Assignment 1
(5 Points)

Deadline is Monday, May 7, 2012, 12:00

Notes: The assignments may be solved in groups of up to three persons of the same group. Do not forget to put your names and your matriculation number onto your solution sheets.

Sheets may be dropped into the labeled mailbox opposing the secretariat of LS12 (OH16/E22) or send by email (PDF or PS only!) to your tutor.

Regular lab dates
Wednesday, 12:15 - 13:45   OH16/U08
Wednesday, 14:15 - 15:45   OH16/U08

1.1   Embedded Systems (2 Points)

Explain in detail the common notion of embedded systems introduced in this course. In particular, explain their essential characteristical properties. Present at least three examples of embedded systems and explain why you think they are embedded systems.

1.2   Automata (2 Points)

Embedded systems can be specified using extended finite automata. Provide the formal definition of finite automata. What is the difference between a *Moore* and a *Mealy* automaton?

1.3   Ubiquitous computing (1 Point)

Collect information about the topics *ubiquitous computing* and *ambient intelligence* and present it in an appropriate way here. Use the internet to solve this exercise.

General notes:

Dates and additional information can be found at http://ls12-www.cs.tu-dortmund.de/daes/en. The assignments will usually be published **Tuesdays** on a weekly basis and have to be solved until the following **Monday**. Drop your sheets into the mailbox in OH16 right across the secretariat (E22) or send an e-email to your tutor. In the latter case, the submissions must be of either **PDF** or **PS** format. To pass the, labs a minimum of 50% of the total points must be achieved.