```java
1 public class VerticalMovingActor extends Actor implements Runnable {
2    protected Terminal<Boolean> up=new Terminal<Boolean>(false);
3  protected Terminal<Boolean> down=new Terminal<Boolean>(false);
4  protected int upSpeed=1;
5   protected int downSpeed=1;
6
7   public VerticalMovingActor(JSONObject src) {
8     super(src);
9     if (!src.isNull("upSpeed"))
10      upSpeed=src.getInt("upSpeed");
11    if (!src.isNull("downSpeed"))
12      downSpeed=src.getInt("downSpeed");
13  }
14
15
16  public Terminal getTerminal(String terminalName) {
17    if (terminalName.equals("up"))
18      return up;
19    else
20      if (terminalName.equals("down"))
21        return down;
22      else
23        return super.getTerminal(terminalName);
24  }
```

```
25
26  void run() {
27     for (;; ) {
28        if (up.read() && !down.read()) {
29           y=y-upSpeed;
30        } else
31           if (!up.read() && down.read()) {
32              y=y+downSpeed;
33           }
34        try {
35           java.lang.Thread.sleep(samplingTime);
36        }
37        catch (Exception e) {
38           println(e);
39        }
40     }
41  }
42 }
```