

Mircowave Oven : 2nd Hand-in

Team	42
Mads Krabsen	201507805
Tobias Dalgaard Nielsen	201507194
Christian Luke Pedersen	201509718
Jonas Kjær Rask	201507306

Jenkins

http://ci3.ase.au.dk:8080/user/swt42/my-views/view/SWT42/job/SWT42_MicroWaveOven/

Github Repository

https://github.com/Krabsenm/SWT42_MicroWaveOven.git

Dependency tree

The dependencies in the software for the Microwave oven.

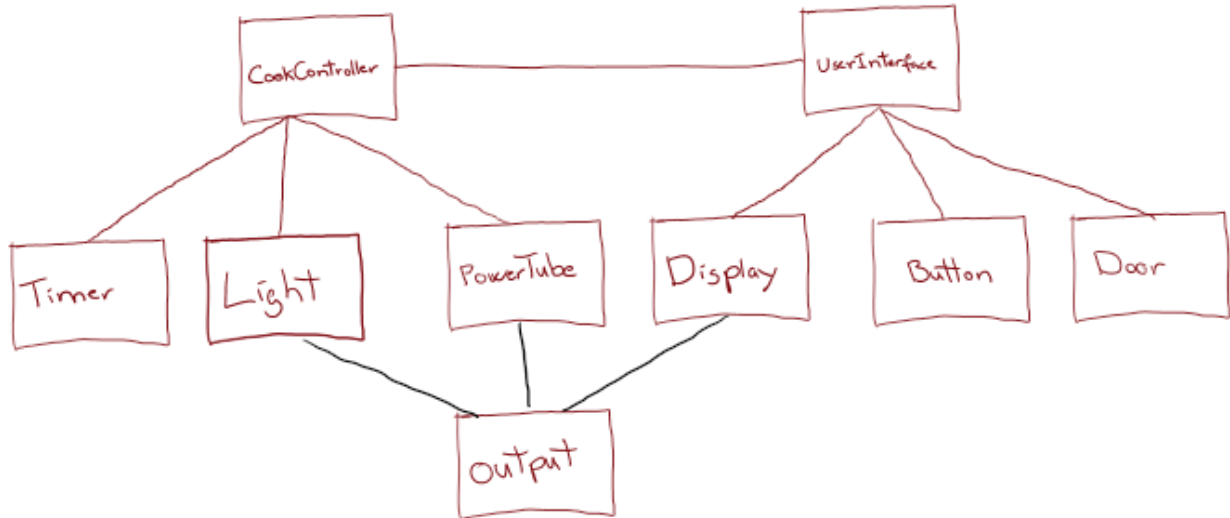


Figure 1 dependency tree

Integration test strategy

To test the software we have considered the following patterns:

- Big Bang integration Pattern
 - o The Big Bang Pattern is not used because it has a very low probability of detecting the errors in the code, and even harder to pin point where in the software the error originated.
- Collaboration Integration Pattern
 - o The Collaboration Pattern is not used because the software given is described in one use case and this practically makes the pattern equivalent to the Big Bang Pattern.

The Bottom-up Integration Pattern(Top down) is chosen as the integration strategy because of the following advantages:

- Do to the shallow depth of the dependency tree there is no difference between top-down and bottom-up.

- The dependency tree shows that the cluster only has three layers; the bottom layer, top layer and one middle layer. Where the “output” class, do to the troublesome testability of an output class, it will be stubbed out for all integration tests until the last layer.

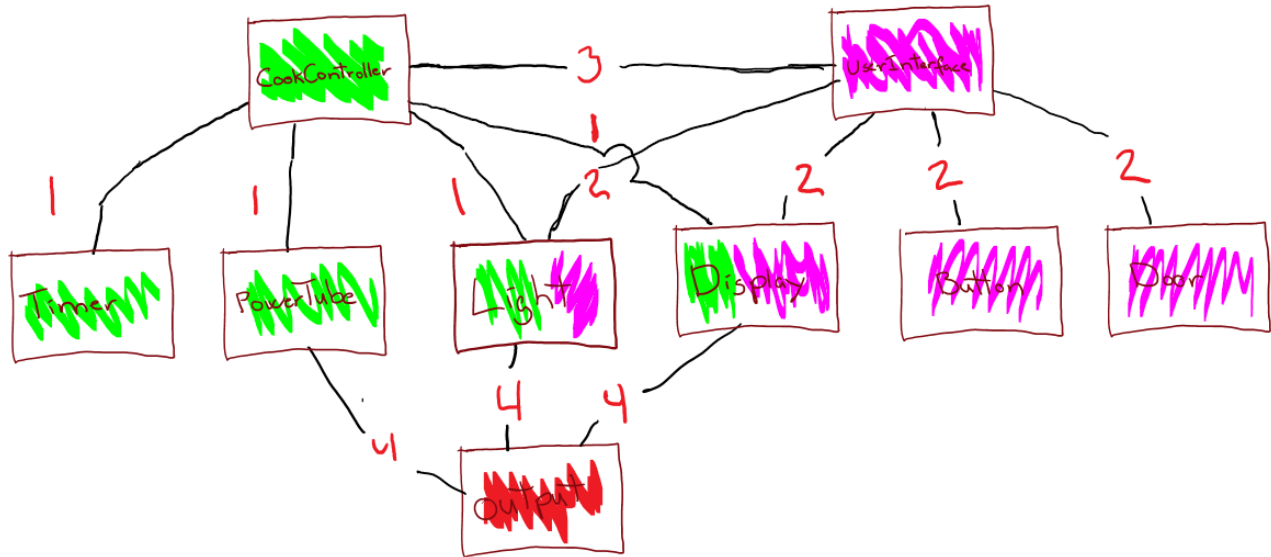


Figure 2 visualization of integration plan

Steps	CookController	UserInterface	Timer	PowerTube	Light	Display	Button	Door	Output
1	D	F	X	x	x	x			F
2	F	D			x	x	x	x	F
3	x	D	X	x	x	x	x	x	F
4	x	D	X	x	x	x	x	x	x

D = Driver, F = fake, x = this module is included in the test.

Errors detected doing integration testing

- 1) There was an inconsistency in the use of milliseconds and seconds in UserInterface, Timer and CookingControl. In order to fix this, we made the timer count in seconds – as specified in the use case -, which made the entire application count in seconds.