

Verification of Cyber-physical Systems : Exercise Sheet 5

Deadline : Monday 30th October 2017, 11 :55 pm

Exercise 1 : This exercise is a continuation of last week's exercise

Using the automaton construction seen in class, construct an automaton (using *local* and **eventuality** automata) for each of these formulae :

1. $\mathcal{A}b$.
2. $\Box\Diamond a$.

Exercise 2

Which of the following properties is a safety property, which is a liveness property ?

Explain.

1. $\Box\Diamond(x == 1)$
2. $\neg(\Box\Diamond(x < 36))$
3. $\Diamond(\neg(x > 10))$
4. $\neg\Diamond(x == 12)$