```
 1  /************************************************
 2  *   VerticalPositionSensor
 3  ************************************************/
 4  public class VerticalPositionSensor extends Actor implements Runnable
{  5
 6    protected float fy1=0.2;
 7    protected float fy2=0.8;
 8    protected Terminal<Boolean> contact=new Terminal<Boolean>(false);
 9   private String targetName;
10
11    protected int y1,y2;
12
13    public VerticalPositionSensor(JSONObject src) {
14      super(src);
15      if (!src.isNull("target")) {
16        targetName=src.getString("target");
17      } else
18        targetName="";
19
20      if (!src.isNull("y1"))
21        fy1=src.getFloat("y1");
22      if (!src.isNull("y2"))
23        fy2=src.getFloat("y2");
24    }
```

```java
25
26  void run() {
27     Actor target=null;
28     if (!targetName.equals("")){
29        target=actorsContainer.get(actorsIndex.get(targetName));
30        y1=Math.round((float)target.w*fy1);
31        y2=Math.round((float)target.h*fy2);
32        }
33     for (;; ) {
34        contact.write((target!=null) ? target.isY(y,y1,y2) : false);
35        try {
36           java.lang.Thread.sleep(samplingTime);
37        }
38        catch (Exception e) {
39           println(e);
40        }
41     }
42     }
43     public Terminal getTerminal(String terminalName) {
44     if (terminalName.equals("contact"))
45        return contact;
46     else
47        return super.getTerminal(terminalName);
48  }
```

```
49
50   void draw() {
51      index=contact.read() ? 1 : 0;
52      super.draw();
53   }
54 }
```