Assumptions: A Necessary Evil

GPS Jamming (only $30, but illegal)

An event in 2010 at Newark Liberty International Airport in New Jersey showed that it only takes one jammer to cause disruption. Airport controllers had installed a new GPS-based landing system, so that aircraft could approach in bad visibility. But it was shutting itself down once or twice a day. It took several months to find the culprit: a driver on the nearby New Jersey Turnpike using a portable GPS jammer to avoid paying the highway toll. This trucker was cruising past twice a day, crippling an airport as he went.

From:
For Monday

• Read through [http://docs.oracle.com/javase/tutorial/java/concepts/index.html](http://docs.oracle.com/javase/tutorial/java/concepts/index.html) and the 6 linked pages for a review/overview of OOP concepts.

• Additional (optional) reading on interfaces: [http://docs.oracle.com/javase/tutorial/java/landl/createinterface.html](http://docs.oracle.com/javase/tutorial/java/landl/createinterface.html) (The 4 questions and exercise 1 are worth looking at.)
• Labs are useful: 10
  – Should sync up better with class: 1
• Connecting to the robot is annoying: 9
• More group-oriented labs/in-class projects: 4
• More exam-type practice problems: 2
• Get more people talking, call on students: 2
• Start class at 11am, not before
• Forget to read text-book because on-line
• Textbook is good and free
• Labs directly correlate with lecture
• Practice problems as we go (back of book?) but only if ungraded
• Practice problems but only if part of grade
• Not enough funny animal pictures
• Slides should be rewritten as LOLCats
Interfaces as Contracts

Movable geomObject;

– Implies we can call:
  • geomObject.move(5, 8);
  • geomObject.contains(pressPoint);

• Any object referred to by geomObject must have the methods move & contains
Interfaces Practice

public interface Resizable {
    public void resize ( double size );
    public boolean contains ( int x, int y );
}

a) What methods would a class Square need? It should implement the Resizable interface
b) Finish the Square class
   1. Constructor should take ints x and y for Location and a double for size
   2. Draw rectangle centered on x,y using size. You can use:
      MyroLine line = new MyroLine (xstart, ystart, xend, yend);
   3. contains() should behave like you’d expect it to. resize() changes the size of the object by a factor (i.e., size=2 -> doubles the rectangle)