

Stepper motor questions.

1. A certain stepper motor turns 15° per step.

a) How many steps are needed for one complete revolution?

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b) The stepper motor needs to turn at 900rpm (revolutions per minute). How much time is there between steps?

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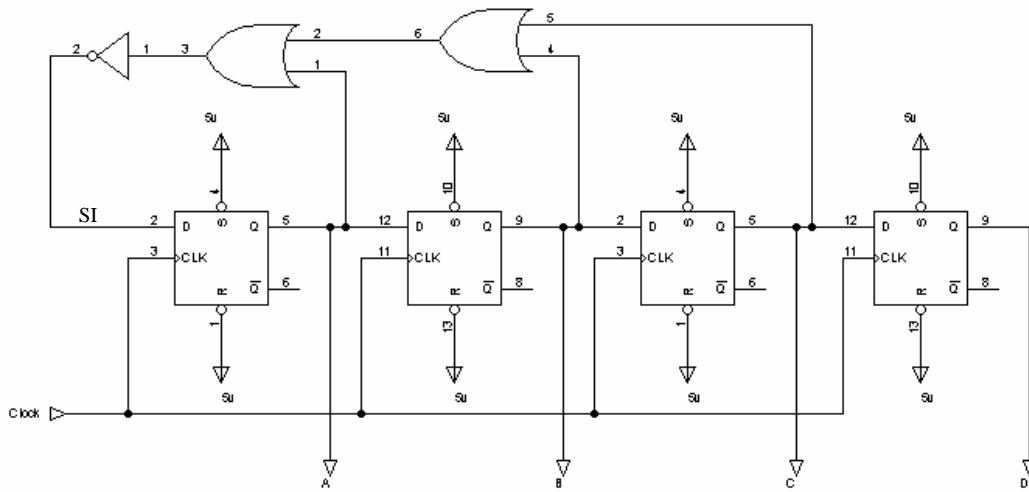
c) The stepper motor has four inputs A, B, C and D. To make the stepper motor turn clockwise the following sequence is used:

Step	A	B	C	D
1	1	0	0	0
2	0	1	0	0
3	0	0	1	0
4	0	0	0	1
5	1	0	0	0

Draw a timing diagram to show the signals needed to make the stepper motor turn 90° anticlockwise.



2. Explain what this circuit does and how it works?



a) Complete the following truth table

Clock pulse	SI	A	B	C	D
0		0	0	0	0
1					
2					
3					
4					
5					
6					
7					

b) Draw a timing diagram for this circuit

