Suppose you have a pre-lit Christmas tree….



And you want it to be motion activated. The hardware is all ready, but you need to write software to perform the following tasks:

1. When someone steps within range of your motion detector, the tree turns on
2. The tree remains on (lit) until the motion sensor has not been activated for 10 minutes.
3. If the motion sensor has not been triggered for 10 minutes, the tree will turn off.

Using the given classes, and your own knowledge of Christmas Trees and Java, write a program that will perform these tasks and amaze your mentors.

NOTE: to get the system time (in milliseconds) use the function

There are 1000 milliseconds in 1 second

There are 60 seconds in 1 minute