Beyond classical chip design
Exercise V

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Ex 19***. (10P)** In the slides we have seen an implementation of an active-active sequencer with 4-phase handshaking. Prove that the PR implementation (plus additional timing constraints) implements the CSP specification given in the slides. Use the model checker NuSMV to,

1. Specify the PR circuit as an automaton. (3P)

2. Specify the properties required by the CSP specification as LTL formulas. (3P)

3. Add fairness and timing constraints. (2P)

4. Verify the implementation relation. (2P)