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**Software Engineering**

<http://proglang.informatik.uni-freiburg.de/teaching/swt/2005/>

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Exercise Sheet 3

Deadline: May 4th, 2005

**Exercise 1 – Functional Specification:** (7 Punkte)

There is a almost complete functional specification on the lecture's homepage. But there are still some use cases missing:

- /L20/ Delete Work Item
- /L80/ Load Work Item from File
- /L90/ Enter Data/

Add those and also /D20/ spread sheet.

**Exercise 2 – Statechart Diagram:** (3 Punkte)

An autonomus vacuum cleaner of a company has the following design: If it is activated, it starts vacuuming the offices, afterwards the canteen and at last the laboratory. If it has finished cleaning the laboratory, it starts again in the offices.

If it is deactivated, it returns to its locker and stops there.

Every time on changing his operational area, it empties his dust bin into some container.

If it runs low on energy, he goes to a recharging station, and recharges its batteries. Afterwards it continues the cleaning where it has stopped.

Draw a statechart diagram modelling the robot's behaviour.