

16.5/17

nice!

Cyber Physical Systems - Discrete Models

Exercise Sheet 4 Solution

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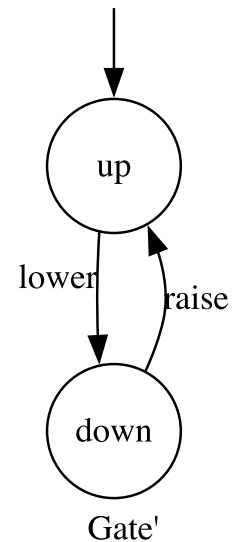
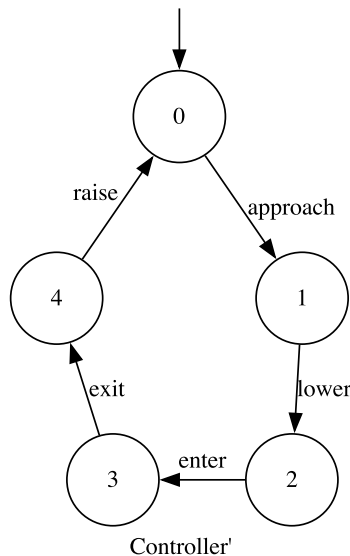
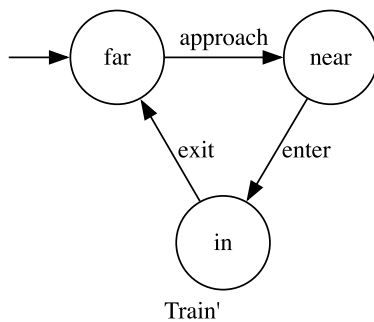
Exercise 1: Railroad Crossing

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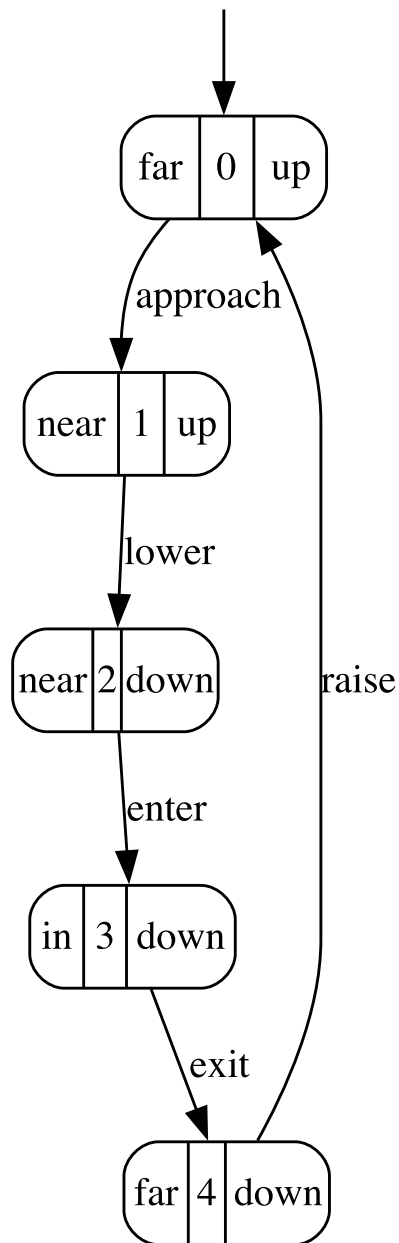
A 1/1

Because train's *enter* action and gate's *lower* action are not synchronized, the model allows to train to enter before the gate is lowered. ✓

B 2/2



C 3/3

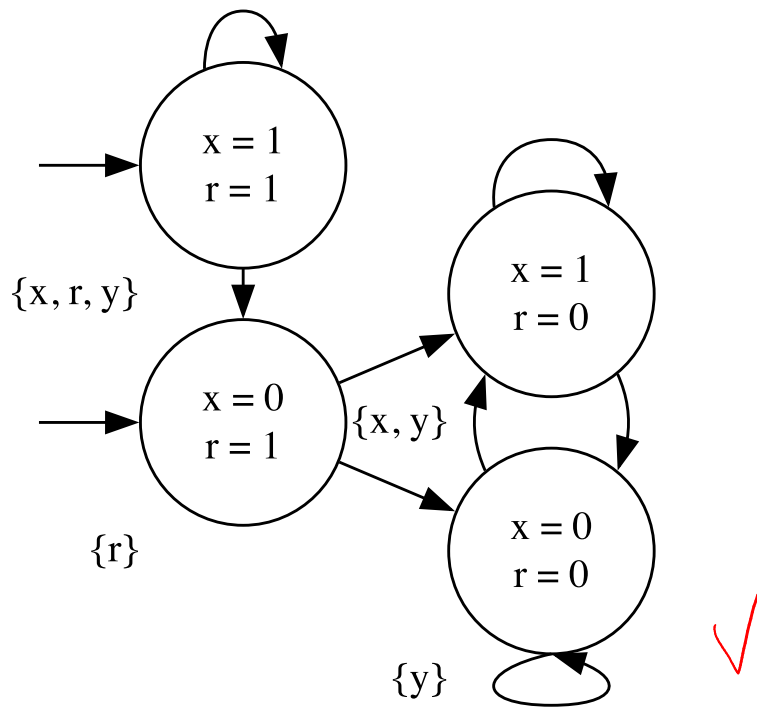


Train' || Controller' || Gate'



Exercise 2: Hardware Circuit and Transition System

515

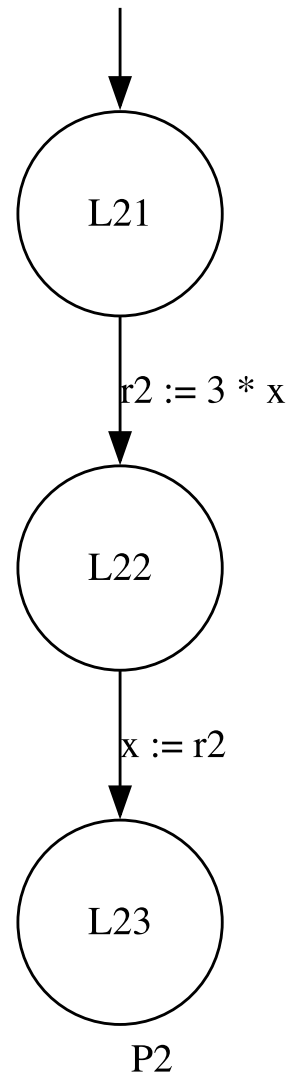
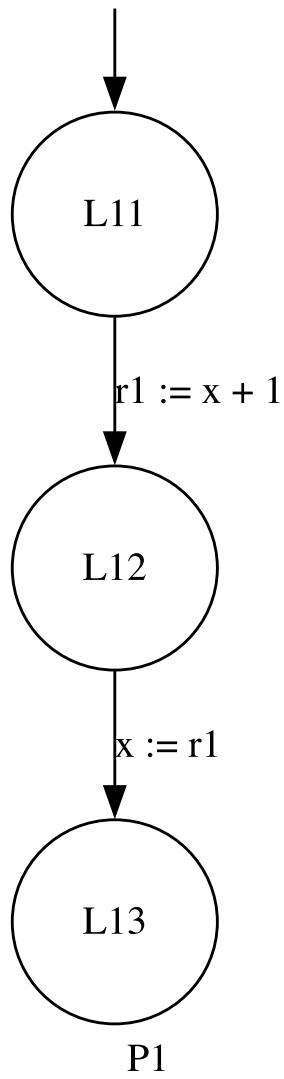


Exercise 3: Paralellism - Interleaving

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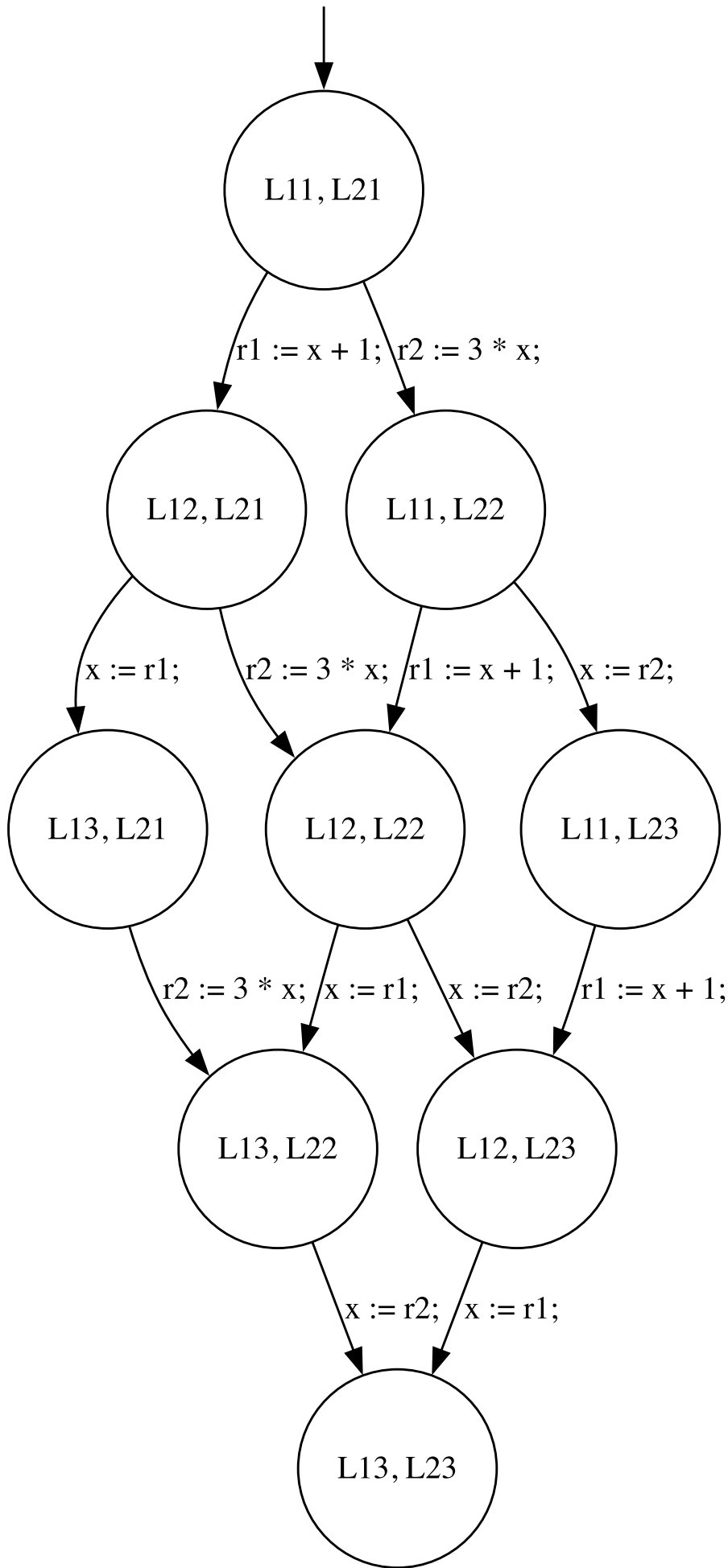
Part A

1/1



Part B

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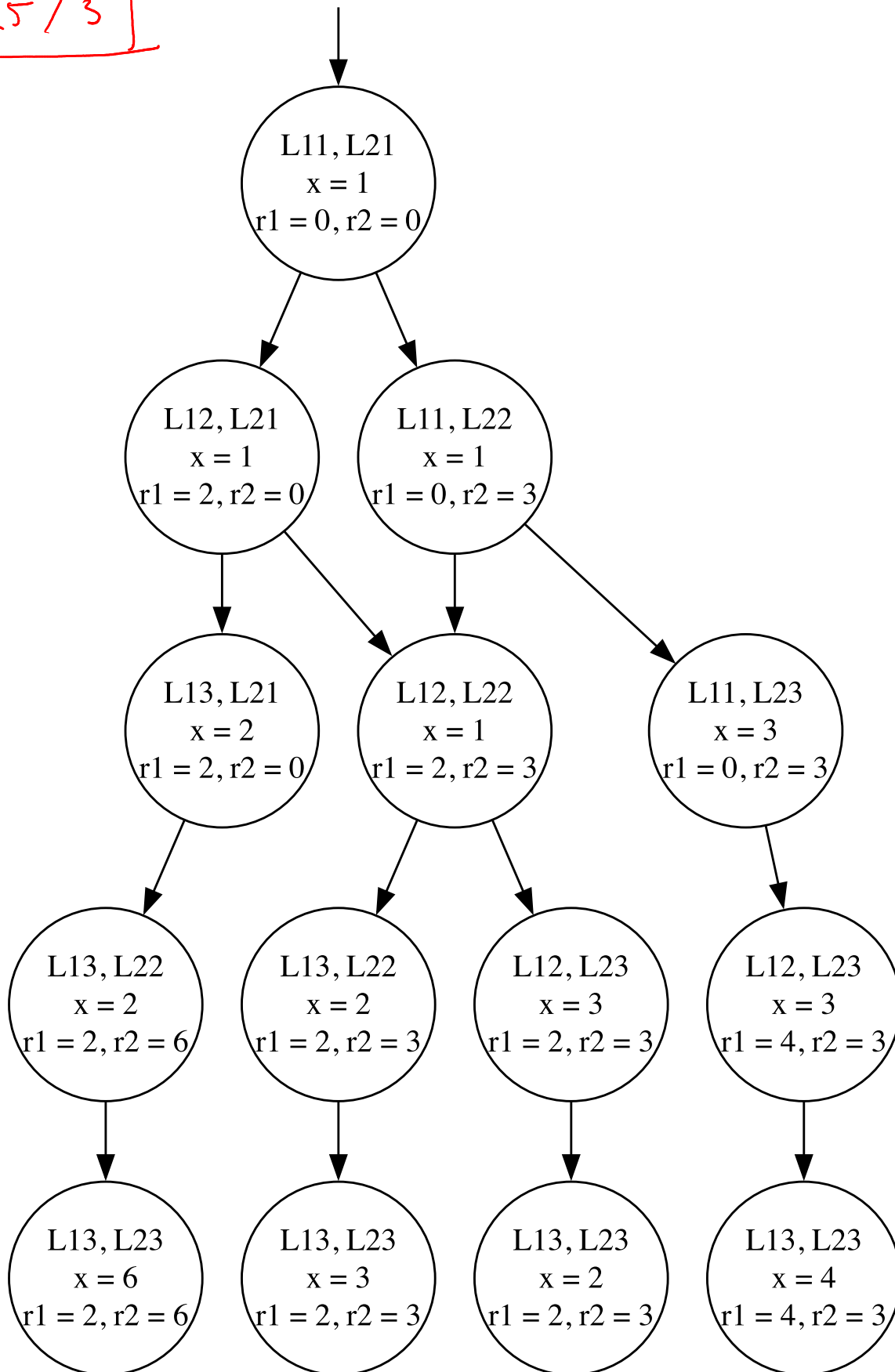


P1 \equiv P2



Part C

2.5/3



T(P1 ||| P2)

Answer on stored x values missing. - 0.5

