

```

1 // fo1/1/lights/Sequencer.java
2 //
3 //
4 // Copyright 2003 Bill Campbell and Ethan Bolker
5
6 /**
7  * A Sequencer controls a TrafficLight. It maintains fields
8  * for the light itself and the current state of the light.
9
10 * Each time it receives a "next" message, it advances to the
11 * next state and sends the light an appropriate message.
12 *
13 * @version 1
14 */
15
16 public class Sequencer
17 {
18     // the TrafficLight this Sequencer controls
19     private TrafficLight light;
20
21     // represent the states by ints
22     private final static int GO      = 0;
23     private final static int CAUTION = 1;
24     private final static int STOP    = 2;
25
26     private int currentState;
27
28     /**
29      * Construct a sequencer to control a TrafficLight.
30      *
31      * @param light the TrafficLight we wish to control.
32      */
33
34     public Sequencer( TrafficLight light )
35     {
36         this.light = light;
37         this.currentState = GO;
38         this.light.setGo();
39     }
40
41     /**
42      * How the light changes when a next Button is pressed
43      * depends on the current state. The sequence is
44      * GO -> CAUTION -> STOP -> GO.
45      */
46
47     public void next()
48     {
49         switch ( currentState ) {
50
51             case GO:
52                 this.currentState = CAUTION;
53                 this.light.setCaution();
54                 break;
55
56             case CAUTION:

```

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57         this.currentState = STOP;
58         this.light.setStop();
59         break;
60
61         case STOP:
62             this.currentState = GO;
63             this.light.setGo();
64             break;
65
66         default: // This will never happen
67             System.err.println("What color is the light?!");
68         }
69     }
70 }

```