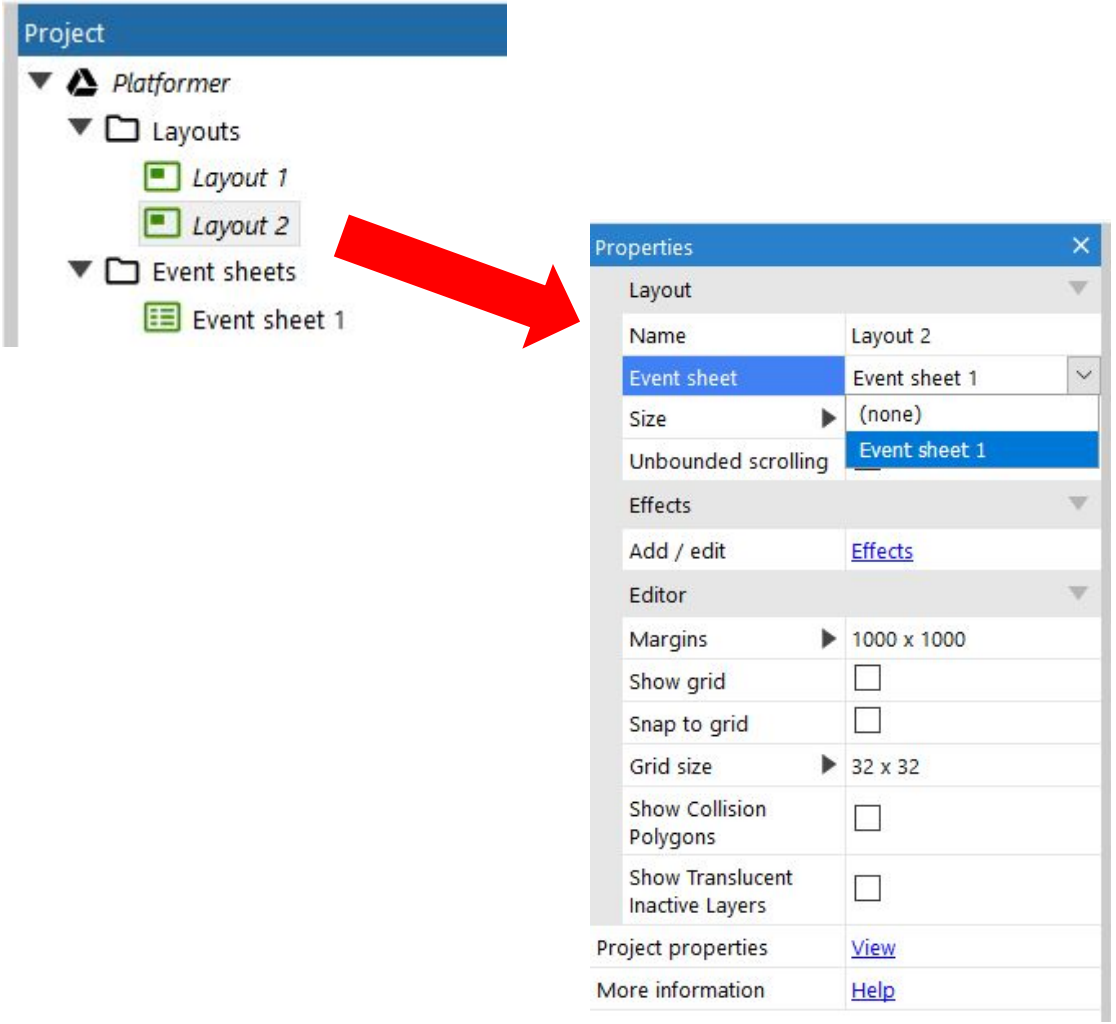
- You can also edit the size of level if you want to make it bigger and smaller

Where you should be at



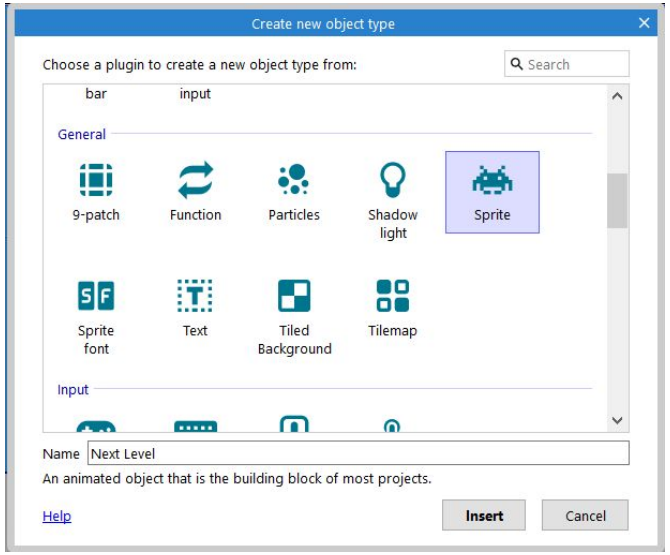
- You should have a second layout with walls, your player and enemies

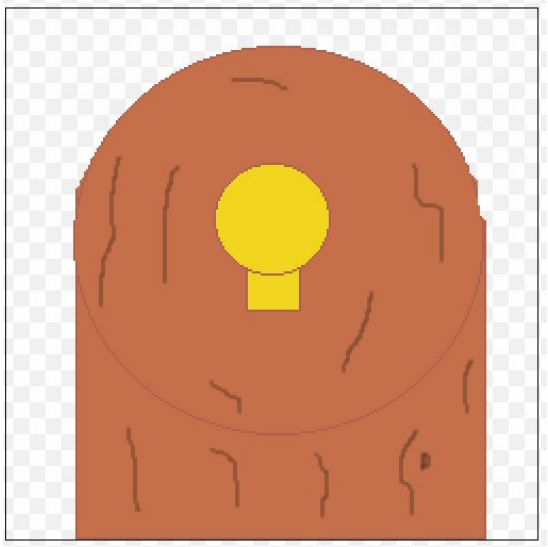
Linking your event sheet



- If you try play your second level, you baddies will not move and the game wont reset if you touch them. This is because level 2 does not follow the rules set up in our event sheet.
- To fix this click on Layout 2 and set the event sheet to event sheet 1.
- Now level 2 will work like level 1.

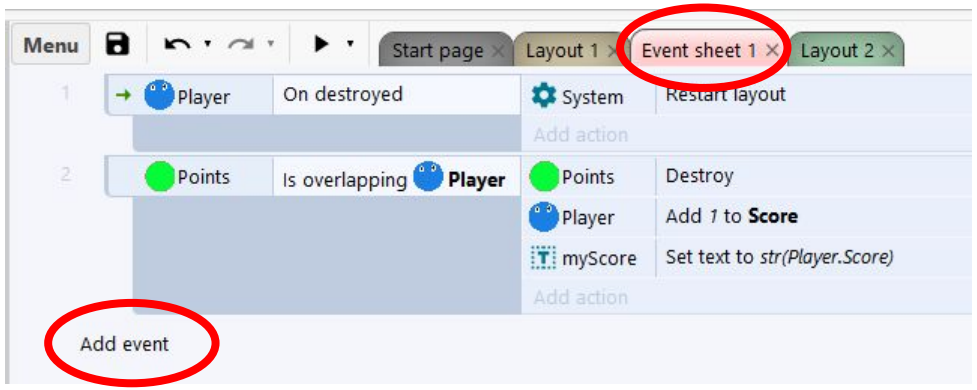
Creating the door to the next level

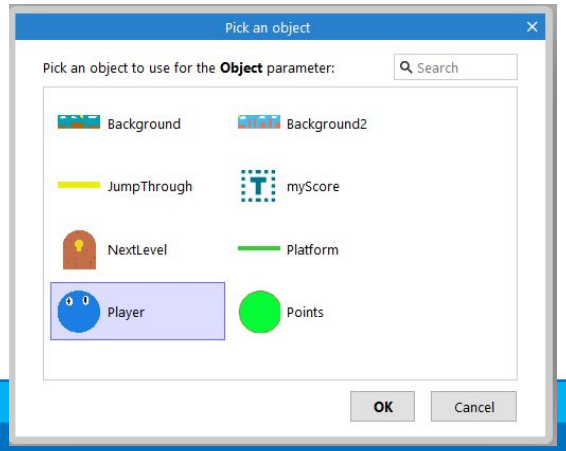




- Go back to the first level
- Right click on the layout ad create a new object
- Create a sprite and name it NewLevel
- This will be how your player gets to the next level (I'm using a door, you can use whatever you like)
- Place your door at the end of level 1

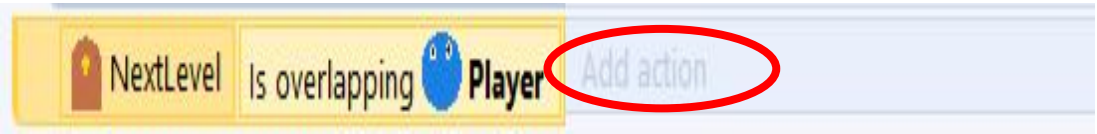
Next level (Event)

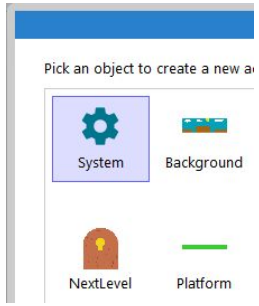


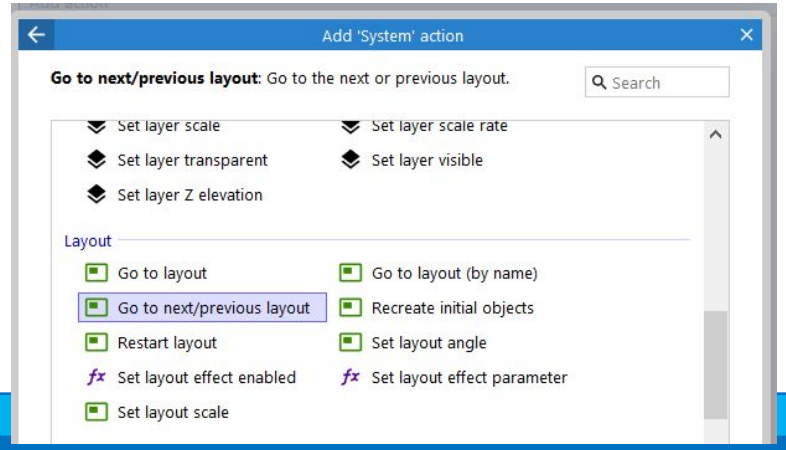


- Go to your event sheet and click “Add Event”
- Click on Next level and scroll down till you see the “is overlapping another object” option
- Select the player as the object
- This will cause an action to happen when the player touches the door

Next level (action)







- Add an action to the newly created event
- Click on system and scroll down to the option “Go to next/previous layout”
- On the next step, make sure next is selected and then click done.
- You now have 2 levels in your game
- Remember to save

Creating a platformer

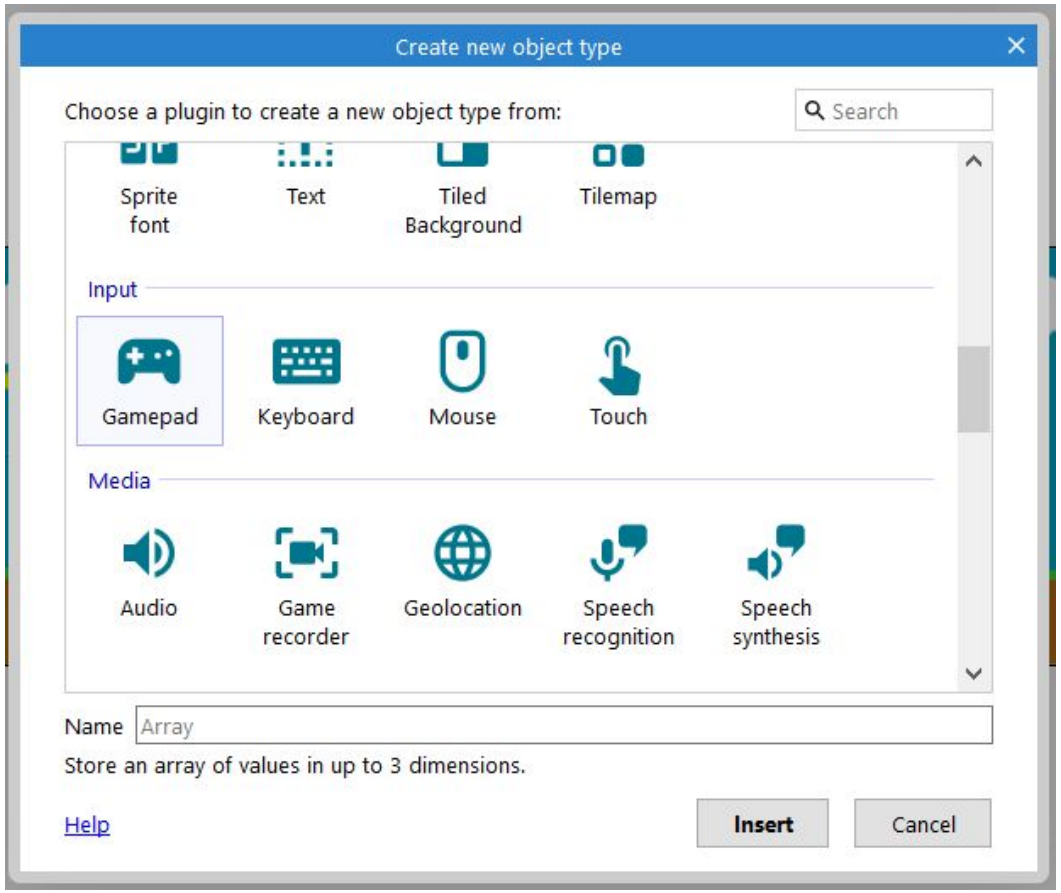
Bonus – Xbox Controller

https://editor.construct.net/

Grab a Controller

- Head to computer office and ask for a controller
- Plug it in to any USB on your computer
- Check the controller turns on

Import the controller functions

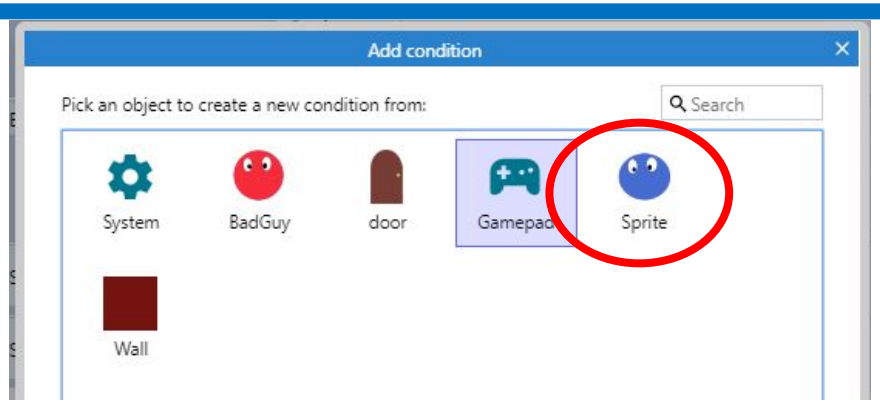


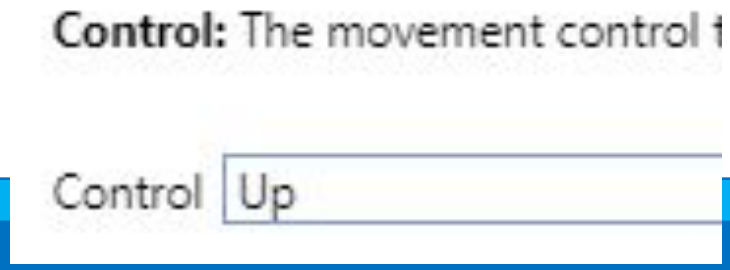
- Right click on the layout and create a new object
- Select Gamepad
- This will give us new event to select from

Setting up our controller event

- Head to the event sheet and create a new event
- Select gamepad
- Select “Is button down” option
- Finally we are going to leave the button as “D-Pad Up”

Moving up with the controller





- Add a action to the event we just created and select player
- Scroll down and select the “Simulate control” option
- Change control to jump
- Our player will now move up when the “D-pad up” is pressed

Repeat for the other directions

- Repeat for all four directions
- You will need a new event for each direction
- Remember to save