

# Exercise 3 of the HW assignament, Report

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This report contains the design choices of exercise 3 of the homework assignament that was proposed to class.

The two points required to be discussed in this document are:

1. Vetoing entity: The vetoing entity I propose is the controller itself and the reasoning beyond that are the following. One possibility would be the moisture sensor, which was declined since it should only stick to the task of sensing the moisture level, not interacting actively with the controller (actually not even knowing about its existance). The second one would be the JFrame, buti t was rejected due to the fact that it should be the entity that interacts with UI components and their interaction, but with no actual controls on the events. The last possibility is the controller itself, which probably is the one that makes the most sense, since the controller should be the programmable unit incapsulating the “user policy” on how to handle the irrigation. So the controller itself can veto its property “on”, and refuse an “irrigation on” command from inside.
2. Code Reuse: The reuse of the code was granted both with inheritance and component reuse. The reused component as a whole is the MoistureSensor, whose code was fitting for the task, while the Controller class component was extended in a ControllerVeto component, which implements the veto in addition to changing the code of the method “setOn” that no longer fires a PropertyChangeEvent, but fires instead a VetoableChange event. The class implements also the vetoing logic, as it adds a listener to VetoableChangeEvents and implements the irrigation logic.

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