

Tutorial 1

Alice Dance Challenge

Objectives

- Understand how to setup a scene in Alice.
- Understand how to create a procedure (method) in Alice
- Understand the purpose of looping.

Outcomes

Task 1	Setup a scene
Task 2	Setup camera angles
Task 3	Create Dance procedure using loops.

Procedures can generally be described as **methods that perform an action**. Only needs to be created once and can be inherited by many objects.



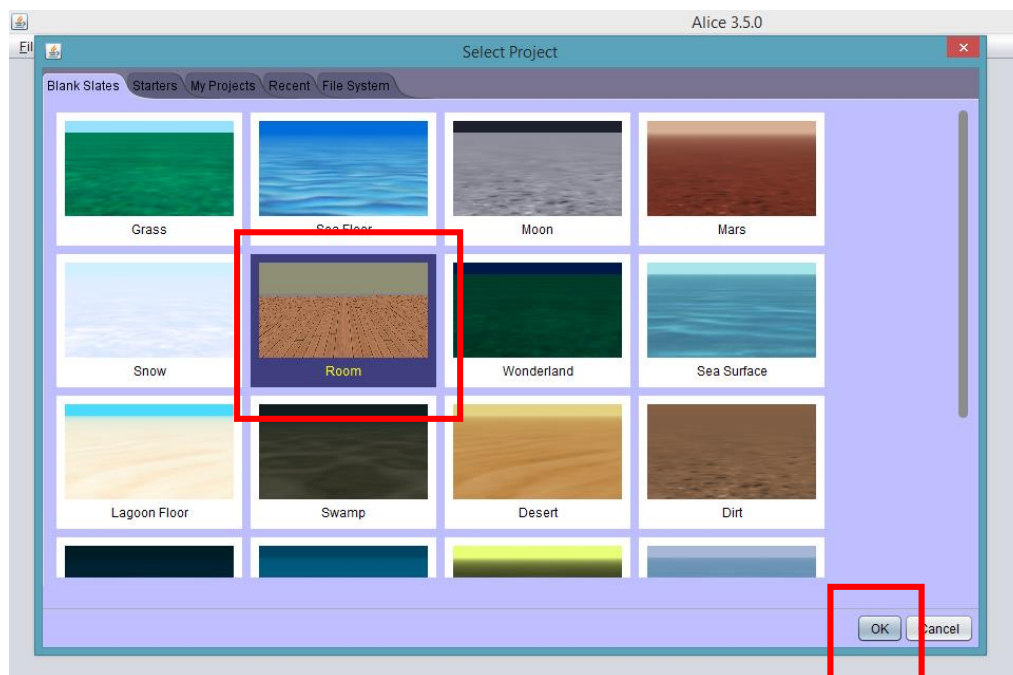
Same dance routine will be applied to all of the characters.

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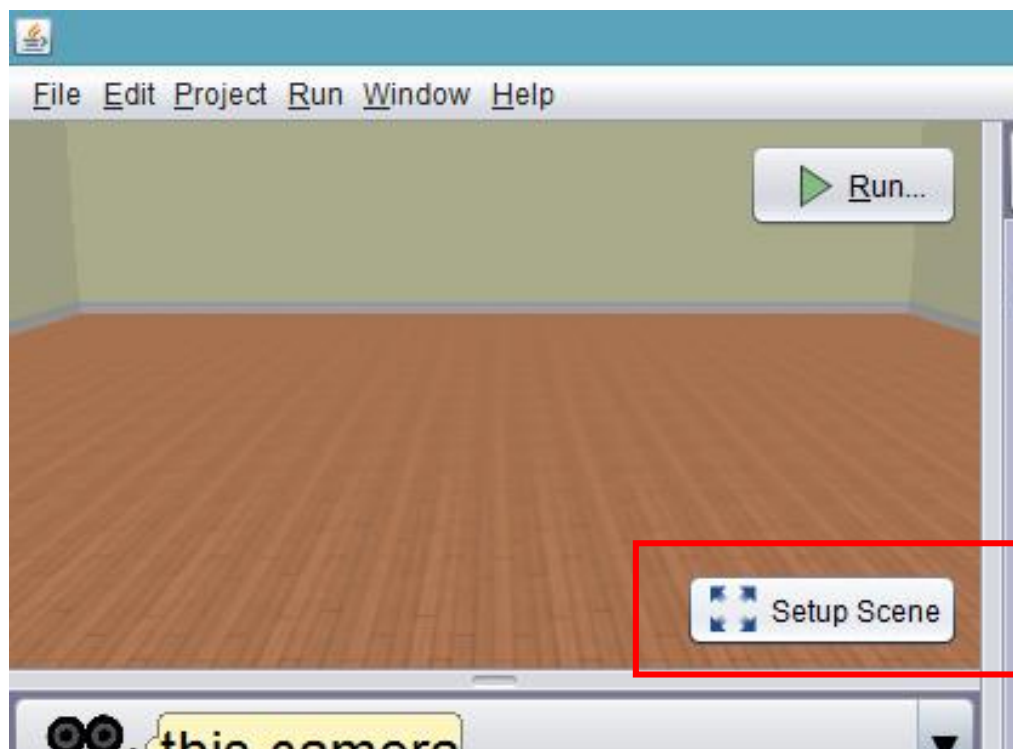
Task 1: Setup a scene in Alice.

1) Select a background and then click on OK.



Alice 3

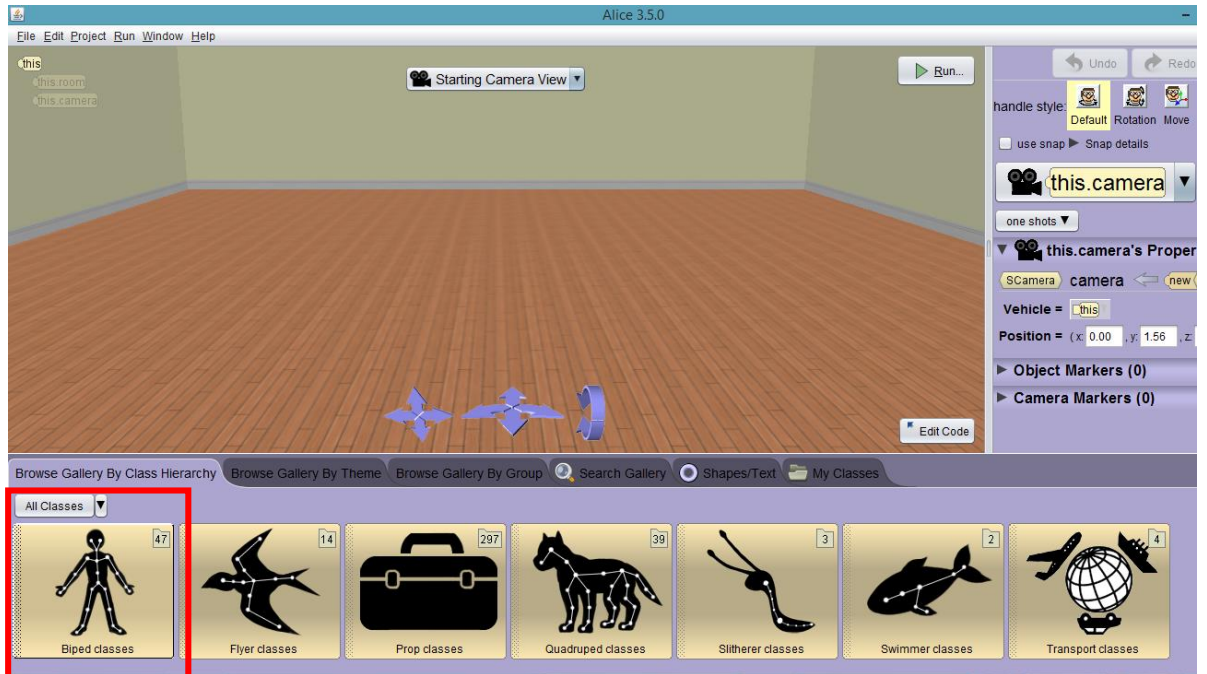
2) Click on Setup Scene.



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3) Click on Biped classes.



4) Click on Biped classes and select your first character.



5) Position your character on the stage.

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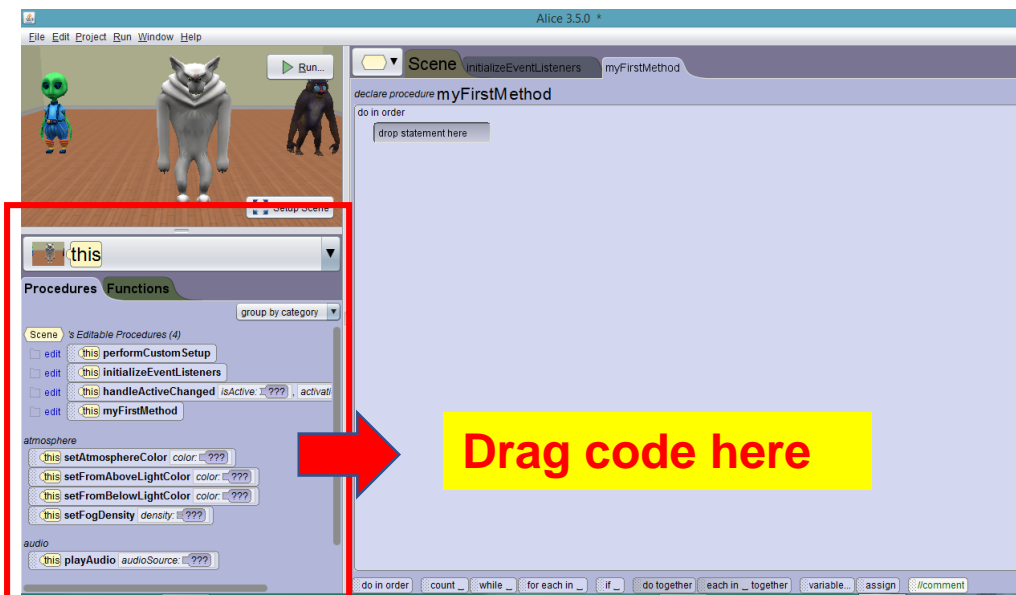
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6) Add up to three characters. You can include more characters if you like. Then click on edit code.

Click on your characters to edit by selecting the options on the left.



7. Position the central character at the front of the stage.



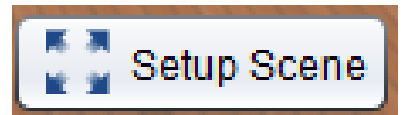
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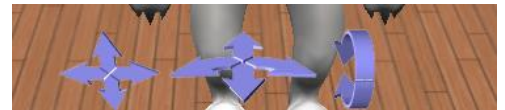
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Task 2: Setup camera angles.

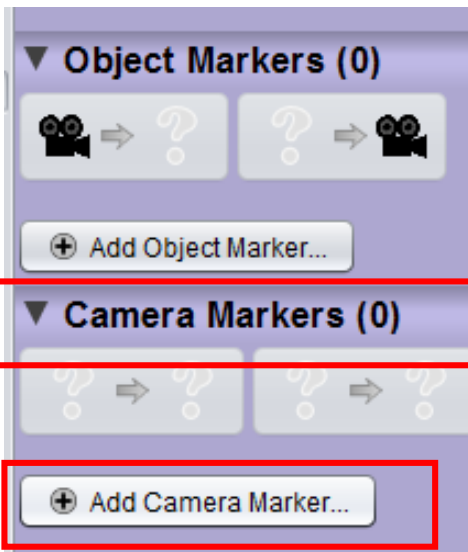
8. Click on Setup Scene and set the camera angle.



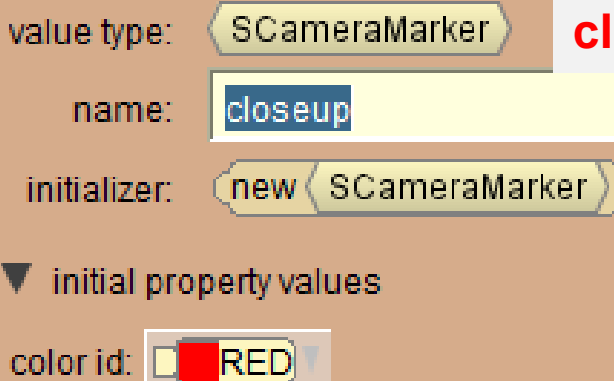
Tip: Set the camera angle before you click on camera marker. Use the arrows below to position the camera.



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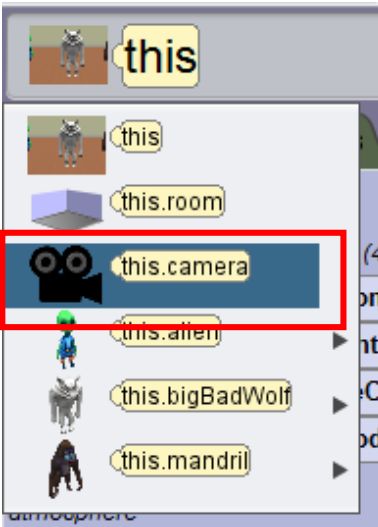


9. Click on Camera Marker and then Add Camera Marker for the starting position. Then reposition the camera and create another camera angle for a close up.



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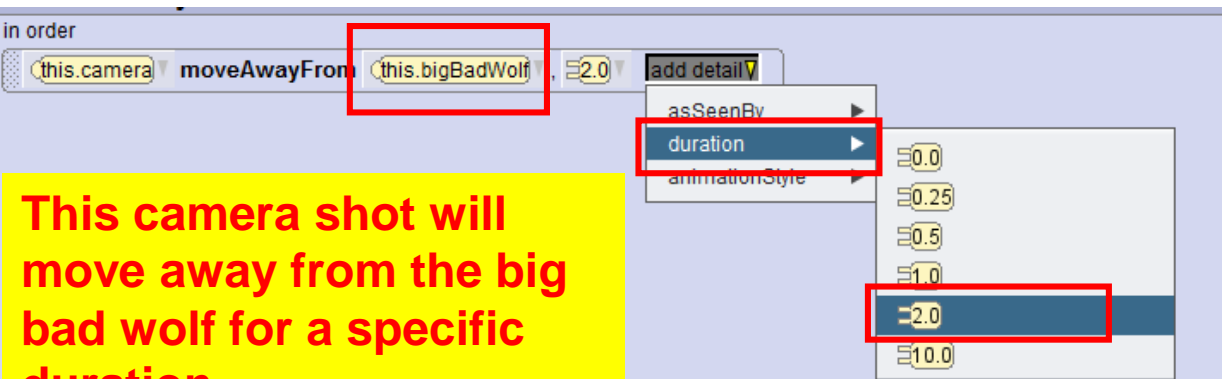
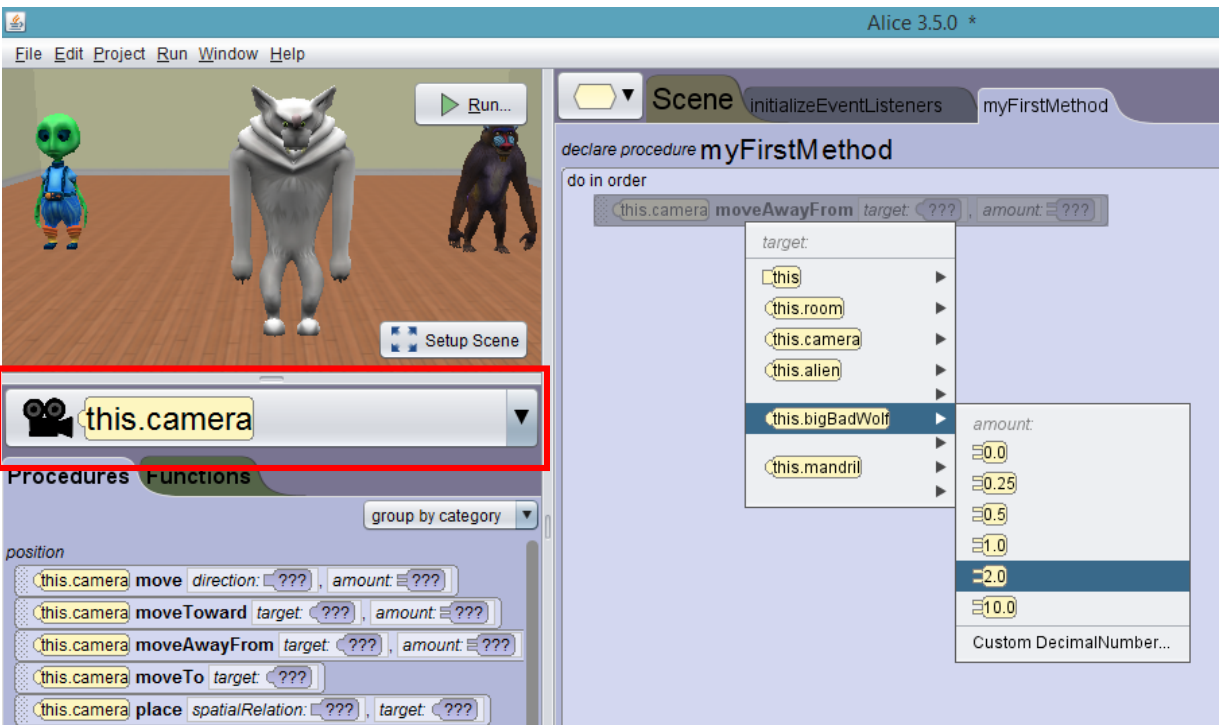


10. Go back to code view and then select the camera option.

11. Drag in the camera scripts onto the code window.

Experiment with different options

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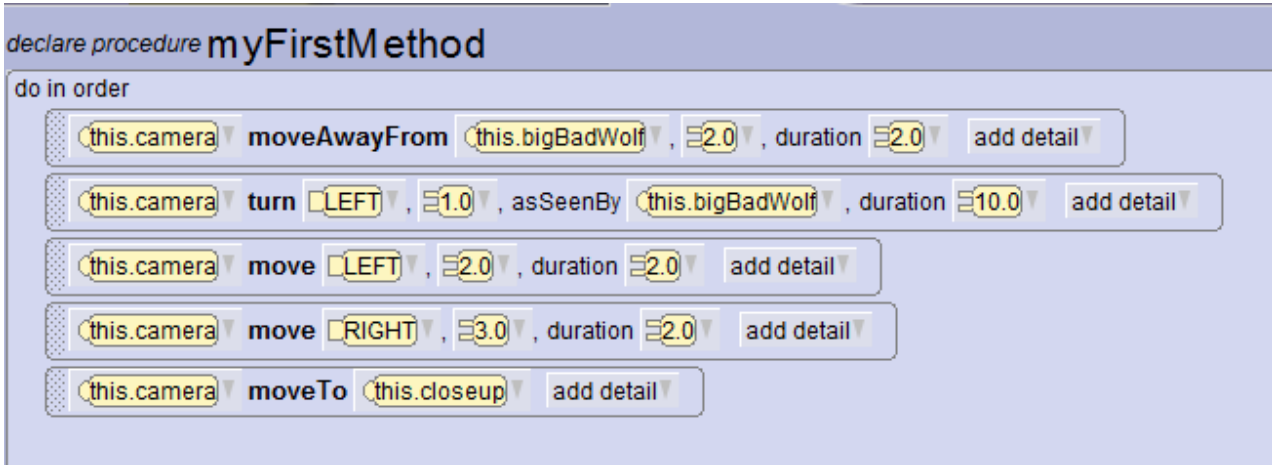


This camera shot will move away from the big bad wolf for a specific duration.

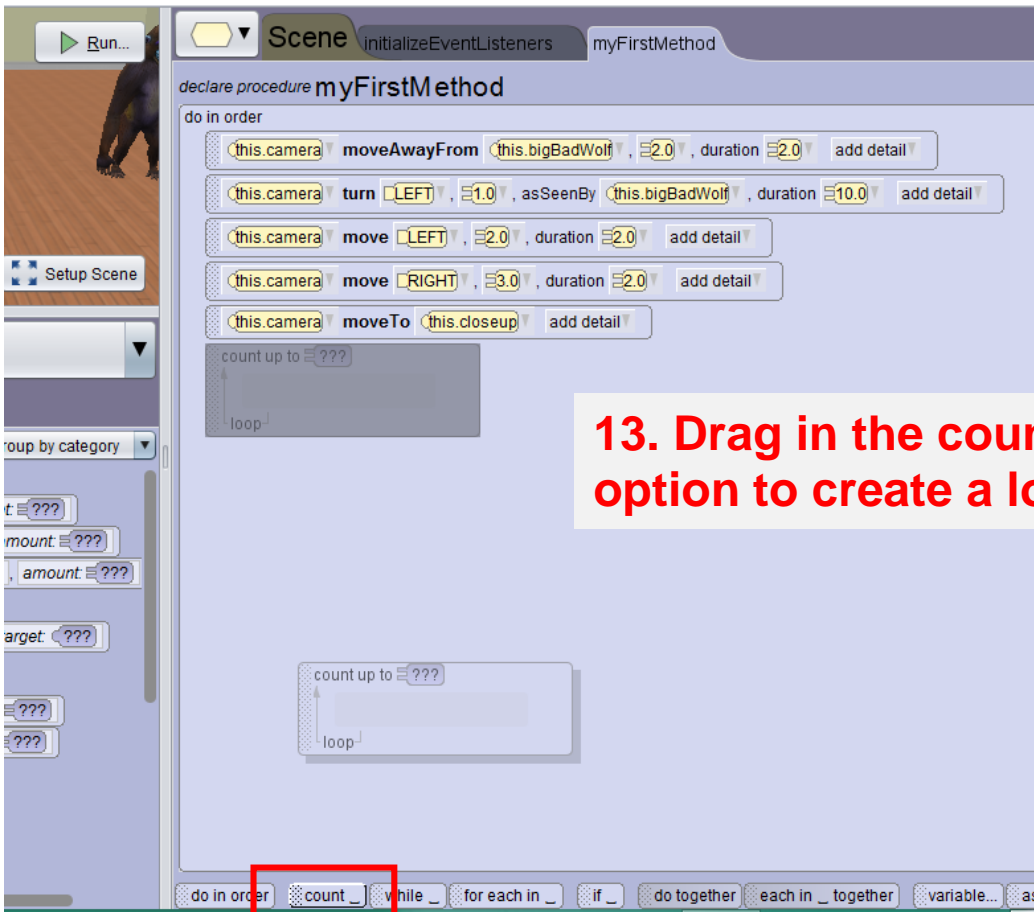
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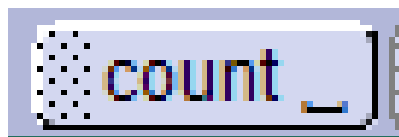
12. Camera angles have now been set. You can set your own options.



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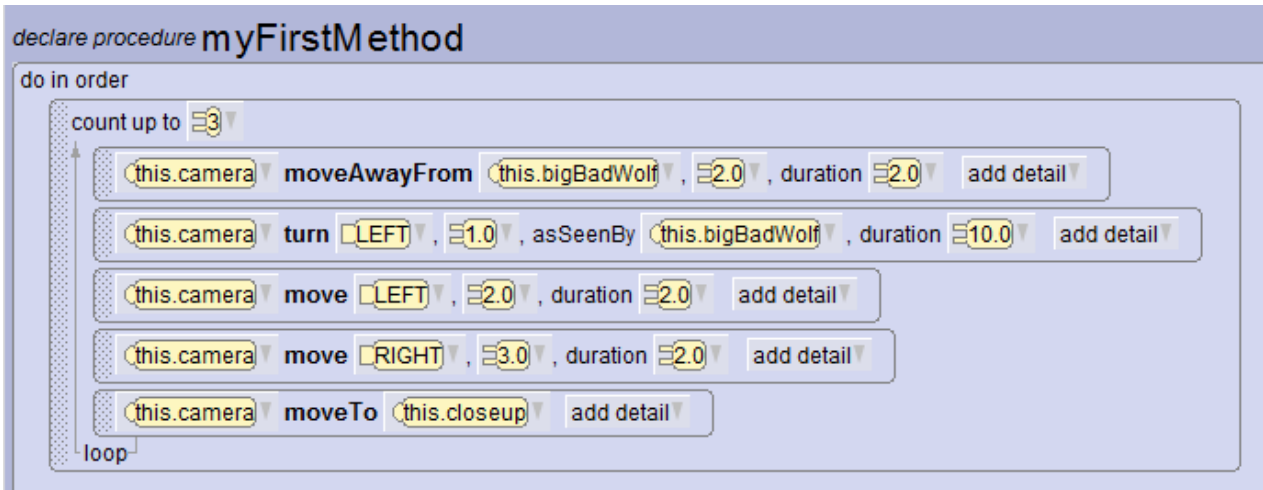
13. Drag in the count option to create a loop.



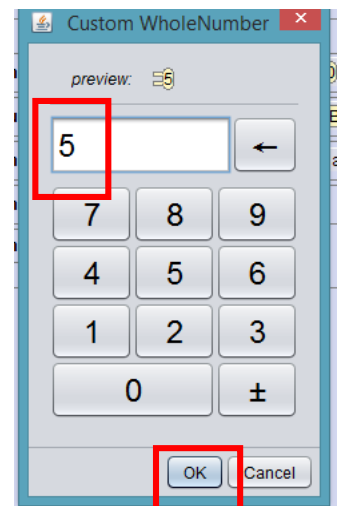
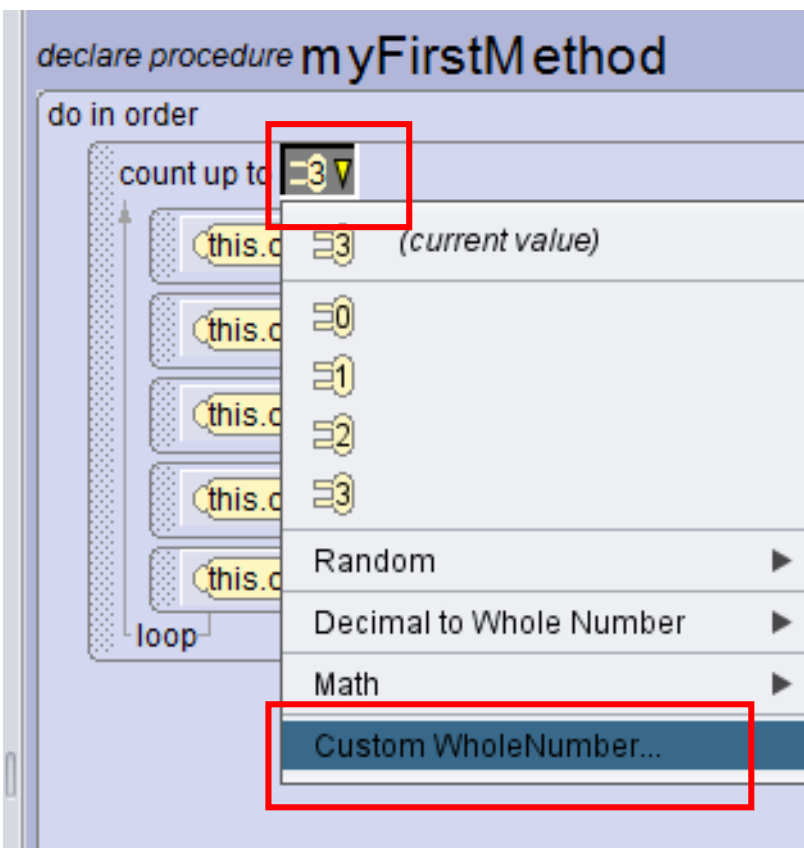
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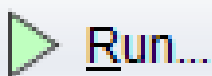
14. Drag all camera codes in the count loop.



15. You can set a custom number of times for the cameras angles to loop.



This can be changed later to suit your dance routine.



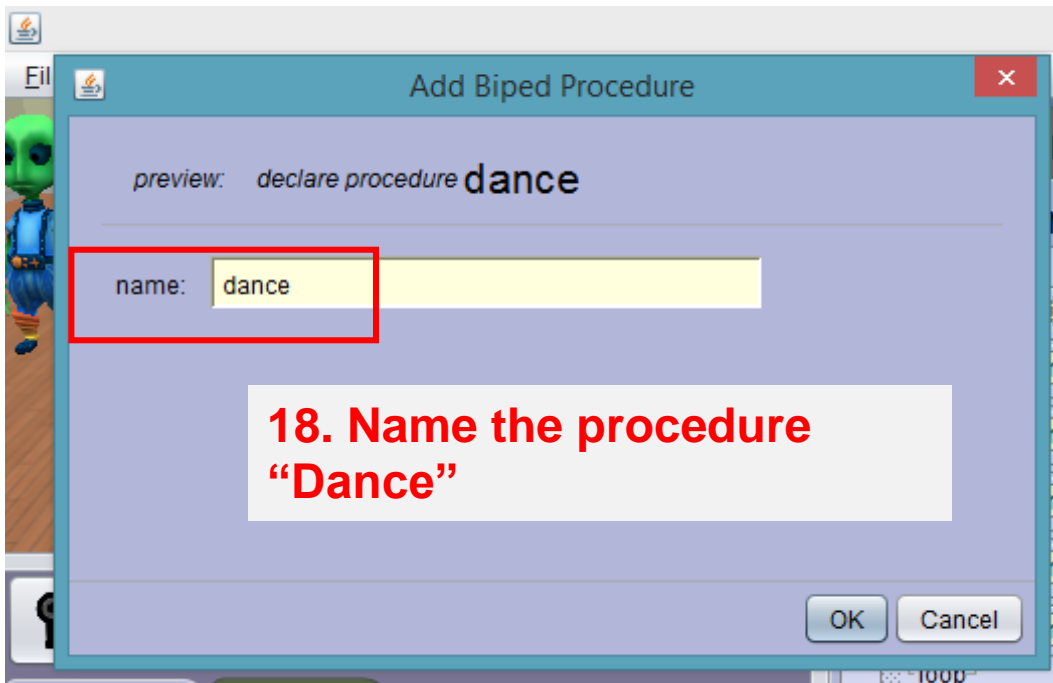
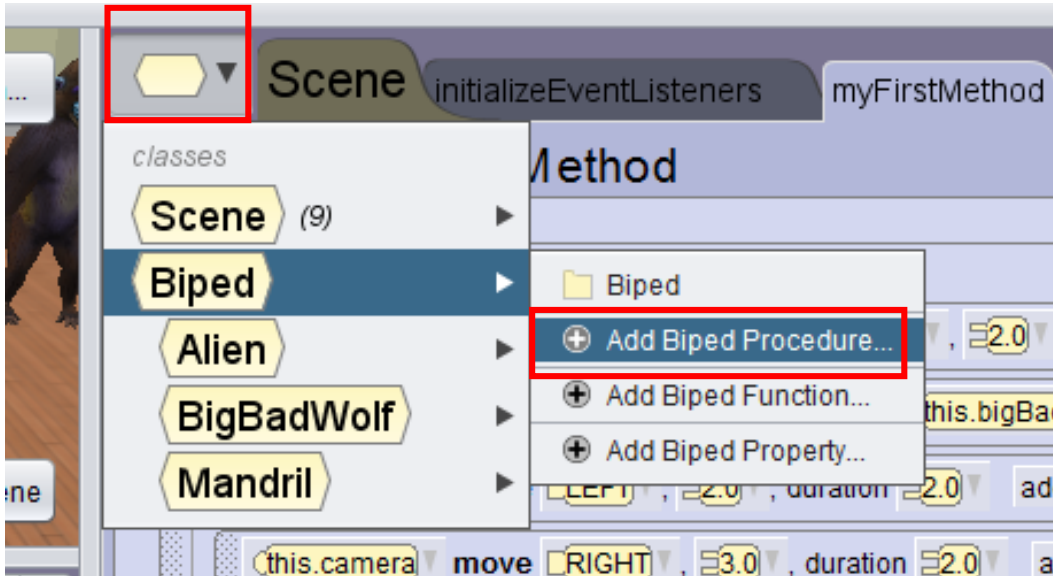
16. Click on Run to preview.

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Task 3: Create dance procedure (method)

17. Click the ICON to left of Scene >> Biped >> Add Biped Procedure



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18. Add some codes for basic movements (left, right, up and down)

The screenshot shows the Alice 3.5.0 interface. On the left, a biped character is shown. Below it, the 'Procedures' panel is open, showing the 'dance' procedure for the 'Biped' class. The 'position' category is expanded, showing several movement blocks: 'this move direction: ???, amount: ???', 'this moveToward target: ???, amount: ???', 'this moveAwayFrom target: ???, amount: ???', 'this moveTo target: ???', and 'this place spatialRelation: ???, target: ???'. A red box highlights these blocks, and a red arrow points from the box to the 'Scene' window on the right. The 'Scene' window shows a 'do in order' list of movement blocks: 'this move LEFT, 0.5', 'this move RIGHT, 0.5', 'this move UP, 0.25', and 'this move DOWN, 0.25'. A yellow box with red text says 'Drag the code into this window'.

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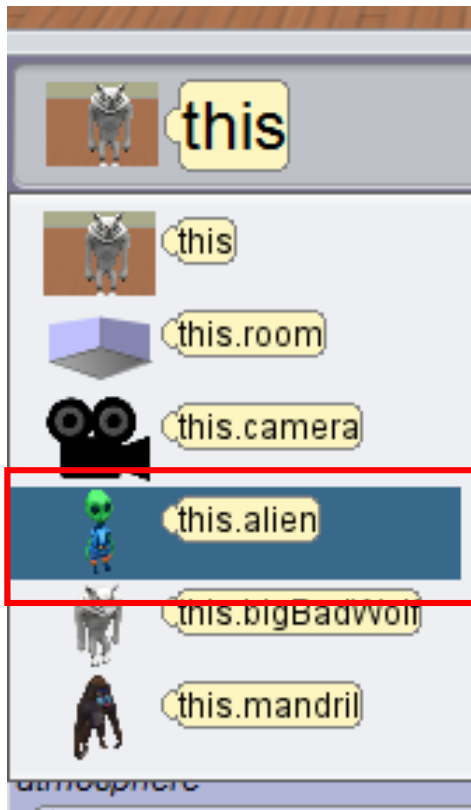
The screenshot shows the Alice interface with the 'myFirstMethod' button highlighted in a red box. The 'Biped' class is selected, and the 'dance' procedure is visible. The 'myFirstMethod' button is located in the 'Listeners' panel.

19. Then click on myFirstMethod

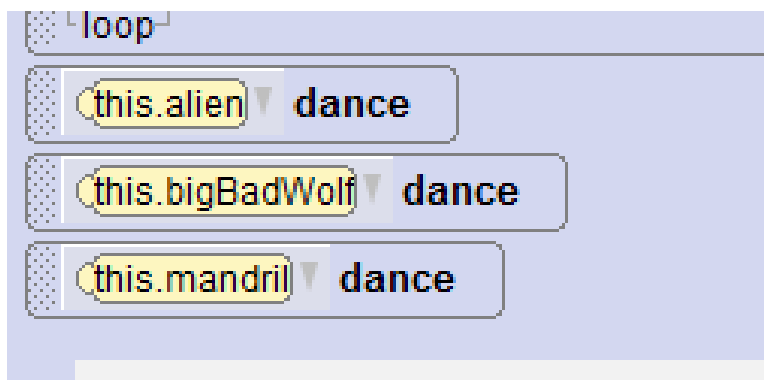
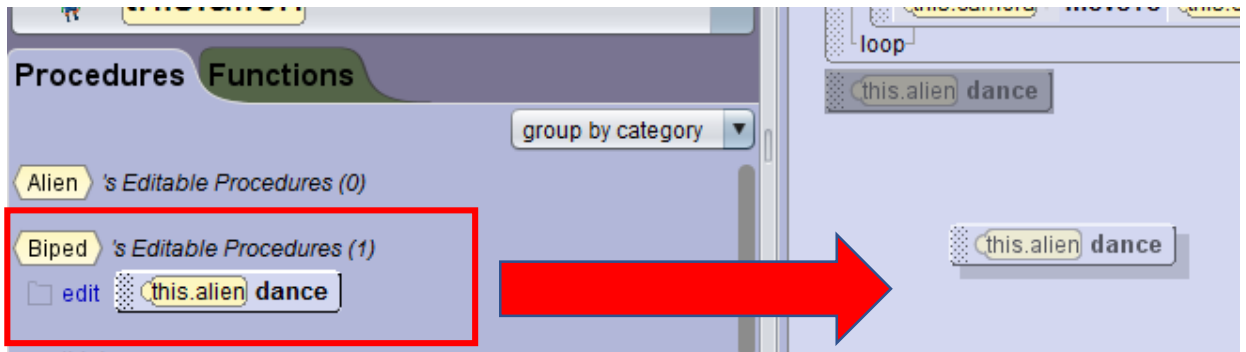
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20. Select your first character and drag in the dance procedure to the code window.



21. Repeat the steps for your remaining characters.

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Scene initializeEventListeners myFirstMethod Biped dance

declare procedure myFirstMethod

do in order

- count up to 5
 - this.camera moveAwayFrom this.bigBadWolf, 2.0, duration 2.0 add detail
 - this.camera turn LEFT, 1.0, asSeenBy this.bigBadWolf, duration 10.0 add detail
 - this.camera move LEFT, 2.0, duration 2.0 add detail
 - this.camera move RIGHT, 3.0, duration 2.0 add detail
 - this.camera moveTo this.closeup add detail
- loop
 - this.alien dance
 - this.bigBadWolf dance
 - this.mandrill dance
- do together
 - drop statement here

do together

do in order count while for each in if do together each in together variable... assign

22. Drag in the do together command and place all the camera and procedure code into do together.

do together

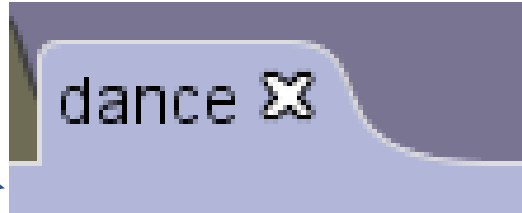
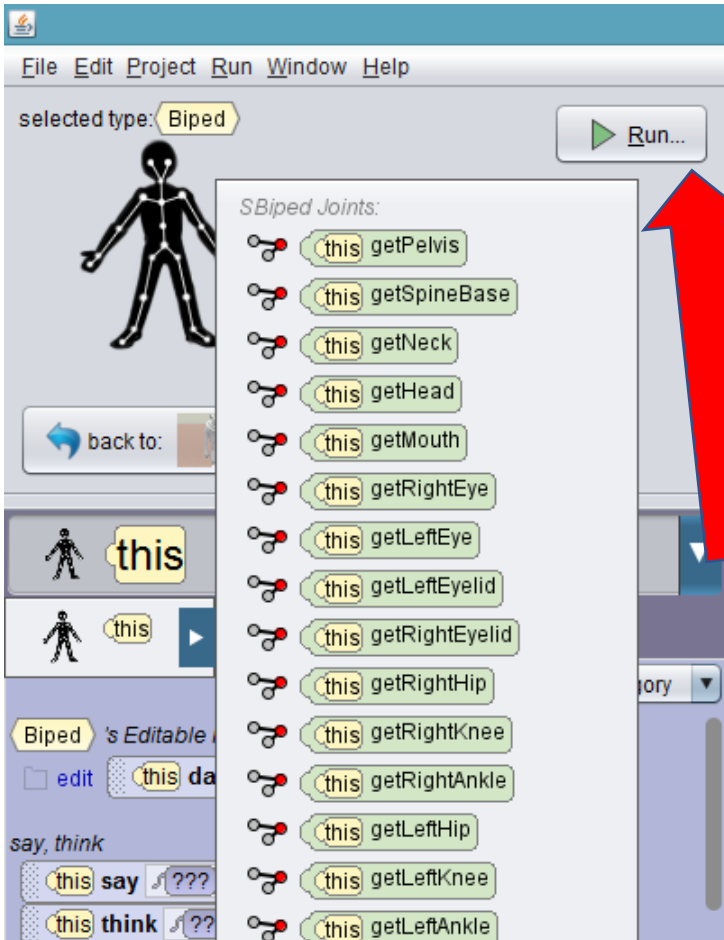
- count up to 5
 - this.camera moveAwayFrom this.bigBadWolf, 2.0, duration 2.0 add detail
 - this.camera turn LEFT, 1.0, asSeenBy this.bigBadWolf, duration 10.0 add detail
 - this.camera move LEFT, 2.0, duration 2.0 add detail
 - this.camera move RIGHT, 3.0, duration 2.0 add detail
 - this.camera moveTo this.closeup add detail
- loop
 - this.alien dance
 - this.bigBadWolf dance
 - this.mandrill dance

Camera angle and dance procedure will now happen at the same time.

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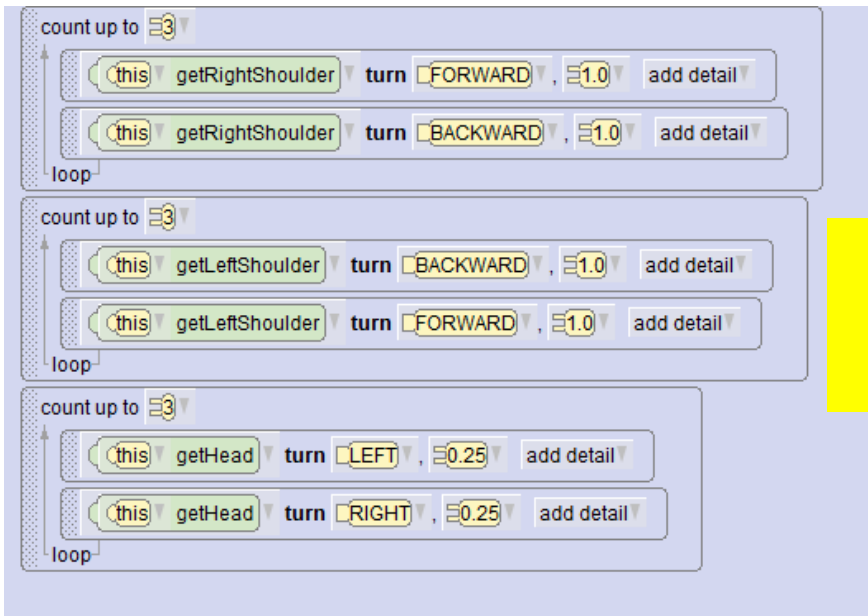
23. Code can be applied to move certain parts of the body. This can then be looped.



Click on the dance tab to return to the method.

Click on Run to preview

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Shoulder and Head movements

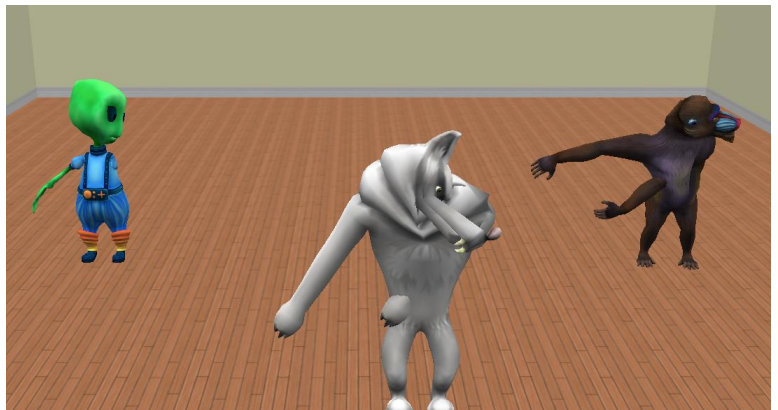
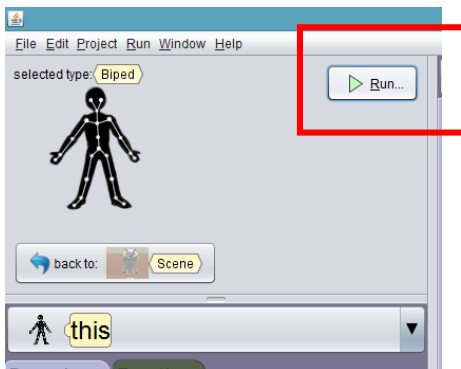
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24. Movements can be placed in do together and can then happen at the same time.

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The screenshot shows a 'do together' block in Alice 3's programming interface. It contains three parallel loops, each with a 'count up to' block set to 5. The first loop contains two instructions: 'this getRightShoulder turn FORWARD, 1.0 add detail' and 'this getRightShoulder turn BACKWARD, 1.0 add detail'. The second loop contains two instructions: 'this getLeftShoulder turn BACKWARD, 1.0 add detail' and 'this getLeftShoulder turn FORWARD, 1.0 add detail'. The third loop contains two instructions: 'this getHead turn LEFT, 0.25 add detail' and 'this getHead turn RIGHT, 0.25 add detail'.

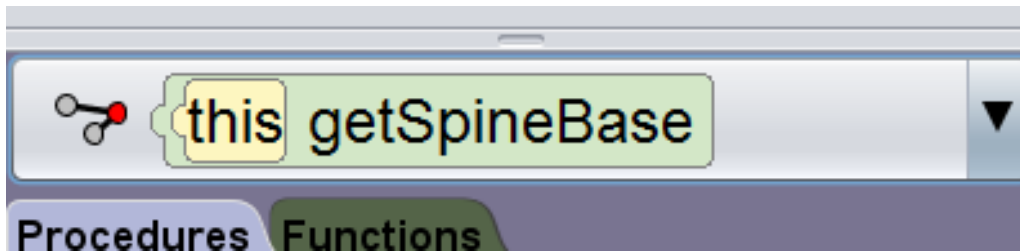


Click on Run to preview

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25. Add additional movements to your dance method.



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