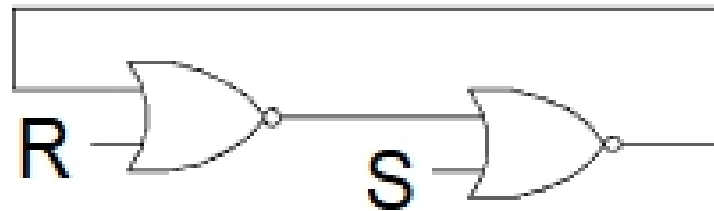


EECS150 - Digital Design
Lecture 28 – More Flip-flops

May 1, 2003
John Wawrzynek

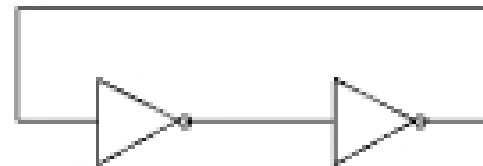
Cross-coupled NOR gates



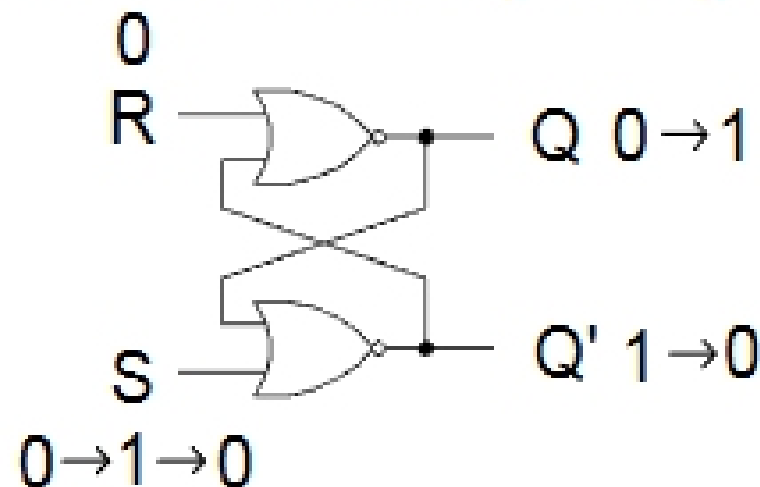
remember,

NOR	
00	1
01	0
10	0
11	0

- If both $R=0$ & $S=0$, then cross-coupled NORs equivalent to a stable latch:

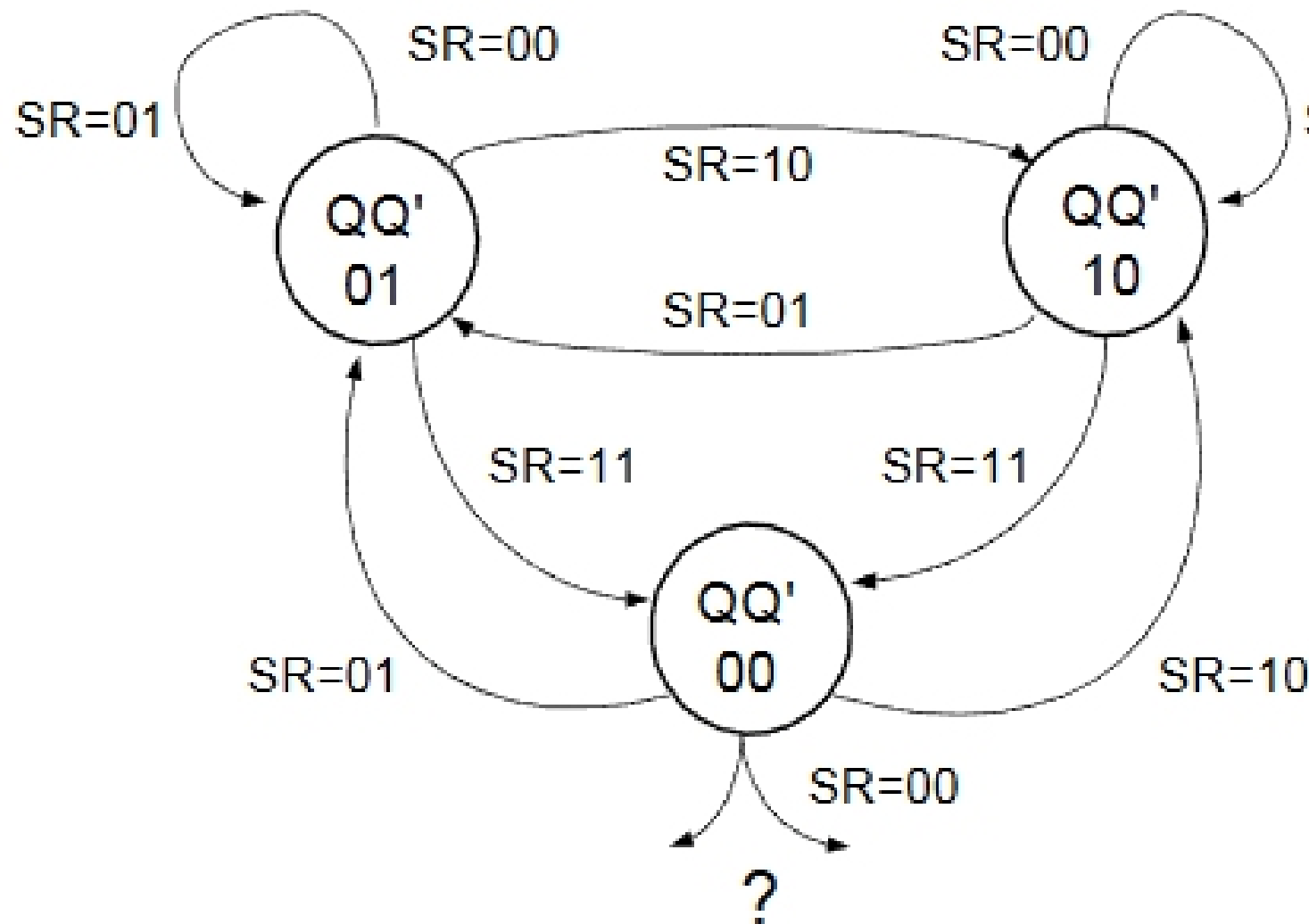


- If either R or S becomes $=1$ then state may change:



- What happens if R or S or both become $= 1$?

Asynchronous State Transition Diagram



SR Latch:

SR	Q
00	hold
01	0
10	1
11	indeterminate

- S is "set" input
- R is "reset" input

$QQ' = 00$ is often called a "forbidden state"