

Doodle Jump-like

Can you keep up???

Play the game we are building:
[click](#)

Today's Game

Challenge: Reproduce the original Doodle Jump logic only with your own hand-drawn characters.

Goal: Add your own creativity into a game that you know.

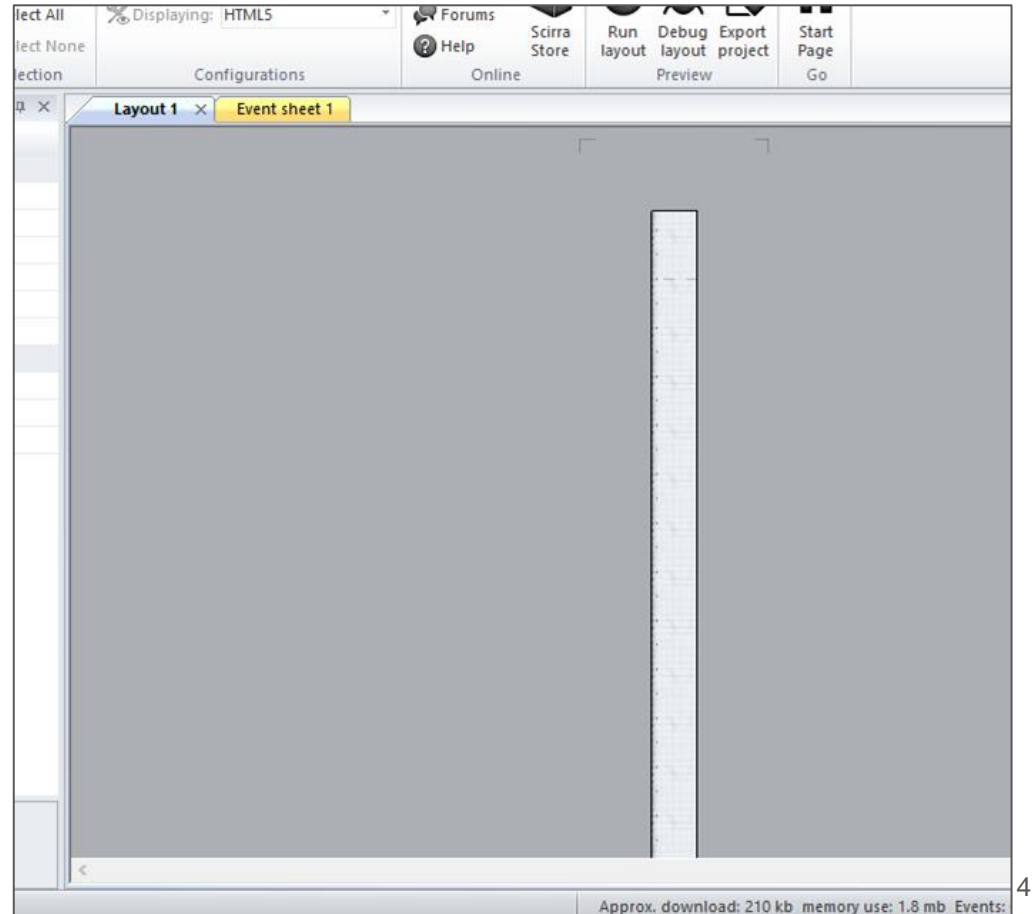
Features:

- Hero will auto-jump and only will go up
- Avoid the enemies
- The score will be the number of seconds it takes you to reach the top.
(Lower score is better.)

Setup Layout & Sprites

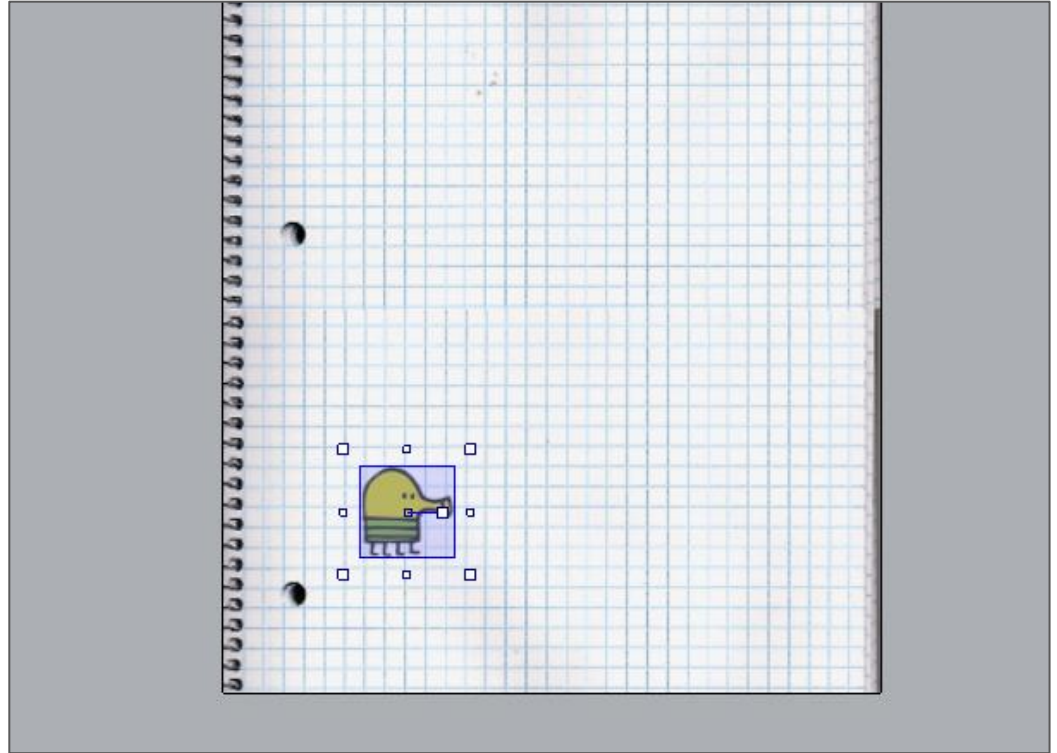
- Layout size (320, 6000)
- Windows size (320, 480)
- This is a really long game

- Create a tiledBackground
 - background.png
- Stretch throughout layout



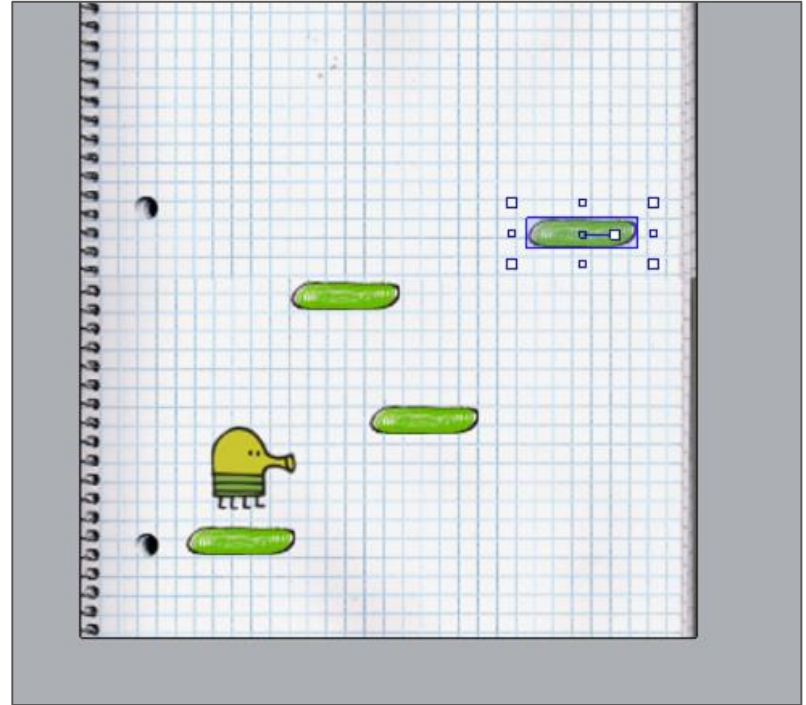
Add our Hero

- Scroll to the VERY bottom
- Create a hero sprite
 - hero-01.png or hero-02.png
- Name him “hero”
- We will add our own hand-drawn hero later



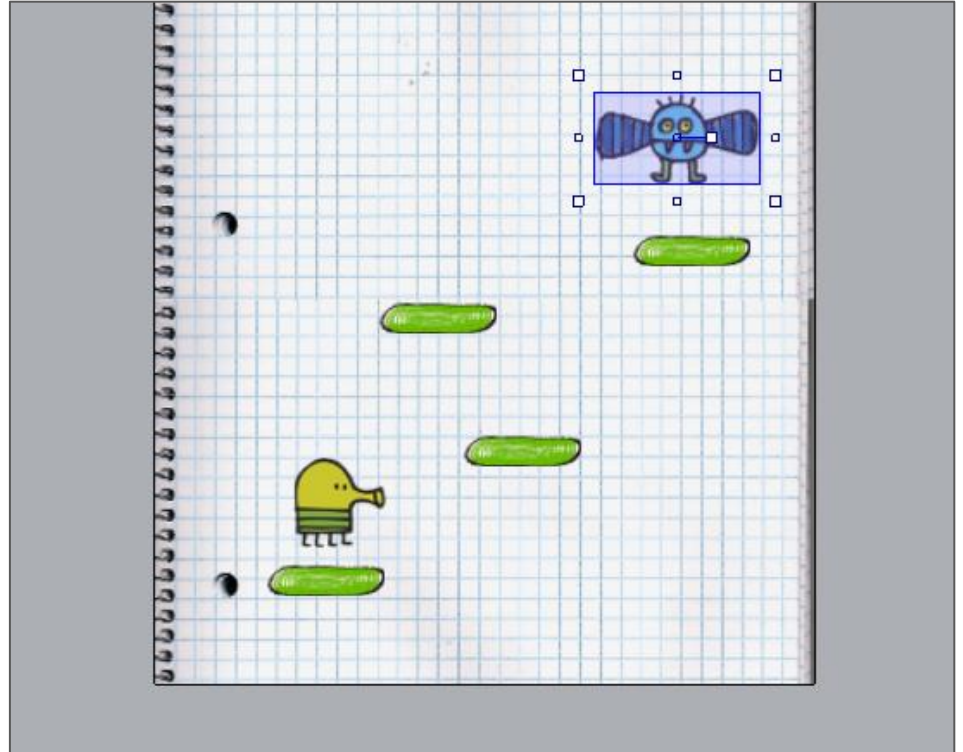
Add Block to Stand On

- Create a sprite for “block-01.png”
- Name: “block”
- Place a few to test (do not add to entire layout yet)



Add an Enemy

- Create a sprite for “enemy-01.png” or one of the others
- Name: “enemy”
- Set one enemy on the layout



Behaviors

- *Hero* gets:
 - Behaviors: **Platform**, **Wrap**
 - Property changes:
 - Acceleration: **1000**
 - Deceleration: **1000**
 - Fall Speed: **500**
- *Block* gets:
 - Behaviors: **Jumpthru**
- *Enemy* gets:
 - Behaviors: **Sine**
 - Property changes:
 - Period: **8**
 - Magnitude: **250**







Adjust Collision Points

- Edit Hero and adjust
 - Needs to be flat for his feet



Add the Startup Logic

- Initial scroll to the bottom
- Keep track of the “lowest” point you’ve traveled

Global number minscroll = 10000			
1	 System	On start of layout	 System Set scroll Y to <i>LayoutHeight</i>
			Add action
2	 System	Every tick	 System Set scroll Y to <i>minscroll</i>
			Add action
3	 hero	Y < minscroll	 System Set minscroll to <i>hero.Y</i>
			Add action

Add event

Auto-Jump & Restart

- Create TWO conditions in one Event
 - (use “**Add another condition**” from right-click for the 2nd one)
 - Both are “hero → Compare Y”

The screenshot displays an event-driven programming interface. It shows two event conditions for a 'hero' object:

- Event 4: hero → Platform On landed. Action: Simulate Platform pressing Jump.
- Event 5: hero → Y > ViewportBottom(0) and hero → Y > minscroll. Action: Destroy.

Two red callout boxes with arrows point to the conditions in Event 5:

- Box 1: Hero -> Compare Y "Greater Than" minscroll
- Box 2: Hero -> Compare Y "Greater Than" "ViewportBottom(0)"

Add “Restart”

- Catch the “destroy” event and restart
- Test the game now!

The screenshot shows a game engine's event editor interface. On the left, there is a list of events. The first event is numbered '6' and has a yellow robot icon labeled 'hero'. The event name is 'On destroyed'. To the right of the event list is a table of actions. The first action is 'System' with a gear icon, and the action name is 'Restart layout'. The second action is also 'System' with a gear icon, and the action name is 'Set **minscroll** to 100000'. Below the table is a button labeled 'Add action'. At the bottom left of the editor is a button labeled 'Add event'.

Event	Action
6 hero On destroyed	System Restart layout
	System Set minscroll to 100000

Add action

Add event

Warning Message

The image shows a software interface for creating a game scene. On the left, there are two main sections: 'Behaviors' and 'Properties'. The 'Behaviors' section is expanded to show 'Fade' and 'Effects' categories. The 'Fade' category has the following settings:

Active at start	No
Fade in time	0
Wait time	0
Fade out time	5
Destroy	No

The 'Effects' category has the following settings:

Blend mode	Normal
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The 'Properties' section is expanded to show the following settings for the text 'Please be careful!':

Text	Please be careful!
Initial visibility	Invisible
Font	Arial(12)
Color	0, 0, 0
Horizontal align...	Center
Vertical alignment	Center
Hotspot	Top-left
Wrapping	Word

On the right, a grid-based scene is shown. It features a blue alien with antennae, a yellow robot with a horn, and several green pills. A blue text box with the message 'Please be careful!' is positioned in the center of the scene. Red callout boxes and arrows point from the 'Fade Behavior' settings to the 'Fade' category and from the 'Text Properties' settings to the text box in the scene.

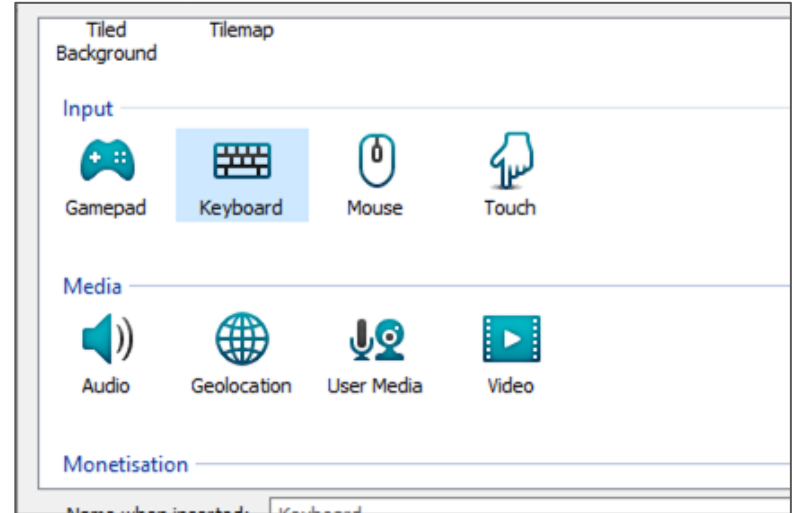
Enemy Destroys Us

- The careful message will always show at the start of the game.

			Add action
7	 hero	On collision with  enemy	 hero Destroy
			Add action
8	 System	On start of layout	 careful Set Visible
			 careful  Fade: start fade
			Add action

Hero Faces Correct Direction

- Add “Keyboard” on Layout
- Use the “Set Mirror” action
- TEST



12  Keybo | On **Left arrow** pressed



Set **Mirrored**

Add action

13  Keybo | On **Right arrow** pressed

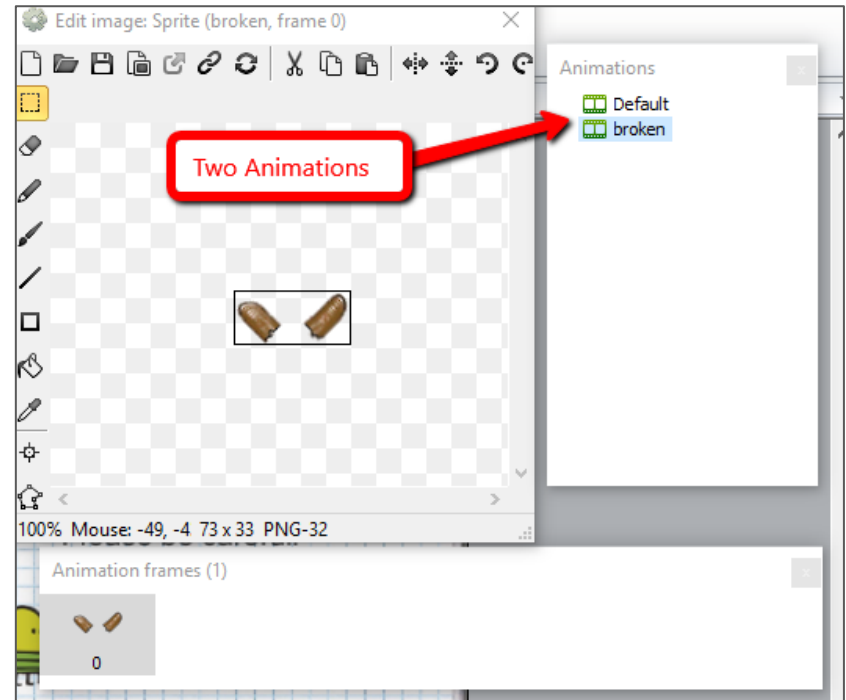
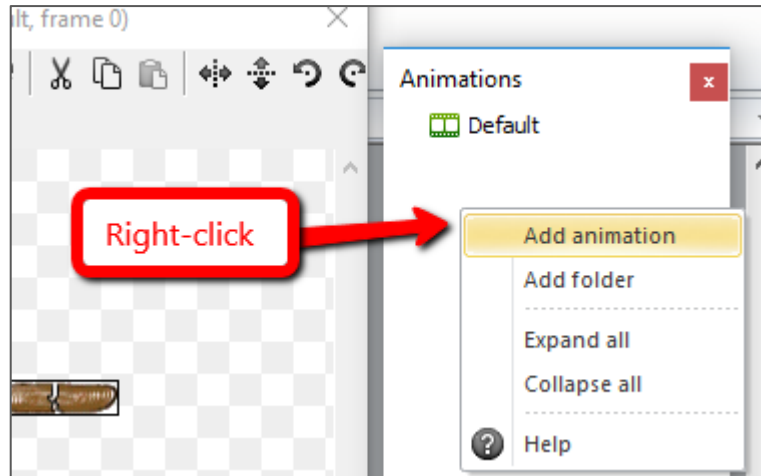


Set **Not mirrored**

Add action

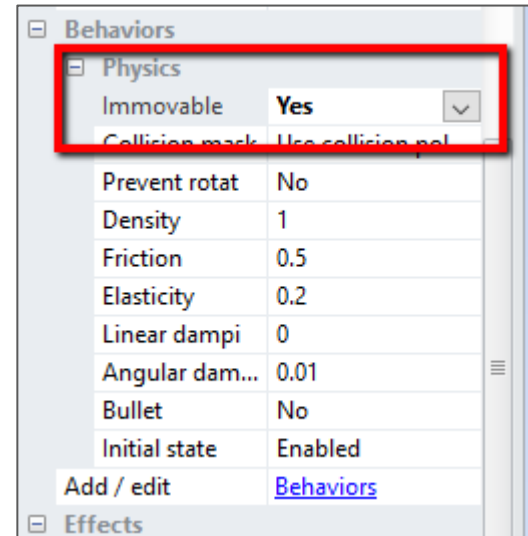
Add Breakable Blocks

- Create a sprite from **“block-breakable-01.png”**
- Add a second animation, name it **“broken”**
- Open **“block-breakable-02.png”**








Add Breakable Blocks

- Name it “breakable”
- Add “Physics” behavior to breakable block
- Set Immovable to “yes”



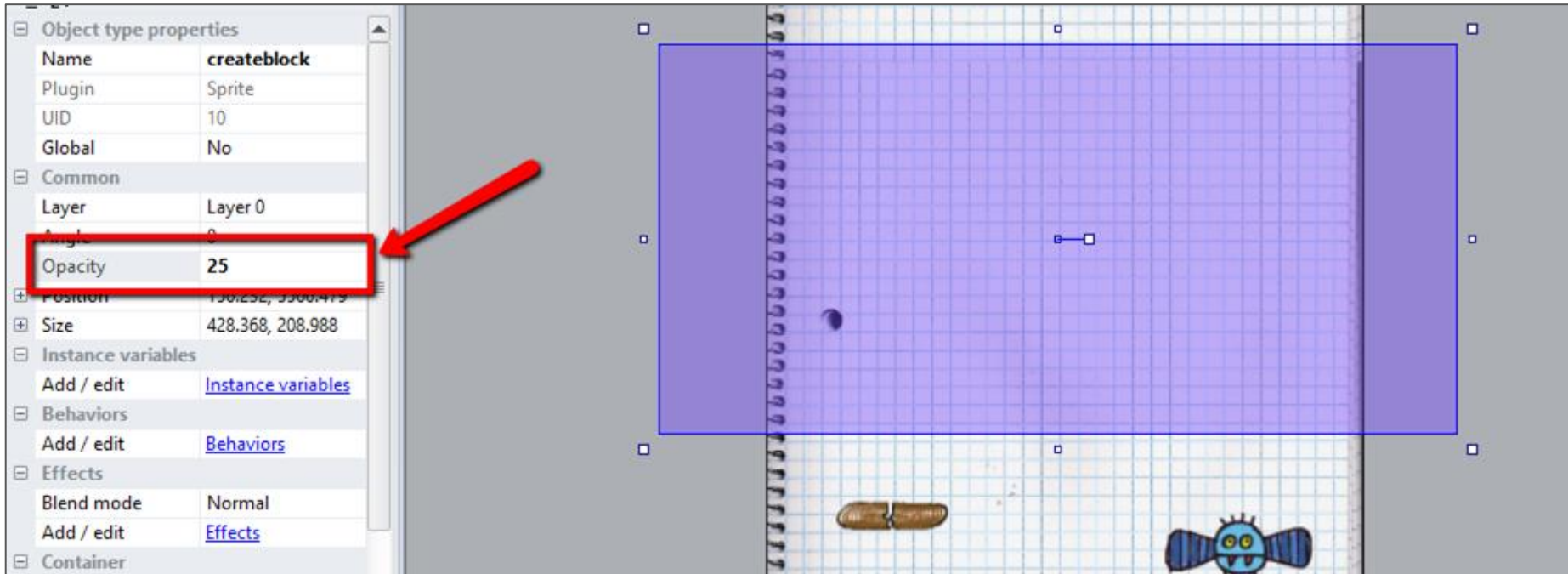
Add Breakable Blocks

- Make them fall when your hero lands on them
- Change animation to "broken" and change the immovable flag
- TEST

11	 hero	On collision with 	 breaka	Set animation to " broken " (play from beginning)
		breakable	 breaka	Set  Physics Movable
			Add action	

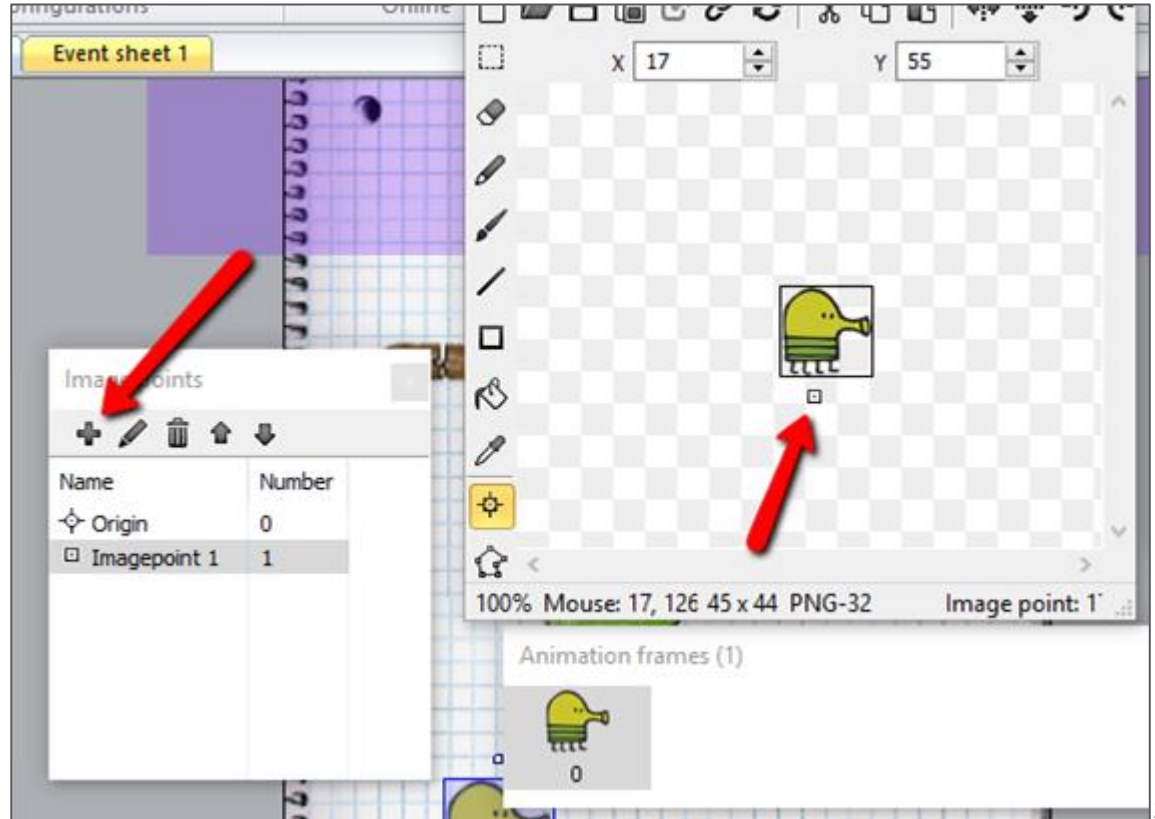
Create Area to Spawn Blocks

- Create a sprite and fill it with blue
- Name it “createblocks”
- Set Opacity to 25








Create Area to Spawn Blocks

- Add a new image point to spawn our block **below** our hero



Create Area to Spawn Blocks

- When you press the spacebar, you will spawn a new block
- Use the “Add another condition” so it only spawns while overlapping the spawn area.
- Spawn the new block at “image point 1” (below our hero)

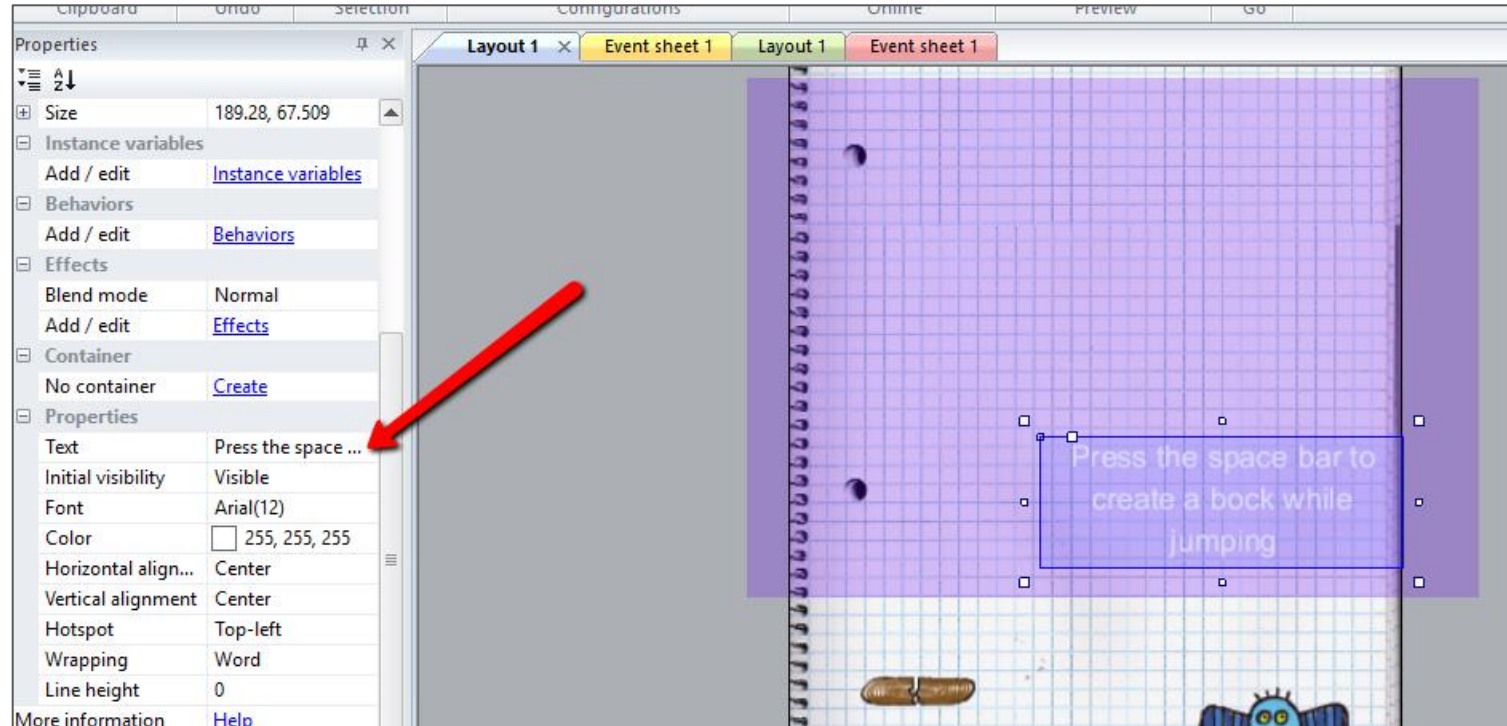
12	 Keybo	On Space pressed	 hero	Spawn  block on layer 0 (<i>image point 1</i>)
	 hero	Is overlapping 	Add action	

Populate Entire Layout

- Add your blocks, enemy, and spawn block areas throughout your layout
- **Test your game**

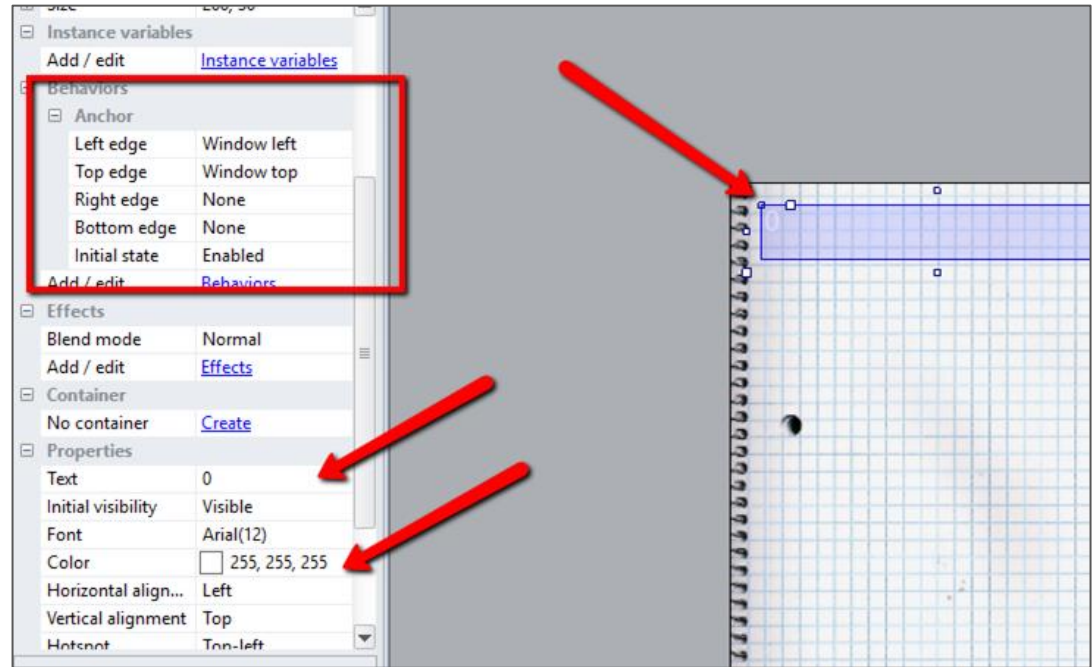
Add Instructions

- Help your user with some instructions



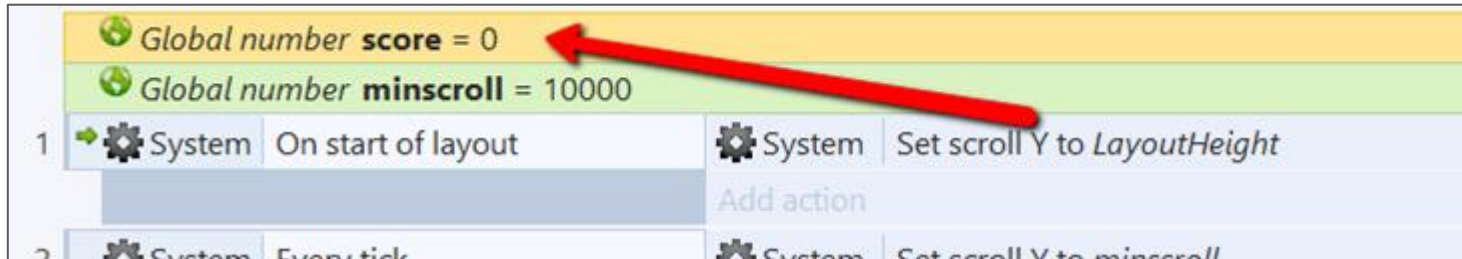
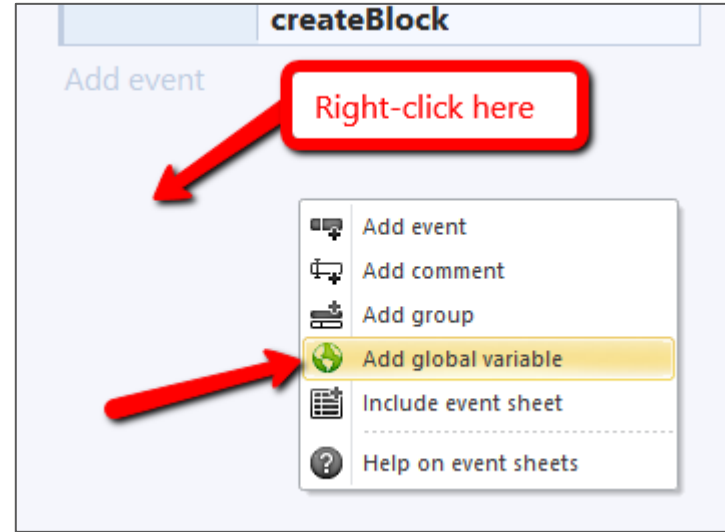
Add a Score Text

- One point per second
 - (a lower the score is better)
- Name “scoreText”
- Add behavior
 - Anchor
- Set at top of the layout
- Initialize value to “0”
- Set to color “white”



Tracking the Score

- Add global variable called **score**



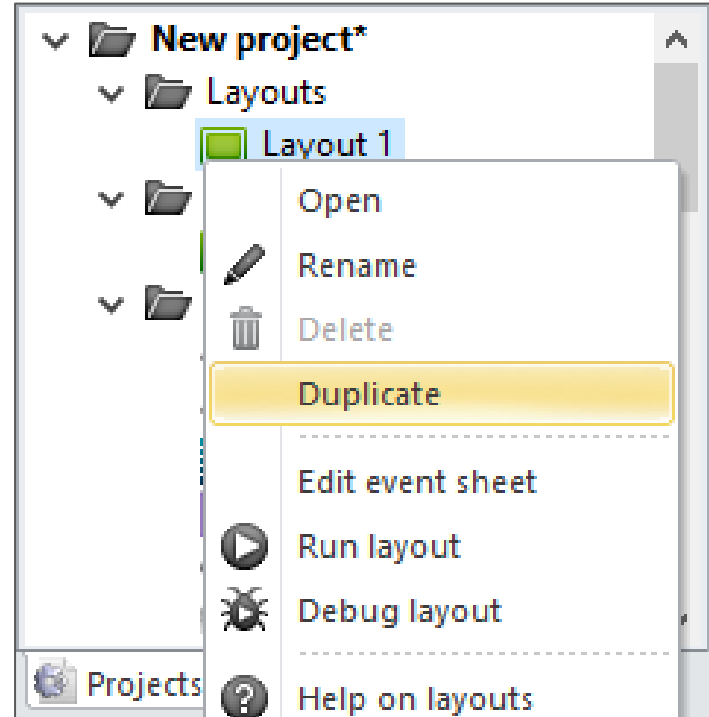
Tracking the Score

- Add one point every second
- Update the score on the screen

13	 System	Every 1 seconds	 System	Add 1 to score
			 scoreTe	Set text to <i>score</i>
			Add action	

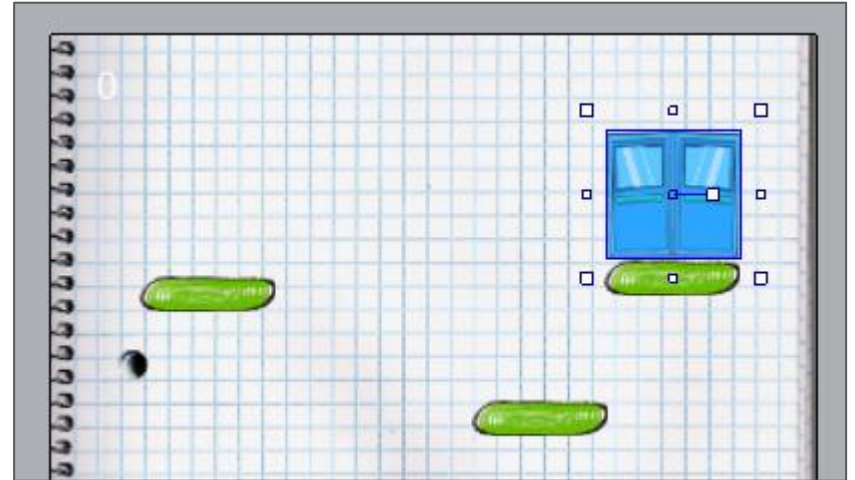
Add Multiple Levels

- Duplicate “Layout 1”
- Double-click to open “Layout 2”
- Edit new level
- Repeat



Go To Next Level

- Add a door sprite
- Add Event to go to next layout
- Do for each “Layout”



14	 hero	Is overlapping  door	 System	Go to next layout
			Add action	

Extra Stuff

- Add multiple levels
- Add additional enemies
- Hero can shoot at enemies
- Add a “spring” like the original game
- Add a “tear” like the original game