

<b>Pattern name:</b> Observer	
Class Name	Role
Chip (observes bugs)	Observer
Chip (is observed by bugs)	Observable
Bug (observes Chip)	Observer
Bug (observed by Chip)	Observable
<b>Purpose:</b> When a bug moves, Chip will detect if they are colliding, and when Chip moves, the bug will detect if they are colliding	

<b>Pattern name:</b> Factory	
Class Name	Role
BugFactory	Factory
Bug	Created by factory
<b>Purpose:</b> Bug factory will create new bugs and keep track of them	

<b>Pattern name:</b> Strategy pattern	
Class Name	Role
Bug	Parent class, has a BugMovement variable
BugMovement	Interface
ErraticBugMovement	Implements BugMovement
StraightLineBugMovement	Implements BugMovement
<b>Purpose:</b> Each bug will be able to move in a different way, and new movement strategies can easily be added	