

Alice.org

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# Get Alice

## Alice is Free to All

Alice is a free gift to you from Carnegie Mellon University. The Alice Project is dedicated to making Alice a widely accessible tool around the world for growing the diversity and access to early computer science education. Thanks to our donors we continue to be able to fulfill this mission with both our software and supporting materials.

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# Donors & Partners

Alice is very grateful to all of the support the project has received over the years. This support has allowed Alice to be made freely available as a public service, allowed us to support the creation of amazing curriculum, and provide professional development to teachers around the world.

ORACLE





# Oracle Academy

 **Oracle Academy**  @OracleAcademy · Jun 15

Our new spotlight is on student Stefanya Jaramillo, [#UniversidaddeAntioquia](#), [#Colombia](#). She learned [#Java](#) programming in high school with Getting Started with Java Using Alice [@AliceProjectCMU](#), and now she is one of just 60 in the [@UdeA](#) Astronomy program. [social.ora.cl/6018y3Urw](https://social.ora.cl/6018y3Urw)



  4  5 



Alice 3.6 /Users/ericbrown/Alice3/MyProjects/UnderWaterWorldFish.a3p

File Edit Project Run Window Help

Starting Camera View Run... Edit Code

undo redo

handle style: Default Rotation Move Resize

use snap Snap details

cave10

one shots

this.cave10's Properties

Cave cave10 new Cave resource: WIDE\_UN

Paint = WHITE

Opacity = 1.0



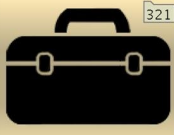


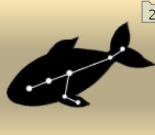

Vehicle = this

Position = ( x: 15.30 , y: -4.23 , z: 15.70 )

Width: 19.30

Browse Gallery By Class Hierarchy Browse Gallery By Theme Browse Gallery By Group Search Gallery Shapes/Text My Classes My Gallery

All Classes

 48	 14	 321	 39	 3	 2	 4
Biped classes	Flyer classes	Prop classes	Quadruped classes	Slitherer classes	Swimmer classes	Transport classes



Alice 3.6 /Users/ericbrown/Alice3/MyProjects/UnderWaterWorld

File Edit Project Run Window Help

selected type: Fish ▶ Run...

Scene initializeEventListeners myFirstMethod Fis

declare procedure swim Add Parameter...

do in order

- this move FORWARD, 1.0 add detail
- do together
  - this move FORWARD, 1.0 add detail
  - this turn LEFT, 0.25 add detail
- this move FORWARD, 1.0 add detail
- this move FORWARD, 1.0 add detail
- do together
  - this move FORWARD, 1.0 add detail
  - this turn RIGHT, 0.25 add detail

do in order count while for each in if do together each in

back to: Scene

this

Procedures Functions

group by category

Fish's Editable Procedures (1)

- edit this swim

Swimmer's Editable Procedures (0)

say, think

- this say text: ???
- this think text: ???

position


- this move direction: ???, amount: ???
- this moveToward target: ???, amount: ???
- this moveAwayFrom target: ???, amount: ???
- this moveTo target: ???
- this place spatialRelation: ???, target: ???





Alice 3.6 /Users/ericbrown/Alice3/MyProjects/UnderWaterWorldFish.a3p\*

File Edit Project Run Window Help

selected type: Fish ▶ Run...



↩ back to:  Scene

 **this**

Procedures **Functions**

group by category ▼

Fish 's Editable Procedures (1)

- edit  **this swim**

Swimmer 's Editable Procedures (0)

say, think

- this say** text: / ???
- this think** text: / ???

position

- this move** direction: ??? , amount: ≙ ???
- this moveToward** target: ??? , amount: ≙ ???
- this moveAwayFrom** target: < ??? , amount: ≙ ???
- this moveTo** target: ???
- this place** spatialRelation: ??? , target: < ???

Scene initializeEventListeners myFirstMethod Fish swim

declare procedure **swim** Add Parameter...

do in order

- this move** FORWARD , ≙1.0 add detail

do together

- this move** FORWARD , ≙1.0 add detail
- this turn** LEFT , ≙0.25 add detail

- this move** FORWARD , ≙1.0 add detail
- this move** FORWARD , ≙1.0 add detail

do together

- this move** FORWARD , ≙1.0 add detail
- this turn** RIGHT , ≙0.25 add detail

```
public void swim() {
    this.move( MoveDirection.FORWARD, 1.0 );
    doTogether( () -> {
        this.move( MoveDirection.FORWARD, 1.0 );
    }, () -> {
        this.turn( TurnDirection.LEFT, 0.25 );
    } );
    this.move( MoveDirection.FORWARD, 1.0 );
    this.move( MoveDirection.FORWARD, 1.0 );
    doTogether( () -> {
        this.move( MoveDirection.FORWARD, 1.0 );
    }, () -> {
        this.turn( TurnDirection.RIGHT, 0.25 );
    } );
}
```

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



UnderWaterWorldFish - NetBeans IDE 8.1

Projects Services Files

- UnderWaterWorldFish
  - Source Packages
  - Libraries
    - Alice3Library - gluegen-rt-2.3.2.jar
    - Alice3Library - jogl-all-2.3.2.jar
    - Alice3Library - jmf-2.1.1e.jar
    - Alice3Library - javamp3-1.0.jar
    - Alice3Library - commons-text-1.1.jar
    - Alice3Library - commons-lang3-3.5.jar
    - Alice3Library - jai-codec-1.1.3.jar
    - Alice3Library - jai-core-1.1.3.jar
    - Alice3Library - gson-2.8.2.jar
    - Alice3Library - util-0.0.1-SNAPSHOT.jar
    - Alice3Library - scenegraph-0.0.1-SNAPSHOT.jar
    - Alice3Library - glrenderer-0.0.1-SNAPSHOT.jar
    - Alice3Library - story-api-0.0.1-SNAPSHOT.jar
    - Alice3Library - tweedle-0.0.1-SNAPSHOT.jar
    - Alice3Library - alice-model-source-2016.08.19.jar
    - Alice3Library - nebulus-model-source-2016.07.15.jar

Members <empty>

- Fish :: Swimmer
  - Fish(FishResource resource)
  - swim()

Scene.java Fish.java

```
1 imports
2
3
4
5
6
7 class Fish extends Swimmer {
8
9
10     /* Construct new Fish */
11     public Fish(FishResource resource) {
12         super(resource);
13     }
14
15     public void swim() {
16         this.move(MoveDirection.FORWARD, 1.0, Move.animationStyle(AnimationStyle.BEGIN_AND_END_
17 doTogether() -> {
18             this.move(MoveDirection.FORWARD, 1.0, Move.animationStyle(AnimationStyle.BEGIN_AND_I
19         }, () -> {
20             this.turn(TurnDirection.LEFT, 0.25);
21         });
22         this.move(MoveDirection.FORWARD, 1.0, Move.animationStyle(AnimationStyle.BEGIN_AND_END_
23         this.move(MoveDirection.FORWARD, 1.0, Move.animationStyle(AnimationStyle.BEGIN_AND_END_
24 doTogether() -> {
25             this.move(MoveDirection.FORWARD, 1.0, Move.animationStyle(AnimationStyle.BEGIN_AND_I
26         }, () -> {
27             this.turn(TurnDirection.RIGHT, 0.25);
28         });
29     }
30 }
31
```

Notifications Output

Alice3 Plugin UnderWaterWorldFish (run)

```
2020-12-01 11:17:39.517 java[10608:10362126] WARNING: NSWindow drag regions should only be invalidated on the Main Thread! Th
0 AppKit 0x00007fff2effd629 -[NSWindow(NSWindow_Theme) _postWindowNeedsToResetDragMarg
1 AppKit 0x00007fff2efe5052 -[NSWindow _initContent:styleMask:backing:defer:contentVie
2 AppKit 0x00007fff2efe4ac3 -[NSWindow initWithContentRect:styleMask:backing:defer:] +
3 libnativewindow_macosx.jnilib 0x000000012fef53fe Java_jogamp_nativewindow_macosx_OSXUtil_CreateNSWindow0 +
4 ??? 0x000000011e7709d4 0x0 + 4806085076
)
BUILD SUCCESSFUL (total time: 15 seconds)
```

1:1 INS





# System Requirements

A **PC** or **Mac** computer. (doesn't run on Chromebooks or mobile devices)

A mouse

Access to Alice Installer from the website or from any storage device.





## Alice.org

Alice How-To-Lessons <https://www.alice.org/resources/alice-3-how-tos/>

Hour of Code <https://www.alice.org/resources/lessons/hour-of-code/>

Coursera: <https://www.coursera.org/learn/introtoalice>

Youtube: [The Alice Project - YouTube https://www.youtube.com › channel](https://www.youtube.com/channel/UC...)

Alice Qatar: <https://alice.qatar.cmu.edu>

Alice Forums: <https://www.alice.org/forums/>



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