

Q2 (30)

Thursday, April 15, 2021

4:02 PM

A stepper motor has 4 inputs named A,B,C,D. In order to make a step two consecutive pins to high. We are to design a hardware system which will drive the stepper motor. System has 4 inputs which is in between 0 and 3 (inclusive). The system will have 4 outputs named A,B,C,D.

When the input is 0 the system will set A&B high

When the input is 1 the system will set B&C high

When the input is 2 the system will set B&D high

When the input is 3 the system will set D&A high

A) Draw the truth table

B) Find the SOP and the relevant boolean equation.

C) implement the circuit and testbench in verilog (Your implementation should be in accordance with the requirements)

Deliverables:

A word document for parts (A,B)

Verilog project

A folder named after yournameinitial and surname (in Ascii) with just the verilog files (including testbench.)

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