Introduction to Digital Logic

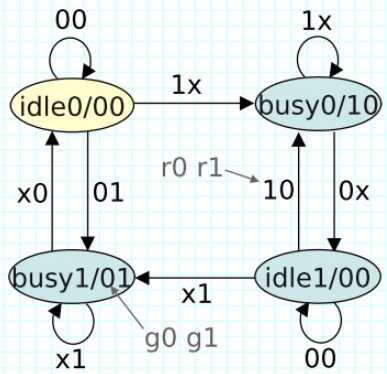
- Finite State Machines

Doug Shook

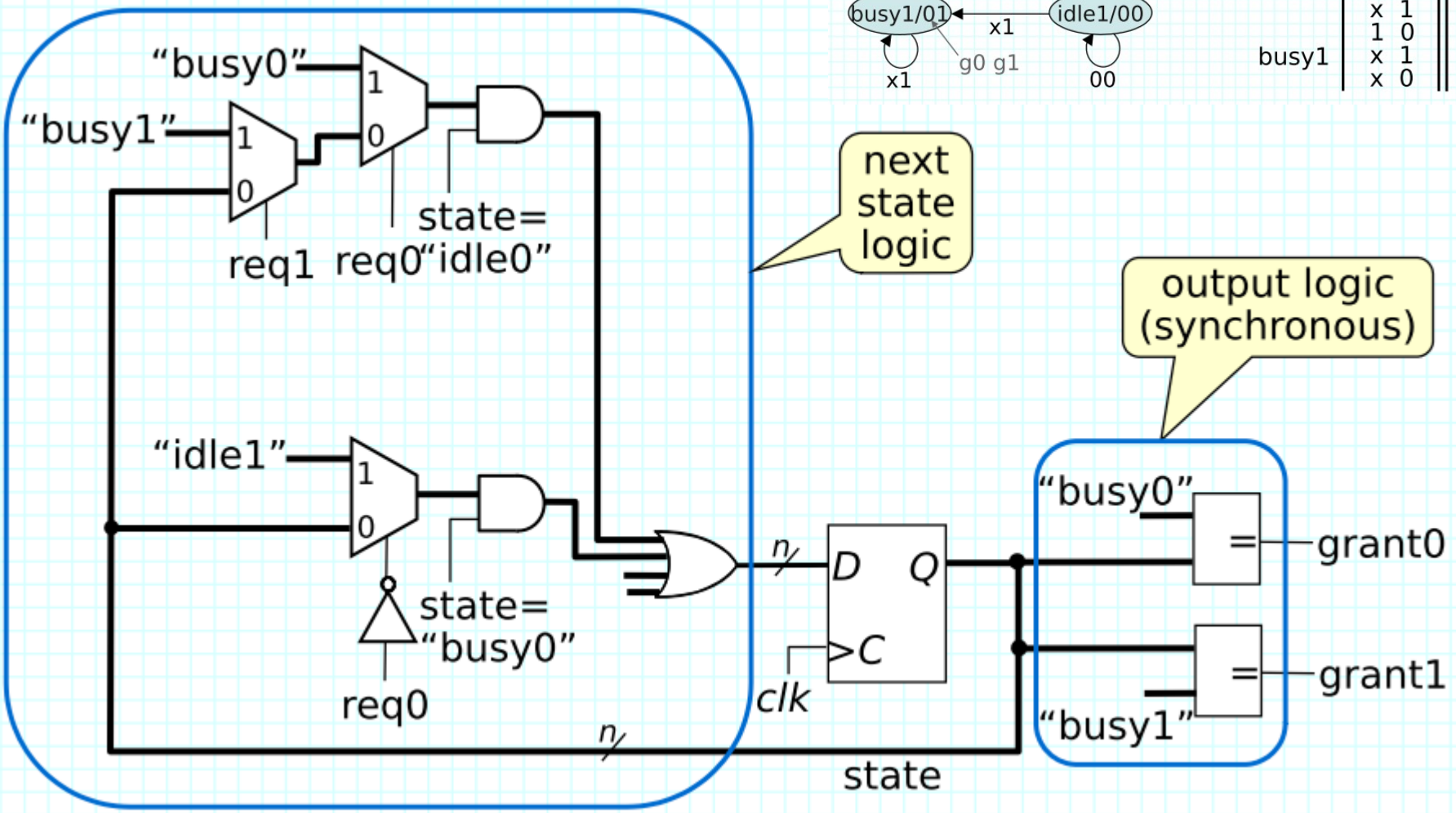
Review Questions

- What are the pieces of an FSM?
- How is state represented in a circuit?
- What are the steps for creating an FSM?

Review Questions



Current State	Input r0 r1	Output g0 g1	Next State
idle0	0 0	0 0	idle0
	1 x	0 0	busy0
	0 1	0 0	busy1
busy0	1 x	1 0	busy0
	0 x	1 0	idle1
idle1	0 0	0 0	idle1
	x 1	0 0	busy1
	1 0	0 0	busy0
busy1	x 1	0 1	busy1
	x 0	0 1	idle0



Review Questions

- Consider a combination lock:
  - Describe the behavior.
  - What are the inputs? The outputs?
  - What are the states?
  - Design a finite state machine
  - Create a circuit for your FSM.

Review Questions

- Create an FSM from the following circuit:

