| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-all.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | | |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [**PREV CLASS**](http://docs.google.com/info/gridworld/actor/ActorWorld.html)   [**NEXT CLASS**](http://docs.google.com/info/gridworld/actor/Critter.html) | [**FRAMES**](http://docs.google.com/index.html?info/gridworld/actor/Bug.html)    [**NO FRAMES**](http://docs.google.com/Bug.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#3znysh7) | [METHOD](#2et92p0) | DETAIL: FIELD | [CONSTR](#1t3h5sf) | [METHOD](#17dp8vu) |

## **info.gridworld.actor**

Class Bug

[java.lang.Object](http://java.sun.com/j2se/1.5.0/docs/api/java/lang/Object.html?is-external=true)  
 [info.gridworld.actor.Actor](http://docs.google.com/info/gridworld/actor/Actor.html)  
 **info.gridworld.actor.Bug**

public class **Bug**extends [Actor](http://docs.google.com/info/gridworld/actor/Actor.html)

A Bug is an actor that can move and turn. It drops flowers as it moves.

The implementation of this class is testable on the AP CS A and AB exams.

| **Constructor Summary** | |
| --- | --- |
| [**Bug**](http://docs.google.com/info/gridworld/actor/Bug.html#Bug())()            Constructs a red bug. |
| [**Bug**](http://docs.google.com/info/gridworld/actor/Bug.html#Bug(java.awt.Color))([Color](http://java.sun.com/j2se/1.5.0/docs/api/java/awt/Color.html?is-external=true) bugColor)            Constructs a bug of a given color. |

| **Method Summary** | |
| --- | --- |
| void | [**act**](http://docs.google.com/info/gridworld/actor/Bug.html#act())()            Moves if it can move, turns otherwise. |
| boolean | [**canMove**](http://docs.google.com/info/gridworld/actor/Bug.html#canMove())()            Tests whether this bug can move forward into a location that is empty or contains a flower. |
| void | [**move**](http://docs.google.com/info/gridworld/actor/Bug.html#move())()            Moves the bug forward, putting a flower into the location it previously occupied. |
| void | [**turn**](http://docs.google.com/info/gridworld/actor/Bug.html#turn())()            Turns the bug 45 degrees to the right without changing its location. |

| **Methods inherited from class info.gridworld.actor.**[**Actor**](http://docs.google.com/info/gridworld/actor/Actor.html) |
| --- |
| [getColor](http://docs.google.com/info/gridworld/actor/Actor.html#getColor()), [getDirection](http://docs.google.com/info/gridworld/actor/Actor.html#getDirection()), [getGrid](http://docs.google.com/info/gridworld/actor/Actor.html#getGrid()), [getLocation](http://docs.google.com/info/gridworld/actor/Actor.html#getLocation()), [moveTo](http://docs.google.com/info/gridworld/actor/Actor.html#moveTo(info.gridworld.grid.Location)), [putSelfInGrid](http://docs.google.com/info/gridworld/actor/Actor.html#putSelfInGrid(info.gridworld.grid.Grid,%20info.gridworld.grid.Location)), [removeSelfFromGrid](http://docs.google.com/info/gridworld/actor/Actor.html#removeSelfFromGrid()), [setColor](http://docs.google.com/info/gridworld/actor/Actor.html#setColor(java.awt.Color)), [setDirection](http://docs.google.com/info/gridworld/actor/Actor.html#setDirection(int)), [toString](http://docs.google.com/info/gridworld/actor/Actor.html#toString()) |

| **Methods inherited from class java.lang.**[**Object**](http://java.sun.com/j2se/1.5.0/docs/api/java/lang/Object.html?is-external=true) |
| --- |
| [clone](http://java.sun.com/j2se/1.5.0/docs/api/java/lang/Object.html?is-external=true#clone()), [equals](http://java.sun.com/j2se/1.5.0/docs/api/java/lang/Object.html?is-external=true#equals(java.lang.Object)), [finalize](http://java.sun.com/j2se/1.5.0/docs/api/java/lang/Object.html?is-external=true#finalize()), [getClass](http://java.sun.com/j2se/1.5.0/docs/api/java/lang/Object.html?is-external=true#getClass()), [hashCode](http://java.sun.com/j2se/1.5.0/docs/api/java/lang/Object.html?is-external=true#hashCode()), [notify](http://java.sun.com/j2se/1.5.0/docs/api/java/lang/Object.html?is-external=true#notify()), [notifyAll](http://java.sun.com/j2se/1.5.0/docs/api/java/lang/Object.html?is-external=true#notifyAll()), [wait](http://java.sun.com/j2se/1.5.0/docs/api/java/lang/Object.html?is-external=true#wait()), [wait](http://java.sun.com/j2se/1.5.0/docs/api/java/lang/Object.html?is-external=true#wait(long)), [wait](http://java.sun.com/j2se/1.5.0/docs/api/java/lang/Object.html?is-external=true#wait(long,%20int)) |

| **Constructor Detail** |
| --- |

### Bug

public **Bug**()

Constructs a red bug.

### Bug

public **Bug**([Color](http://java.sun.com/j2se/1.5.0/docs/api/java/awt/Color.html?is-external=true) bugColor)

Constructs a bug of a given color.

**Parameters:**bugColor - the color for this bug

| **Method Detail** |
| --- |

### act

public void **act**()

Moves if it can move, turns otherwise.

**Overrides:**[act](http://docs.google.com/info/gridworld/actor/Actor.html#act()) in class [Actor](http://docs.google.com/info/gridworld/actor/Actor.html)

### turn

public void **turn**()

Turns the bug 45 degrees to the right without changing its location.

### move

public void **move**()

Moves the bug forward, putting a flower into the location it previously occupied.

### canMove

public boolean **canMove**()

Tests whether this bug can move forward into a location that is empty or contains a flower.

**Returns:**true if this bug can move.

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-all.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | | |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [**PREV CLASS**](http://docs.google.com/info/gridworld/actor/ActorWorld.html)   [**NEXT CLASS**](http://docs.google.com/info/gridworld/actor/Critter.html) | [**FRAMES**](http://docs.google.com/index.html?info/gridworld/actor/Bug.html)    [**NO FRAMES**](http://docs.google.com/Bug.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
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