

Scratch – To – Python Guide sheet

Make new object

Command on Scratch	Done	Command
Create new Game Manager		<code>game = GameManager(800, 800, os.getcwd())</code>
Create new Sprite		<code>sprite = game.new_sprite('image1.png', 100)</code>

Motion

Command on Scratch	Done	Command
Move 10 steps		<code>sprite.move(10)</code>
Turn right 15 degrees		<code>sprite.turn_right(15)</code>
Turn left 15 degrees		<code>sprite.turn_left(15)</code>
Go to random position		<code>sprite.go_to_random_position()</code>
Go to mouse pointer	N	#TODO
Go to another sprite	N	#TODO
Point in direction 90		<code>sprite.set_direction(90)</code>
Point towards mouse		<code>sprite.point_toward_mouse()</code>
Point towards another sprite		<code>sprite.point_toward_sprite(other_sprite)</code>
Change x by 10		<code>sprite.change_x(10)</code>
Set x to 0		<code>sprite.set_x(0)</code>
Change y by 10		<code>sprite.change_y(10)</code>
Set y to 0		<code>sprite.set_y(0)</code>
If in edge, bounce		<code>sprite.bounce_on_edge()</code>
Set rotation style		<code>sprite.set_rotation_style("all-around")</code> # all-around, left-right, none

Get x position		<code>sprite.get_x()</code>
Get y position		<code>sprite.get_y()</code>
Get direction		<code>sprite.get_direction()</code>

Looks

Command on Scratch	Done	Command
Say "Hello" for 2 secs		<code>sprite.say("Hello", 2)</code>
Say "Hello"		<code>sprite.say("Hello:")</code>
Think "Hmm..." for 2 secs	N	# TODO
Think "Hmm..."	N	# TODO
Switch costume to "costume2"		<code>sprite.switch_costume("costume2.png")</code>
Next costume		<code>sprite.next_costume()</code>
Switch backdrop to "back1"		<code>game.change_background_image("back1.png")</code>
Next backdrop		<code>game.next_background_image()</code>
Change size		<code>sprite.change_size(10)</code>
Set size to 100%		<code>sprite.set_size(10)</code>
Change colour effect by 25	N	# DON'T DO
Set colour effect to 0	N	# DON'T DO
Clear graphic effects	N	# DON'T DO
Show		<code>sprite.show()</code>
Hide		<code>sprite.hide()</code>
Go to front layer	N	#TODO
Go to back layer	N	#TODO
Go forward "1" layer	N	#TODO
Go backward "1" layer	N	#TODO
Get costume number		<code>sprite.get_costume_number()</code>
Get costume name		<code>sprite.get_costume_name()</code>
Get background number		<code>game.get_background_number()</code>

Get background name		game.get_background_name()
Get size		sprite.get_size()

Sounds

Command on Scratch	Done	Command
Play sound "Meow" until done	N	# TODO
Start sound "Meow"		Sprite.play_sound("meow.wav") Game.play_background_sound("meow.wav")
Stop all sound		
Change pitch effect by 10		
Set pitch effect to 100		
Clear Sound effect		
Change volume by -10		
Set volume to 100%		
Get volume		

Events

Command on Scratch	Done	Command
When green flag clicked	N	# TODO
When “space” key pressed	N	# TODO
When this sprite clicked	N	# TODO
When backdrop switches to “backdrop1”	N	# TODO
When loudness > 10	N	# DON’T DO
When I receiver “Message1”	N	# TODO
Broadcast “Message1”	N	# TODO
Broadcast “Message1” and wait	N	# TODO

Control

Command on Scratch	Done	Command
Wait "1" seconds		sprite.say("Hello", 2)
Wait until "var = 10"		
Stop all		
Stop this script		
Stop other scripts in sprite		
When I start as a clone		
Create clone of a sprite		
Delete this clone		

Sensing

Command on Scratch	Done	Command
Touching mouse?	N	# TODO
Touching edge?		Sprite.touch_edge()
Touching another sprite?		Sprite.touch(other_sprite)
Touching colour?	N	# DON'T DO
Colour is touching another colour?	N	# DON'T DO
Ask "How are you?" and wait	N	# TODO
Get answer from input	N	# TODO
Key "space" pressed?		Game.key_pressed('space')
Mouse down?	N	# TODO
Get mouse x	N	# TODO
Get mouse y	N	# TODO
Set drag mode	N	# DON'T DO
Get loudness	N	# TODO
Get timer		Game.get_timer()
Reset timer	N	# TODO

Operators

Command on Scratch	Done	Command
Pick random 1 to 10	N	# TODO
Join "Apple" "Banana"		
Letter 1 of "Apple"		
Length of "Apple"		
"apple" contains "a"?		