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Exercises to Introduction to Embedded Systems Summer term 2010

# **Assignment 2**

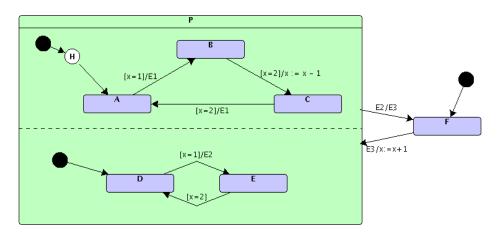
(10 Points)

### Deadline is Monday, May 17, 2010, 12:00

Note: The tool Dave (modelling of StateCharts) can be downloaded from the EWS workspace or from the official course website.

## 2.1 Statecharts (5 Points)

Consider the following StateChart:



Interpret the progression of this StateChart, given that Event E3 is triggered in State F with x=0. For every step, determine the particular configurations and fill out the table below. Substantiate why the transition  $E \to D$  is not triggered.

Events	Х	Α	В	С	D	Е	F	Р
(reset)	0						×	
$E_3$								

## 2.2 Verification (5 Points)

Specify the previous example using the software tool *Dave*. Prove your theoretically derived results by simulating the state chart. Add the solution to your submission.







#### General notes:

Dates and additional information can be found at http://ls12-www.cs.tu-dortmund.de/en/teaching/courses/ss10/ies/. The assignments will be published **Tuesdays** on a weekly basis and have to be solved until the next **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 60% of the total points must be achieved.